AtkinsRéalis

SOUTH HOWARD FLOOD RELIEF & STREETSCAPE PROJECT PRELIMINARY ENGINEERING REPORT

Certification

South Howard Flood Relief & Streetscape Project

Preliminary Engineering Report (PER)

Prepared for:

City of Tampa
Mobility Department
107 North Franklin Street
Tampa, Florida 33602
(813) 274-3101

Prepared by:

AtkinsRéalis USA Inc.
4030 W. Boy Scout Blvd. Suite 700
Tampa, FL 33607
(813) 282-7275

FLORIDA CERTIFICATE OF AUTHORIZATION NUMBER: 24

This report submitted to the City of Tampa, titled South Howard Flood Relief & Streetscape Project Preliminary Engineering Report (PER), has been prepared by or under the supervision of the undersigned:

Daniel Parsons

Digitally signed by Daniel Parsons
DN: C=US, CN=Daniel Parsons, O=ATKINSREALIS USA INC., dnQualifier=A01410D0000019D87E1156F002C9E46
Reason: I am the author of this document
Location:
Date: 2026.08.03 22:17:40-04'00'
Foxit PDF Editor Version: 2026.1.2

Daniel Parsons, PE, CFM, ENV SP 08/03/2026
FL Registration No. 72371

Daniel Parsons, Professional Engineer, State of Florida, License No. 72371

This item has been digitally signed and sealed by Daniel Parsons, PE, on 08/03/2026.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Notice

This document and its contents have been prepared and are intended solely as information for City of Tampa and use in relation to the South Howard Flood Relief & Streetscape Project.

AtkinsRéalis USA Inc. assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

This document has 177 pages including the covers and excluding appendices.

Document history

Document title: Preliminary Engineering Report

Document reference:

Version	Purpose description	Originated	Checked	Reviewed	Authorized	Date
1.0	DRAFT	C.C.	D.P.	S.P., K.E.		01/30/2026
2.0	REVISED DRAFT	C.C.	D.P.	K.E.		04/02/2026
3.0	FINAL	C.C.	D.P.	S.P., M.W.		06/26/2026

Client signoff

Client	City of Tampa
Project	South Howard Flood Relief & Streetscape Project
Job number	City Project No. 23-C-00021
Client signature/date	

Executive Summary **12**

Existing Conditions Model Analysis 13

Proposed Conditions Model Analysis and Flood Reduction Benefits 15

Alternatives Analysis Findings 18

Evaluation of Alternatives 20

Project Phasing 22

1. Project Overview and Background **27**

1.1 Project Location 27

1.2 Why is this Project Needed? 28

1.3 Project Scope 29

2. Data Collection & Review **31**

2.1 Prior Engineering Studies 31

2.2 Documentation of Observed Flooding 38

2.3 Record Drawings & Prior Survey 44

2.4 Geographic Information System (GIS) Data 45

2.5 Environmental Resource Permit Documents 47

2.6 New Data Collection 48

3. Existing Site Conditions **53**

3.1 Topography and Surface Drainage 53

3.2 Existing Outfall Systems and Drainage Patterns 55

3.3 Utilities 60

3.4 Soils Information 62

3.5 Land Use Information 64

4. Existing Conditions H&H Model **66**

4.1 Overview of Model Development 66

4.2 XPSWMM Model Conversion 68

4.3 Hydrology 68

4.4 Hydraulic Connectivity 74

4.5 Boundary Conditions 78

4.6 Model Calibration 80

4.7 Model Verification 84

4.8 RECM Results 88

5. Proposed Design Analysis **95**

5.1 Sizing of Proposed Box Culvert and Pipes 95

5.2 Inlet Capacity 110
5.3 Comparison of Primary Design Alternatives 110
5.4 Other Alternatives Considered 133
6. Recommended Project 148
6.1 Overview 148
6.2 Phase I Flood Reduction Benefits 153
6.3 Future Phase Flood Reduction Benefits 161
6.4 Benefit-Cost Analysis 170
6.5 Streetscape Design 172
7. Environmental Impacts 173
7.1 Environmental Permitting Requirements 173
7.2 Water Quality Impacts and Green Infrastructure Improvements 175

Tables

Table 1 – Summary of Existing Condition Flood Impacts 16
Table 2 – Summary of SHFR Project's Flood Reduction Benefits 16
Table 3 – Summary of Proposed Phase I Flood Reduction Benefits 25
Table 4 – Benefit-Cost Analysis – Phase I only 26
Table 5 – Benefit-Cost Analysis – Future phases only, with Phase I already complete 26
Table 6 – Benefit-Cost Analysis – Total Project (Phase I and Future Phases) 26
Table 2-1 – Relevant As-builts/Record Drawings 44
Table 2-2 – Collected GIS Data 45
Table 2-3 – SHFR Tree Inventory by Species 51
Table 3-1 –Summary of Hydrologic Soil Group within SHFR Model Update Area 62
Table 3-2 –Summary of Land Use Coverage within SHFR Model Update Area 64
Table 4-1 – Simulated Storm Events 69
Table 4-2 – RECM Subbasin Update Summary 70
Table 4-3 – CN Set Lookup Tables 72
Table 4-4 – Comparison of Modeled vs Observed Calibration Results 83
Table 4-5 – Comparison of Modeled vs Observed Verification Results 85
Table 4-6 – SHFR FPLOS Criteria 88
Table 4-7 – Summary of Roadway FPLOS Analysis (RECM, 5-year/8-hour design storm) 88
Table 4-8 –Summary of Existing Flood Impacts for Simulated Events 91
Table 5-1 – Combined Peak Overland Flow Rates Reaching W Kennedy Blvd 106
Table 5-2 – Summary of Roadway FPLOS Analysis (Alternative 1, 5-year/8-hour) 115

Table 5-3 – Alternative 1 Weighted AADT Calculation 118
Table 5-4 – Summary of Roadway FPLOS Analysis (Alternative 2, 5-year/8-hour) 121
Table 5-5 – Alternative 2 Weighted AADT Calculation 124
Table 5-6 – Summary of Roadway FPLOS Analysis (Alternative 3, 5-year/8-hour) 127
Table 5-7 – Alternative 3 Weighted AADT Calculation 131
Table 5-8 – Primary Alternative Comparison Summary Matrix 132
Table 6-1 – Summary of Proposed Phase I Flood Reduction Benefits 153
Table 6-2 – Summary of 5-year/8-hour Flood Reduction and Proposed Flood Depths (Phase I only) 155
Table 6-3 – Summary of 100-year/24-hour Flood Reduction and Proposed Flood Depths (Phase I only) 156
Table 6-4 – Summary of Proposed Future Phase Flood Reduction Benefits 161
Table 6-5 – Summary of 5-year/8-hour Flood Reduction and Proposed Flood Depths (Future Phase) 164
Table 6-6 – Summary of 100-year/24-hour Flood Reduction and Proposed Flood Depths (Future Phase) 165
Table 6-7 – Benefit-Cost Analysis – Phase I only 171
Table 6-8 – Benefit-Cost Analysis – Future phases only, with Phase I already complete 171
Table 6-9 – Benefit-Cost Analysis – Total Project (Phase I and Future Phases) 171

Figures

Figure 1 – Flooding in Parkland Estates on August 1, 2015 after approximately 5.4 inches of rainfall 12
Figure 2 – H&H Model Update Area Map 13
Figure 3 – Existing 5-year/8-hour Flood Extents 14
Figure 4 – 5-year/8-hour Proposed Flood Extents Reduction 17
Figure 5 – Recommended Project Map 23
Figure 6 – Phase I - 5-year/8-hour Proposed Flood Extents Reduction 24
Figure 1-1 – Project Location Map 27
Figure 1-2 – Flood Complaints Received by the City 28
Figure 1-3 – Flooding along Swann Ave near S Audubon Ave on July 12, 2024 28
Figure 1-4 – Flooding along Parkland Blvd on August 1, 2015 28
Figure 1-5 – Phase I Project Map 30
Figure 2-1 – Cleveland Street Drainage Basin Study (1988) Preferred Solution (East) 33
Figure 2-2 – Cleveland Street Drainage Basin Study (1988) Preferred Solution (West) 33
Figure 2-3 – PBS&J Cleveland Street Basin Masterplan Update (2009) Recommended Alternative 34
Figure 2-4 – JMT Feasibility Study (2022) Recommended Alternative 37
Figure 2-5 – Rainfall Intensity Comparison - 5-year/8-hour Design Storm vs August 1, 2015 38
Figure 2-6 – Observed Flooding on August 1, 2015 39

Figure 2-7 – Observed Flooding on June 7, 2017 40
Figure 2-8 – Observed Flooding on June 14, 2024 40
Figure 2-9 – Observed Flooding on June 29, 2024 41
Figure 2-10 – Observed Flooding on July 12, 2024 41
Figure 2-11 – Observed damage due to water intrusion on October 15, 2024 42
Figure 2-12 – High-water marks left by Hurricane Milton documented on October 15, 2024 43
Figure 2-13 – SHFR Digital Elevation Model (Hillsborough County, 2017) 46
Figure 2-14 – Relevant ERPs for RECM Development 47
Figure 2-15 – Field Investigation Map 48
Figure 2-16 – GPR location of existing box culvert (south end, looking north) 50
Figure 2-17 – GPR location of existing box culvert (north end, looking south) 50
Figure 3-1 – Ground / Surface Topography 53
Figure 3-2 – Ground/Surface Topography 54
Figure 3-3 – Cross Section along Audubon Ave from Jetton Ave to Kennedy Blvd 54
Figure 3-4 – Ground/Surface Topography 54
Figure 3-5 – Cross Section along Swann Ave from MacDill Ave to Albany Ave 54
Figure 3-6 – Ground/Surface Topography 54
Figure 3-7 – Cross Section along Horatio St from MacDill Ave to Howard Ave 54
Figure 3-8 – Overview of Existing Man-Made Drainage Basins 55
Figure 3-9 – Horatio Street Trunkline – Low-Flow Conditions (Positive Flow) 56
Figure 3-10 – Cleveland Street Outfall System – Designed High Flow Conditions (Positive Flow) 56
Figure 3-11 – Cleveland Street Outfall System – Actual High Flow Conditions (Negative Flow) 56
Figure 3-12 – Upper Peninsula West Outfall System – Low Flow Conditions (Positive Flow) 57
Figure 3-13 – Upper Peninsula West Outfall System – High Flow Conditions (Negative Flow) 57
Figure 3-14 – Upper Peninsula West Outfall System – Flow Conditions in a 5-year/8-hour 57
Figure 3-15 – Upper Peninsula East Outfall System – Low Flow Conditions (Positive Flow) 58
Figure 3-16 – Upper Peninsula East Outfall System – High Flow Conditions (Negative Flow) 58
Figure 3-17 – Upper Peninsula East Outfall System – Flow Conditions in a 5yr-8hr Storm Event 58
Figure 3-18 – Swann Pond, Albany Pond and S Rome Ave Outfall Existing Drainage Map 59
Figure 3-19 – Overview of Existing Water and Wastewater Utilities 61
Figure 3-20 – Soil Coverage within SHFR Model Update Area 63
Figure 3-21 – Land Use Coverage within SHFR Model Update Area 65
Figure 4-1 – Model Update Overview 67
Figure 4-2 – Subbasin Additions and Updates 70
Figure 4-3 – Calculated Tcs 71

Figure 4-4 – Typical Overland Channel Cross Section (32-ft wide road with curb and gutter) 77
Figure 4-5 – Lemon Street Canal Model Boundary Nodes within the UPWM 79
Figure 4-6 – NEXRAD Pixels used for Rainfall Depths (Calibration) 81
Figure 4-7 – East Bay Tidal Gauge Data 81
Figure 4-8 – Model Calibration Stage Observation Points 82
Figure 4-9 – Observed High Water Marks 83
Figure 4-10 – NEXRAD Pixels used for Rainfall Depths (Verification) 84
Figure 4-11 – Model Verification Stage Observation Points 85
Figure 4-12 – Parkland Blvd and Allen Pl (Verification Photo) 86
Figure 4-13 – W Swann Ave (Verification Photo) 86
Figure 4-14 – Unit D on W Swann Ave (Verification Photo) 87
Figure 4-15 – Park Bench on W Swann Ave (Verification Photo) 87
Figure 4-16 – Summary Map of Roadway FPLOS Analysis (RECM, 5-year/8-hour design storm) 90
Figure 4-17 – SHFR Existing Condition 5-year/8-hour Flood Impacts 92
Figure 4-18 – SHFR Existing Condition 100-year/24-hour Flood Impacts 93
Figure 4-19 – SHFR Existing Condition Hurricane Milton Simulated Flood Impacts 94
Figure 5-1 – Parkland Estates Proposed Stormwater Connections (W Swann Ave Route) 97
Figure 5-2 – Selmon Expressway Project Connection Points 98
Figure 5-3 – W Kennedy Blvd Drainage Improvements (FDOT) 99
Figure 5-4 – Palma Ceia Pines Future Phase Conceptual Design 101
Figure 5-5 – Future W Texas Ave Drainage Improvements 102
Figure 5-6 – Future W Morrison Ave, S Armenia Ave, and W Watrous Ave Drainage Improvements 103
Figure 5-7 – Future W Eleta St Drainage Improvements 104
Figure 5-8 – Potential Future Extension of the Cypress Street Outfall System 106
Figure 5-9 – Potential Concept for Future MacDill Ave Flood Relief 107
Figure 5-10 – Potential Future Drainage Improvements- S Albany Ave: W Dekle Ave to W Marjory Ave 108
Figure 5-11 – Potential Future De Leon St Connection to Swann Pond 109
Figure 5-12 – Comparison Map for SHFR Primary Alternatives (Morrison, Bristol, and Swann) 111
Figure 5-13 – Alternative 1 Concept Plan and Flood Reduction Map 114
Figure 5-14 – Alternative 1 Impacted Residences and Businesses 116
Figure 5-15 – Alternative 1 Tree Impacts 117
Figure 5-16 – Alternative 2 Concept Plan and Flood Reduction Map 120
Figure 5-17 – Alternative 2 Impacted Residences and Businesses 122
Figure 5-18 – Alternative 2 Tree Impacts 123
Figure 5-19 – Alternative 3 Concept Plan and Flood Reduction Map 126

Figure 5-20 – Alternative 3 Impacted Residences and Businesses 129
Figure 5-21 – Alternative 3 Tree Impacts 130
Figure 5-22 – W Swann Ave Gravity System 134
Figure 5-23 – Detention Ponds within Parkland Estates and Palma Ceia Pines 136
Figure 5-24 – Parkland Estates Stormwater Pump Station 138
Figure 5-25 – Hyde Park Softball Field Stormwater Pump Station 140
Figure 5-26 – Existing shallow ditch system between Selmon Expressway & CSX Railroad 141
Figure 5-27 – Increased Stormwater Conveyance Alongside CSX Railroad and Selmon Expressway 142
Figure 5-28 – S Georgia Ave to W Mississippi Ave 143
Figure 5-29 – W Morrison Ave to S Rome Ave 144
Figure 5-30 – CSX Route 1 145
Figure 5-31 – CSX Route 2 146
Figure 5-32 – CSX Route 3 147
Figure 6-1 – SHFR Project Recommended Alternative 149
Figure 6-2 – Recommended Alternative Profile View and 5-year/8-hour HGL Comparison 151
Figure 6-3 – Recommended Alternative Profile View and 100-year/24-hour HGL Comparison 152
Figure 6-4 – Phase I - 5-year/8-hour Proposed Flood Extents Reduction 154
Figure 6-5 – Phase I – Reduction in Duration of Roadway Flooding, 5-year/8-hour Design Storm 157
Figure 6-6 – Phase I – Reduction in Duration of Roadway Flooding, 25-year/24-hour Design Storm 157
Figure 6-7 – Proposed Hurricane Milton Flood Reduction, Parkland Estates (Phase I only) 158
Figure 6-8 – Proposed Hurricane Milton Flood Reduction, Palma Ceia Pines (Phase I only) 159
Figure 6-9 – Existing and Proposed (Phase I Only) Hurricane Milton Flood Extents Comparison 160
Figure 6-10 – Future Phase – 5-year/8-hour Proposed Flood Extents Reduction 163
Figure 6-11 – Future Phase – Reduction in Duration of Roadway Flooding, 5-year/24-hour Design Storm .. 166
Figure 6-12 – Future Phase – Reduction in Duration of Roadway Flooding, 25-year/24-hour Design Storm 166
Figure 6-13 – Proposed Hurricane Milton Flood Reduction, Parkland Estates (Future Phase) 167
Figure 6-14 – Proposed Hurricane Milton Flood Reduction, Palma Ceia Pines (Future Phase) 168
Figure 6-15 – Existing and Proposed (Future Phase) Hurricane Milton Flood Extents Comparison 169
Figure 7-1 – Conceptual Proposed Box Culvert Connection to AMI Pond 174

Appendices

Appendix A. South Howard Flood Relief Design Criteria Package
Appendix B. Field Investigation Photos
Appendix C. Tree Survey
Appendix D. Finished Floor Elevations

Appendix E. Traffic Data Collection
Appendix F. Existing Drainage Basins
Appendix G. Model Subbasin Maps
Appendix H. Model Hydraulic Connectivity Maps
Appendix I. Roadway FPLOS Maps
Appendix J. RECM Predicted Structure Flooding Maps
Appendix K. Flood Extents Comparison versus Proposed
Appendix L. Preliminary Construction Cost Estimate
Appendix M. Memo – Findings from Analysis of Alternative Projects
Appendix N. Geotechnical Exploration Documentation
Appendix O. Model Input / Results
Appendix P. Relevant Permitting Documentation
Appendix Q. Relevant As-built Plans
Appendix R. Historical Stormwater Inventory Data

Glossary of Terms and Acronyms

AADT	Average Annual Daily Traffic
AR	AtkinsRéalis
AREHNA	AREHNA Engineering, Inc.
BCA	Benefit-Cost Analysis
BCR	Benefit-Cost Ratio
CN	Curve Number
DBH	Diameter at Breast Height
DEM	Digital Elevation Model
ECHO	ECHO UES, Inc.
EOP	Edge of Pavement
ERP	Environmental Resource Permit
FAA	Federal Aviation Administration
FDEP	Florida Department of Environmental Protection
FDOT	Florida Department of Transportation
FFE	Finished Floor Elevation
FPLOS	Flood Protection Level of Service
GIS	Geographic Information System
GMP	Guaranteed Maximum Price
GPR	Ground Penetrating Radar
GWIS	Geographic Watershed Information System
H&H	Hydrologic and Hydraulic
HCA	Hospital Corporation of America
HCEPC	Hillsborough County Environmental Protection Commission
HGL	Hydraulic Grade Line
JMT	Johnson, Mirmiran, & Thompson, Inc.
LABINS	Land Boundary Information System
LiDAR	Light Detection and Ranging
MHHW	Mean Higher-High Water

NAD83	North American Datum of 1983
NAVD88	North American Vertical Datum of 1988
NCAT	NGS Coordinate Conversion and Transformation Tool
NEXRAD	Next Generation Weather Radar
NGS	National Geodetic Survey
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWS	National Weather Service
PBS&J	Post, Buckley, Schuh & Jernigan
PCM	Proposed Conditions Model
PER	Preliminary Engineering Report
RCP	Reinforced Concrete Pipe
RECM	Revised Existing Conditions Model
ROW	Right of Way
SHFR	South Howard Flood Relief
SWFWMD	Southwest Florida Water Management District
THEA	Tampa Hillsborough Expressway Authority
UCM	Ultimate Conditions Model
USACE	United States Army Corps of Engineers
UPWM	Upper Peninsula Watershed Model
USDA	United States Department of Agriculture

Executive Summary

The Parkland Estates and Palma Ceia Pines neighborhoods of South Tampa have experienced severe and widespread flooding for decades due to the area's topography and antiquated stormwater infrastructure which conveys excess runoff produced by rainfall several miles to both Old Tampa Bay and Hillsborough Bay**. This flooding results in significant property damage and renders roadways impassable, jeopardizing the health, safety, and welfare of the public during heavy rainfall events.** The Palma Ceia Pines neighborhood includes Hospital Corporation of America (HCA) Florida South Tampa Hospital and medical offices, which are severely impacted by flooding conditions that temporarily eliminate access to these services, jeopardizing the lives of patients.

This topographically depressional low area, which can be visualized as a large bowl, includes the central and eastern portions of Parkland Estates and Palma Ceia Pines, bounded to the north and south by W Kennedy Blvd and W Morrison Ave, respectively, and to the east and west by S Howard Ave and S MacDill Ave, respectively. This topographic bowl's existing stormwater infrastructure (primarily underground pipes and structures) currently drains through three separate outfalls into the bays that surround the South Tampa peninsula. **The stormwater infrastructure is aging and severely undersized by current design standards to handle the present-day development density.** Due to these deficiencies, low-lying roadways and land within these two neighborhoods, and within adjacent neighborhoods, flood when the stormwater infrastructure is overwhelmed by heavy rainfall.

The South Howard Flood Relief (SHFR) project is a City of Tampa (the City) progressive design-build project that aims to alleviate the severe flooding that occurs in these neighborhoods by providing a new large stormwater conveyance system that uses gravity to efficiently move millions of gallons of stormwater runoff into Hillsborough Bay. **The goal of this project is to ensure that roadways are passable during the 5-year/8-hour design storm event, which has a total rainfall accumulation of 5.3 inches** within an 8-hour period. For reference, this design storm event is very similar to what was observed in this area on August 1st, 2015. A photo of that event, taken at W Parkland Blvd (looking northeast toward W Swann Ave) is shown in **Figure 1** and illustrates the magnitude of flooding due to rainfall that this project will be designed for.

Unfortunately, providing enough storage within stormwater vaults or ponds to mitigate flooding for this magnitude of rainfall event is not a feasible solution. After many hydrologic and hydraulic (H&H) model iterations, a recommended solution was developed that uses the most direct and hydraulically efficient route to move stormwater runoff into the bay. This includes the construction of approximately 6,000 linear feet of large box culvert trunkline, which functions as a primary artery for stormwater conveyance and will receive runoff from smaller secondary stormwater collection systems that will alleviate flooding at peripheral locations.



Figure 1 – Flooding in Parkland Estates on August 1, 2015 after approximately 5.4 inches of rainfall

Existing Conditions Model Analysis

Before analyzing potential alternative solutions, ensuring that the existing conditions H&H model simulates known flooding events associated with the current stormwater collection system is essential. A detailed H&H model update was performed by this project's design-build team, Kimmins Contracting (builder) and AtkinsRéalis (designer). This effort began by building upon the City's Upper Peninsula Watershed model (UPWM) and the planning-level feasibility study performed by an engineering consulting firm, JMT. AtkinsRéalis reviewed in detail both the UPWM and the JMT feasibility study, along with the area's current H&H conditions, to develop a comprehensive and updated revised existing conditions model (RECM) that accurately reflects flooding within Parkland Estates and Palma Ceia Pines along with surrounding neighborhoods within the study area.

This RECM serves as an appropriate tool to analyze the new conveyance system needed to meet the project's flood reduction goals. The model was calibrated and verified by simulating two actual rainfall events observed in 2024 and comparing the model results to observed flooding documented during and after those respective events. The model results aligned extremely closely with what was observed and documented. The development, calibration and verification of the RECM is discussed in detail in **Section 4** of this report. **Figure 2** below provides a map that depicts the following:

1. **SHFR RECM Extents –** approximately 3,500 acres – the geographic limits of the project's H&H model, which performs H&H calculations to predict flood stages (water surface elevations) and flood durations during simulated rainfall events.
2. **SHFR Model Update Area –** approximately 1,000 acres – the area that was thoroughly evaluated for accuracy to ensure the project design is based on a defensible model. H&H conditions were updated throughout this area to reflect the latest available data, which is discussed in **Sections 2 through 4** of this report.
3. **JMT Feasibility Study Drainage Area –** approximately 260 acres – as defined by the JMT report, *"the drainage area likely to see the most significant benefits from the selected alternative"* (selected alternative refers to the JMT feasibility study's recommended alternative).
4. **SHFR Flood Reduction Focus Area** – approximately 225 acres – "The bowl". It is the basis of the project's detailed focus and design. The box culvert trunkline was sized to achieve the flood reduction goal within this area, as this is the most severe concentration of flooding within the model limits.

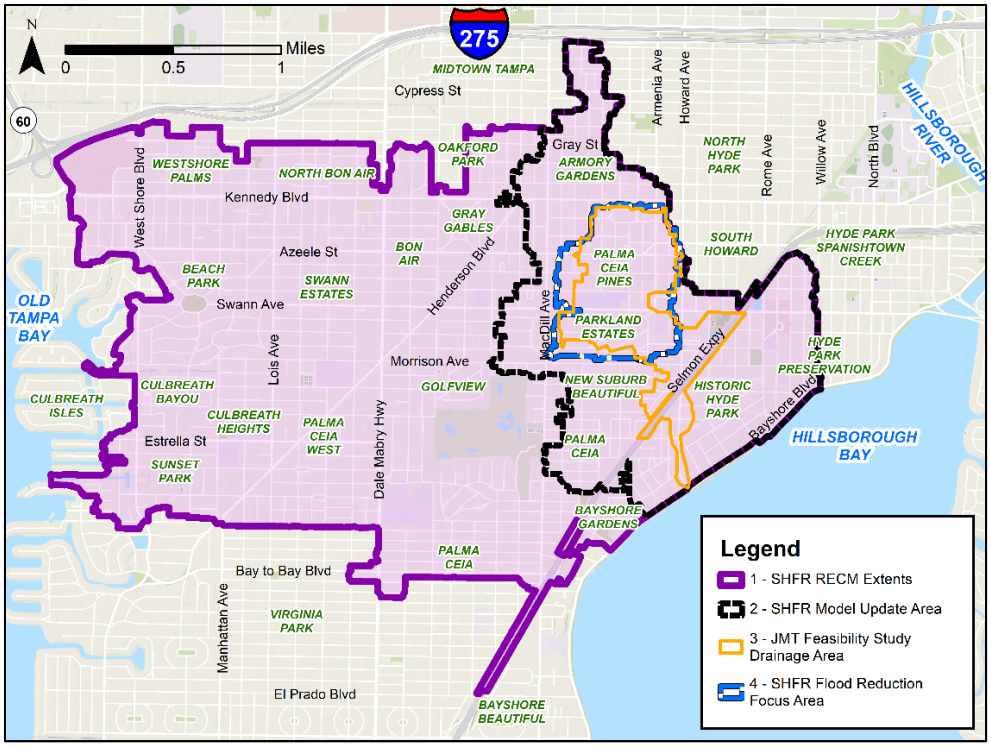


Figure 2 – H&H Model Update Area Map

The drainage basins that make up the SHFR Flood Reduction Focus Area have been studied for decades, and conceptual solutions to flooding issues have been developed as part of these studies, which are discussed in **Section 2.1** of this report. However, what the previous studies lack is a complete understanding of the interaction of stormwater between drainage basins, which creates a larger and more complicated flooding issue than previously thought. The SHFR project's preliminary engineering study documented in this report has identified this complex problem and has developed a comprehensive solution.

Figure 3 below shows the RECM's predicted flood extents for the 5-year/8-hour design storm in today's existing condition. **It is important to note that the flood extents shown below assume that the existing stormwater infrastructure is in a fully maintained condition.** Even in this maintained condition the depth of water over the roadways reaches up to 4 feet in places within Palma Ceia Pines and Parkland Estates.

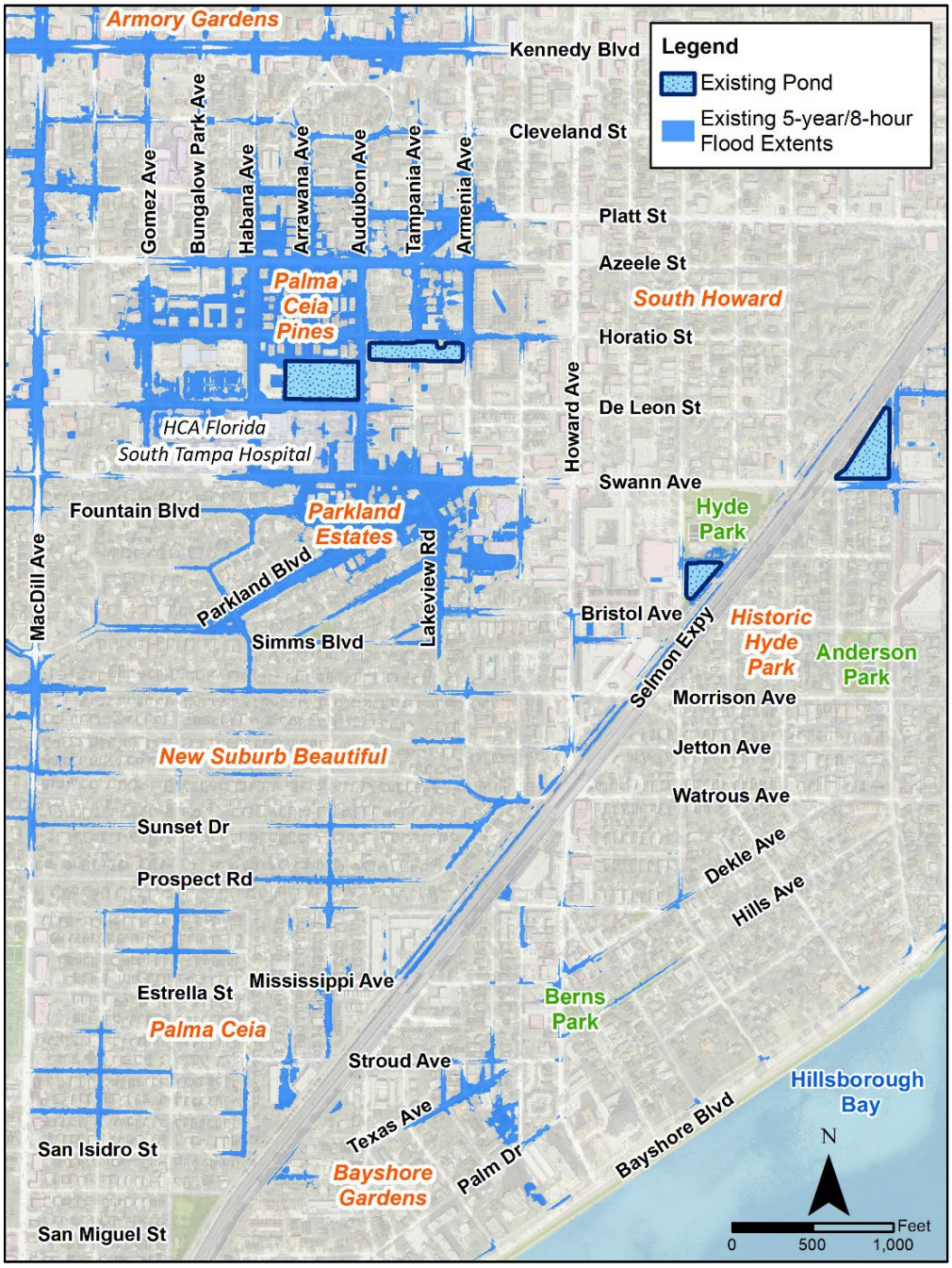


Figure 3 – Existing 5-year/8-hour Flood Extents

Proposed Conditions Model Analysis and Flood Reduction Benefits

The RECM serves as a base model to develop numerous iterations of proposed conditions models that optimize the configuration of new stormwater infrastructure so that the project's flood reduction goals can be met in a hydraulically efficient, cost-effective manner. These alternative flood reduction solutions began with the proposed system recommended in the project's Design Criteria Package (a 5'x10' box culvert terminating at W Swann Ave & S Audubon Ave, based on the JMT feasibility study) and progressed into larger box culvert sizes that extended further north, providing equity of flood reduction benefits between Parkland Estates and Palma Ceia Pines. Through this analysis, the design team arrived at a solution that will significantly reduce rainfall-induced flooding in both Parkland Estates and Palma Ceia Pines, along with other neighborhoods like South Howard, Historic Hyde Park, New Suburb Beautiful, Palma Ceia, and Bayshore Gardens.

The goal of this project is a flood reduction solution that limits flood depths for the 5-year/8-hour design storm event (5.3 inches of rainfall) to a maximum of 4 inches of water depth over the lowest edge of pavement (EOP) – a condition where roadways are considered passable for vehicles, and most notably emergency response vehicles. This goal is referred to as the project's flood protection level of service (FPLOS) and has been applied throughout the project's 225-acre Flood Reduction Focus Area, among other flood-prone areas adjacent to the project route. **Although the proposed infrastructure has been sized to reduce roadway flooding for the 5-year design storm, it will also significantly reduce structure flooding and duration of roadway flooding for a range of more severe rainfall events.** In fact, the model simulations documented in this report suggest that the project will provide the additional benefit of substantial flood reduction during higher precipitation events up to and beyond the 100-year/24-hour design storm (important for insurance and regulatory considerations). This includes storms like Hurricane Milton, which devastated the area in 2024. The project will also provide noticeable flood reduction benefits to adjacent areas within the model's geographic limits that are outside of the SHFR Flood Reduction Focus Area.

Table 1 and **Table 2 below summarize the predicted existing flood impacts and anticipated reduction in roadway and structure flooding provided by all phases of the project** for a wide range of potential rainfall events. These values are predicted using the project's detailed H&H models, recently surveyed finished floor elevations for over 200 buildings (which include over 400 individual first floor homes and businesses) within Parkland Estates and Palma Ceia Pines, and the latest available (2017) Light Detection and Ranging (LiDAR)-based digital elevation model (DEM). The data in the table includes all proposed infrastructure shown in **Figure 4**. Although Hurricane Milton's rainfall totals and flood stages were greater than those of the 100-year/24-hour design storm (synthetic rainfall event used for insurance and regulatory considerations), the Hurricane Milton proposed conditions model results show greater flood protection due to an overall less intense distribution of rainfall.

Table 1 – Summary of Existing Condition Flood Impacts

Flood Impact	2.33-year/ 24-hour Design Storm (4.5 inches)	5-year/ 8-hour Design Storm (5.3 inches)	10-year/ 24-hour Design Storm (7.0 inches)	25-year/ 24-hour Design Storm (8.0 inches)	50-year/ 24-hour Design Storm (10.0 inches)	100-year/ 24-hour Design Storm (11.0 inches)	Hurricane Milton (13-14.5 inches*)
Existing Number of Homes/Businesses Inundated**	0	96	123	203	255	272	333
Existing Duration of Roadway Flooding on W Swann Ave at S Audubon Ave (hours)	6	8	10	12	14	15	19
Existing Max. Depth of Roadway Flooding, Parkland Estates (feet)	3.2	4.0	4.3	4.6	4.9	5.1	5.4
Existing Max. Depth of Roadway Flooding, Palma Ceia Pines (feet)	1.9	2.5	2.9	3.2	3.5	3.7	4.0

*Hurricane Milton rainfall totals vary across the model's geographic limits, and were estimated by radar (source: NEXRAD)
**Includes total number of ground floor dwellings, including single family homes, businesses, and individual apartment or townhome units, within the 206 specific buildings surveyed in 2025 by the design-build team, as predicted by the RECM, and has not been otherwise verified.
Note: All values in the table are predicted using H&H model results and have not been field verified after observed rainfall events.

Table 2 – Summary of SHFR Project's Flood Reduction Benefits

Flood Reduction Benefit	2.33-year/ 24-hour Design Storm (4.5 inches)	5-year/ 8-hour Design Storm (5.3 inches)	10-year/ 24-hour Design Storm (7.0 inches)	25-year/ 24-hour Design Storm (8.0 inches)	50-year/ 24-hour Design Storm (10.0 inches)	100-year/ 24-hour Design Storm (11.0 inches)	Hurricane Milton (13-14.5 inches*)
Proposed **Reduction** of Inundated Homes/Businesses**	N/A	96	123	198	197	164	235
% Reduction of Inundated Homes/Businesses**	N/A	100%	100%	98%	77%	60%	71%
Proposed Duration of Roadway Flooding on W Swann Ave at S Audubon Ave (hours)	0	0	1	2	3	4	4
Proposed **Reduction** of Roadway Inundation (miles)	6.0	8.1	5.0	4.6	3.9	3.3	4.6

*Hurricane Milton rainfall totals vary across the model's geographic limits, and were estimated by radar (source: NEXRAD)
**Includes predicted total number of ground floor dwellings, including single family homes, businesses, and individual apartment or townhome units, within the 206 specific buildings surveyed in 2025 by the design-build team.
Note: Benefits reflect all proposed improvements in **Figure 4** below. Additional future projects that reduce runoff to this area could further increase these benefits. All values in the table are predicted using H&H model results and have not been field verified after observed rainfall events.

Figure 4 shows the project's reduction in flood extents for the 5-year/8-hour design storm. The purple shading represents existing flooding extents predicted by the model that would be eliminated during the same storm event once all phases of the project shown in the figure are complete.

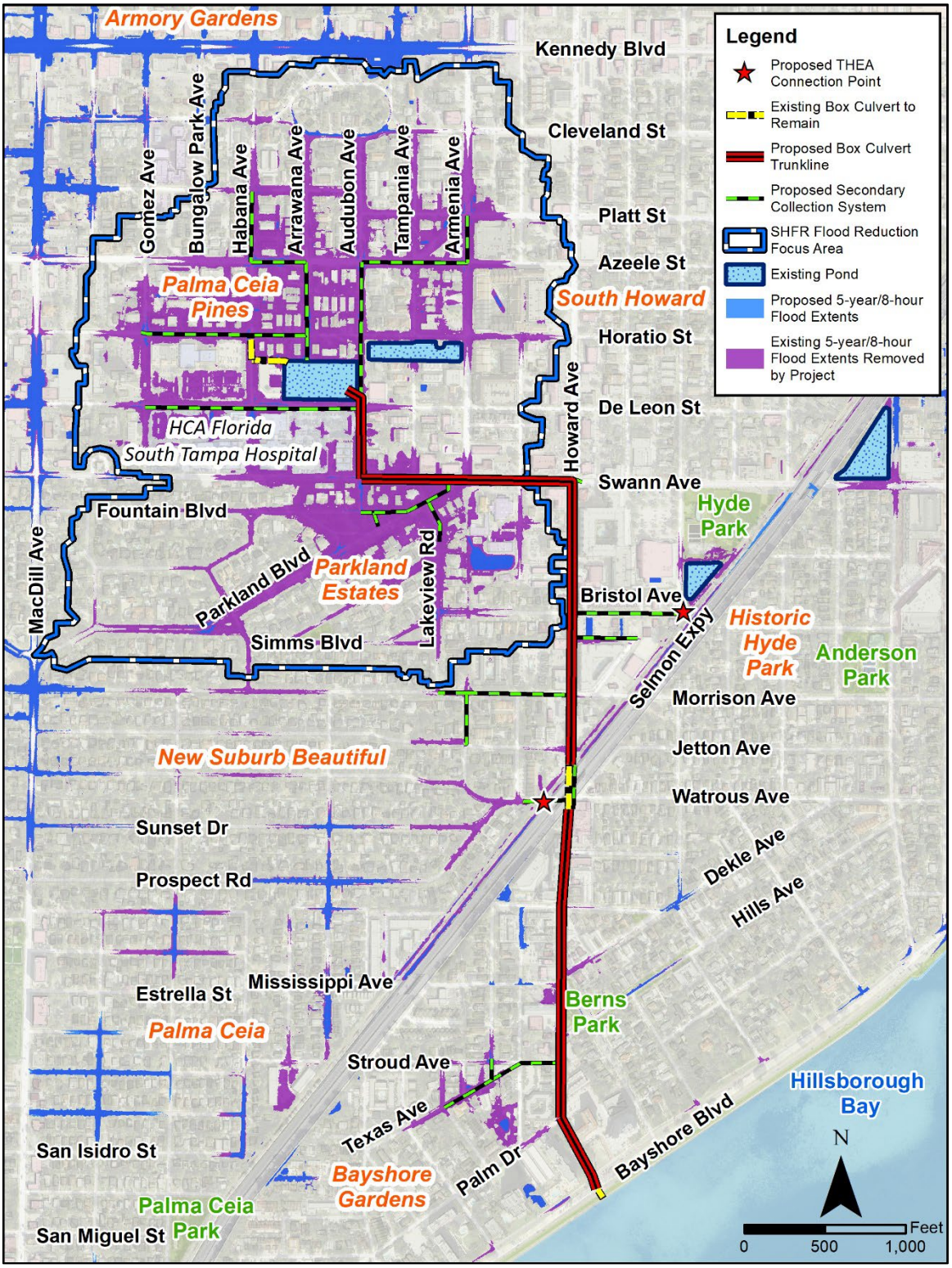


Figure 4 – 5-year/8-hour Proposed Flood Extents Reduction

Alternatives Analysis Findings

Although **Figure 4** on the previous page shows the recommended solution and associated flood reduction benefits, there were numerous potential alternatives evaluated as part of this study to ensure that the most hydraulically efficient, cost effective, and reliable solution is designed and constructed. The design-build team took into consideration input and suggestions from the community while evaluating potential options. All other potential alternatives evaluated were deemed to not be as prudent as the selected alternative for reasons such as increased construction cost and construction duration, constructability concerns, inability to meet the project's flood reduction goal, and lack of available real estate. **Section 5.4** of this report provides a more detailed discussion of all the alternatives reviewed for this project.

Based on the H&H model results and alternatives analysis, the following key conclusions have been drawn:

- While stormwater maintenance issues certainly can exacerbate flooding, **maintenance-based solutions alone will not fix the chronic flooding that occurs within Parkland Estates and Palma Ceia Pines – it is a conveyance capacity issue.** The calibrated RECM, which predicts flooding that very closely resembles what was observed and documented for actual recent rainfall events, assumes that existing stormwater pipes, ditches and ponds are clear and maintained so that proposed infrastructure can be sized adequately. Even under this assumption, severe flooding is still predicted, supporting the conclusion that **the existing stormwater infrastructure is simply antiquated and severely undersized for the current level of development.**

- **A regional storage alternative (stormwater pond or vault)** of adequate size and depth to manage the modeled flood volumes **is not feasible** given the region's natural topography, lack of available real estate, extremely large volumes of stormwater, and anticipated groundwater conditions. In addition, constructing an adequately sized regional storage facility would displace hundreds of residents and significantly reduce housing stock.

- **A new large stormwater conveyance system and connection to the bay is needed** to move millions of gallons of stormwater from the SHFR Flood Reduction Focus Area into Tampa Bay to effectively reduce flooding in Parkland Estates and Palma Ceia Pines.

- Even though its storage capacity is extremely inadequate, the **City-maintained AMI detention pond can serve as a massive stormwater inlet for Palma Ceia Pines**, directly discharging through the 10'x10' box culvert trunkline while using a new weir structure to maintain the pond's existing stormwater treatment capabilities. This reduces the number of additional inlets needed to receive the significant runoff rates anticipated during extreme rainfall events.

- **Sending stormwater runoff to Hillsborough Bay is a shorter (~ 1 mile) and more direct and hydraulically efficient route than continuing to send water west into Old Tampa Bay (~ 2.5 miles)** through a densely developed area that already experiences flooding due to overburdened and antiquated stormwater infrastructure.

- **A gravity system is preferred over a pump station and force main outfall** because it significantly reduces operation and maintenance costs. A gravity system would also mitigate the risk of a pump-based alternative system failing due to power outage or storm damage when it is needed most – during severe storm events, such as Hurricane Milton. In addition, it is extremely difficult for pumping systems to keep up with the large volume of runoff anticipated in high-intensity rainfall events and a large pump station would bring permanent noise and aesthetic impacts to the surrounding residential area.

- **A pump station** would likely not reduce construction impacts to stakeholders along the project route since it **requires a pressurized outfall pipe that is similar in size to the selected gravity alternative** in order to safely discharge flow rates needed to achieve the project's goal.

- **A significant amount of stormwater runoff enters Palma Ceia Pines from Armory Gardens (north of Kennedy Blvd)** when undersized existing pipes designed to convey water to the west become overwhelmed, and the excess runoff flows south over several roadway corridors toward Kennedy Blvd.

- **Constructing a gravity system that reaches Hillsborough Bay to the east of South Howard Ave would have significant challenges** such as conflict with a 48-inch sanitary sewer force main, significant traffic impacts

to Bayshore Blvd and Davis Islands due to construction of a new outfall, increased construction cost and duration due to longer route, and limited conveyance beneath the railroad and Selmon Expressway.

- Given the ground elevations within the project's corridors (generally 15 to 21 feet above sea level), **a gravity system will still be hydraulically effective during high tides and storm surge events**, such as that of Hurricane Helene in 2024. In fact, the project's models already assume a conservative and constant tidal stage of elevation 2.0 (ft, NAVD88) in the design storm simulations, which is about a foot higher than a normal high tide for Hillsborough Bay (per NOAA data for Ballast Point, Station 8726639).

To expand upon the key conclusion above, and to further demonstrate the hydraulic efficiency of the proposed project during storm surge events, the proposed conditions model was simulated with a constant Tampa Bay water surface elevation of 8.0 (ft, NAVD88), which is the estimated peak surge elevation observed in Hillsborough Bay and Old Tampa Bay during Hurricane Helene in 2024 according to NOAA tide gauge data. The flood reduction benefits observed in that model simulation are extremely significant, showing that even when Hillsborough Bay is at a surge elevation of 8 feet, the proposed project **still reduces peak stages in Parkland Estates by approximately 3 feet during a 5-year/8-hour rainfall event. This occurs even while Bayshore Blvd is fully submerged by the bay**. This is because 7 feet or more of hydraulic head, which can be thought of as energy available to push water through the culvert, is enough to force a large volume of stormwater runoff from Parkland Estates into the elevated bay in a relatively short amount of time.

This can be thought of as two separate bowls of water, connected by a straw (representing the proposed box culvert) at their bottoms – as long as the water surface in one bowl (Parkland Estates and Palma Ceia Pines) is higher than the water surface in the other (Hillsborough Bay), gravity is going to force water through the straw until the water levels in each bowl are equal. A catastrophic storm surge of 15 to 20 feet would have to occur for Hillsborough Bay to come back through the system and flood these neighborhoods. This would also happen in today's condition through the three existing stormwater trunklines that connect Palma Ceia Pines to Old Tampa Bay and Hillsborough Bay.

Evaluation of Alternatives

This Preliminary Engineering Report (PER) includes a comprehensive analysis of predicted flood stages and durations for a spectrum of rainfall events and evaluates alternative solutions that address FPLOS deficiencies within the study area. The report provides a comparative analysis of the three primary alternatives specified in the project scope that includes flood reduction benefit, project cost, and impacts to affected stakeholders. The report also comparatively evaluates the feasibility of numerous other solutions proposed as alternatives to the three primary alternatives. This is discussed in more detail in **Section 5** of this report.

The three primary alternatives analyzed in this report are listed below, in an order that does not reflect priority or ranking of the routes:

1. Alternative 1 – W Morrison Ave to S Howard Ave
2. Alternative 2 – W Bristol Ave to S Howard Ave
3. Alternative 3 – W Swann Ave to S Howard Ave

The three primary alternatives each use South Howard Avenue for several reasons:

- Minimize total length of box culvert needed between the area of flooding concern and Hillsborough Bay – this not only significantly reduces cost but provides a more direct and hydraulically efficient pathway to move runoff from Palma Ceia Pines and Parkland Estates to Hillsborough Bay, in comparison to other potential alternatives.
- Use existing box culverts already in place beneath the CSX railroad, Selmon Expressway, and Bayshore Boulevard – this reduces cost and duration of permitting and construction. It also avoids construction of a new discharge point into Hillsborough Bay that would require a temporary shutdown of the northeast bound lanes of Bayshore Boulevard, along with a costly vertical relocation of a 48” sanitary sewer force main.

Other alternatives suggested by various community members and evaluated by the design-build team – further discussed in Section 5.4 and Appendix M – include the following:

- **W Swann Ave Gravity System** – a large box culvert system that uses W Swann Ave only to reach Bayshore Blvd and Hillsborough Bay. **This alternative is 30% longer** than the selected route and comes with hurdles that would **significantly increase construction costs and duration**, such as the need to relocate an existing 48-inch diameter sanitary sewer force main and the need for a new outfall into Hillsborough Bay, which would result in significant traffic impacts on vehicles entering Davis Islands. **This alternative simply shifts temporary construction impacts to another group of businesses and residents and requires much more money to achieve the same flood reduction goal, lowering the project’s benefit-cost ratio substantially.**
- **Stormwater Detention Ponds only (no new conveyance system)** – This alternative converts the lowest portions of Parkland Estates and Palma Ceia Pines into stormwater ponds which use existing pipe systems to discharge excess stormwater to the bay, eliminating the need for a new conveyance system. This alternative is not realistic, as **it would displace hundreds of residents and would require eminent domain to purchase over 200 properties**, which have an estimated combined value of over $150 million.
- **Parkland Estates Stormwater Pump Station –** A pump alternative located within the green space along W Fountain Blvd and W Parkland Blvd (instead of a large box culvert) would require a massive pump station with a discharge capacity of 600 cubic feet per second (CFS), and a 10-foot diameter force main pipe that connects Parkland Estates to Hillsborough Bay, resulting in **similar construction impacts along S Howard Ave** (or an alternative route). Along with an increase in construction costs, this alternative would result in **permanent noise impacts, higher operation and maintenance costs (including power consumption) and would have a much higher risk of failure due to loss of power when it is most needed** – during severe storms like Hurricane Milton.
- **Hyde Park Softball Field Stormwater Pump Station –** Even if this City-owned park were to be converted into a massive 3-acre underground storage vault at depths over 20 feet below ground, a large stormwater pump station with a 300 CFS capacity pump station would be needed, along with a new 7-foot diameter force main pipe that somehow reaches Hillsborough Bay. Concerns with the Parkland Estates pump station alternative apply here

as well. **Another downside of a pump alternative is that no additional drainage improvements can be included along the force main route downstream of the pump station, while a gravity system provides opportunity for smaller projects to "tap in" later.**

- **Box Culvert or Force Main along CSX railroad and Selmon Expressway –** There is simply **not enough space available between the railroad and the Selmon Expressway** to construct a conveyance system large enough to meet the project's flood reduction goal. If there were enough space (if CSX were to donate their right of way, for example), this would still **increase the project length by 80%,** resulting in a much more expensive and less hydraulically efficient system when compared to the selected alternative.
- **S Georgia Ave to W Mississippi to S Howard Ave Gravity System –** This route is 30 percent longer than the selected alternative, increasing construction costs and duration substantially. It also has significant constructability challenges due to large and deep box culvert installation through narrow, residential streets within the Parkland Estates, New Suburb Beautiful, and Palma Ceia neighborhoods.
- **W Morrison Ave to S Rome Ave -** This route is 20 percent longer than the selected alternative, increasing construction costs and duration substantially. Like the S Georgia Ave/Mississippi alternative, it also has significant constructability challenges due to large and deep box culvert installation through narrow, residential streets within the Parkland Estates and Historic Hyde Park neighborhoods. Like the W Swann Ave gravity alternative, this would also require temporary shutdown and relocation of the large 48-inch diameter sanitary sewer force main along S Rome Ave.
- Other project alternatives that were previously studied by the City (as documented in the 2022 JMT report) were evaluated at a high level to assess feasibility. None of these options are considered both feasible **AND** adequately sized to meet the project's flood reduction goal.

Based on the detailed analysis of the three primary alternative routes, along with evaluation of feasibility and constructability of other alternative routes proposed by both previous studies and the community, **Alternative 3 has been selected because it has the lowest capital costs, the shortest duration of construction, and is the least impactful to the environment while meeting the project's flood reduction goal within Parkland Estates, Palma Ceia Pines, and areas adjacent to the project limits**. A comparative analysis of the three primary alternatives can be found in **Section 5.3.**

Project Phasing

The overall conceptual design has been sized to meet the flood reduction goal for the entire SHFR Flood Reduction Focus Area, as well as other specific areas adjacent to the project route that have localized flooding issues, as shown in **Figure 4 and Figure 5**. However, due to current funding limitations, the current project scope does not include formal design and construction of all secondary stormwater collection systems needed to achieve that goal. **Therefore, for the purposes of this report, components of the overall solution will be separated into two phases, as shown in Figure 5:**

1. **Phase I** – 10'x10' primary box culvert trunkline between Bayshore Blvd and the AMI stormwater detention pond, secondary stormwater collection system within Parkland Estates and at each intersection along the project route, and connection points for the Selmon Expressway project. Pipe stub-outs from the Phase I system will be provided at specific locations where a future secondary collection system extension has been modeled, as discussed in **Section 5.1.**
2. **Future Phases** – Secondary stormwater collection systems needed to achieve FPLOS goal for specific roadways and intersections. This includes Palma Ceia Pines and identified flood-prone areas adjacent to South Howard Ave between W Swann Ave and Bayshore Blvd.

The future phase collection systems have been sized through H&H modeling to meet the FPLOS goal, and their locations are shown in green in **Figure 5** below. These secondary systems will be reevaluated and refined based on detailed survey, geotechnical investigations, and subsurface utility exploration in a subsequent evaluation and design phase.

During this later design phase, it is anticipated that opportunities to intercept the overland stormwater flows that currently enter Palma Ceia Pines from north of W Kennedy Blvd will be evaluated to reduce flooding along W Kennedy Blvd and within Palma Ceia Pines. Intercepting these flows could significantly reduce the size and extents of the secondary collection systems needed in Palma Ceia Pines to meet the project's FPLOS goal throughout the SHFR Flood Reduction Focus Area. **However, even if all overland flows are intercepted north of W Kennedy Blvd before reaching Palma Ceia Pines, it will not eliminate the need for the SHFR project.**

This, along with additional value engineering, alternative construction delivery methods, and other potential future conditions resulting from other stormwater improvements projects, will likely affect the construction costs of future phase projects.

A map of the phased recommended project is shown in **Figure 5**. Key project details, findings, and assumptions are listed below:

- Includes new 10'x10' box culvert trunkline from Bayshore Blvd to the AMI detention pond, along S Audubon Ave between W De Leon St and W Horatio St.
- Existing box culverts remain in place beneath Bayshore Blvd, Selmon Expressway, and the CSX railroad.
- Additional parallel 60" pipe is to be installed beneath Selmon Expressway and CSX railroad via microtunnel.
- The route includes S Howard Ave, W Swann Ave, and S Audubon Ave corridors.
- Includes new weir that uses gravity to control water levels within and discharges from the City-maintained AMI Pond between W Horatio St, W De Leon St, S Audubon Ave, and S Habana Ave, eliminating the need for the existing pump that recovers the pond's available storage and treatment volume. The pond's primary existing outfall – a 4'x8' box culvert along W Horatio St – will remain to function as a secondary outfall.
- **Estimated Phase I Construction Cost: $92,136,452** (cost estimate is based on 30% design and can be found in **Appendix L**)
- Future project phases will include smaller stormwater trunklines throughout Palma Ceia Pines and local roads adjacent to the main trunkline's route to collect stormwater runoff and address FPLOS deficiencies.

Because the future phase systems will be smaller and shallower than the Phase I infrastructure, the City may be able to construct these systems using alternative delivery procurement methods, such as use of City construction crews and competitively bid construction contracts. A range of preliminary construction costs for these future phases, reflective of present-day dollars, have been developed by the City based on recently bid stormwater projects, and are included in **Table 5** and **Table 6.**

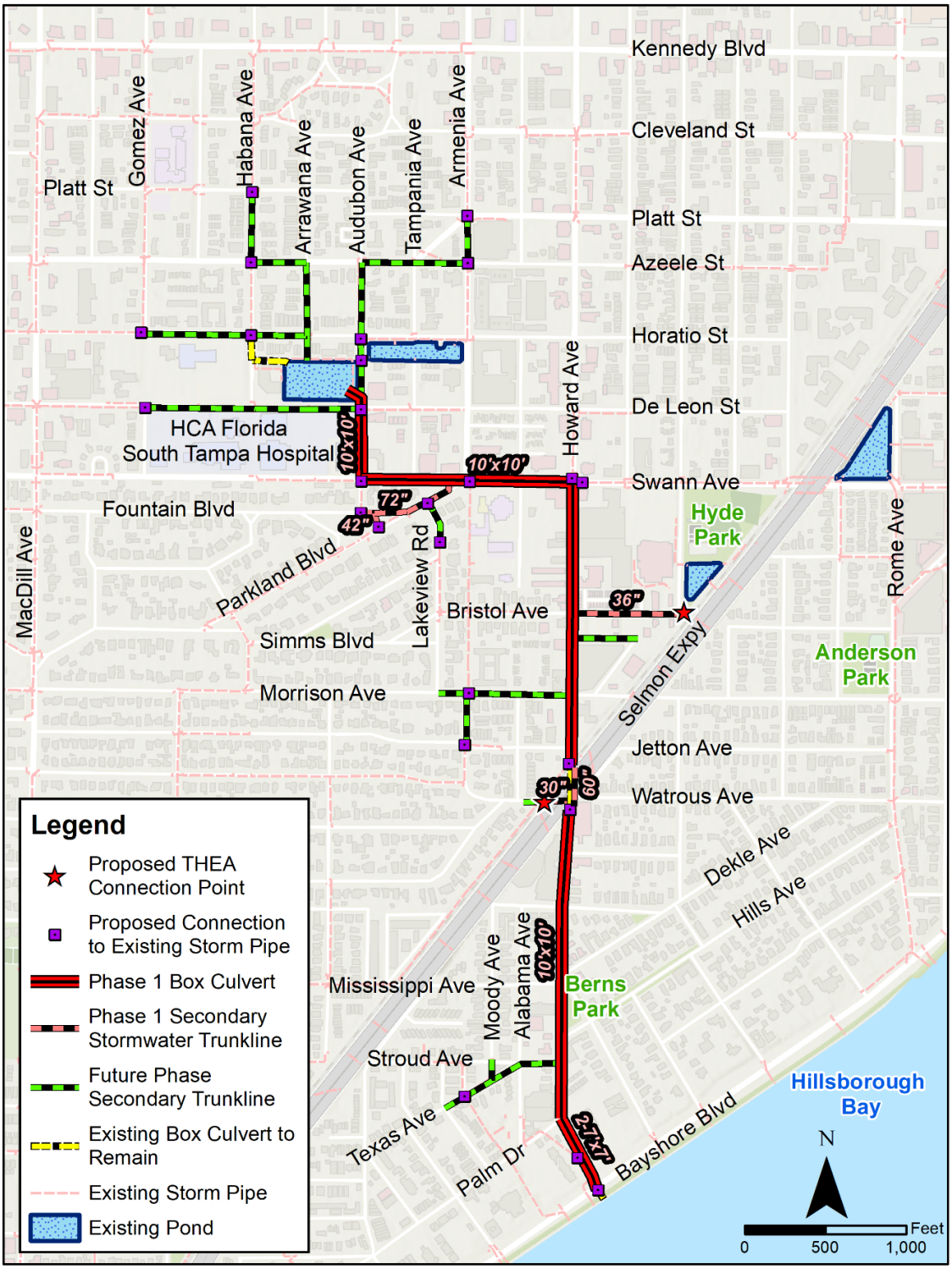


Figure 5 – Recommended Project Map

Figure 6 shows the reduction in flood extents for the 5-year/8-hour design storm **for only the Phase I project**. The purple shading represents existing flooding extents predicted by the model that would be eliminated during the same storm event once the project is complete. **What is not visible in the figure is the significant reduction in structure flooding and the reduced duration of roadway flooding after the completion of Phase I.**

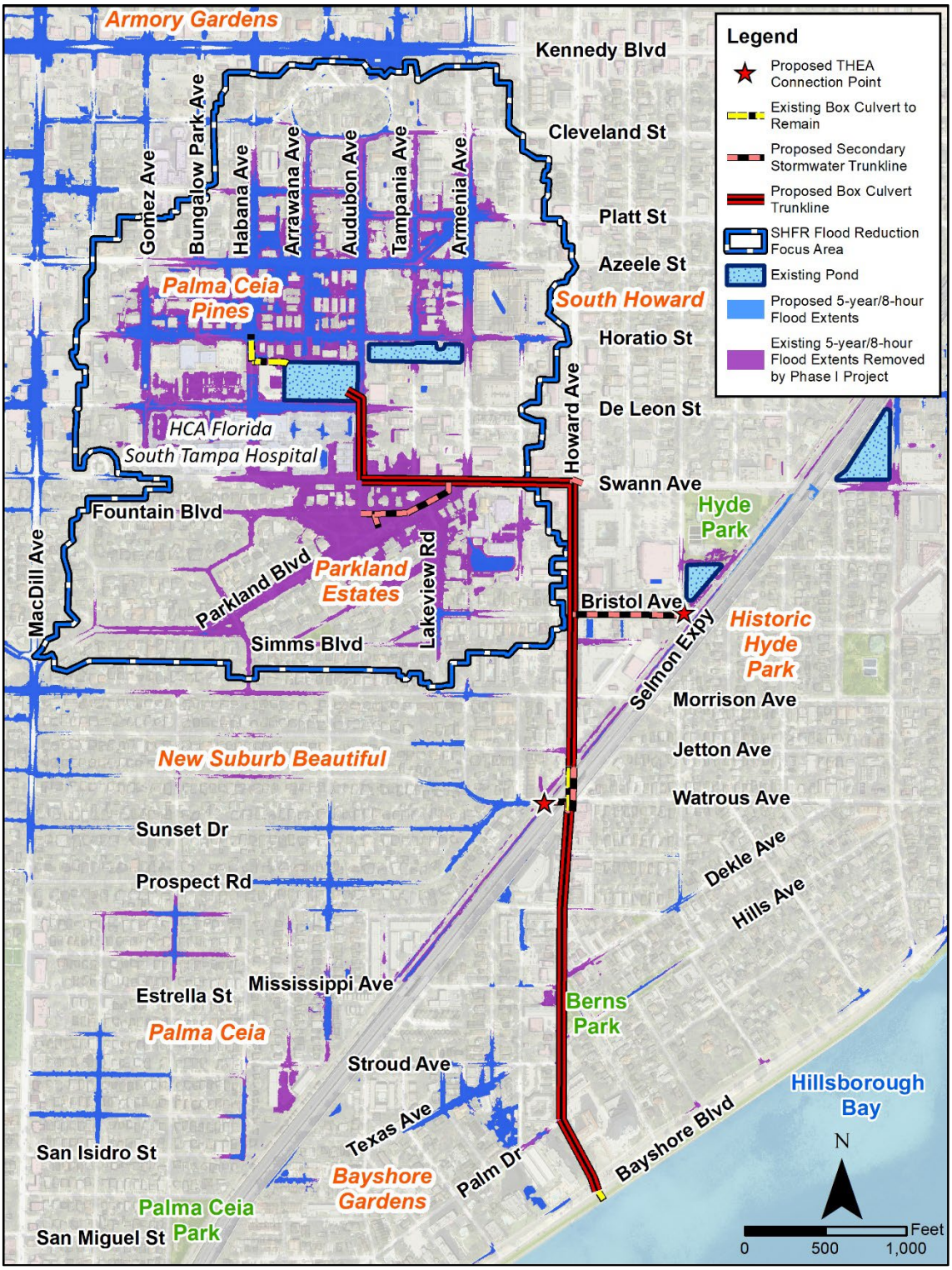


Figure 6 – Phase I - 5-year/8-hour Proposed Flood Extents Reduction

Table 3 below provides a summary of benefits anticipated after the construction of **only Phase I.** When compared to the overall solution's benefits in **Table 2**, it is apparent that **Phase I alone provides most of the structure flooding reduction. It will also significantly reduce the duration of roadway flooding both inside and outside of the SHFR Flood Reduction Focus Area.** Phase I provides the major artery needed for stormwater conveyance that future phases will connect into. These smaller future phase projects will provide a significant reduction in volume of roadway flooding that allows specific roadways and intersections to meet the FPLOS goal.

Table 3 – Summary of Proposed Phase I Flood Reduction Benefits

Flood Reduction Benefit	2.33-year/ 24-hour Design Storm (4.5 inches)	5-year/ 8-hour Design Storm (5.3 inches)	10-year/ 24-hour Design Storm (7.0 inches)	25-year/ 24-hour Design Storm (8.0 inches)	50-year/ 24-hour Design Storm (10.0 inches)	100-year/ 24-hour Design Storm (11.0 inches)	Hurricane Milton (13-14.5 inches*)
Proposed Reduction of Roadway Inundation (miles)	3.1	4.6	3.9	4.0	3.4	2.9	3.9
Proposed Reduction of Inundated Homes/Businesses**	N/A	96	113	172	183	153	225
% Reduction of Inundated Homes/Businesses**	N/A	100%	92%	85%	72%	56%	68%

*Hurricane Milton rainfall totals vary across the model's geographic limits, and were estimated by radar (source: NEXRAD)
**Includes predicted total number of ground floor dwellings, including single family homes, businesses, and individual apartment or townhome units, within the 206 specific buildings surveyed in 2025 by the design-build team.
Note: Benefits reflect all proposed Phase I improvements as depicted in red in **Figure 6.** Additional future projects that reduce runoff to this area will further increase these benefits.
Note: All values in the table are predicted using H&H model results and have not been field verified after observed rainfall events.

Table 4, Table 5, and **Table 6** below provide a summary of the incremental benefit-cost analysis (BCA) for Phase I and the future phases, using the Southwest Florida Water Management District's (SWFWMD) Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis Tool. **Estimated project costs shown in each table include construction costs as well as engineering and permitting fees.**

A detailed estimate of the Phase I construction cost can be found in **Appendix L** and is based on the 30% design. A formal cost estimate of future phase projects has not been developed for this report, and the estimated range of their combined project costs was provided by the City.

It is important to note that the estimated costs are preliminary, based on present-day economic conditions when this document was written, and are subject to change. It is also important to remember that the future phases include Palma Ceia Pines, as well as other secondary stormwater collection systems that extend beyond the Phase I project corridor (see **Figure 5**), which are subject to change. Details regarding the BCA are discussed in **Section 6.6** of this report.

Table 4 – Benefit-Cost Analysis – Phase I only

Expected Annual Damage Without Project	$21,040,904
Expected Annual Damage with Project	$12,457,632
Expected Annual Damage Benefit	$8,583,272
Discount Rate	7.0%
Project Useful Life (# years)	50
Present Value of Future Benefits	$118,455,560
Estimated Project Cost	$99.8M
Benefit/Cost Ratio	**1.2**

Table 5 – Benefit-Cost Analysis – Future phases only, with Phase I already complete

Expected Annual Damage Without Project	$12,457,632
Expected Annual Damage with Project	$7,276,528
Expected Annual Damage Benefit	$5,181,104
Discount Rate	7.0%
Project Useful Life (# years)	50
Present Value of Future Benefits	$71,503,100
Estimated Project Cost	$32M to $50M*
Benefit/Cost Ratio	**1.4 to 2.2**

*Future phase project cost estimate range was provided by the City, and is based on present day dollars

Table 6 – Benefit-Cost Analysis – Total Project (Phase I and Future Phases)

Expected Annual Damage Without Project	$21,040,904
Expected Annual Damage with Project	$7,276,528
Expected Annual Damage Benefit	$13,764,376
Discount Rate	7.0%
Project Useful Life (# years)	50
Present Value of Future Benefits	$189,958,660
Estimated Project Cost	$132M to $150M*
Benefit/Cost Ratio	**1.3 to 1.4**

*Future phase project cost estimate range was provided by the City, and is based on present day dollars

1. Project Overview and Background

The South Howard Flood Relief (SHFR) project is a progressive design-build project awarded to the design-build team of Kimmins (builder) and AtkinsRéalis (designer), intended to provide significant and widespread flood relief to the Parkland Estates and Palma Ceia Pines neighborhoods, among others. The recurring roadway and structural flooding that plagues these neighborhoods has been documented for decades. Although this area's stormwater challenges have been studied by engineers for decades, no feasible solutions that provide meaningful flood relief for both Parkland Estates and Palma Ceia Pines have been implemented to date. This project aims to provide a long-overdue solution to the damaging rainfall-induced flooding endured by this community.

1.1 Project Location

The Parkland Estates and Palma Ceia Pines neighborhoods lie within the northeastern portion of the South Tampa peninsula. Specifically, the geography west of the Selmon Expressway, east of Henderson Blvd, south of W Kennedy Blvd, and north of W Morrison Ave. The 225-acre SHFR Flood Reduction Focus Area, shown in blue in **Figure 1-1** below, represents the primary area that experiences the most significant flooding and can expect to see enough flood reduction from the project to comply with the City's level of service requirements. In other words, the proposed system was sized primarily to achieve the project's flood reduction goal within this area. The project's flood reduction benefits are not limited to this area. Other locations adjacent to the project limits, particularly to the south and east of the SHFR Flood Reduction Focus Area, will also benefit from significant flood reduction that achieves the City's flood reduction goals.

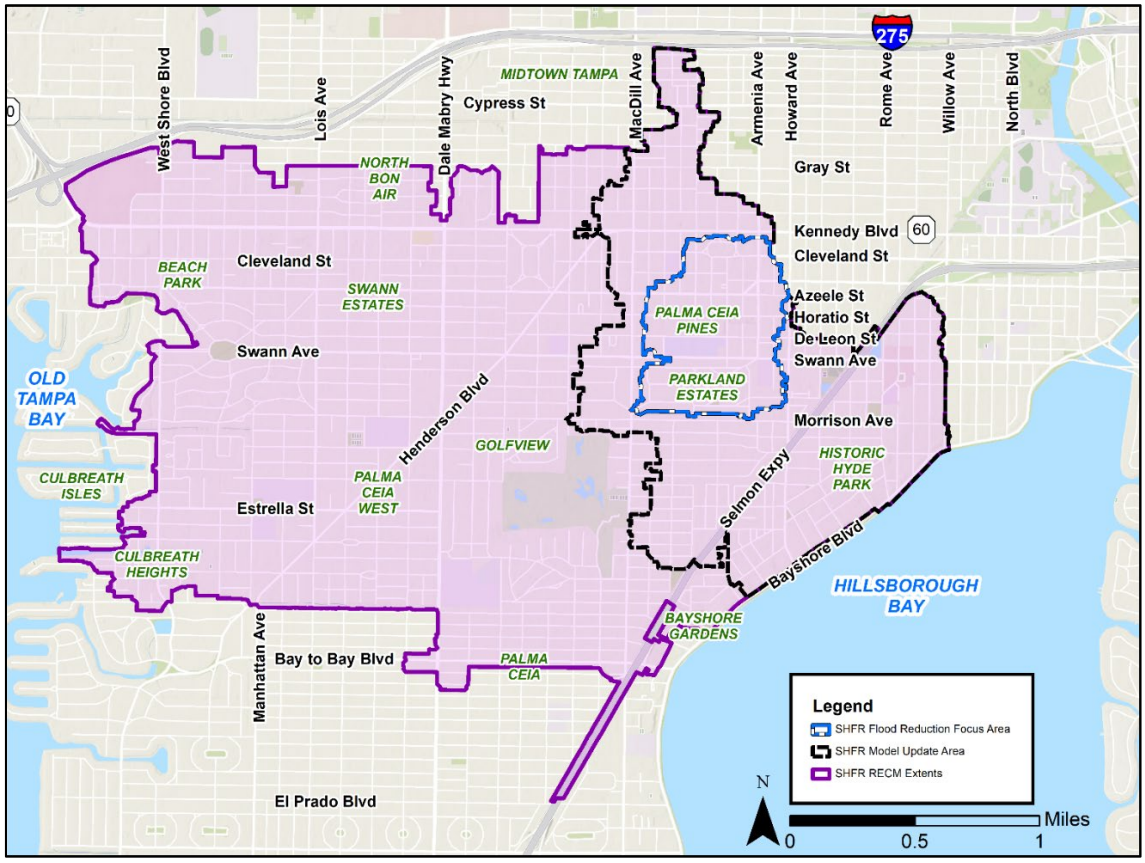


Figure 1-1 – Project Location Map

1.2 Why is this Project Needed?

The topography (ground surface elevations) of the Parkland Estates and Palma Ceia Pines neighborhoods form the shape of a bowl that encompasses over 200 acres. This area is bounded by S MacDill Ave (west), W Kennedy Blvd (north), S Howard Ave (east), and W Morrison Ave (south). Given the urban and dense nature of the drainage area contributing stormwater flow to this area, the stormwater infrastructure becomes easily overwhelmed during heavy rainfall events. This causes the low-lying area to flood, in essence "filling the bowl". **This flooding results in significant property damage and renders roadways impassable, jeopardizing the health, safety, and welfare of the public during heavy rainfall events.** The Palma Ceia Pines neighborhood includes Hospital Corporation of America (HCA) Florida South Tampa Hospital and medical offices, which are severely impacted by flooding conditions that temporarily eliminate access to these services, jeopardizing the lives of patients.

The City completed several studies in and around the Parkland Estates and Palma Ceia Pines area that identified flooding concerns dating back to the late 1960s. Since then, flooding complaints from businesses and residents, including structure flooding and road closures, have been documented by the City. **Figure 1-2** through **Figure 1-4** show over 250 flood complaints and flooding photos associated with rainfall events dating back to 2015 within the SHFR Model Update Area.

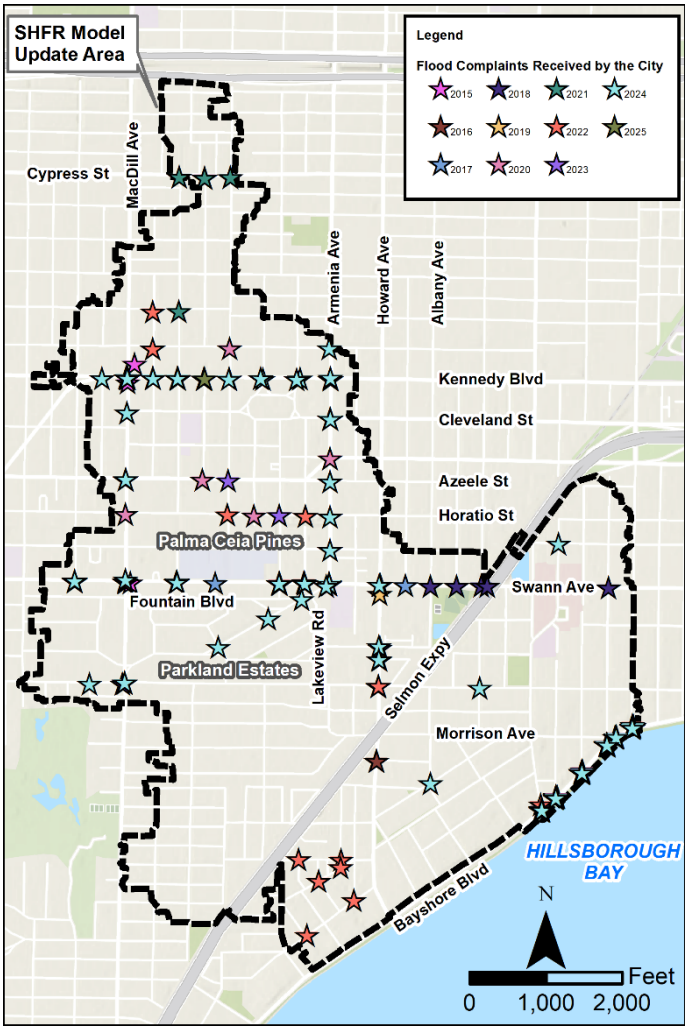


Figure 1-2 – Flood Complaints Received by the City



Figure 1-3 – Flooding along Swann Ave near S Audubon Ave on July 12, 2024



Figure 1-4 – Flooding along Parkland Blvd on August 1, 2015

1.3 Project Scope

The Kimmins | AtkinsRéalis design-build team was tasked to design and construct a project to meet the City's primary objective of alleviating flooding within Parkland Estates and Palma Ceia Pines. The flood reduction goal for this project is to provide safe passage along the roadways by allowing no more than 4 inches of flood depth over the lowest edge of pavement for the 5-year/8-hour storm event. This is defined as the flood protection level of service (FPLOS). The project consists of a large gravity conveyance system that travels from the area of the HCA Florida South Tampa Hospital out to Hillsborough Bay via Howard Ave to take advantage of the existing infrastructure under the CSX railroad and the Selmon Expressway (5' x10' box culvert) along with additional infrastructure at the entry point into Hillsborough Bay (triple 4' x 6' box culverts).

With the expected size of the conveyance required, the City understands that the utilities will need to be relocated and the roadway will be reconstructed along the project route. Additional improvements will be incorporated into the design to make this a safer environment for all modes of travel, where possible, and incorporate design of sustainable/green infrastructure to provide water quality benefits.

Through this project the Kimmins | AtkinsRéalis design-build team will be working collaboratively with the City to develop a project that is cost-effective, hydraulically efficient, minimizes disruption to stakeholders, and is environmentally friendly while meeting the goal of the project to reduce the flooding within Parkland Estates and Palma Ceia Pines. The design of this project is broken into two separate phases, Preliminary Engineering and Final Design.

The scope for the Preliminary Engineering Phase includes:

- Conversion of the XPSWMM hydrologic and hydraulic (H&H) model to ICPRv4 software, and a detailed update to the model that reflects current conditions and the interaction of stormwater flows between drainage basins.
- Route Study – this includes updating the existing model and developing a detailed H&H model to size the new primary trunkline to meet the overall flood reduction goals for the entire SHFR Flood Reduction Focus Area and to analyze and compare alternative routes and solutions to the flooding issues.
- Data Collection – this includes survey, subsurface utility exploration (SUE), geotechnical exploration, Right-of-Way verification, tree survey and ecological field survey.
- Preliminary Engineering Report to document all the findings and conclusions of the analysis and route/alternatives study.
- Streetscape alternatives for S Howard Avenue
- Preliminary cost estimates

The scope for the Final Engineering Phase includes:

- Design of the final selected project route and box culvert size
- Design of the utility relocations required to construct the project
- Streetscape and landscape design along the selected route
- Design of practical green infrastructure solutions to provide additional stormwater treatment
- A complete set of construction plans
- Permitting
- A Guaranteed Maximum Price (GMP)

As discussed previously in **the Executive Summary** of this report, this project will be broken into separate phases of work. The Final Engineering Phase of this scope of work is **only for Phase 1**. The Phase 1 project limits are shown in **Figure 1-5.**



Figure 1-5 – Phase I Project Map

2. Data Collection & Review

This section highlights the data collection and review efforts performed as part of the effort to complete the H&H modeling and development of this report. The design-build team has collected and reviewed available data including previous watershed and project feasibility studies, readily available geographic information systems (GIS) data, information pertaining to existing stormwater infrastructure (i.e., as-builts/record drawings), utility records and inventory, permitting documents, and available survey within the project's model update area. New data collected as part of this study includes traffic count data for S Howard Ave and W Swann Ave, tree survey and inventory along the three primary alternative routes, and survey of finished floor elevations (FFE) for over 200 structures within Parkland Estates and Palma Ceia Pines. A FFE is the elevation of the top of the lowest finished floor in a building. The team also performed several field investigations to gain a better understanding of the study area's existing drainage patterns, stormwater infrastructure, and potential design constraints like existing utilities and infrastructure associated with the CSX railroad and Selmon Expressway.

All analyses associated with this project use the following horizontal coordinate system and vertical datum, consistent with the County's 2017 DEM:

- Horizontal Coordinate System: *NAD83 (2011) / Florida West (ft-US)*
- Vertical Datum: *North American Vertical Datum of 1988 (NAVD88)*

All elevations obtained from documents based on the National Geodetic Vertical Datum of 1929 (NGVD29) were converted to the NAVD88 datum using a conversion factor of **(-)0.86 feet**, derived specifically for the project area using NOAA's online version of the National Geodetic Survey (NGS) Coordinate Conversion and Transformation Tool (NCAT) software.

2.1 Prior Engineering Studies

The drainage basins that make up the SHFR Flood Reduction Focus Area have been studied for decades, and conceptual solutions to flooding issues have been developed as part of these studies, which are discussed in this section. However, what the previous studies lack is a complete understanding of the interaction of stormwater between drainage basins, which creates a larger and more complicated flooding issue than previously thought. The SHFR project's preliminary engineering study documented in this report has identified this complex problem and has developed a comprehensive solution.

2.1.1 Cleveland Street Basin Drainage Study (PBS&J, September 1983)

As part of this study, engineering firm Post, Buckley, Schuh & Jernigan (PBS&J) analyzed the hydrologic and hydraulic conditions at the time within the Cleveland Street drainage basin and developed twelve alternative solutions to alleviate flooding within the basin. One important note from the report is that the Cleveland Street outfall was originally designed by the Florida Department of Transportation in 1956 through a joint agreement with the City of Tampa. The Cleveland Street basin includes the AMI detention pond and the Horatio Street system within Palma Ceia Pines, as discussed in the subsequent sections of this report. The PBS&J study identified significant flooding prior to 1983 and flooding complaints as early as 1969. It identified the low-lying roadways of Palma Ceia Pines between Cleveland St, Horatio St, MacDill Ave, and Armenia Ave as a "flood prone area".

The study provided the following conclusions that explain why the Cleveland Street system was severely undersized, even in the 1980s:

- *"Runoff coefficients used for design in the basin, which was relatively sparsely developed in 1956, ranged from 0.21 to 0.30 and averaged about 0.25. As a result of the development which has occurred in the area since that time, the average runoff coefficient for the basin has increased to approximately double that figure. In June, 1980 the Tampa Department of Public Works estimated the actual runoff coefficient to be 0.51.* ***This factor alone would double the quantity of stormwater runoff flowing to the Cleveland Street system."***
- *"The design storm used to design the system in 1956 was three-year frequency event. Current Tampa criteria is to design drainage facilities adequate to accommodate a five-year event."*
- *"The storm intensities reflected in rainfall curves have increased since the date of the original design. This increase is attributable to a combination of a greater amount of statistical data on which to base the curves, the development since that time of curves based on specific data for the Tampa region and, perhaps, some climatic change in the period since 1956."*

PBS&J recommended a preferred alternative based on feasibility, performance, and environmental impacts. The design storm event selected for the alternatives analysis was the 5-year/1.5-hour storm, which accumulates a total of 3.3 inches of rainfall in 90 minutes. The recommended alternative included construction of stormwater detention facilities and associated minor pipe improvements, an epoxy liner in the existing box culvert between S Himes Ave and the system's outfall to Old Tampa Bay, and construction of an additional outfall for the Westshore area. The recommended alternative had an estimated cost of $10.3M at the time of the study in 1983. The City was unable to implement this preferred solution due to economic constraints.

2.1.2 Cleveland Street Basin Drainage Study (PBS&J, 1988)

In 1988, the City's Stormwater Management Division initiated a series of comprehensive stormwater management studies throughout the City, which included a re-evaluation of the Cleveland Street Basin that expanded and updated the original 1983 study. The objectives of this study were to inventory the existing Cleveland Street Basin drainage facilities, analyze the performance and adequacy of the system through H&H modeling, identify the causes of recurrent flooding during relatively minor rainfall events, and recommend, after evaluation of a variety of possible alternatives, a preferred course of remedial action based on economic, environmental, feasibility and performance considerations.

Alternatives for conveyance improvements (gravity and pumps) and storage facilities were evaluated. It is important to note that this study focused solely on the Cleveland Street Basin, of which Palma Ceia Pines is only a small portion, and Parkland Estates lies outside of it. Therefore, the alternatives identified and analyzed were only within this basin area. The preferred solution is presented on the following page on **Figure 2-1** and **Figure 2-2.**

What the 1988 study lacks, however, is the interaction of runoff between the Cleveland Street basin with adjacent basins through overland flow. Isolating basins that exchange runoff underrepresents the amount of runoff contributing to a proposed system, which can lead to undersized outfalls. To develop a successful solution to a flooding problem, it is imperative that all runoff contributing to the problem is accounted for, like the SHFR analysis discussed in this report has done.

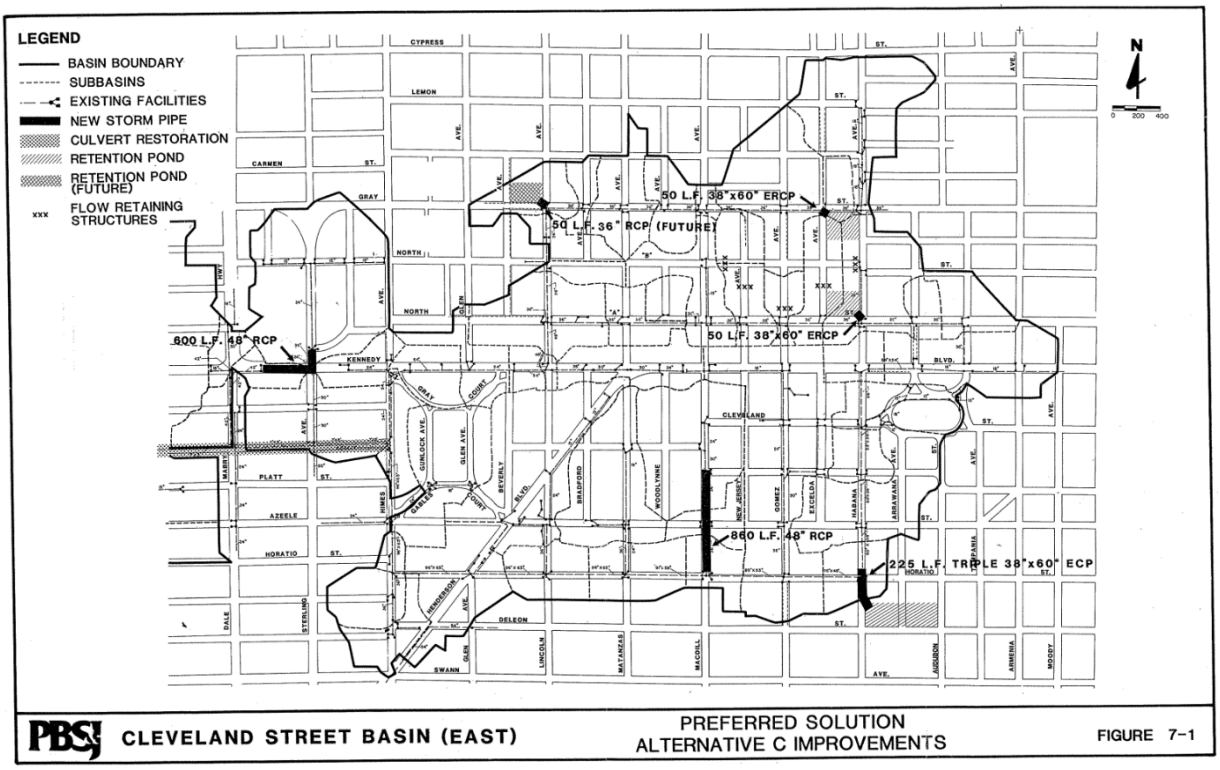


Figure 2-1 – Cleveland Street Drainage Basin Study (1988) Preferred Solution (East)

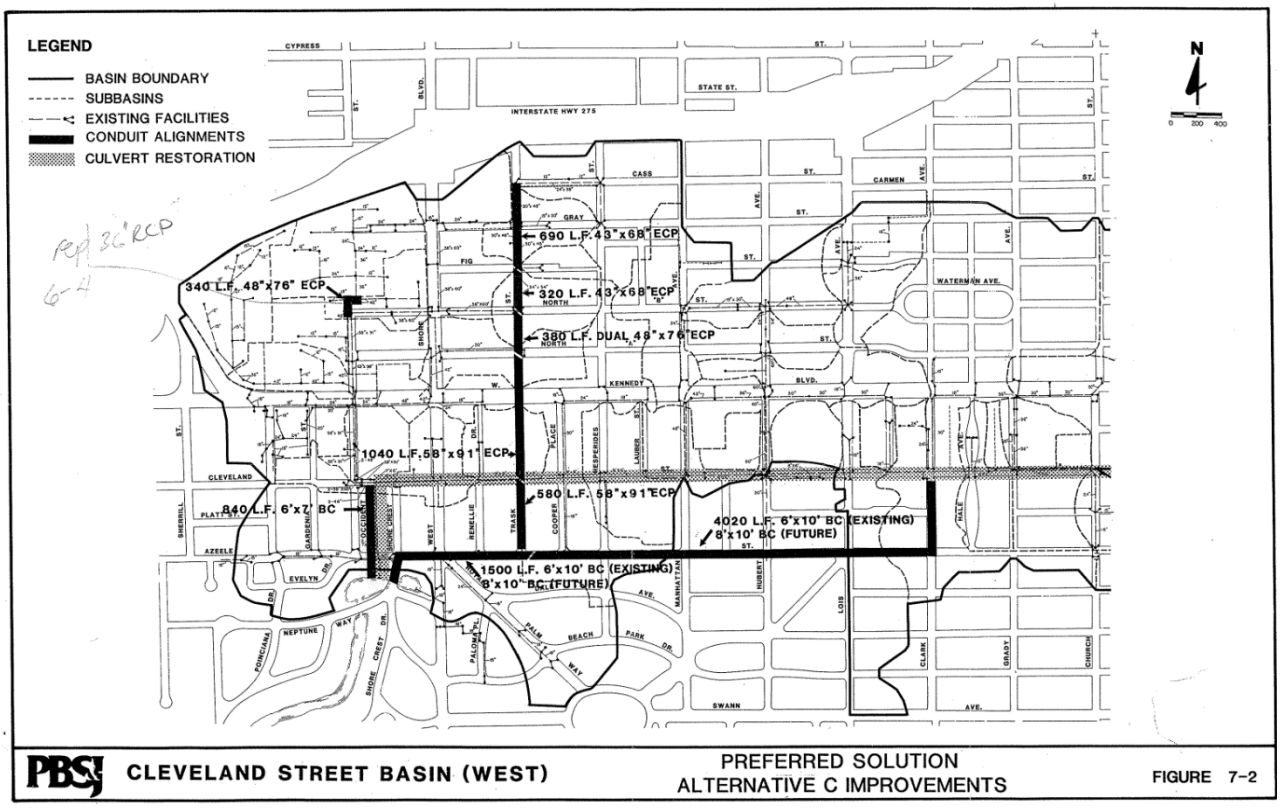


Figure 2-2 – Cleveland Street Drainage Basin Study (1988) Preferred Solution (West)

2.1.3 Cleveland Street Basin Masterplan Update (PBS&J, 2009)

This study was an effort to update the Cleveland Street Basin's masterplan developed in the 1980s, which included an update to the City's existing XPSWMM model, evaluation of existing flooding conditions and FPLOS deficiencies, and recommended improvements to improve those deficiencies. This study identified recurring flooding around the W Horatio St and S Habana Ave intersection, including structure flooding during the 5-year design storm, and made the following observations:

- *"During large storm events, water flows along the road from west to east and accumulates near the intersection of Habana Avenue and Horatio Street at which point it spills into the homes and yards of adjacent properties."*
- *"Level-of-service violations during the 5-year/24-hour event are predicted along both Habana Avenue and Horatio Street…The worst flooding conditions occur at the intersection of Habana Avenue and Horatio Street where flooding depths are predicted to reach up to 2.0 feet…It is also predicted that an estimated 35 homes will experience structural flooding throughout this area."*
- *"During the 100-year storm event…A road flooding depth of 3.2-feet is predicted at the intersection of Horatio Street and Habana Avenue… structural flooding is expected throughout the Horatio Street/Habana Avenue road corridor, with 93 homes estimated to flood during this large storm event"*

One of the recommended improvements, in conjunction with upgrades to the Cleveland Street system west of Palma Ceia Pines, was a new 54-inch diameter stormwater trunkline between the S Habana Ave & W Azeele St intersection and a new outfall to Hillsborough Bay at S Willow Ave & Bayshore Blvd. A map of this alternative is shown in **Figure 2-3.** The intent of the trunkline was to reduce flooding for the 5-year design storm, like the goal of the SHFR project. Similar to the 1988 study, the 2009 study lacks the interaction of runoff between the Cleveland Street basin with adjacent basins through overland flow. Isolating basins that exchange runoff underrepresents the amount of runoff contributing to a proposed system, which can lead to undersized outfalls. To develop a successful solution to a flooding problem, it is imperative that all runoff contributing to the problem is accounted for, like the SHFR analysis discussed in this report has done.



Figure 2-3 – PBS&J Cleveland Street Basin Masterplan Update (2009) Recommended Alternative

2.1.4 2017 Parkland Estates Drainage Improvements Preliminary Engineering Report (JMT, September 2017)

This study updated the City's Upper Peninsula H&H model using project-specific field survey data and evaluated eight alternatives to achieve a goal of no roadway flooding during the 5-year/24-hour design storm at W Swann Ave & S Audubon and on W Fountain Blvd near S Audubon Ave. The alternatives included:

- A stormwater detention facility in Parkland Estates
- Three gravity systems, each analyzed with and without detention (six total)
- A stormwater pump station option

Each alternative was assessed for benefits, cost, environmental impact, safety, constructability, property needs, long-range planning, and public input. A gravity system was selected as the preferred option.

The recommended solution involved a new stormwater pipe along W Swann Ave between S Habana Ave and S Audubon Ave, which has since been constructed. However, construction of a new outfall to Hillsborough Bay was never completed because of significant obstacles like the CSX railroad, the Selmon Expressway, and an existing 48" sanitary sewer force main—each of which has significant cost and schedule challenges. Without increased conveyance to the bay, any improvements made within Parkland Estates or on W Swann Ave provide very limited flood reduction.

2.1.5 Parkland Estates Feasibility Study (Dewberry, December 2018)

This study further refined the existing conditions H&H model to include the recently constructed stormwater pipe along W Swann Ave between S Habana Ave and S Audubon Ave as well as additional inlets within Parkland Estates. The three gravity solutions developed in JMT's 2017 study were reevaluated, and a fourth gravity alternative was evaluated. While the recommended gravity system from JMT's 2017 study remained the preferred solution, significant impacts to residents along the preferred route led to continued exploration of alternatives.

2.1.6 Internal Analyses (City of Tampa, January 2019 to August 2020)

The City evaluated multiple options to reduce flooding in Parkland Estates. Upstream modifications, including modification of the ZOM Pond weir and redirecting runoff to the Cleveland Street basin were dismissed due to minimal benefits and risk of adverse flooding impacts to others. Baslee Engineering Services prepared conceptual plans for a new gravity system, but identified the same challenges mentioned in the prior JMT and Dewberry studies along with constructability concerns due to narrow right-of-way along the proposed corridor.

Other options, such as increasing conveyance along the existing pipe system downstream of Parkland Estates, and weir adjustments near the Rubideaux St outfall, were dismissed due to limited flood reduction and adverse downstream flood impacts. Evaluated pump station alternatives were also dismissed due to potential adverse flooding impacts.

2.1.7 City Alternatives Revisited (JMT, August 2020)

In 2020, JMT was re-engaged to explore additional options, starting with the City's alternative to upsize the existing trunkline between the Selmon Expressway and the intersection of W Morrison Ave & S Marti St. Variations included flap gates to prevent backflow along W Parkland Boulevard, alternate termination points, and other system modifications along the route. Despite these efforts, model results led to conclusions similar to those of previous studies: minimal relief for Parkland Estates, high costs, ROW limitations, and constructability concerns. Attempts to address localized flooding adjacent to the route further increased costs while reducing the flood reduction benefits in Parkland Estates.

2.1.8 Stormwater Pumping Station and Force Main (JMT, March 2021)

JMT evaluated an alternative that included a new stormwater pump station within the green space between W Fountain Blvd and Parkland Blvd and a new force main outfall to Hillsborough Bay. Despite the higher operation and maintenance costs, the opportunity to use smaller conduits and a variety of construction methods were thought to make implementation more feasible, given the obstacles between Parkland Estates and Hillsborough Bay. Two pump station alternatives were developed to achieve the 5-year design storm FPLOS goal for Parkland Blvd and W Fountain Blvd:

- 10,000 sq. ft. wet well, two 70 cfs pumps, 42-inch force main
- 5,000 sq. ft. wet well, two 90 cfs pumps, 42-inch force main

Noise, visual impacts, and neighborhood disruption were key concerns. Additionally, these alternatives would provide benefits limited to the Parkland Estates neighborhood, limiting opportunities for cooperative funding initiatives.

During the planning phase, the City discovered archived as-builts that revealed existing box culverts beneath S Howard Ave at its crossing with the railroad and Selmon Expressway and at its intersection with Bayshore Blvd, eliminating the largest hurdles for a gravity solution. As a result, JMT was tasked with developing a preferred gravity alternative that incorporates these existing culverts.

2.1.9 Upper Peninsula Stormwater Improvements – East Region Preliminary Engineering Report (Feasibility study by JMT, April 2022)

In 2022, JMT published a feasibility study titled Upper Peninsula Stormwater Improvements – East Region, whose recommendations guided the initial direction of the South Howard Flood Relief project. Prior to this study, discovery of as-built plans for the existing box culverts beneath the CSX railroad, Selmon Expressway, and Bayshore Blvd finally led the way for planning of a feasible, constructable solution to alleviate the chronic flooding within Parkland Estates. This report also documented the previous studies mentioned in **Sections 2.1.4 through 2.1.8** above, along with their studied alternatives, which were deemed to be ineffective or infeasible.

Inadequate conveyance capacity within existing stormwater pipes was identified as the primary cause of flooding. The alternative solutions evaluated ways to increase conveyance of stormwater runoff between Parkland Estates and Hillsborough Bay. Calibration of the study's existing conditions model used a short duration, high intensity event observed on April 20, 2020. The model simulation of this event resulted in lower peak flood stages and shorter duration of flooding than what was observed during the event. The report noted that inlet capacity, which was not accounted for in the model, was likely restricting inflows to the system, which could explain the low peak stages and duration of flooding in the initial simulation. The model was adjusted to represent hydraulic restrictions due to limited inlet capacity.

In retrospect, the limited scope and budget of that feasibility study did not allow the team to capture the magnitude of stormwater runoff reaching Parkland Estates and Palma Ceia Pines from adjacent areas, including north of Kennedy and as far north as I-275 and the Lemon Street Canal basin. This is evident by the comparison of peak model stages between studies, and by the calibration and verification of the SHFR project's model, as discussed in **Sections 4.6 and 4.7** of this report.

JMT's recommended alternative, which established the first feasible and effective solution for Parkland Estates, included a 5'x10' box culvert between Parkland Estates and the railroad, and then a 4'x15' box culvert along S Howard Ave to the existing triple 4'x6' box culverts under Bayshore Blvd (see **Figure 2-4** below). Model results show that this alternative significantly reduces peak stages and duration of flooding within Parkland Estates and on W Swann Ave and nearly achieved the FPLOS goal of no water on the roadway for the 5-year/8-hour design storm. Conceptual plans were developed and an engineer's cost estimate totaled just over $45 million. It is important to remember that inflation and other factors have significantly increased construction costs for similar projects since this report was published in 2022.

The same recommended alternative would likely cost far more to implement than the estimated cost given in this study. The JMT report can be found in **Appendix A** of this report as part of the project's Design Criteria Package.



Figure 2-4 – JMT Feasibility Study (2022) Recommended Alternative

2.2 Documentation of Observed Flooding

The significant flooding that occurs in Parkland Estates and Palma Ceia Pines has been well documented. The City has provided photos showing the extent of flooding that has occurred during heavy rainfall events. Rainfall data was collected to provide context for the observed flooding, and for purposes of calibrating and verifying the project's detailed H&H model that is reflective of existing conditions, which is referred to as the Revised Existing Conditions Model (RECM). This data is sourced from nearby rain gauges and from SWFWMD's NEXRAD (Next-Generation Radar) dataset NEXRAD is a network of Doppler weather radars jointly operated by the National Weather Service (NWS), Federal Aviation Administration (FAA), and United States Air Force. It provides high-resolution data for several weather variables including precipitation and is widely used for hydrologic modeling.

2.2.1 August 1, 2015

On August 1, 2015, tropical atmospheric moisture over the eastern Gulf of Mexico was responsible for a storm that produced over 5 inches of rainfall in a matter of hours, leading to severe flooding that rendered roadways impassable, and inundated vehicles, homes, and businesses. NEXRAD rainfall data reveals that this event was incredibly similar in total rainfall depth and duration to FDOT's 5-year/8-hour design storm, which is the City's standard design criteria, and was used to size the SHFR project's infrastructure. A comparison of rainfall distribution between the two is shown in **Figure 2-5** below.

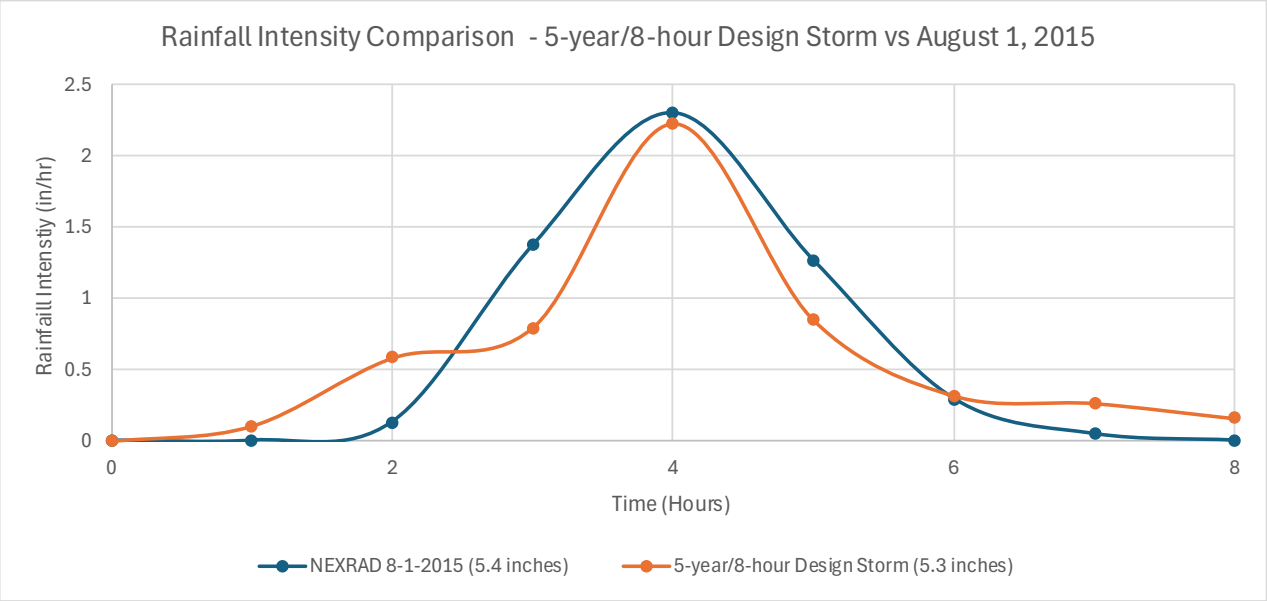


Figure 2-5 – Rainfall Intensity Comparison - 5-year/8-hour Design Storm vs August 1, 2015

Figure 2-6 shows an estimated flood depth of 3 to 4 feet over the lowest portions of W Fountain Blvd and W Parkland Blvd (top photos), flood stages (water surface elevations) approaching a home in Parkland Estates (bottom left), and an impassable roadway due to flooding on W Swann Ave near S Rome Ave (bottom right photo) during the rainfall event observed on August 1, 2015. The cumulative rainfall depth for this event was estimated in this area by NEXRAD data to be 5.4 inches over 5.5 hours. In addition to the damage to vehicles captured by the photos, structures were inundated in both Parkland Estates and Palma Ceia Pines according to residents who lived there at the time.



Figure 2-6 – Observed Flooding on August 1, 2015

The SHFR Revised Existing Conditions Model (RECM) predicts flooding during the 5-year/8-hour design storm event that aligns with the photos in **Figure 2-6**. The model predicts that peak flood depths reach 3 to 4 feet over these same roadways in Parkland Estates (top photos), and that flood depths over W Swann Ave just west of S Rome Ave (bottom right photo) range between 3 and 12 inches.

2.2.2 June 7, 2017

Figure 2-7 below shows flooding from a typical summer storm that produced about 1.4 inches of rainfall in one hour, according to NEXRAD data. The photo on the left shows W Fountain Blvd just east of S Audubon Ave (looking south) and the photo on the right shows W Swann Ave at S Audubon Ave (looking northwest from the south side of W Swann Ave).



Figure 2-7 – Observed Flooding on June 7, 2017

2.2.3 June 14, 2024

Figure 2-8 shows a flooded W Parkland Blvd after another summer storm event that produced about 1.8 inches of rainfall in 1 hour, according to NEXRAD data.



Figure 2-8 – Observed Flooding on June 14, 2024

2.2.4 June 29, 2024

Figure 2-9 shows vehicles struggling to navigate flooding on W Fountain Blvd at W Parkland Blvd (left) and at the intersection of W Swann Ave and S Audubon Ave (right) on June 29, 2024, from another summer afternoon storm that produced 2.4 inches of rainfall within 2 hours, according to nearby rain gauge data.



Figure 2-9 – Observed Flooding on June 29, 2024

2.2.5 July 12, 2024

Figure 2-10 shows flooding photos from a summer storm event that accumulated 2.0 inches of water over 3 hours, according to the City of Tampa's provided rain gauge data. The photo on the left was taken on W Swann Ave at the HCA Florida South Tampa Hospital main entrance and the photo on the right was taken further to the east at the intersection with S Audubon Ave.



Figure 2-10 – Observed Flooding on July 12, 2024

2.2.6 Hurricane Milton (October 9, 2024)

Hurricane Milton devastated Parkland Estates and Palma Ceia Pines in 2024, producing between 13.5 and 14.5 inches of rainfall (depending on the location) over the SHFR Flood Reduction Focus Area in less than 24 hours, according to NEXRAD data. The design-build team surveyed finished floor elevations of over 200 buildings (containing over 400 total first floor homes and businesses) within the SHFR Flood Reduction Focus Area. Comparing this data to the calibrated RECM's model results for a Hurricane Milton simulation, the team predicts that over 300 homes and businesses in Parkland Estates and Palma Ceia Pines sustained interior flood damage during the storm.

Photos of actual flooding are limited because the peak stages occurred overnight, and because residents that did not evacuate were likely inside to shelter from hurricane-force winds. However, peak flood stages are well documented with photos of stain lines and high-water marks left behind throughout the area. **Figure 2-11** and **Figure 2-12** below show damage sustained and evidence of peak stages seen during Hurricane Milton, respectively.



Figure 2-11 – Observed damage due to water intrusion on October 15, 2024

Figure 2-11 shows water-damaged property removed from homes on W Horatio St between S Gomez Ave and S Habana Ave (left) and on W Parkland Blvd just south of W Fountain Blvd (right) days after Hurricane Milton inundated the area.

Figure 2-12 below shows stain lines left behind the following day, after flood stages receded.



Figure 2-12 – High-water marks left by Hurricane Milton documented on October 15, 2024

2.3 Record Drawings & Prior Survey

The as-builts/record drawings and survey listed in **Table 2-1** were provided by the City and are geographically relevant to the SHFR Model Update Area and recommended project route. These documents can be found in **Appendix Q.**

Table 2-1 – Relevant As-builts/Record Drawings

Document	Year
Map of Drainage Facilities, in Place, for Interbay Area, City of Tampa, Florida	1954
As-built – Relief Storm Sewer – Swann Ave. and Parkland Boulevard	1954
As-built – City of Tampa Sewer Improvements	1956
Record Drawing – City of Tampa Water Department Improvements (S Audubon Ave)	1957
As-built – Drainage for City Park at Fountain & Parkland Blvds	1966
As-built – THEA South Crosstown Expressway (from Gandy Blvd to Euclid Ave)	1975
As-built – THEA South Crosstown Expressway – Howard Ave & Watrous Ave (includes existing 5'x10' box culvert beneath CSX railroad)	1976
As-built – Interbay Force Main (City of Tampa Sewage Disposal System)	1982
Record Drawing – City of Tampa Water Department – Cleaning & Lining (Bayshore Blvd, Howard Ave)	1982
As-built – City of Tampa Sewer Improvements (Howard-Swann Area)	1983
As-built – Swann Avenue – Armenia Ave to Packwood Ave – Utility Adjustment Plans (potable water)	1988
As-built – Bayshore Blvd. Storm Sewer Replacement at Howard & Albany Aves.	1989
As-built – Roadway and Drainage Improvements – Swann Avenue – Armenia Ave to Packwood Ave (used for Swann Avenue Pipe Rehabilitation - SW2010-03 plans)	1992
As-built – Swann Avenue – Armenia Ave to Packwood Ave – Sanitary Sewer Construction Plans	1992
As-built – Bayshore Interceptor Rehabilitation Project (City of Tampa Dept. of Sanitary Sewers)	1993
As-built – Lakeview Road Drainage – Parkland Blvd to Bristol Ave	1993
As-built – Renewal & Replacement, Sewage Disposal System – Howard Ave: Hills Ave to Palm Dr	1997
City of Tampa Water Department – Galvanized Main Replacement – Jetton Ave	1997
Record Drawing – 6" Water Main Extension – Bristol Avenue from Armenia Ave to Howard Ave	1997
Record Drawing – 6" Water Main Extension – Stroud Avenue from Moody Ave to Howard Ave	1997
As-built – Howard Ave & Bayshore Blvd Intersection Improvements (PW95-73)	1998
As-built – Palma Ceia Drainage Improvements (Parkland Blvd)	2001
As-built – Swann Avenue, Parkland Blvd and Armenia Ave Intersection Improvements	2002
As-built – South Tampa Area Reclaimed Project Contract D4 – Hyde Park/Palma Ceia	2004
As-built – Epicurean Utilities Plan	2013
Record Drawing – SOHO Square Apartments	2014

Document	Year
Topographic Survey – S Howard Ave., W Swann Ave. to W. Morrison Ave.	2015
Record Drawing – Howard Avenue Mixed Use – Sanitary Sewer and Water Distribution Plan	2016
As-built – Howard Avenue Flooding Relief (SW2017-01) (Marjory Ave Pump Station)	2017
As-built – Swann Avenue Drainage Improvements (SW2018-05)	2017
Topographic Survey – Howard and Bayshore	2019
As-built – Parkland Estates Flooding Relief (SW2021-01)	2020
Record Drawing – Reclaimed Water – Howard Avenue – from Bayshore Blvd to Palm Drive	unclear

2.4 Geographic Information System (GIS) Data

GIS data for the project area was collected from multiple sources including the City, the Florida Department of Transportation (FDOT), the Southwest Florida Water Management District's (SWFWMD) Open Data Portal, the National Oceanic and Atmospheric Administration's (NOAA) Open Data Access Viewer, the Florida Department of Environmental Protection's (FDEP) Land Boundary Information System (LABINS), the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), and Hillsborough County's Property Appraiser data site. A list of relevant data that was evaluated during the preliminary design phase is provided below within **Table 2-2.**

Table 2-2 – Collected GIS Data

Data	Source	Year
Digital Elevation Model (DEM)	Hillsborough County	2017
Lemon Street Canal (Cypress Memorial Area) Model GWIS Geodatabase	City of Tampa/AtkinsRéalis	2018
Upper Peninsula Model GWIS Geodatabase	City of Tampa/AtkinsRéalis	2018
Aerial Imagery	FDOT	2023
Land Use Coverage	SWFWMD	2023
Stormwater Infrastructure Inventory	City of Tampa	2023
Aerial Imagery (post-Hurricane Milton)	NOAA	2024
Building Footprints	Hillsborough County	2024
Tide Stage Data	NOAA	2024
Environmental Resource Permits (ERP)	SWFWMD	2025
Parcel Lines	Hillsborough County	2025
Potable Water Infrastructure Inventory	City of Tampa	2025
Reclaimed Water Infrastructure Inventory	City of Tampa	2025
Reported Street Flooding	City of Tampa	2025
Soils Coverage	USDA NRCS	2025
Wastewater Infrastructure Inventory	City of Tampa	2025

2.4.1 Digital Elevation Model

Hillsborough County's 2017 LiDAR-based digital elevation model (DEM), developed by Dewberry, Inc. for SWFWMD and Hillsborough County, is the most current regional elevation dataset available and was used to develop the project's RECM. This DEM is critical to the development of overland flow connections and stage/storage relationships within the model. It is also used to map predicted flood extents and to estimate low roadway elevations at a planning level to assist with FPLOS analysis.

Although the data is nearly 10 years old, it is the latest available DEM and is considered valid for the purposes of this study because this area has since experienced limited new development and change in ground surface elevations that would significantly affect overland stormwater flows.

The DEM represents topographic features using a raster graphic that is based on a gridded system of squares. Each square grid has a cell size of 2.5 square feet and represents a single elevation, which is reflective of the average of all LiDAR points collected within the respective cells. The elevation information is derived from LiDAR collected via aerial mapping between January and March of 2017**. Figure 2-13** below shows the DEM raster within the SHFR RECM extents.

More information about this dataset and its accuracy can be found at [2017 SWFWMD Lidar DEM: Hillsborough County, FL | InPort].

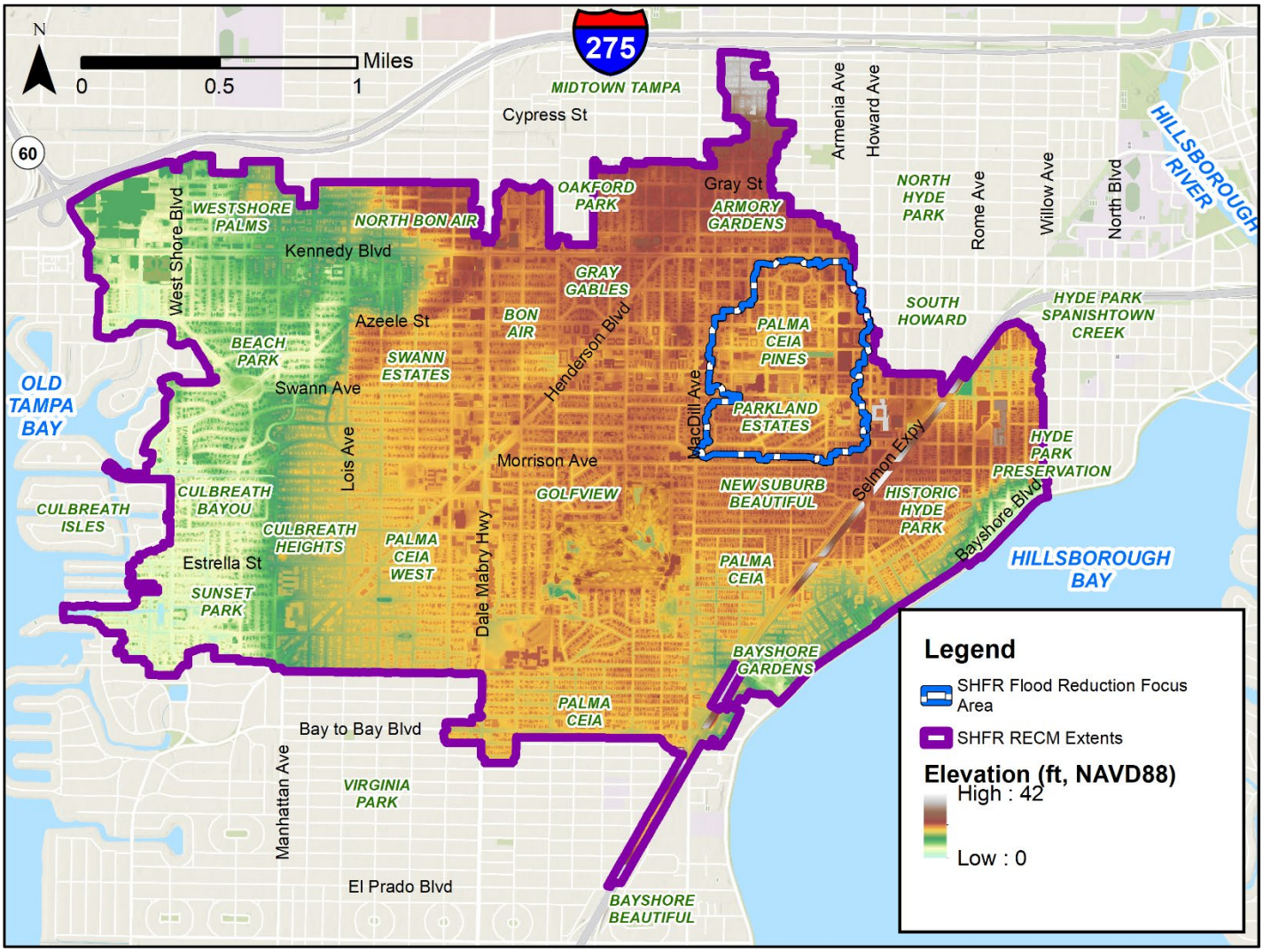


Figure 2-13 – SHFR Digital Elevation Model (Hillsborough County, 2017)

2.5 Environmental Resource Permit Documents

The design team collected and reviewed relevant permitting documents from SWFWMD including drainage reports, construction plans, and as-builts/record drawings for 106 Environmental Resource Permits (ERPs) (including permit exemptions). Relevant permits whose documentation was evaluated are shown below in **Figure 2-14.** This permit documentation is public information and can be found at www31.swfwmd.state.fl.us/maps/pages/viewer_erp.html. The data obtained from these permit documents aid in understanding any recent changes to the watershed and were included in the model analysis.

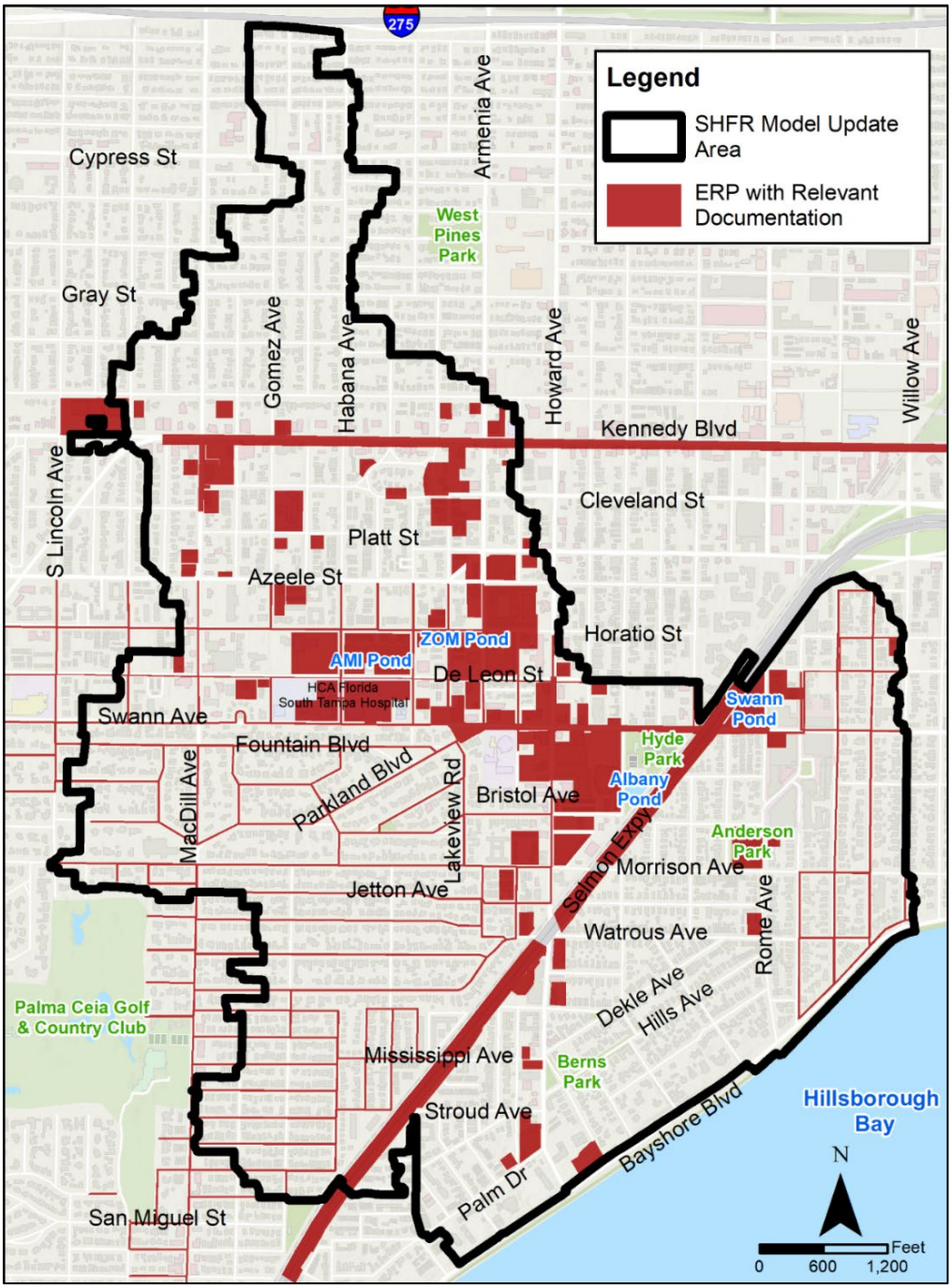


Figure 2-14 – Relevant ERPs for RECM Development

2.6 New Data Collection

2.6.1 Field Investigations

Several field investigations were conducted throughout the year 2025 as part of the preliminary design effort to investigate critical stormwater conveyance systems, stormwater infrastructure that had conflicting information among available data sources, and stormwater infrastructure that lacked credible available information. Pipes and culverts were located, and sizes were measured when accessible. Findings were used to verify or update model subbasins and hydraulic connections between model nodes. Photographs were taken at the locations depicted in **Figure 2-15**, some of which can be found with corresponding descriptions in **Appendix B.**

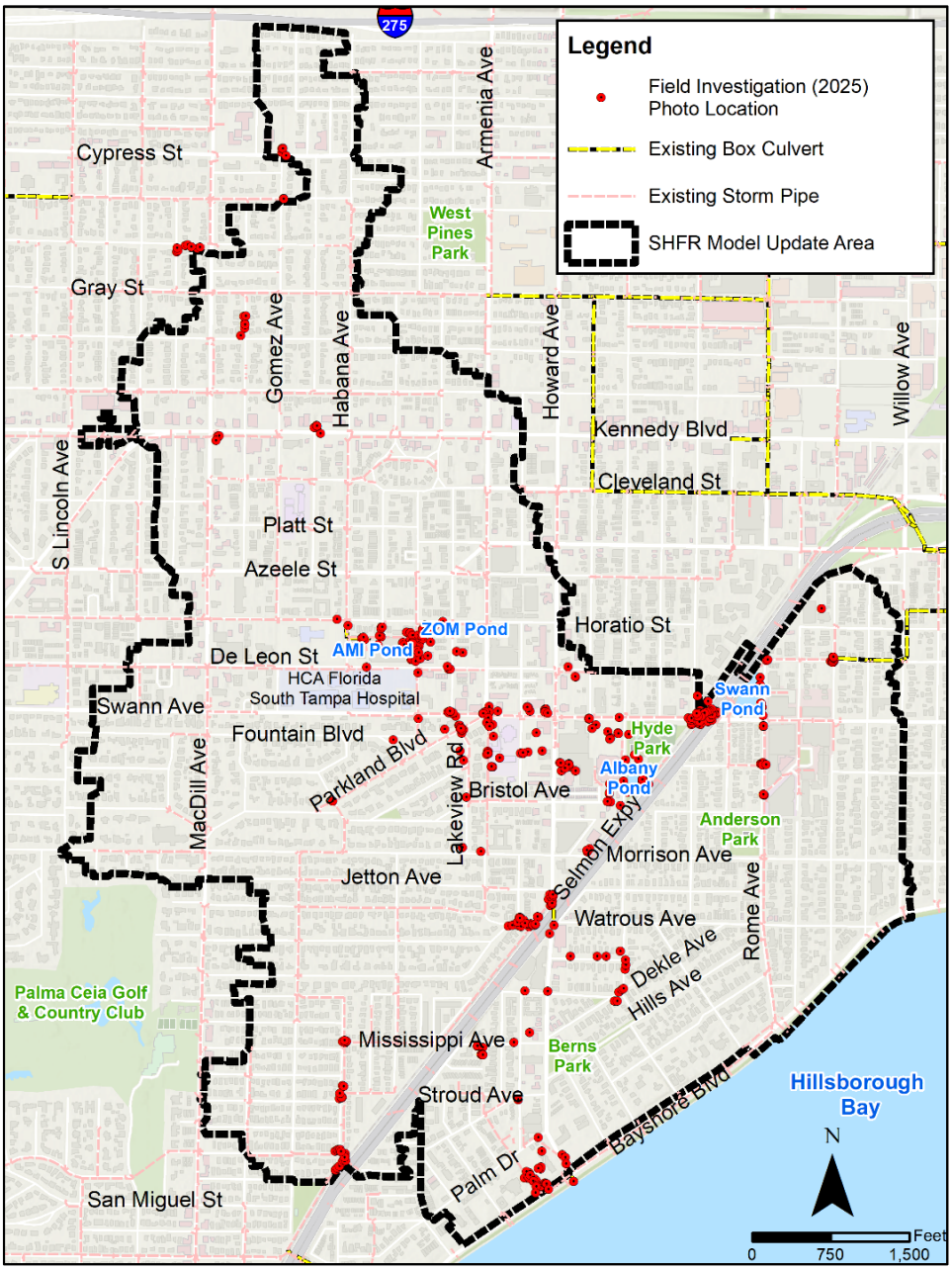


Figure 2-15 – Field Investigation Map

2.6.2 Geotechnical Exploration

A geotechnical investigation was performed in April of 2025 by AREHNA Engineering, Inc (AREHNA) to search for concrete remnants underneath the central green space in Parkland Estates located between W Fountain Blvd and W Parkland Blvd. This investigation was performed in response to community speculation that the concrete remnants may exist and negatively impact soil percolation within the area. Hand auger borings to depths between 6 and 7 feet below ground surface found no evidence of concrete debris below the surface.

A second geotechnical investigation was carried out by AREHNA on May 5th, 2025 to locate the existing 5'x10' box culvert beneath the CSX railroad and Selmon Expressway on S Howard Ave. Nine soundings were completed by jetting water to penetrate up to 14 feet below existing grade within S Howard Ave. The culvert was confirmed to exist to the north of the CSX railroad crossing and to the south of the Selmon Expressway overpass.

Findings from both investigations can be found in **Appendix N**.

2.6.3 Topographic and Right of Way Surveys

Topographic and right of way surveys along the recommended project route are ongoing at the time of this report, and once complete, will be used to progress the design to the 60 percent phase. The preliminary survey does provide surface elevations of specific features, which have been used to establish benchmarks for calibration and verification of the RECM. Once the survey is finalized, the RECM will be further refined to include the data where it is applicable and will be included as part of the ERP application submitted to SWFWMD.

2.6.4 Ground Penetrating Radar (GPR) Exploration

In December of 2025, ECHO UES, Inc. (ECHO) conducted a GPR investigation of the existing 5'x10' box culvert beneath the Selmon Expressway and CSX railroad. This level of exploration is limited, especially at the depth of the existing culvert, and will need to be supplemented by borings to confirm the exact limits of the box culvert walls. The GPR analysis was able to locate the approximate ends of the existing box culvert, which are shown below in **Figure 2-16** and **Figure 2-17.**



Figure 2-16 – GPR location of existing box culvert (south end, looking north)

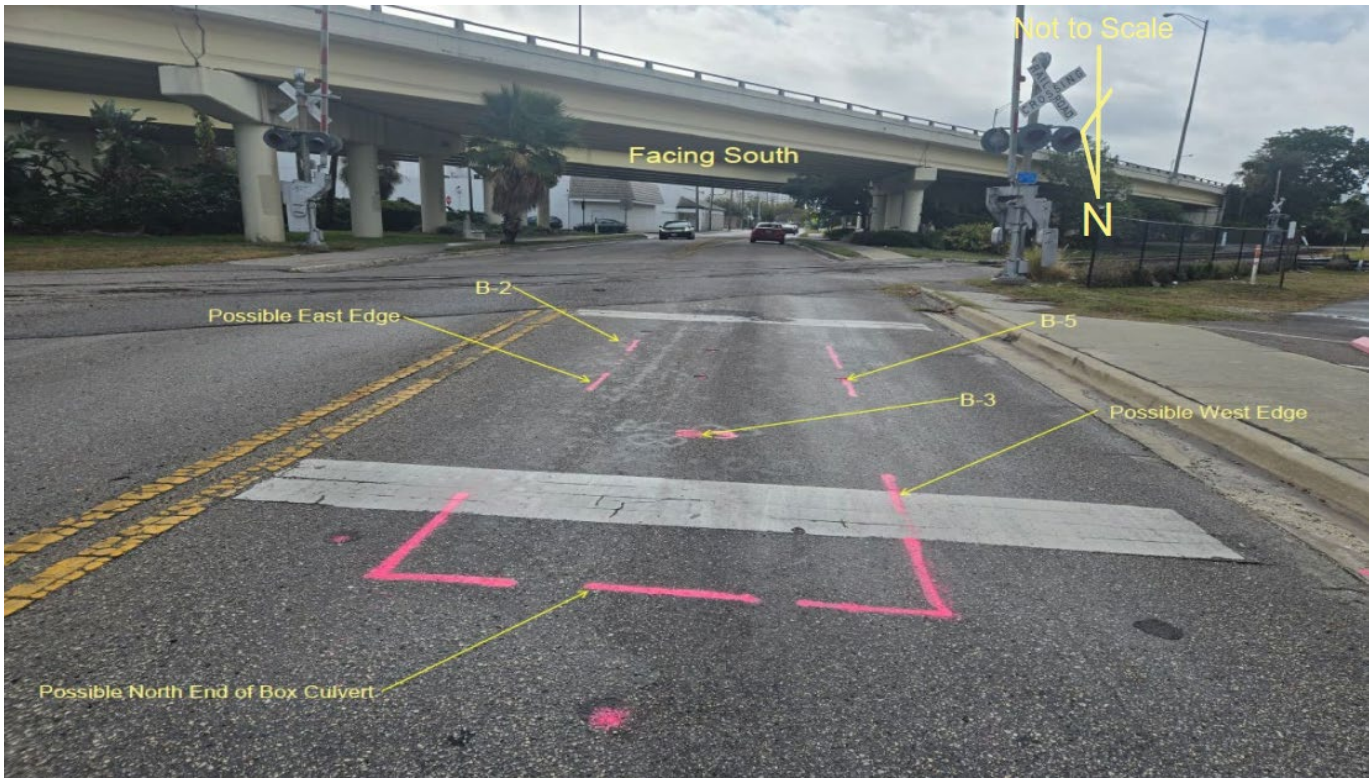


Figure 2-17 – GPR location of existing box culvert (north end, looking south)

2.6.5 Finished Floor Elevations (FFEs)

To predict structure flooding during various rainfall events and quantify the anticipated reduction of structure flooding because of the project, FFEs were surveyed for 206 individual buildings within Parkland Estates and Palma Ceia Pines. As mentioned previously, a FFE is the elevation of the top of the lowest finished floor in a building. The buildings were selected as candidates to be surveyed based on proximity to the RECM's predicted Hurricane Milton flood extents, which were mapped in ArcGIS using the model's peak stage and the 2017 DEM. Structures within the SHFR Flood Reduction Focus Area whose building footprint had significant contact with the Hurricane Milton simulation's flood extents were identified and included in the survey request. A map of the FFEs can be found in **Appendix D**.

2.6.6 Tree Survey and Assessment

AtkinsRéalis environmental scientists walked each primary alternative's route between March and May of 2025 to measure and assess the condition of all accessible trees within each corridor, under supervision of a certified arborist. Additional site visits were made in July and August of 2025 to survey additional trees within anticipated project limits. The tree inventory was developed using Survey123 software. Geospatial data was collected with a sub-meter Global Navigation Satellite System (GNSS), at times integrated with a Spike laser rangefinder for offset shots where the tree base occurs outside of the right of way, but the crown or roots extend into the right of way.

A total of 647 trees were mapped, identified, measured and photographed. A total of 46 species were identified, however each of the 17 grand trees identified were Live Oaks. Trees with a diameter at breast height (DBH) of 32" or larger and a condition rating of "fair" or better are considered grand trees, consistent with the City of Tampa's tree ordinance definition. A summary table of the tree inventory along with corresponding maps showing each tree's location can be found in **Appendix C.**

Table 2-3 below provides a list of unique tree species identified, total tree count by species, and count of Grand Tree specimens by species for all trees identified as part of this study.

Table 2-3 – SHFR Tree Inventory by Species

Tree Type	Count of Species	Count of Grand Tree
American elm	9	-
Birch	5	-
Bottlebrush	3	-
Camphor	6	-
Crepe Myrtle	51	-
Dahoon	2	-
Elm Chinese	11	-
Exotic	15	-
Kusamaki	2	-
Loblolly bay	16	-
Magnolia	12	-
Manila palm	4	-
Maple Red	2	-

Tree Type	Count of Species	Count of Grand Tree
Oak Laurel	32	-
Oak Live	263	17
Olive	2	-
Palm Cabbage	105	-
Palm Date	16	-
Palm Exotic	25	-
Palm Robellini	18	-
Palm Wash	3	-
Pignut hickory	2	-
Pine sp.	4	-
Pine Slash	4	-
Queen palm	4	-
Royal palm	2	-
Schefflera	2	-
Surinam cherry	3	-
Sweetgum	3	-
Triangle palm	3	-
Tuckeroo	2	-
Water oak	2	-
Unique species*	14	-
Grand Total	**647**	**17**

2.6.7 Traffic Data Collection

The design team collected traffic counts along W Swann Ave and S Howard Ave during April of 2025 to gain a better understanding of total daily traffic volumes. For portions of the analyzed routes outside of W Swann Ave and S Howard Ave, average annual daily traffic (AADT) values were obtained from FDOT's Florida Traffic Online website: Florida Traffic Online. If a route segment did not have FDOT data associated with it (most small, local roadways), an AADT of 1000 was assumed for analyses associated with this report. Traffic data collected as part of the SHFR project can be found in **Appendix E**.

3. Existing Site Conditions

The previous section highlighted the data collection and review that were completed as part of the H&H modeling effort and the development of this report. This section will build upon the data that was collected to document the drainage patterns, the hydrologic conditions, and the utilities within the SHFR Model Update Area, with emphasis on the areas in and surrounding Parkland Estates and Palma Ceia Pines neighborhoods.

3.1 Topography and Surface Drainage

The understanding of the topography, or ground surface elevations, within the project area is paramount to developing a H&H model that reflects the flow of the water during a rainfall event. For this project's H&H analysis, the topography of this area is represented by a DEM which was developed from LiDAR data as discussed in **Section 2.4.1** of this report. The DEM indicates how water flows over the ground surface due to gravity and changes in elevation. It also indicates how much storage volume exists within depressions in the ground surface. **Figure 3-1** shows the DEM's representation of ground surface elevations from Kennedy Blvd to Bayshore Blvd between MacDill Ave and Howard Ave, which includes most of Parkland Estates and Palma Ceia Pines**.**

Figure 3-1 represents the existing ground surface, which can be understood by interpreting the different colors represented in the figure. This is explained below from the highest elevations to the lowest elevations.

- **Highest elevations** shown are in **white/grey** (example is the raised portion of Selmon Expressway)
- **Second highest** elevations are shown by a **brown/red color**
- **Third highest** elevations are shown in **yellow/orange color**
- **Second lowest** elevations are shown in **green**
- The **lowest elevations** are shown in **blue** (example is Hillsborough Bay / Bayshore Blvd)

Using this explanation above, the large green, yellow, and orange areas that surround the HCA Florida South Tampa Hospital are low-lying areas. Also, this area is surrounded by brown/red color along W Kennedy Blvd to the north, S MacDill Ave to the west, W Morrison Ave to the south, and S Howard Ave to the east, therefore forming a bowl.

While this bowl is low-lying in comparison to adjacent terrain, it is important to remember that even the lowest ground elevations in Parkland Estates are still 15 feet above sea level, protecting this area from flooding due to storm surge.

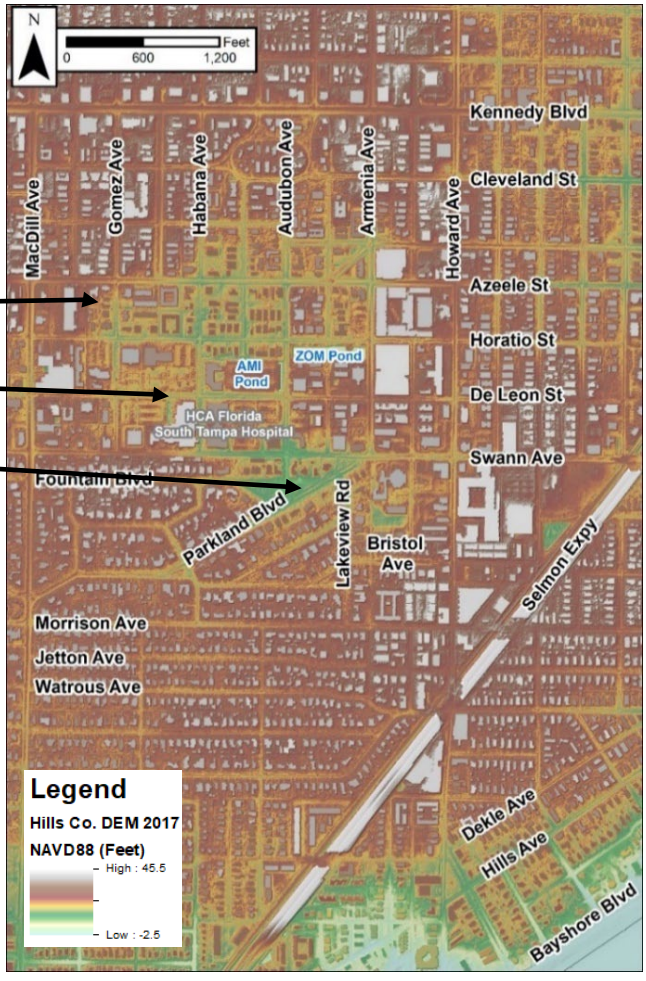


Figure 3-1 – Ground / Surface Topography

To further highlight the low-lying area in Parkland Estates and Palma Ceia Pines the following Figures show a plan view that is zoomed into the bowl area and the location of a cross section representing the elevations along the black dashed line on **Figure 3-2, Figure 3-4,** and **Figure 3-6** to help understand the elevation changes.

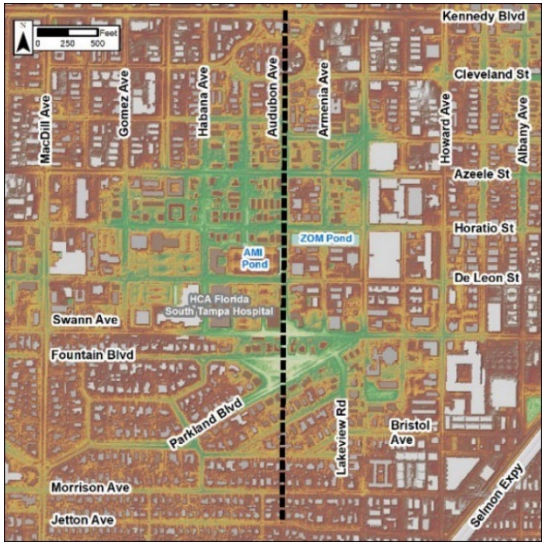


Figure 3-2 – Ground/Surface Topography

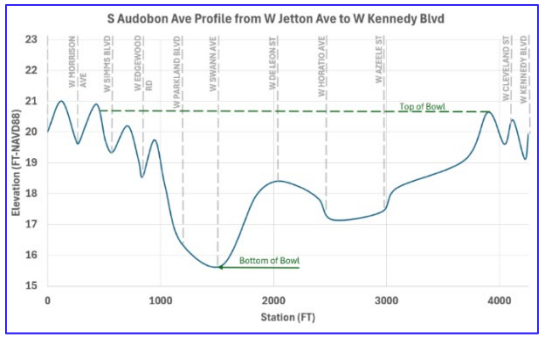


Figure 3-3 – Cross Section along Audubon Ave from Jetton Ave to Kennedy Blvd

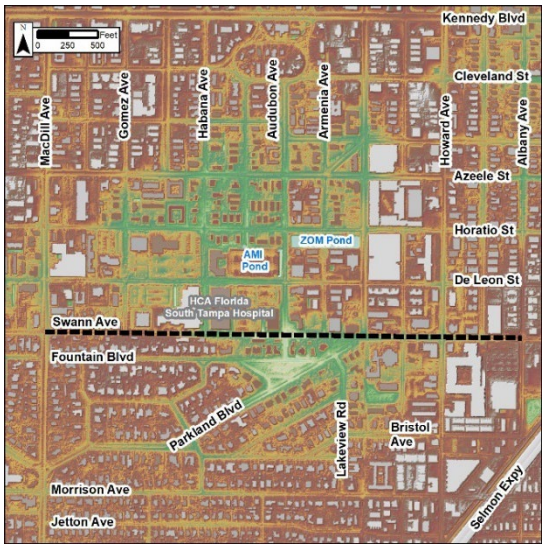


Figure 3-4 – Ground/Surface Topography

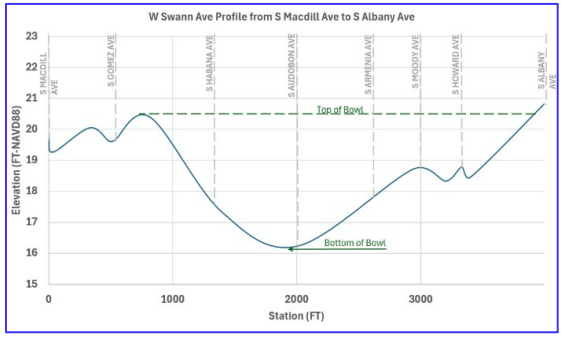


Figure 3-5 – Cross Section along Swann Ave from MacDill Ave to Albany Ave

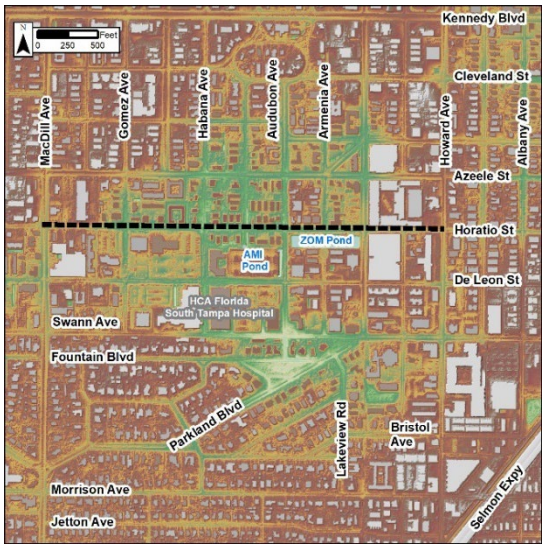


Figure 3-6 – Ground/Surface Topography

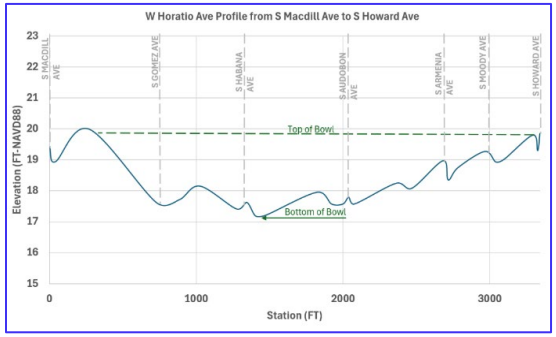


Figure 3-7 – Cross Section along Horatio St from MacDill Ave to Howard Ave

The figures above demonstrate that the area bounded by W Kennedy Blvd on the north, S MacDill Ave on the west, W Morrison Ave on the south, and S Howard Ave on the east forms a depression. As such, it must rely on the stormwater infrastructure (underground pipes) to drain stormwater produced by rainfall events**. Figure 3-3, Figure 3-5, and Figure 3-7 demonstrate that when pipes are overwhelmed**, **water must reach an elevation around 20 feet before overtopping the bowl. This results in flooding that is 3 to 5 feet deep within the lowest parts of Parkland Estates and Palma Ceia Pines.**

3.2 Existing Outfall Systems and Drainage Patterns

A full understanding of this area's existing drainage patterns requires not only an understanding of the topography described in the previous section, but also an understanding of the existing stormwater infrastructure, which primarily consists of underground conveyance systems (inlets and underground pipes). A combination of low-lying topography and severely undersized and antiquated stormwater infrastructure is responsible for the severe flooding that occurs in Parkland Estates and Palma Ceia Pines.

The three current outfall systems that drain the SHFR Flood Reduction Focus Area are the Cleveland Street Outfall system, the Upper Peninsula West Outfall system, and the Upper Peninsula East Outfall system. An overview of these systems is presented in **Figure 3-8,** along with their respective drainage areas. These three systems provide the only way for water to drain from the low-lying areas in the SHFR Flood Reduction Focus Area, until the bowl fills and overtops the high ground elevations that form its boundary, resulting in flooding depths of 3 to 5 feet as mentioned previously. All three of these systems were constructed prior to 1960 and are severely undersized, resulting in flooding during heavy rainfall events.

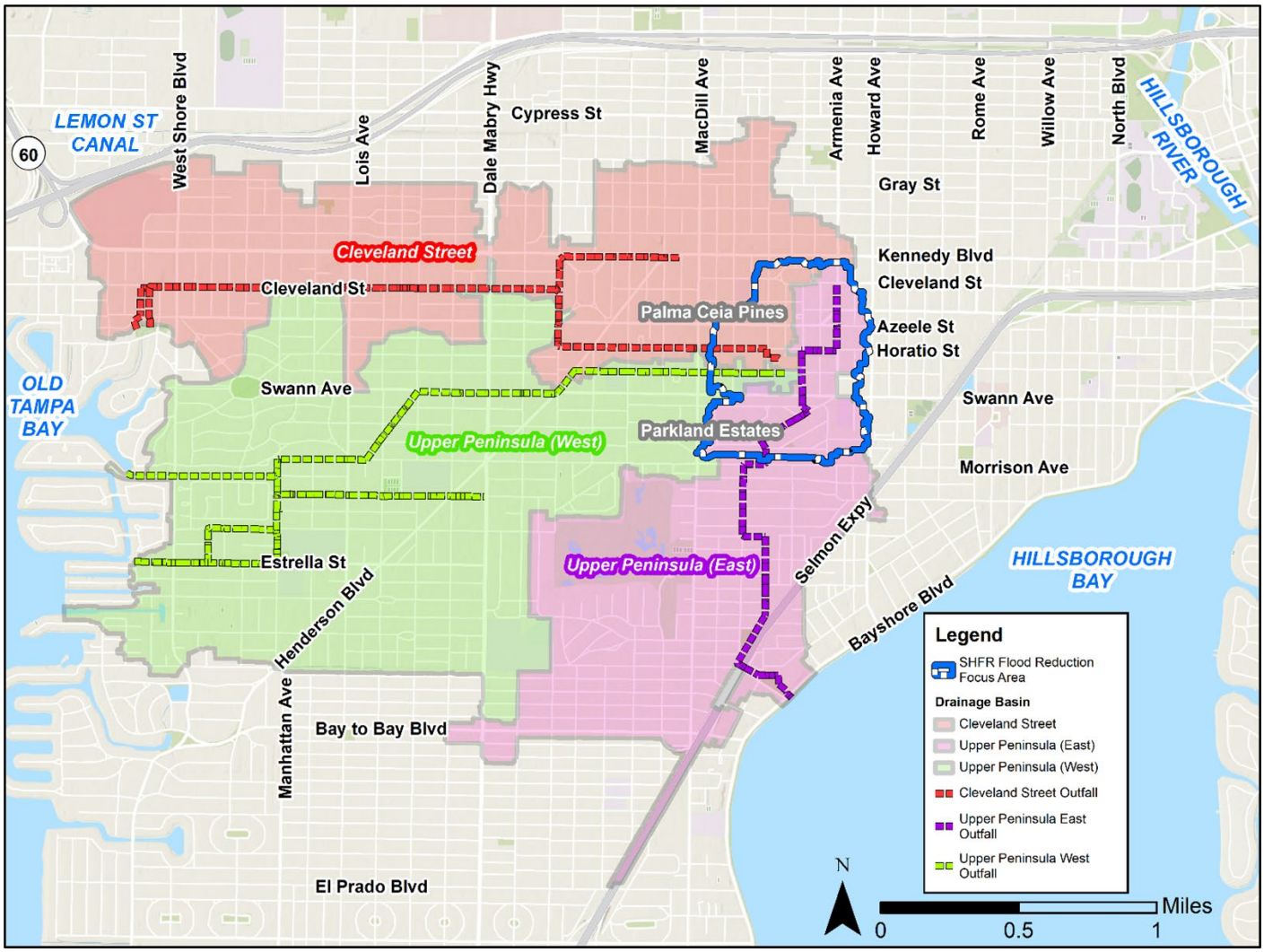


Figure 3-8 – Overview of Existing Man-Made Drainage Basins

3.2.1 Cleveland Street Outfall System (W Horatio St Trunkline)

The Cleveland Street Basin includes a portion of Palma Ceia Pines, which is designed to drain west through a large elliptical pipe beneath W Horatio St beginning at S Habana Ave. The now-severely undersized pipe system and outfall west to Old Tampa Bay was designed by FDOT and was constructed in the late 1950s as a joint venture between FDOT and the City. It was designed using what are now antiquated rainfall intensities, design standards, and development densities. More information about the history of this system can be found in the City's 1983 drainage study.

Roughly 60 acres between W Kennedy Blvd and W Horatio St drain directly to the AMI detention pond through a 4'x8' box culvert (**Figure 3-9**), which also serves as the pond's primary outfall when it reaches its capacity and reverses flow, discharging into the Cleveland Street Outfall system (**Figure 3-10**). The AMI Pond, which is approximately 2.5 acres in size and lies beneath a parking deck owned by HCA Florida South Tampa Hospital, is maintained by the City and was constructed as a joint use facility in the early 1990s to provide stormwater treatment and flood relief to W Kennedy Blvd, Palma Ceia Pines, and the Cleveland Street Outfall system. It provides approximately 16.7 ac-ft of available storage for stormwater runoff. An internal weir beneath the S Habana Ave & W Horatio St intersection directs low flows into the pond for stormwater treatment during less intense and manageable rainfall events. The pond recovers the final 2 feet of its available treatment depth using a combination of underdrain system and submersible pump, which forces the remaining water into the Cleveland Street Outfall system.

The system receives excess rainfall as runoff not only from the Cleveland Street Basin area, but also from overland flows that come from a surcharged Lemon Street Canal system to the north. When the Cleveland Street Outfall system becomes overwhelmed, stormwater backs up into the SHFR Flood Reduction Focus Area (**Figure 3-11**), flowing to AMI detention pond, and the adjacent low-lying roadways and properties. Some of this water makes its way south over land to W Swann Ave and Parkland Estates during severe rainfall events, like the 5-year/8-hour design storm.



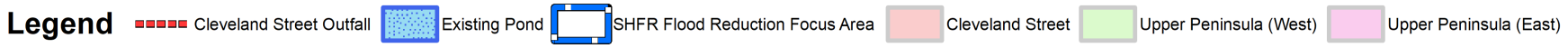
Figure 3-9 – Horatio Street Trunkline – Low-Flow Conditions (Positive Flow)



Figure 3-10 – Cleveland Street Outfall System – Designed High Flow Conditions (Positive Flow)



Figure 3-11 – Cleveland Street Outfall System – Actual High Flow Conditions (Negative Flow)



3.2.2 Upper Peninsula West Outfall System (W De Leon St Trunkline)

The Upper Peninsula West Basin includes a large portion of the Upper Peninsula watershed, and outfalls to Old Tampa Bay by way of multiple box culverts and canals, including the recently completed Dale Mabry/Henderson Trunkline. Palma Ceia Pines is at the eastern boundary and most upstream portion of this basin, which includes W De Leon St to the west of S Audubon Ave and a portion of HCA Florida South Tampa Hospital. This system was originally constructed prior to 1950 based on the South West Tampa Drainage District Primary Drainage Facilities map in **Appendix R.**

The underground pipe system designed to convey stormwater west across the peninsula (**Figure 3-12**) is prone to becoming overwhelmed during periods of heavy rainfall, like the Cleveland Street Outfall system. When this happens, stormwater can reverse flow and come out of the storm inlets along W De Leon St (**Figure 3-13**), contributing to the flooding around the hospital. **Figure 3-14** below shows a graph generated by this project's H&H model that predicts flow through this system during the 5-year/8-hour design storm. Negative flows reflect stormwater coming into the SHFR Flood Reduction Focus Area (**Figure 3-13**) for a period of time while the downstream system is overwhelmed, before reversing flow again and discharging west, as it was intended to do (positive flows in **Figure 3-14**).



Figure 3-12 – Upper Peninsula West Outfall System – Low Flow Conditions (Positive Flow)



Figure 3-13 – Upper Peninsula West Outfall System – High Flow Conditions (Negative Flow)

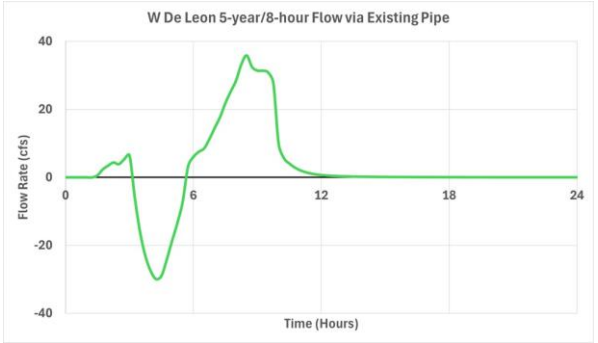
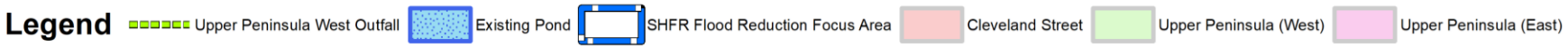


Figure 3-14 – Upper Peninsula West Outfall System – Flow Conditions in a 5-year/8-hour Storm Event



3.2.3 Upper Peninsula East Outfall System (S Audubon Ave Trunkline)

The Upper Peninsula East Basin makes up a portion of the Upper Peninsula watershed, primarily to the east of S Dale Mabry Hwy and to the south of the Cleveland Street Basin. It drains to Hillsborough Bay beneath Bayshore Blvd through large pipes or box culverts at two primary locations: Rubideaux St and a drainage easement between W Bay to Bay Blvd and W Barcelona St. Palma Ceia Pines is at the northern boundary and most upstream portion of this basin, which includes S Audubon Ave and S Armenia Ave to the north of W Swann Ave. This basin also includes much of Parkland Estates and New Suburb Beautiful.

Approximately 40 acres contribute stormwater runoff to the ZOM Pond – a 1.3-acre stormwater detention pond located along the south side of W Horatio St between S Audubon Ave and S Armenia Ave. The pond was constructed by the City in 2001 to provide compensatory stormwater treatment for multiple offsite projects, and for additional flood relief. The pond has limited available storage (less than 4 acre-feet) for stormwater, which is then discharged directly to S Audubon Ave where a 36-inch diameter pipe carries the stormwater into Parkland Estates.

The severely undersized existing pipe system in Parkland Estates designed to convey stormwater south toward Hillsborough Bay (**Figure 3-15**) was originally constructed prior to 1950 based on the South West Tampa Drainage District Primary Drainage Facilities map in **Appendix R**. While upgrades have since been made to a portion of the system within Parkland Estates, much of the trunkline downstream of these upgrades remains unchanged and is prone to back up into the low-lying roadways of Parkland Estates when it becomes overwhelmed by heavy rainfall (**Figure 3-16**), just like the two systems discussed previously. **Figure 3-17** shows the flow leaving Parkland Estates with the values that are positive being flows discharging as designed and the negative flows representing flow back into Parkland Estates.

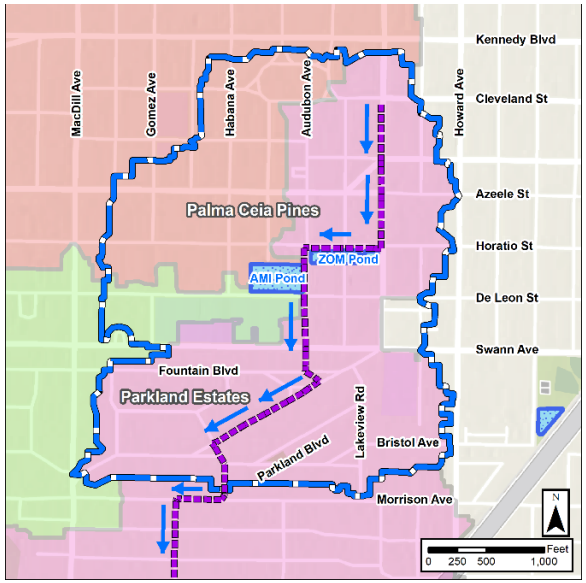


Figure 3-15 – Upper Peninsula East Outfall System – Low Flow Conditions (Positive Flow)

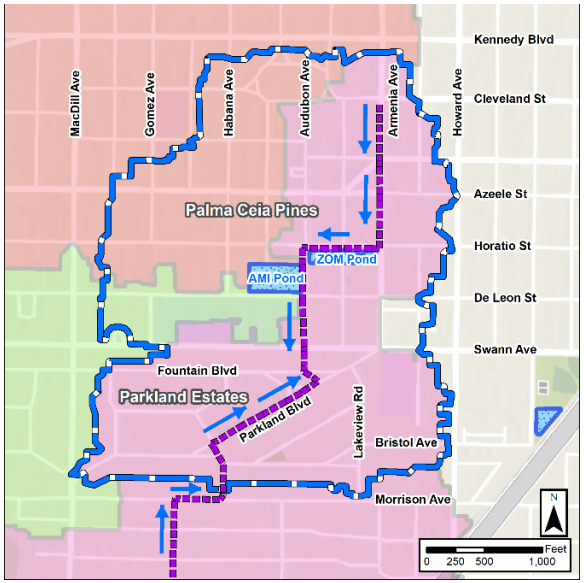


Figure 3-16 – Upper Peninsula East Outfall System – High Flow Conditions (Negative Flow)

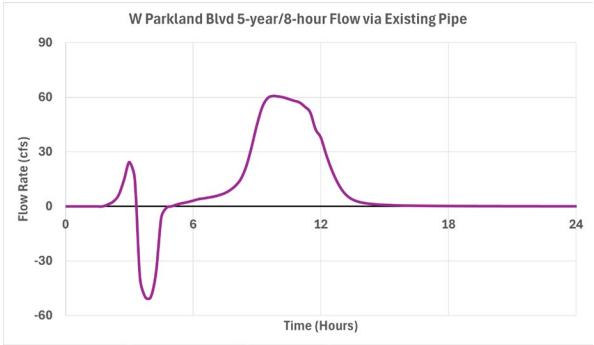
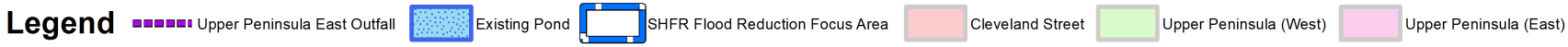


Figure 3-17 – Upper Peninsula East Outfall System – Flow Conditions in a 5yr-8hr Storm Event



3.2.4 Swann Pond, Albany Pond, and S Rome Ave Outfall

Stormwater runoff from approximately 100 acres is routed directly into the 1.7-acre detention pond between W Swann Ave, the Selmon Expressway, and S Rome Ave, known as Swann Pond. In the early 1990s, the pond's drainage area was expanded west to include W Swann Ave between S Armenia Ave and S Westland Ave (including a portion of S Howard Ave), helping to alleviate flooding along the corridor, which drained through the undersized Upper Peninsula East Outfall through Parkland Estates at the time. The project also used the pond to provide stormwater treatment to compensate for the addition of turn lanes on W Swann Ave. Swann Pond discharges through a control structure at its southeast corner, and then along S Rome Ave through approximately 3,100 linear feet of 48-inch diameter pipe directly into Hillsborough Bay. The S Rome Ave outfall picks up stormwater from approximately 60 additional acres to the south of the Swann Pond basin on its way to Hillsborough Bay.

The stormwater pond located between S Albany Ave, the Selmon Expressway, and W Swann Ave receives stormwater runoff from approximately 16 acres, which includes a portion of the Selmon Expressway, a portion of S Albany Ave, and the ALDI at W Swann Ave and S Albany Ave. The pond currently has no functioning outfall because the pump station on its southeast side that once controlled water levels in the pond is inoperable. Water fluctuation in the pond is driven by groundwater conditions and percolation until it elevates enough to overtop its bank, at which point it discharges north and east within a small ditch along the CSX railroad, ultimately reaching W Swann Ave and Swann Pond.

This overall drainage pattern is illustrated below in **Figure 3-18**.

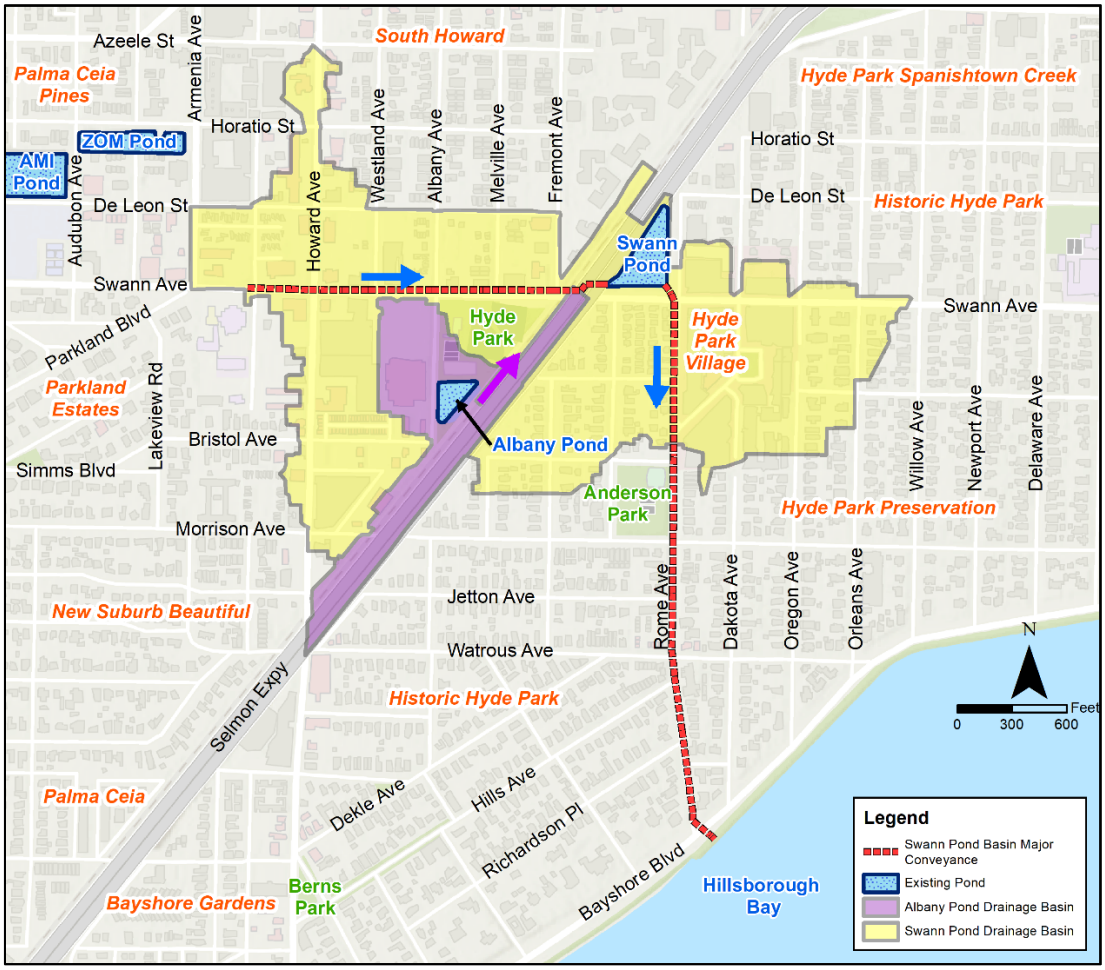


Figure 3-18 – Swann Pond, Albany Pond and S Rome Ave Outfall Existing Drainage Map

3.3 Utilities

Given that the alternatives evaluated in this report include large underground stormwater conveyance systems that will inevitably conflict with existing utilities, it is anticipated that relocation of many existing utilities will be required to complete the project. A spatial overview of the City's existing wastewater, potable water, and reclaimed water systems near the anticipated project limits is illustrated in **Figure 3-19** below. This utility information was provided by the City.

Below summarizes the utility infrastructure within the potential project area:

- Sanitary sewer gravity system includes pipes ranging in diameter from 6 inches to 42 inches with the largest pipe – a 42-inch diameter (a 48-inch diameter pipe that has been lined to create an inside diameter of 42 inches) carries wastewater north and east along Bayshore Blvd between W Barcelona St and the Selmon Expressway.
- 48-inch diameter sanitary sewer force main exists along Bayshore Blvd between W Barcelona St and S Rome Ave, where it follows S Rome Ave north until it turns east on W De Leon St. This force main deflects beneath the existing triple box culverts beneath Bayshore Blvd at S Howard Ave.
- Potable Water System includes pipes ranging in diameter from 2 inches to 12 inches with the largest sizes located on along S Howard Ave, W Mississippi Ave, and Bayshore Blvd.
- Reclaimed Water System includes pipes ranging in diameter from 2 inches to 30 inches with the largest pipe – a 30-inch diameter ductile iron pipe – located along W De Leon St to the west of S Fremont Ave, and along W Swann Ave to the east of S Fremont Ave.

The most challenging utilities that this project will need to avoid are the large sanitary sewer force and gravity mains mentioned above. Crossing the existing large gravity main is unavoidable and will require a large conflict structure within the Bayshore Blvd corridor, where the new culvert connects to the existing triple box culverts beneath Bayshore Blvd.

Crossing the 48-inch diameter force main, which handles almost a third of the City's wastewater, is also unavoidable if the new trunkline is to reach Hillsborough Bay to the south of W Horatio St. One of the appeals of using S Howard Ave for the new trunkline is that this force main was designed in 1973 at a lower elevation across the Bayshore Blvd & S Howard Ave intersection in anticipation of a future box culvert outfall crossing it at this location. Subsequently, the existing triple box culverts were constructed above the force main in the late 1980s. This avoids the need for temporary shutdown and vertical relocation of the large force main, reducing both cost and duration of construction.

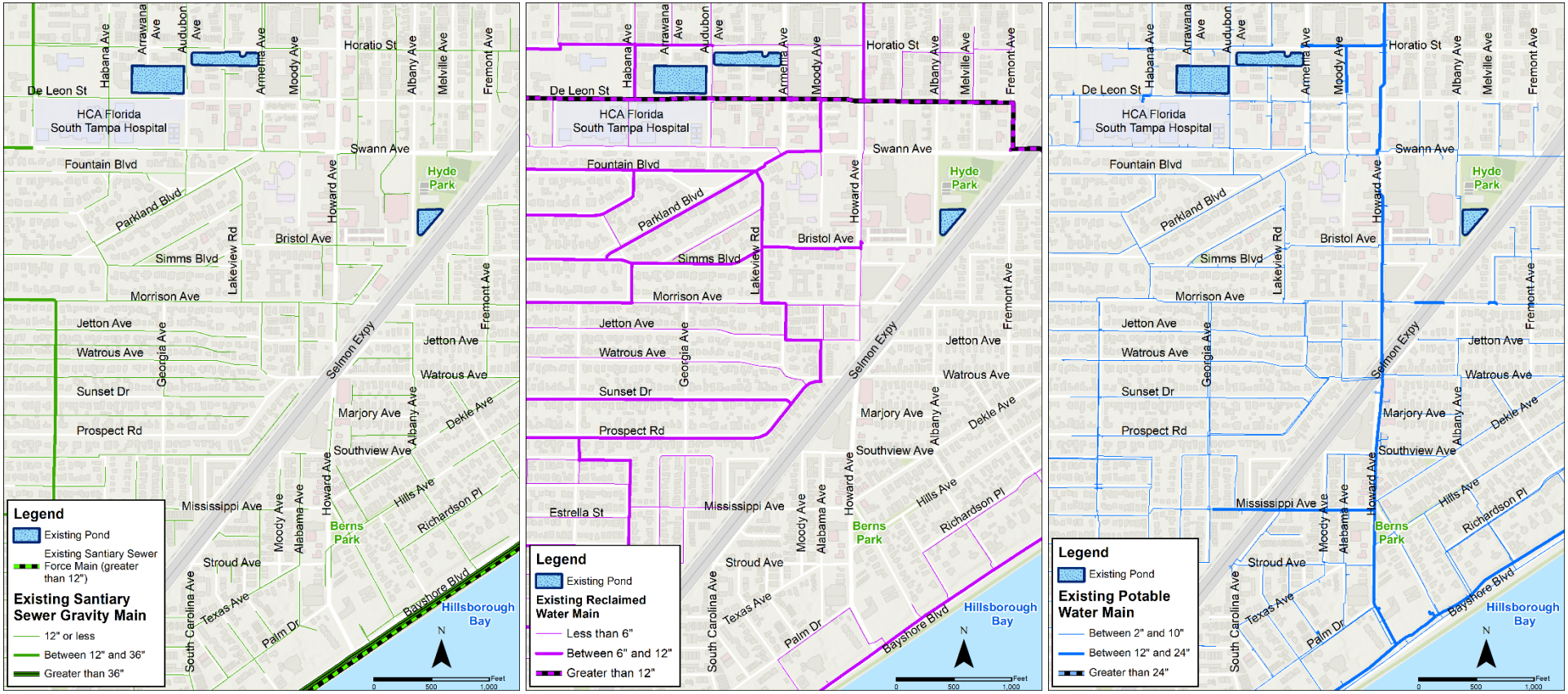


Figure 3-19 – Overview of Existing Water and Wastewater Utilities

3.4 Soils Information

Soils information for the RECM extents was sourced from the USDA NRCS Web Soil Survey (WSS) and was classified by hydrologic characteristics. The hydrologic soil groups (HSG) designation for soils is used to estimate runoff from precipitation. Their characteristics are described below:

- **HSG A**: Soils with high infiltration rates when the groundwater elevation exceeds 3 feet of depth. Soil types comprising this group generally include deep well drained to excessively drained sands that produce significant rainfall losses as infiltration.
- **HSG B**: Soils with a moderate infiltration rate when saturated. This group is chiefly comprised of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture.
- **HSG C**: Soils with a slow infiltration rate when saturated. This group consists chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture.
- **HSG D**: Soils with a very slow infiltration rate and high runoff potential. These consist primarily of soils that have a permanent high-water table; soils that have a claypan, clay layer, or other relatively impermeable material at or near the surface; or mucky wetland soils.
- **HSG W:** Designation is used for bodies of water such as the sea, lakes, ponds, and rivers.

Soils are also assigned dual hydrologic classifications (e.g. A/D or B/D) if they exhibit substantially different hydrologic characteristics during the wet and dry seasons. During the wet season, these soils become saturated throughout much of the soil column due to elevated water table conditions. Infiltration is thus impeded, and the soils exhibit Group D infiltration characteristics. During the dry season when the water levels recede, infiltration rates increase to those corresponding to Group A or Group B levels.

As shown in **Table 3-1**and **Figure 3-20** below, the HSG A makes up 55% of the project area.

Table 3-1 –Summary of Hydrologic Soil Group within SHFR Model Update Area

Hydrologic Soil Group	Area (AC)	Percentage of Total Area
A	579.6	55.2%
A/D	380.1	36.2%
C/D	23.8	2.3%
D	64.4	6.1%
W	1.5	0.1%

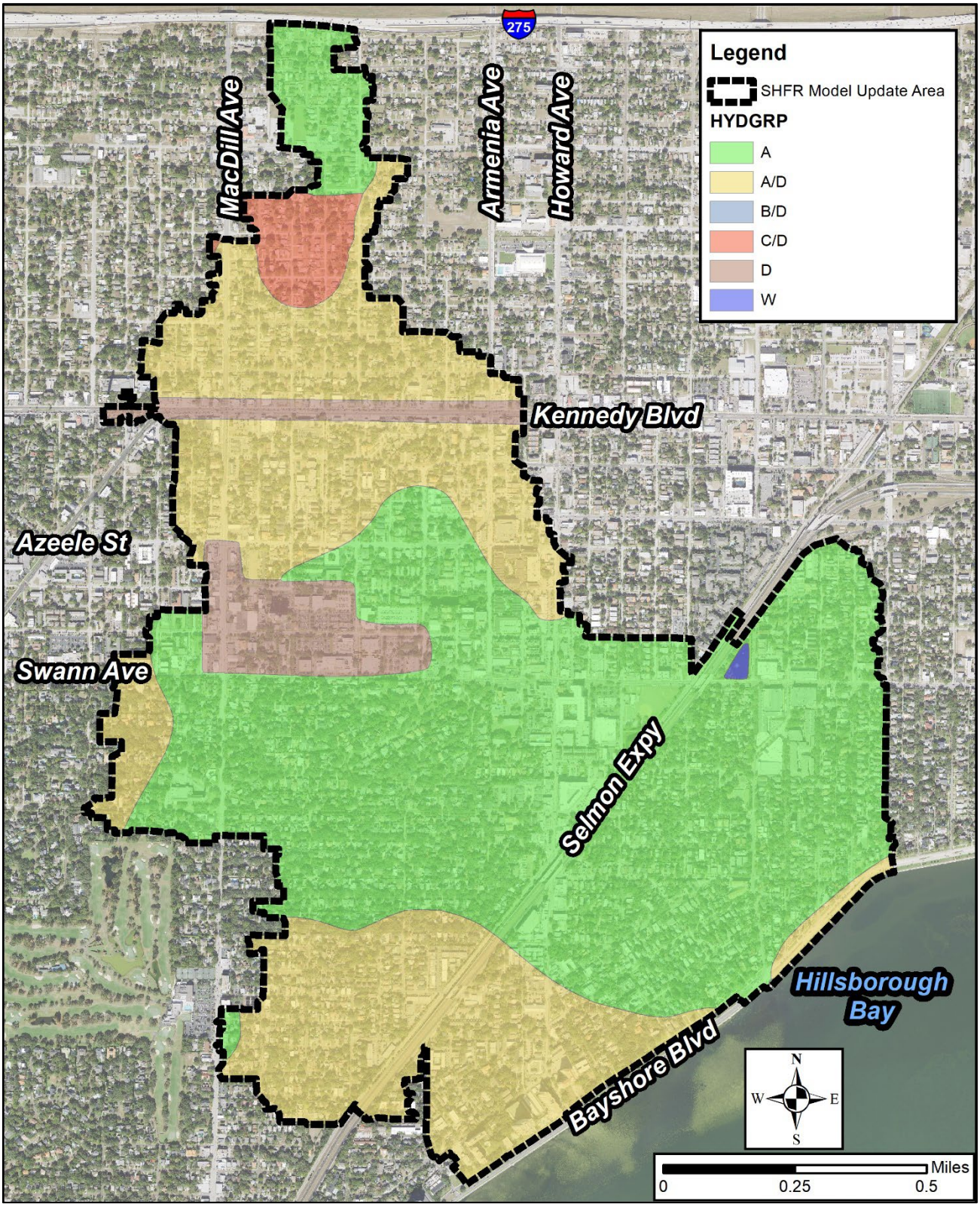


Figure 3-20 – Soil Coverage within SHFR Model Update Area

3.5 Land Use Information

The 2023 land use coverage data was downloaded from SWFWMD and updated where appropriate based on the most recent available aerial imagery. As shown in **Table 3-2** and **Figure 3-21**, the main land use coverage within the project's model update area is residential high density (77%), followed by commercial and services (18%). The other land use coverages within this area make up less than 5% of the total area.

Table 3-2 –Summary of Land Use Coverage within SHFR Model Update Area

Land Use	Area (AC)	Percentage of Total Area
Commercial and Services	184.3	17.6%
Emergent Aquatic Vegetation	0.6	0.1%
Institutional	13.3	1.3%
Recreational	6.2	0.6%
Reservoirs	2.5	0.2%
Residential High Density	810.7	77.3%
Transportation	31.0	3.0%
Utilities	0.7	0.1%

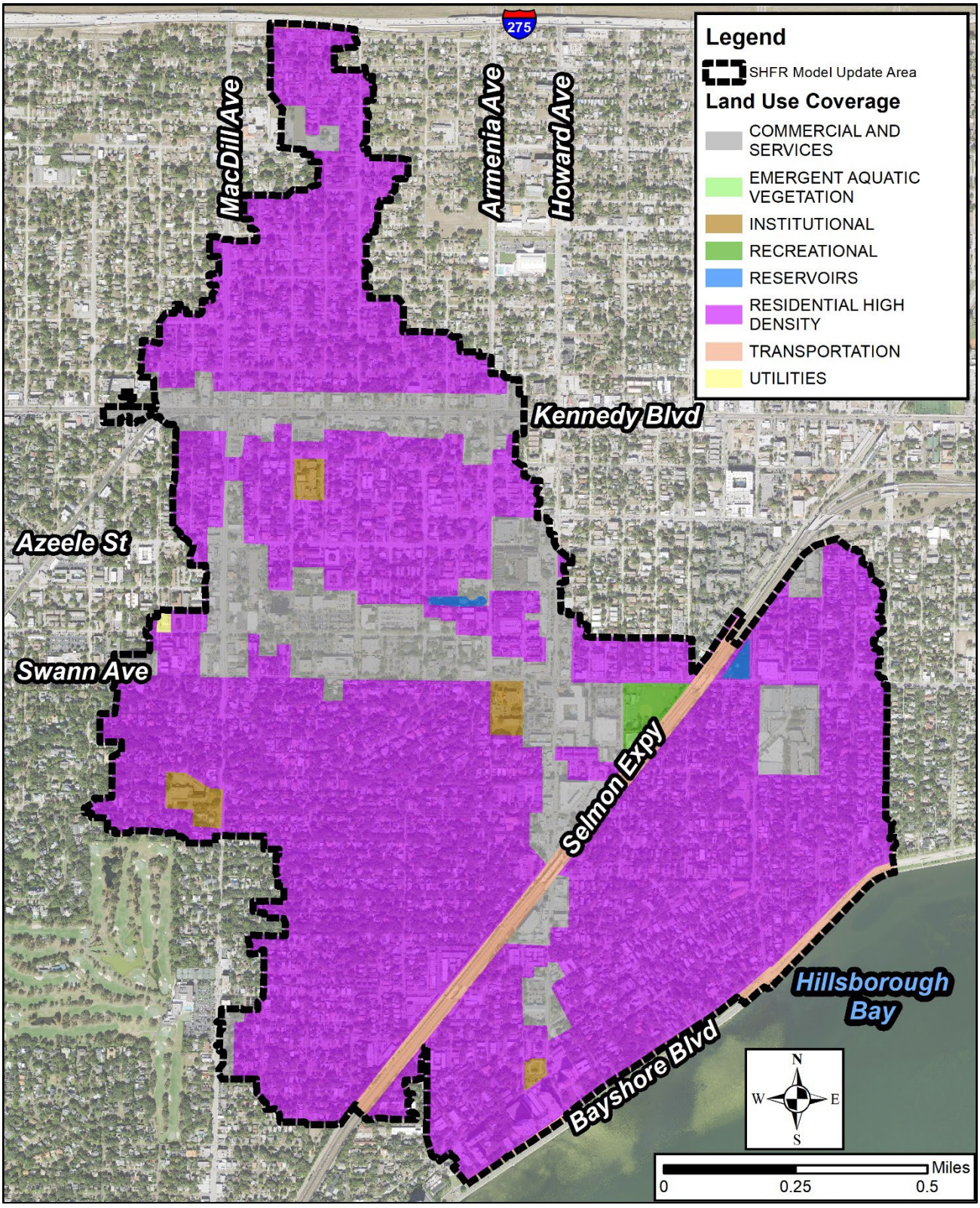


Figure 3-21 – Land Use Coverage within SHFR Model Update Area

4. Existing Conditions H&H Model

4.1 Overview of Model Development

The development of a detailed and defensible model that accurately reflects flood conditions during simulations of known rainfall events is critical to the design of a successful flood relief project. The design team used a range of available data to update the City's latest Upper Peninsula Watershed H&H model (UPWM), which includes most of the SHFR Flood Reduction Focus Area and its three existing primary outfalls. This model's last complete update occurred in 2012, but it was further refined in 2018 as part of the Dale Mabry/Henderson Trunkline project. The proposed conditions model for that project, which has since been constructed, was used as a starting point for the development of the SHFR existing conditions model (RECM). The H&H model that was developed by JMT as part of their 2022 feasibility study was also reviewed and used in part to develop the RECM, which is reflective of today's H&H conditions.

The RECM is used to predict the severity of existing flooding for a range of synthetic design storm events, and to identify FPLOS deficiencies within the model update area. A copy of the RECM can easily be modified to create proposed conditions models for any alternative, whose results can then be compared back to the RECM results to quantify anticipated flood reduction benefits of potential solutions.

Here is a summary of the steps taken to develop the project's RECM (prior to calibration and verification):

- The modeling effort began in 2025 by converting the City's approved Upper Peninsula Watershed 1-dimensional XPSWMM model to ICPR 4 (now StormWise) modeling software.
- This baseline model was then expanded to include the geographic area deemed hydraulically relevant to Parkland Estates and Palma Ceia Pines neighborhoods, which we refer to as the SHFR Model Update Area in this report (see **Figure 4-1**).
- The latest available data collected (discussed in Section 2) was used to add or refine the model's subbasins, node configuration, and links (hydraulic connections between nodes) within the SHFR Model Update Area.
- The latest soils and land use coverages were used to update hydrologic parameters of subbasins, and the 2017 DEM was used to update above-ground storage available for runoff throughout the entire RECM limits.
- Time of concentration was evaluated and updated for subbasins within the SHFR Model Update Area, where appropriate.
- Hydrologic simulations were prepared for seven design storm events using SWFWMD guidance and documentation for the 24-hour events, and FDOT documentation for the 5-year/8-hour event.
- Model boundary nodes and boundary stage sets were added or updated to reflect a constant water surface elevation of 2.0 (ft, NAVD88) for the design-storm events at all locations within Old Tampa Bay and Hillsborough Bay.
- Other boundary nodes were added to the east of the model update area to receive excess flows leaving the model's geographic limits. Water surface elevations at these nodes were incorporated as time-stage relationships for each event simulated and reflect model results from the adjacent Cypress Street Outfall model for the same storm event, where applicable.
- Inflows and outflows across the model's northern shared boundary with the Lemon Street Canal Basin were applied as external hydrographs at the appropriate locations within the model, based on the City's most recent Lemon Street Canal Model (updated in 2018). This was done to ensure that stormwater making it to the Cleveland Street Outfall system from an overwhelmed Lemon Street Canal system is accounted for in the RECM.

Figure 4-1 below provides a comparison of the base model's limits (in green) to the SHFR Model Update Area (black) and RECM limits (purple), along with the locations of boundary nodes and external inflows/outflows.

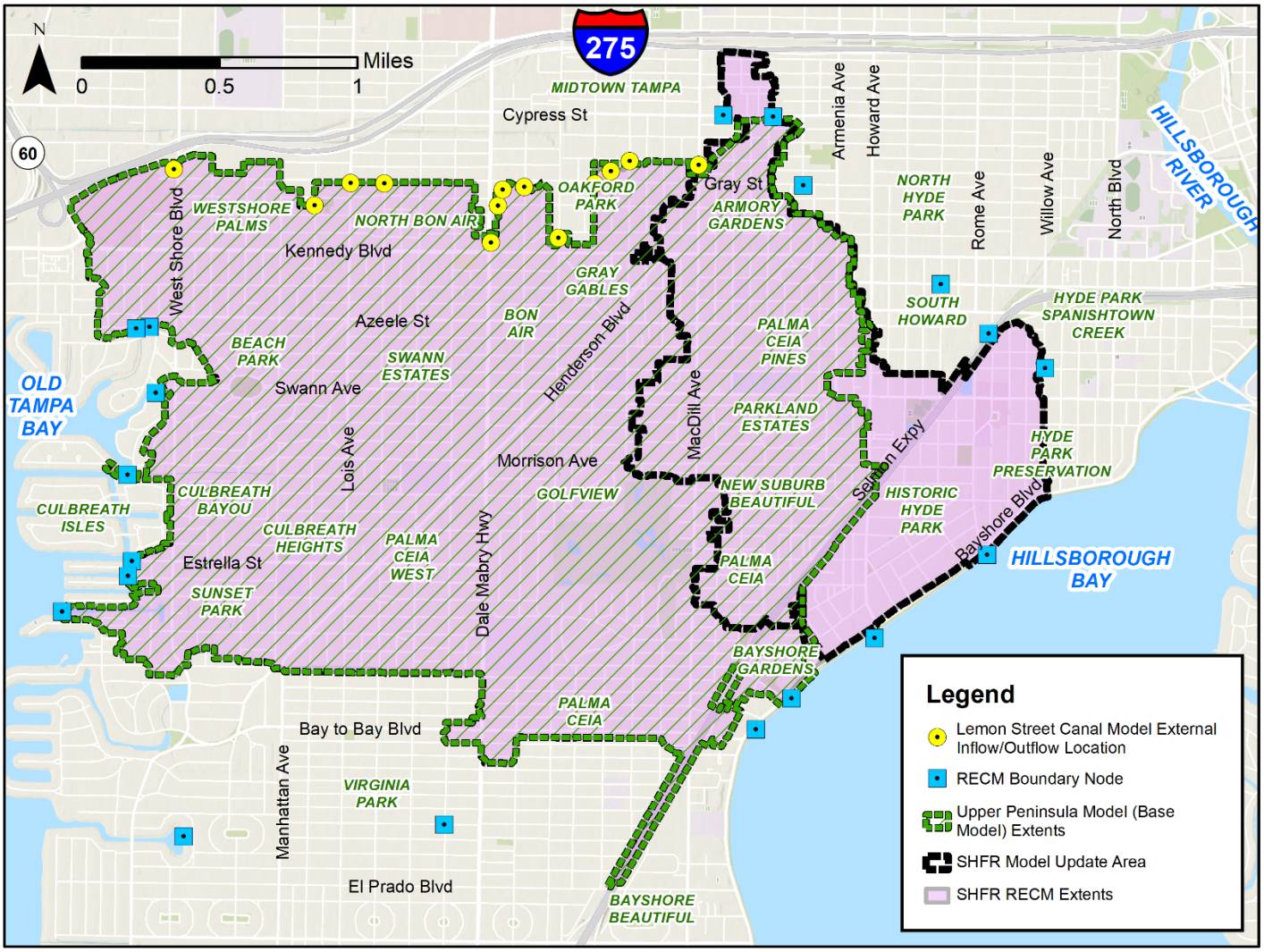


Figure 4-1 – Model Update Overview

4.2 XPSWMM Model Conversion

As mentioned in **Section 4.1**, the City of Tampa's UPWM (2018) – a 1-dimensional XPSWMM model – served as a base model to build the RECM in Interconnected Channel and Pond Routing Model (ICPR) version 4.07.08, referred to in this report as ICPRv4. The UPWM's features and data are organized within a Geographic Water Information System (GWIS) which is a geodatabase containing all the information needed to build the H&H model. The UPWM's GWIS was imported into a new ICPRv4 model to begin the conversion.

The new ICPR model was then evaluated in detail to ensure model features converted correctly. Some parameters exist in ICPR and not in XPSWMM, such as minimum node storage, so these were populated appropriately before the model's hydrologic simulations were prepared and executed. Results from the converted model were compared back to the UPWM to confirm that the difference in model results was not significant. The converted model was then updated as discussed in the following sections to develop the RECM.

4.3 Hydrology

The RECM uses the NRCS Runoff Curve Number (CN) method to calculate stormwater runoff for different rainfall simulations, consistent with the UPWM and the adjacent Lemon Street Canal model. A peaking factor value of 256 was used with a corresponding unit hydrograph, consistent with SWFWMD guidelines and representative of typical conditions in Florida. ICPR uses an initial abstraction coefficient of 0.2 for the NRCS CN method, which is multiplied by the soil storage depth to calculate lost rainfall volume prior to runoff, including water retained on structures and foliage, in surface depressions, and water removed through evapotranspiration. Soil storage depth is computed from the composite curve number value assigned to each subbasin. The model generates stormwater runoff hydrographs for each subbasin at 15-minute intervals based on CN values, which are then applied to corresponding nodes within the hydraulic model.

4.3.1 Rainfall

Specified rainfall depths and distributions (of rainfall intensity over total duration of the event), based on SWFWMD or FDOT documentation (depending on event duration), were used to develop rainfall simulations for the seven design storms within the model and are consistent with local regulatory standards. Actual rainfall data was collected using NEXRAD (discussed previously in **Section 2.2**) for the model calibration and verification event simulations – Hurricane Milton and the rainfall event observed on September 3rd, 2024, respectively. This rainfall varied throughout the RECM's geographic limits, which is discussed further in **Sections 4.6 and 4.7**. The source of rainfall data used for the design storm events is defined below:

The 24-hour design storm events use:

- Rainfall depths based on isohyetal maps, found in SWFWMD's ERP Applicant's Handbook Volume II (Project Design Aids)
- NRCS Type II Florida Modified rainfall distribution, consistent with SWFWMD's permitting requirements

The 5-year/8-hour design storm event uses:

- Rainfall depth of 5.3 inches based on the FDOT Zone 6 IDF curve (idfcurves.pdf)
- FDOT 8-hour rainfall distribution

Both design storm rainfall distributions used are already built into the ICPRv4 modeling software. The rainfall depths and distributions used for this project are consistent with the methodology used in other recently updated City of Tampa H&H models such as the UPWM, the Lemon Street Canal (Cypress Memorial Area) model, and the Lower Peninsula Watershed Model (LPWM).

Recurrence intervals for design storms are often misunderstood. They do not reflect a schedule, but instead a probability. For example, a 100-year storm does not mean that it can (or will) happen once every 100 years – it means that there is a 1 percent chance of that event happening in any given year, based on historical data. The calculation is:

% likelihood each year = 1 / XX-year storm event

Therefore, a 5-year storm has a 20% chance of occurring each year, a 25-year storm has a 4% chance of occurring, and so on. It is possible, as we witnessed in 2024 across the Tampa Bay area, to have multiple rainfall events with high recurrence intervals within a given year. Recurrence intervals are also dependent on rainfall intensity. This often leads to a short duration, 5, 10 or 25-year storm being mischaracterized as "just a normal summer thunderstorm" that caused flooding. When this happens, the most common reaction within the community is that something must be broken or obstructed.

For reference, 3.1 inches, 3.7 inches, and 4.5 inches of rain in one hour is considered a 10-year, 25-year, and 100-year storm, respectively according to FDOT's IDF curves that are specific to this area. Several rainfall events like these occurred in the Tampa Bay area in 2024.

The rainfall depths used for each rainfall event in the SHFR models are listed in **Table 4-1** below.

Table 4-1 – Simulated Storm Events

Design Storm Event	Rainfall Depth (inches)
2.33-year/24-hour (Mean-Annual)	4.5
5-year/24-hour	5.5
10-year/24-hour	7.0
25-year/24-hour	8.0
50-year/24-hour	10.0
100-year/24-hour	11.0
5-year/8-hour	5.3
Calibration Event (Hurricane Milton, 2024)	Varies (13.0 - 14.5)
Verification Event (9/03/2024)	Varies (1.1 - 2.5)

4.3.2 Subbasin Delineation Updates

As mentioned in **Section 4.1,** the UPWM's geographic limits were expanded to include any area deemed to be hydraulically relevant to Parkland Estates and Palma Ceia Pines, to ensure that all stormwater runoff that may influence flood stages in these neighborhoods is accounted for in the model. The SHFR Model Update Area was evaluated in detail to ensure that all hydrologic and hydraulic parameters within this boundary, including subbasin delineation, are consistent, accurate, and current.

Modification of subbasins along the western boundary of SHFR Model Update Area requires that some subbasin delineation updates to the west of this area are made, so that all subbasin boundaries align. While a few subbasins outside of the model update area were modified slightly, the hydraulic connectivity in these areas still reflects the UPWM. Hydraulic connectivity was only updated within and across the model update area boundary.

Subbasin delineation updates were made using engineering judgement based on a comprehensive review of available data such as the DEM, City stormwater inventory, permitted plans and record drawings, aerial imagery, and desktop tools such as Google Street View. In some cases where additional clarity was needed, field investigations were conducted to determine subbasin delineation.

Table 4-2 and **Figure 4-2** below provide a summary of the subbasin changes made as part of the RECM development.

Table 4-2 – RECM Subbasin Update Summary

Source	Number of Subbasins
Original UPWM (2018)	522
New Subbasins outside of UPWM	74
Updated UPWM Subbasins	174
RECM	**634**

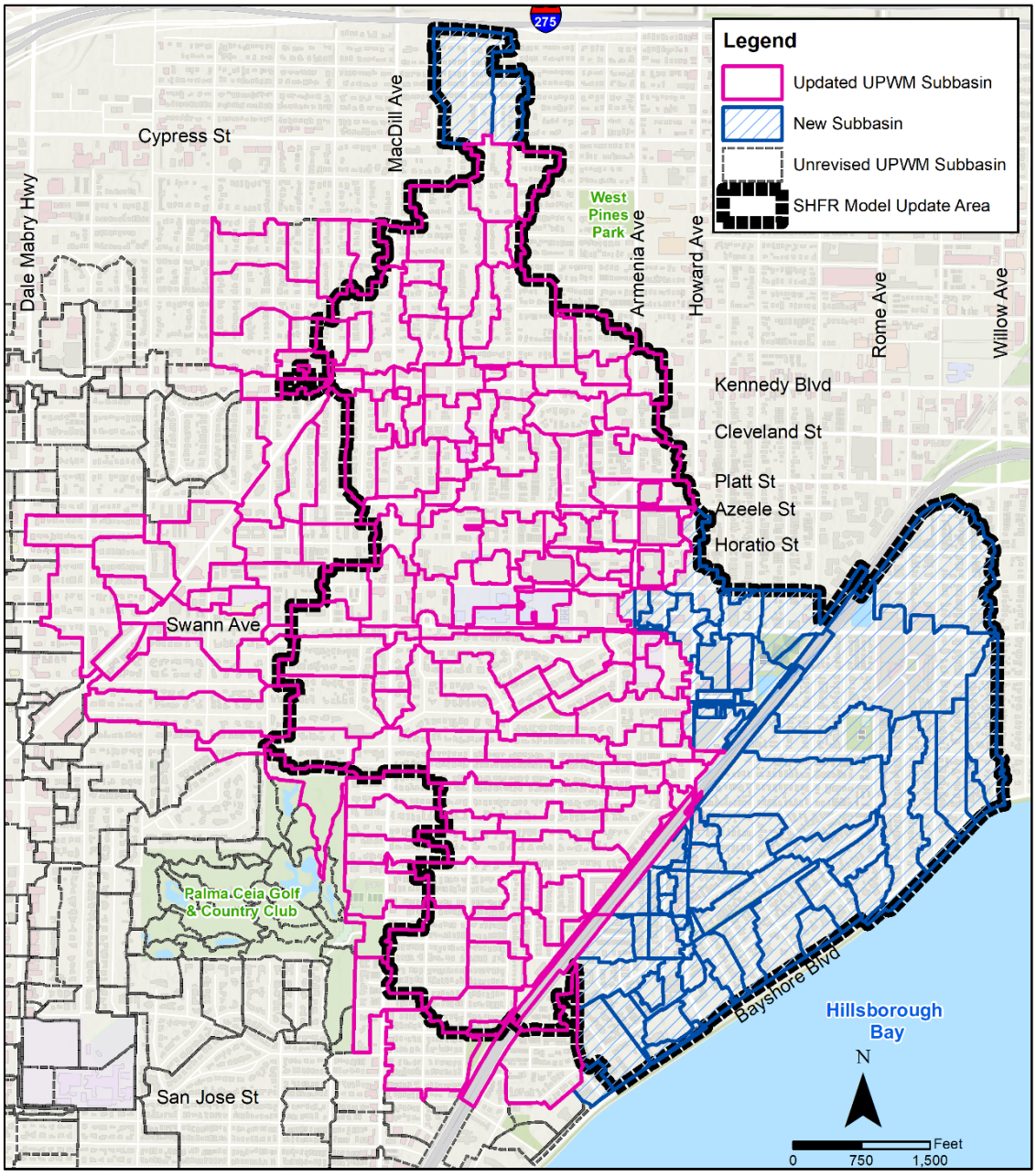


Figure 4-2 – Subbasin Additions and Updates

4.3.3 Time of Concentration (Tc)

Time of concentration is defined as the time needed for water to flow from the most remote point in a subbasin to the subbasin's outlet (or model node in this case). Tcs were reviewed and updated as necessary within the SHFR Model Update Area for sub-basins that were added/modified within the RECM limits using the following methodology:

- Due to the highly developed nature of the watershed, subbasins under 4 acres were assigned a minimum Tc of 10 minutes.
- For modified UPWM subbasins that did not change substantially, the previous Tc was used.
- Tc values were explicitly calculated for 40 RECM subbasins using TR-55 methodology and an evaluation of the DEM and aerial imagery.

Figure 4-3 below illustrates the 40 subbasins for which new Tcs were calculated.

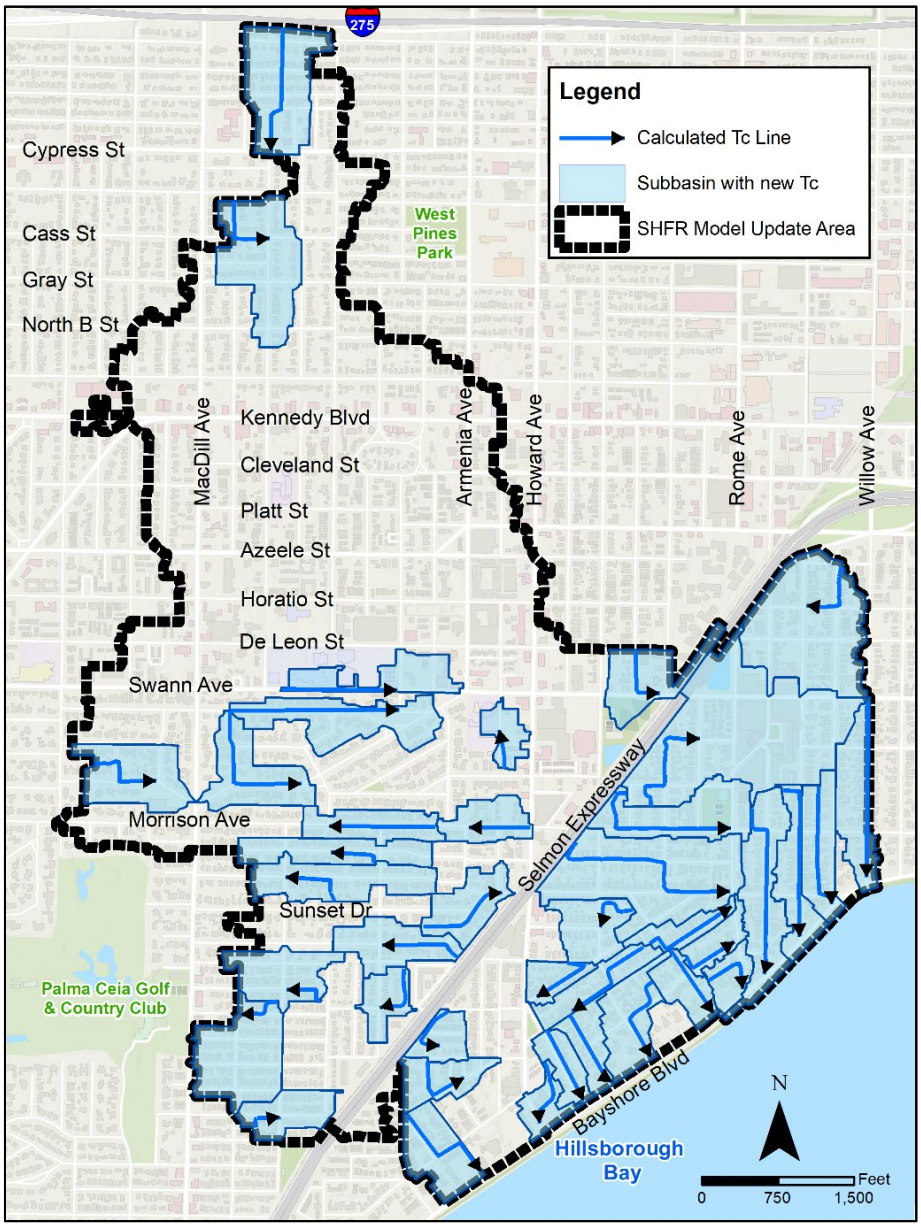


Figure 4-3 – Calculated Tcs

4.3.4 Runoff Curve Numbers

Composite runoff curve number values are computed for each subbasin within ICPR from the spatial intersection of subbasin, soils and land use coverages, all of which exist graphically within the model. A runoff curve number set lookup table within the model provides curve number values for each possible combination of soils and land use coverages based on TR-55 methodology and is used to compute each subbasin's weighted curve number value. Because the UPWM is an XPSWMM model and uses externally calculated curve numbers, the RECM's CNs were recalculated within ICPR **for the entire model,** for consistency.

Antecedent Moisture Conditions reflect the moisture level in the ground and are used to characterize overall "wetness" before a rainfall event. They are typically selected as one of three options for modeling purposes:

- AMC I – Dry – an ideal soil condition for infiltration, where soils have minimal moisture
- AMC II – Average Conditions
- AMC III – Wet – When heavy rainfall has occurred during the previous 5 days

Different antecedent moisture condition assumptions use different CN set lookup tables. For the design storm simulations, a TR-55 AMC-II condition was used, which represents average "wet season" hydrologic conditions prior to the simulated event. For both the calibration and verification events, a TR-55 AMC-III condition was used to reflect the saturated condition of the soils at the time of these two events, which both occurred in 2024 during one of the wettest seasons on record for this area. The equation developed by the USDA Soil Conservation Service (SCS) used to convert CNs from AMC-II to AMC-III is:

$$\text{Runoff } CN_{AMC\ III} = 23 * CN_{AMC\ II} / (10 + (0.13 * CN_{AMC\ II}))$$

The calibration and verification model simulations are discussed further in **Sections 4.6 and 4.7**. A comparison of the CN set lookup tables used in the RECM can be found in **Table 4-3** below.

Table 4-3 – CN Set Lookup Tables

Land Use	HSG	AMC-II CN	AMC-III CN
Residential Low Density	A/D	82	91
Residential High Density	A	77	89
Residential High Density	A/D	91	96
Residential High Density	B/D	91	96
Residential High Density	C/D	91	96
Residential High Density	W	100	100
Commercial and Services	A	89	95
Commercial and Services	A/D	95	98
Commercial and Services	B/D	95	98
Commercial and Services	C/D	95	98
Institutional	A	69	84
Institutional	A/D	89	95
Institutional	B/D	89	95
Institutional	C/D	89	95

Land Use	HSG	AMC-II CN	AMC-III CN
Recreational	A	49	69
Recreational	A/D	82	91
Golf Courses	A	49	69
Golf Courses	A/D	82	91
Golf Courses	C/D	82	91
Open Land	A	39	60
Open Land	A/D	77	89
Reservoirs	A	100	100
Reservoirs	A/D	100	100
Reservoirs	C/D	100	100
Bays and Estuaries	A	100	100
Bays and Estuaries	A/D	100	100
Bays and Estuaries	W	100	100
Transportation	A	81	91
Transportation	A/D	92	96
Transportation	B/D	92	96
Transportation	C/D	92	96
Transportation	W	100	100
Utilities	A	81	91
Utilities	A/D	92	96
Reservoirs	W	100	100
Emergent Aquatic Vegetation	A	98	99
Residential High Density	D	92	97
Commercial and Services	D	95	98
Transportation	D	93	98
Open Land	D	80	91
Institutional	D	90	96

4.4 Hydraulic Connectivity

As mentioned in **Section 4.3**, the model generates stormwater runoff hydrographs for each subbasin at 15-minute intervals based on CN values, which are then applied to corresponding nodes within the hydraulic model. Model nodes are connected by hydraulic links, in the form of pipes, overflow weirs, drop structures, overflow channels, and rating curves that represent stormwater pump stations. Flows are routed through the hydraulic system during and after the simulated rainfall event to compute water surface elevations at nodes and flow rates through links.

4.4.1 Storage of Runoff

4.4.1.1 Above Ground (Stage-Area Curves)

Storage volume provided by ponds and depressions in the ground surface is represented in the RECM by stage/area relationships assigned to model nodes. Stage/area tables, commonly displayed as curves, were developed at 0.1-ft intervals using Arc Hydro tools in ArcGIS, with the 2017 DEM raster to update storage curves **for the entire model** for consistency.

At locations within the SHFR Model Update Area where overland channel links are modeled, storage exclusion areas were generated to exclude the representative channel cross sections from the storage volume calculation, eliminating duplication of available storage volume within the model. Storage within overland channel cross sections is already included within the model framework based upon cross sectional area and channel length.

It should be noted that the latest UPWM used Hillsborough County's 2011 DEM, which for reasons unknown has widespread differences in comparison to the 2017 DEM elevations. The 2011 DEM raster values are consistently lower at the same locations than the 2017 DEM raster, by 4 to 8 inches typically.

Minimum area values of 0.01 acres were assigned to each stage in the tables when the calculated area did not meet that threshold. Nodes intended to represent junction structures with no significant storage were still given stage/area information but used the minimum 0.01 acres for each table entry, beginning at the lowest connecting link invert elevation, to ensure model stability.

4.4.1.2 Underground Vaults (Stage-Volume Curves)

Stage-volume tables (also represented as curves) were used to model existing underground stormwater vaults within the SHFR Model Update Area if the storage capacity was greater than 5,000 cubic feet (0.11 ac-ft). Anything smaller than that was considered hydraulically insignificant for the magnitude of rainfall events analyzed. Stage-volume curves were developed using the information found in ERP plans and documentation.

Underground storage vaults were modeled by separating the stage-volume node associated with the vault from adjacent terrain-based storage nodes for clarity and transparency. The stage-volume nodes were hydraulically connected to the appropriate stage-area node which receives runoff from the subbasin using a weir that represents the bottom of the vault.

This method makes it easy to identify these facilities within the model and separates the different sources of available storage. It also allows the model to accurately account for vault ceilings that limit available storage.

4.4.2 Initial Node Stages

The following assumptions were made to determine initial stages for storage nodes within the SHFR model update area:

- In most cases, the invert elevation of the lowest underground pipe leaving a node was used.
- When the downstream initial stage was higher than the lowest pipe invert (tidally influenced systems below the bay's surface, for example), that value was used to begin the simulation in a static condition.
- For nodes with no subsurface links, the lowest elevation in the stage-area table was used.
- For underground vaults, the elevation of the bottom of the vault was used, unless ERP documentation specifies otherwise.
- **Swann Pond** (node PondB) – 11.46 (ft, NAVD88) was used, which is the elevation of the lowest weir on the pond's outfall control structure per ERP documentation. While the ERP documentation mentions a normal water level (NWL) of 10.12 (ft, NAVD88), several field investigations and evaluation of available imagery consistently support an initial stage that is more consistent with the weir elevation.
- **Albany Pond** (node PondA) – 18.0 (ft, NAVD88) was used based on evaluation of aerial imagery, field observation, and evaluation of the surrounding ground elevations that physically control water levels in the pond during heavy rainfall events. As discussed in **Section 3.2.4**, the pump station that controlled water levels within the pond at one point is not operational and is not permitted through SWFWMD. No seasonal high groundwater table (SHGWT) estimate was available at the time of the RECM development. The RECM's initial stage is approximately 18 inches below the lowest edge of pavement elevation along S Albany Ave and is a conservative wet-season initial stage.
- **ZOM Pond** (node NRU0890) – 15.64 (ft, NAVD88) is used to reflect the permitted SHGWT, which is maintained by a bleed-down orifice constructed as part of the pond's outfall control structure.
- **AMI Pond** (node NCL3730) – 9.14 (ft, NAVD88) is used to reflect the permitted pond bottom elevation and initial stage, which is recovered after a rainfall event by the pond's underdrain and pump station. It should be noted that using an initial pond stage of 11.38 (ft, NAVD88) to match the downstream weir within the Cleveland Street Outfall system, which controls this pond's water levels by gravity, has a negligible impact on the RECM's 5-year/8-hour design storm's peak flood stages in this area. That is because 2 to 3 feet of depth in this pond does not provide nearly enough storage to mitigate the flooding anticipated during the 5-year/8-hour storm.

4.4.3 Pipe Connections

Outside of the SHFR Model Update Area, the pipes in the RECM match those of the UPWM because most of the stormwater infrastructure in this area is very old and little has changed in the way of pipe systems since 2018. As mentioned previously, the version of the UPWM that this effort began with is the proposed conditions model for the Dale Mabry/Henderson Trunkline Project, and so that relatively new culvert system is reflected in the RECM.

Within the SHFR Model Update Area, the UPWM pipes were reviewed against the latest available City stormwater inventory and the as-built plans, survey, and permit documentation discussed in **Section 2** to verify pipe location, size, geometry, and elevations where applicable. Field investigations were also conducted by the design team to verify pipe information, as discussed in **Section 2.6.1.**

New pipes were identified as part of data collection and were added to the model when necessary. If a new pipe was added based on a documented size, but no vertical information was available, assumptions were made using current engineering standards for minimum ground cover and pipe slope to estimate inverts.

All pipe links within the SHFR Model Update Area were given both an entrance and exit loss coefficient of 0.5 to represent minor losses within the structures at each end, unless the pipe terminates within a static water body like a pond or the bay. In those cases, the pipe was given an exit loss coefficient of 1.

4.4.4 Stormwater Pumps

Stormwater pumps whose purpose is to recover available storage and/or treatment volume after rainfall events but not to provide stormwater conveyance or reduce flooding during a rainfall event were not included in the model simulations. This applies in the RECM to any bleed-down mechanism (like an orifice or small notch in a pond's outfall control structure) that is intended to create an initial condition, not to provide conveyance during a rainfall event.

In the specific case of the AMI Pond's pump station, because the pump system was designed only to recover treatment volume *after* rainfall events and is too small to provide flood relief *during* rainfall events, the pump is not functional in the model simulations. The pond's primary outfall during a rainfall event is the existing 4'x8' box culvert which connects it to the Cleveland Street Outfall system. An internal weir within this culvert system uses gravity to control the water level in the pond at elevation 11.38 (ft, NAVD88) per ERP documentation. This means that the pump's only function is to slowly draw the pond's water surface down approximately 2 feet from elevation 11.38 to 9.14.

When pump systems are used for stormwater conveyance, they are modeled as rating curve links, which use an operating table in the model that establishes the rates and conditions for flow instead of the upstream and downstream hydraulic conditions throughout the simulation, as is the case for other links in the model. On and off switches are established for the rating curve link based on the pump station design.

The only stormwater pump modeled as part of the RECM represents the pump station constructed by the City at S Howard and W Marjory Ave in 2017 to provide localized flood relief to the intersection. This pump sends stormwater north through an 8-inch diameter force main into a curb inlet beneath the Selmon Expressway at S Howard Ave and W Watrous Ave.

4.4.5 Overland Flow

Overland flow connections are a significant part of a H&H model that represents a highly urbanized area. During the peak of heavy rainfall events, most of the stormwater is exchanged between nodes through overland flow links, which represent sheet flow along roadway corridors and across land when the underground pipe systems become overwhelmed. All RECM overland flow links within the SHFR Model Update Area were created as new features and do not reflect the UPWM. Overland flow links reflect the UPWM throughout the rest of the model and are typically modeled as channels. Overland flow connections are represented in the SHFR Model Update Area in one of two ways:

1. **Weir links** – These are generally used to represent the overtopping of a roadway crown, or another ridge in the ground surface. In most cases weir links were used to represent flow along a roadway corridor for short distances (less than 500 feet). The DEM was used to assign weir inverts and to generate cross sections for irregular weir links.
2. **Channel links** – Overland flows along roadway corridors were modeled as channels if they travel at least 500 feet to reach the downstream node's underground conveyance system. A total of 29 standardized cross sections were developed and include typical corridor sections based on roadway width, curb/gutter, and median presence, along with a few atypical roadway sections for unique cases. The cross sections typically reflect the entire corridor between the right of way lines. An example of one of the typical cross sections is illustrated in **Figure 4-4** below. Upstream and downstream invert elevations were assigned based on the DEM and were applied to the channel's cross section to complete the channel link in the model.

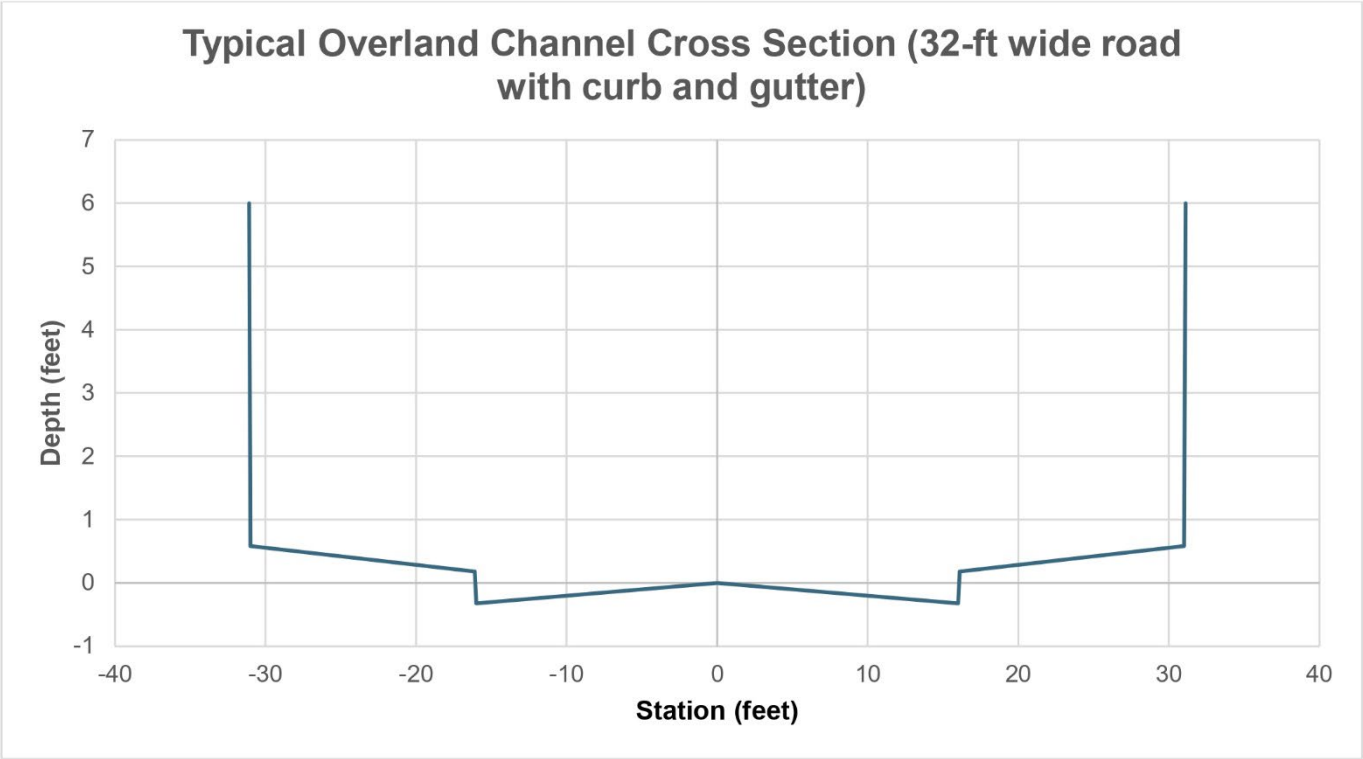


Figure 4-4 – Typical Overland Channel Cross Section (32-ft wide road with curb and gutter)

4.5 Boundary Conditions

The interaction of stormwater runoff between the RECM's geographic model extents and adjacent water bodies and watersheds is an important component of the model. Accounting for these variables and their influence on flood stages within the model helps to create an accurate and defensible model, which is critical to developing effective flood relief solutions.

Hydraulic boundary conditions are introduced in the model in one of two ways:

1. A boundary node outside of the model limits is given external time-stage data in a table, known as a boundary stage set. A boundary link is created as part of the model which connects the boundary node to one of the model nodes, allowing the exchange of stormwater between the two locations to be calculated as part the model simulation. This is commonly used to represent tidal conditions when the model is connected to a bay or ocean. It is also used simply to provide a receiving node for a link representing overflows leaving the model limits.
2. A table that specifies external inflows or outflows at set time intervals, which have already been calculated outside of the model, is injected directly into a model node to account for this predetermined flow into (or sometimes out of) the model. These are referred to in the model as external hydrographs.

In the RECM, boundary conditions have been introduced to account for hydraulic interaction with Hillsborough Bay, Old Tampa Bay, the Lemon Street Canal basin, the Spanishtown Creek basin, and the Cypress Street Outfall basin. **Figure 4-1** (in **Section 4.1**) provides locations of the boundary nodes and external hydrographs.

4.5.1 Tidal Boundary Conditions

For all design storm events in the RECM, the water surface elevation in Hillsborough Bay and Old Tampa is assumed to be a constant 2.0 (ft, NAVD88). This is considered the 1-year coastal stillwater elevation for this portion of Hillsborough Bay as discussed in **Section 3.3.3** of the City's Lower Peninsula Watershed Management Plan (2019).

The 1-year coastal stillwater elevation is considered the highest tidal elevation with a near 100-percent probability of occurring in a calendar year, and in this case is approximately 1 foot higher than the Mean Higher High Water (the average of the higher of the two high tides each day observed over the National Tidal Datum Epoch – a 19-year period).

For the model calibration and verification simulations where recorded rainfall data was used, water surface elevations recorded at nearby tide gauges were used over the same period to accurately reflect tidal conditions throughout the duration of those specific events.

4.5.2 Hydraulic Interaction with Adjacent Watersheds

The RECM limits share a boundary with several other City basins, whose models indicate the exchange of stormwater between the basins during severe rainfall events. The most significant exchange occurs with the Lemon Street Canal basin, which shares a boundary with the Cleveland Street basin, along the northern edge of the UPWM (and RECM) geographic limits. Interaction between the RECM and the Spanishtown Creek and Cypress Street Outfall basins exists to a lesser extent. This hydraulic interaction across basin lines has been accounted for by extracting hydrographs from the City's H&H models for the adjacent basins and applying them to RECM boundary nodes or as external hydrograph sets that can be applied to RECM storage nodes.

4.5.2.1 Lemon Street Canal Basin

The Lemon Street Canal 1-dimensional XPSWMM model was updated in 2018 as part of the Cypress/Memorial Area Drainage Study Update completed by Atkins. As part of the model update, nine nodes were taken from the adjacent UPWM (2018) and were established as boundary nodes for the Lemon Street Canal model. Boundary links were created in the Lemon Street Canal model to hydraulically connect to these nine nodes, and to simulate overland flows that enter the UPWM when the Lemon Street Canal System becomes overwhelmed and surcharged. The boundary nodes are shown in **Figure 4-5** below, which is an excerpt from the 2018 Atkins report.



Figure 4-5 – Lemon Street Canal Model Boundary Nodes within the UPWM

As part of the RECM development, the Lemon Street Canal XPSWMM model was rerun with an updated tidal condition and rainfall data that is consistent with RECM. The model results from these new simulations were extracted as time series data for the boundary links that connect the Lemon Street Canal model to the nodes in **Figure 4-5**. The results that showed exchange of flows between the basins were then consolidated into eight external hydrographs for each event simulated, which are applied to these nodes in the RECM to reflect flows from and into the Lemon Street Canal system.

External hydrographs were used instead of time-stage boundary nodes in this case for two reasons:

1. The boundary links within the Lemon Street Canal model do not exist in the UPWM but were developed using the UPWM.
2. Both the UPWM and Lemon Street Canal model use the 2011 DEM, providing an “apples to apples” terrain comparison of this area. Because the RECM uses the 2017 DEM, relying on stages to calculate the flows between models is somewhat unreliable.

4.5.2.2 Spanishtown Creek Basin

A similar exercise was performed with the latest Spanishtown Creek/Cypress Street Outfall Model – a 2-dimensional XPSWMM model developed in 2020 for the Cypress Street Outfall project. The model was adjusted to use a tidal condition and rainfall that is consistent with the RECM, and the full set of simulations were executed. The updated model results for two nodes were extracted as time-stage data and were used to develop two boundary stage sets within the RECM, which serve as a dynamic tailwater condition along the eastern boundary of the RECM limits.

4.6 Model Calibration

The model calibration for this project was focused on the SHFR Model Update Area, with special attention given to the SHFR Flood Reduction Focus Area. The model’s calibration was completed by reviewing photos that document high-water marks left behind by receding flood water, estimating the elevations of those high-water marks (also referred to as stain lines), and comparing those estimated elevations to the peak flood stages predicted by the RECM’s simulation of the event.

The calibration event selected for this exercise was Hurricane Milton which occurred on October 9th, 2024, and devastated the Parkland Estates and Palma Ceia Pines neighborhoods with over 13 inches of rainfall in less than 24 hours, causing significant property damage and inundating hundreds of homes and businesses within the SHFR Flood Relief Focus Area. Given the severity of the event and widespread flood damage, the peak flood stages were well documented with photos.

The model was calibrated using NEXRAD rainfall data, which is discussed in **Section 2.2**. The NEXRAD pixels used for the model simulation are displayed in **Figure 4-6** below along with their respective total rainfall depths over the duration of the event**.** The total rainfall depths ranged between 13 and 14.5 inches across the SHFR RECM geographic limits**.** Total rainfall depths ranged between 13.6 and 14.5 inches over the SHFR Flood Reduction Focus Area.

To accurately adjust the model’s boundary conditions at Old Tampa Bay and Hillsborough Bay, NOAA tidal gauge data was collected from the Old Port Tampa (Station ID: 8726607) and East Bay (Station ID: 8726674) stations. **Figure 4-7** shows the East Bay tidal stage along with the cumulative rainfall depth over time, for the duration of the storm. Interestingly, because Milton made landfall to the south of Tampa Bay, the hurricane drove water out of the bay to an elevation that is approximately five feet below mean sea level during the late-night hours of October 9th, 2024, during and shortly after the peak rainfall intensity. Therefore, any flooding that occurred during Hurricane Milton within the SHFR Flood Reduction Focus Area was strictly due to rainfall.

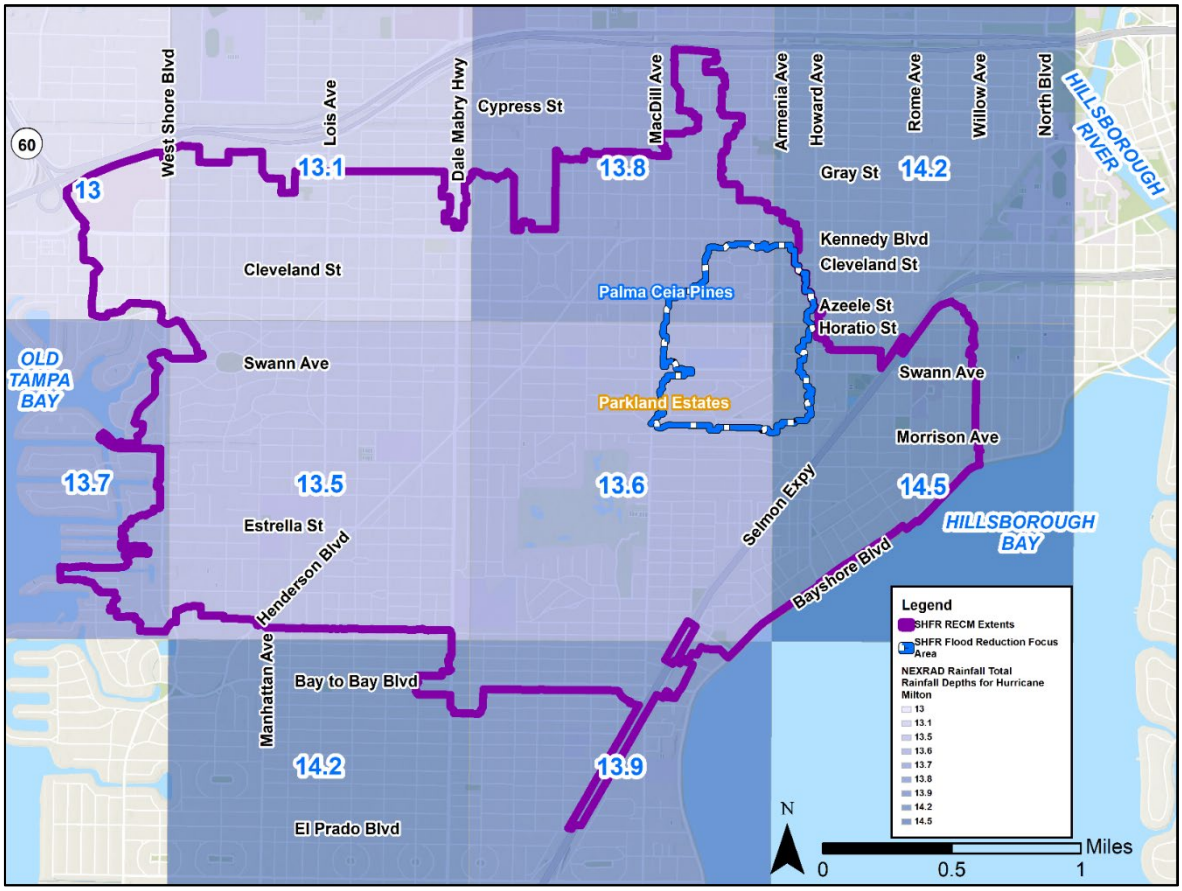


Figure 4-6 – NEXRAD Pixels used for Rainfall Depths (Calibration)

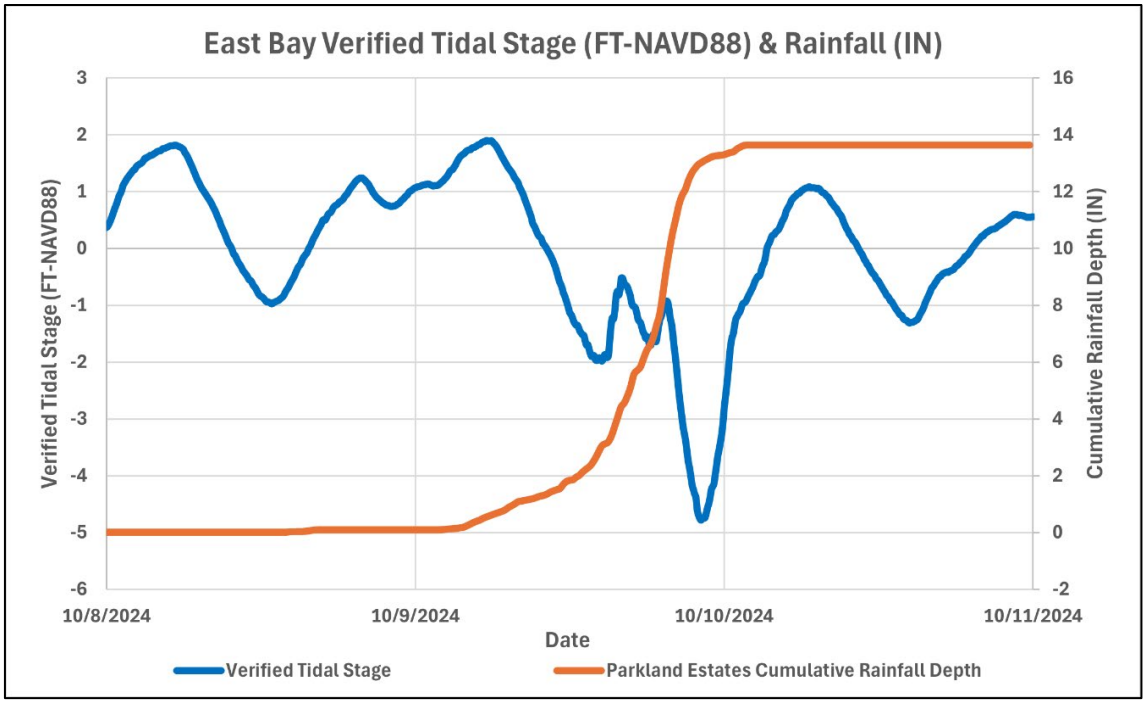


Figure 4-7 – East Bay Tidal Gauge Data

In 2024, Tampa experienced one of its wettest rainy seasons on record, with some areas receiving about 52 inches of rain from June to September, surpassing the previous record of 51.2 inches set in 1945. This total excludes the substantial rainfall brought by Hurricane Milton in early October. Due to the consistently high rainfall in the area throughout the 2024 rainy season prior to the RECM's calibration and verification events, the model's curve numbers were adjusted from AMC II to AMC III for both simulations.

The calibration exercise focused on stain lines documented at four locations – two within Parkland Estates and two within Palma Ceia Pines to estimate observed peak flood stages produced by Hurricane Milton's rainfall. These elevations were estimated using vertical measurements and benchmarks elevations established by City staff, estimates from the DEM, and by preliminary survey for the SHFR project design. These locations are shown on a map along with the flood depths estimated by the RECM calibration simulation in **Figure 4-8**. The stain lines at each of the locations can be seen in the photographs located in **Figure 4-9**.

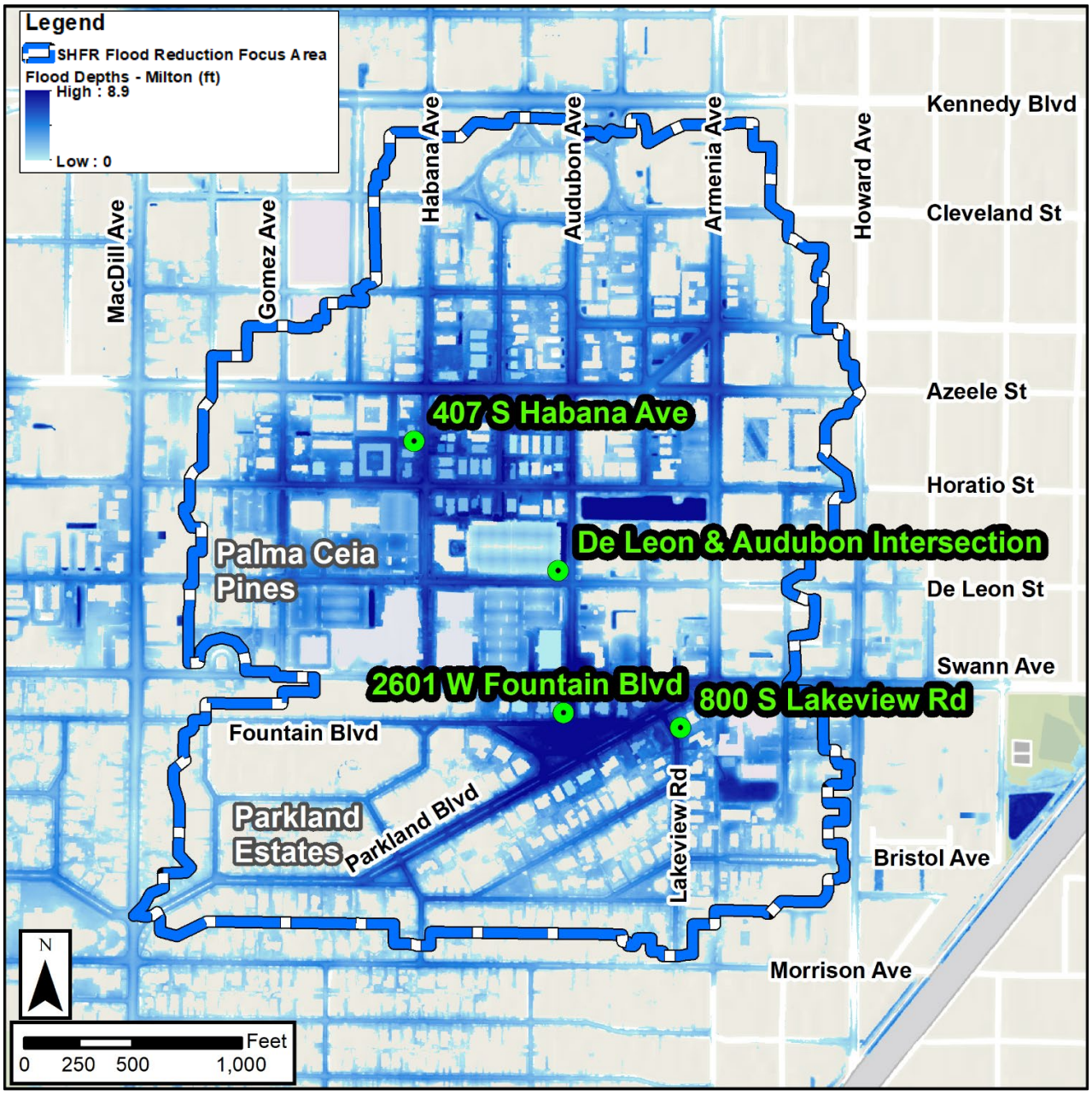


Figure 4-8 – Model Calibration Stage Observation Points



Figure 4-9 – Observed High Water Marks

The results compare closely to observed flood stages based on the estimated elevation of stain lines and high-water marks within Parkland Estates and Palma Ceia Pines, as can be seen below in **Table 4-4**.

Table 4-4 – Comparison of Modeled vs Observed Calibration Results

Location	**Flood Stage (NAVD88 Feet)** Observed	**Flood Stage (NAVD88 Feet)** RECM	**Stage Difference (Feet)** Observed – RECM
407 S Habana Ave	20.6	20.62	-0.0
800 S Lakeview	20.5	20.62	-0.1
De Leon & Audubon Intersection	20.7	20.61	0.1
2601 W Fountain Blvd	20.6	20.61	-0.0

4.7 Model Verification

A verification storm event was simulated in the RECM to represent a short but intense rainfall event that occurred on September 3rd, 2024. Like the calibration event, NEXRAD data was used to replicate the observed rainfall in the model. This event was reflective of a very intense afternoon summer thunderstorm, producing 2 inches of rainfall in just one hour (and 2.3 inches of total rainfall for the event) within the SHFR Flood Reduction Focus Area.

The NEXRAD pixels used for the model simulation are displayed in **Figure 4-10** along with their respective total rainfall depths over the duration of the event**.** The total rainfall depths ranged between 1.1 and 2.4 inches across the SHFR RECM geographic limits**.** Total rainfall depths ranged between 1.1 and 2.3 inches over the SHFR Flood Reduction Focus Area.

Photos were taken at multiple locations during the storm event which allowed for comparison to the peak stages predicted by the RECM simulation. The photos were taken at 7:15 PM which is nearly two hours after the peak rainfall occurred. The locations of the photos used for verification are shown below in **Figure 4-11** and the photos of the observed flooding are shown in **Figure 4-12, Figure 4-13, Figure 4-14**, and **Figure 4-15**.

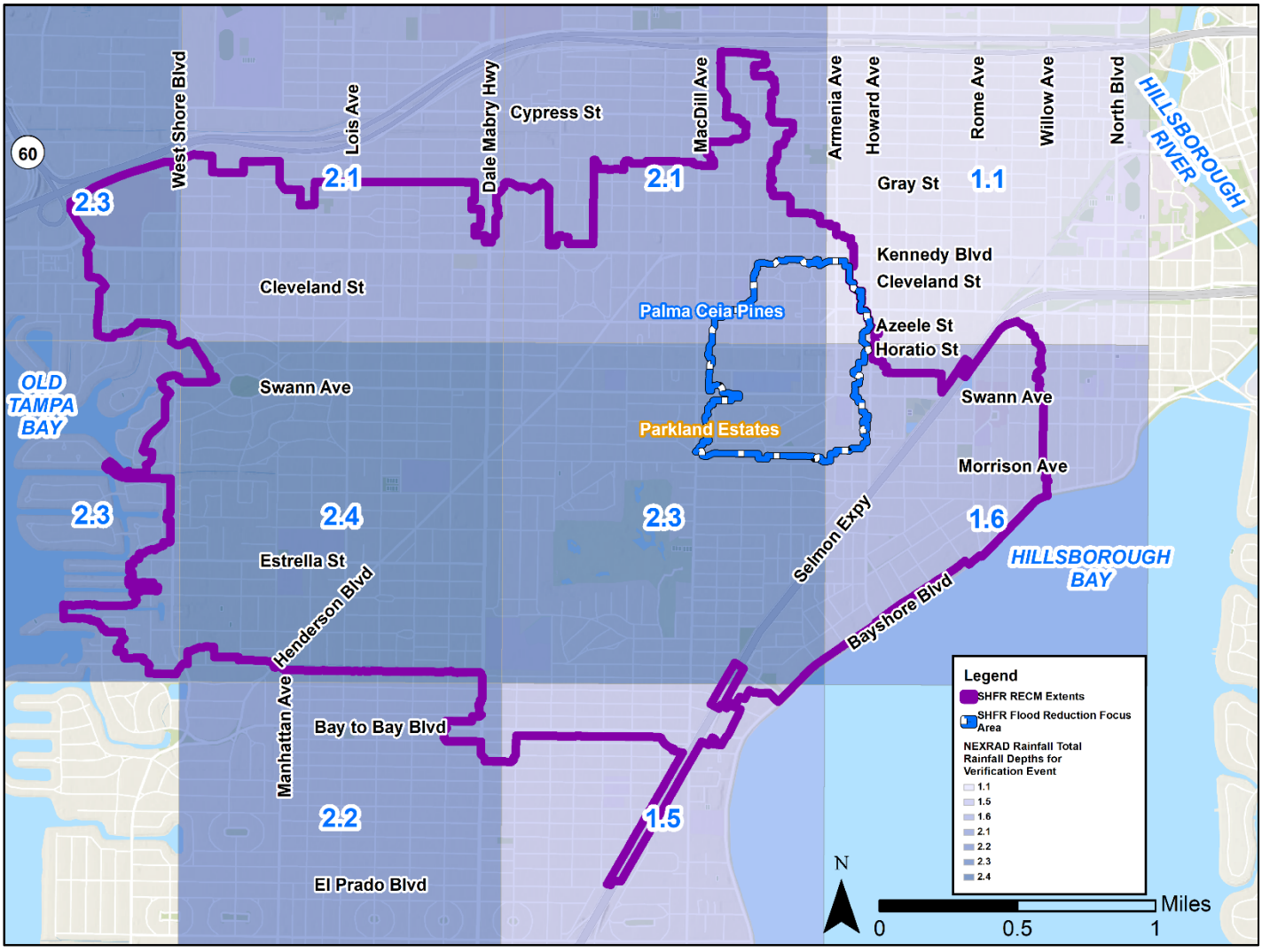


Figure 4-10 – NEXRAD Pixels used for Rainfall Depths (Verification)

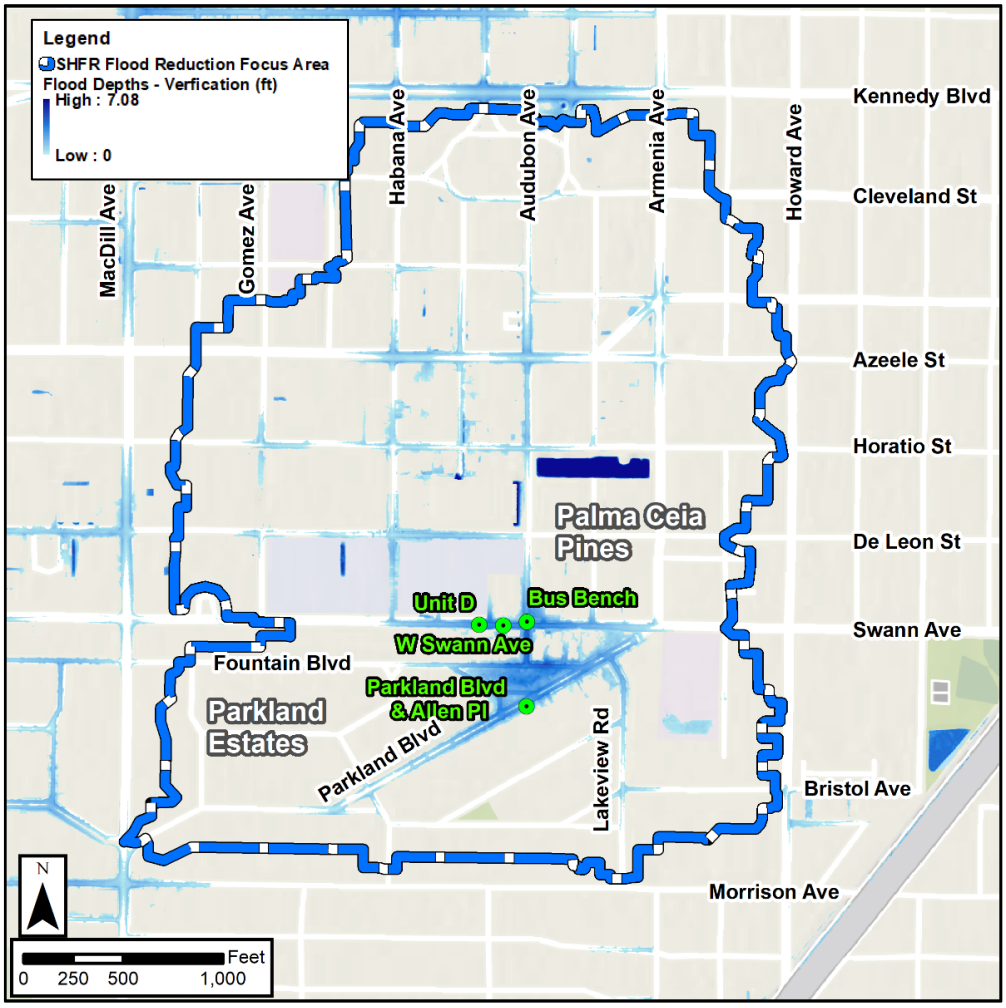


Figure 4-11 – Model Verification Stage Observation Points

The results compare closely to observed flood stages based on the estimated elevation of stain lines and high-water marks within Parkland Estates and along W Swann Ave, as can be seen below in **Table 4-5.**

Table 4-5 – Comparison of Modeled vs Observed Verification Results

Location	Flood Stage (NAVD88 Feet) Observed	Flood Stage (NAVD88 Feet) RECM	Stage Difference (Feet) Observed – RECM
Parkland Blvd & Allen Pl	18.0	17.96	0.0
W Swann Ave (Unit D)	17.9	17.96	-0.1
W Swann Ave (bus bench)	18.0	17.97	0.0
W Swann Ave	18.0	17.96	0.0

Peak stages in the model closely match flood stages observed by the community during the verification event. The following pages show the photographs at the four locations evaluated and provide a brief description of how the observed elevations were estimated.

Fountain Park is shown to be fully inundated in **Figure 4-12** – Parkland Blvd and Allen Pl (Verification Photo)**Figure 4-12**. On the left side of the house with the red roof is a raised mound near a retaining wall that sits just above the flood stage. This matches the shape of the flood extents shown in **Figure 4-11.** The DEM identifies ground elevations within the median ranging from 17.5 to 18.0, consistent with estimated minimal depth of inundation seen in **Figure 4-11**.



Figure 4-12 – Parkland Blvd and Allen Pl (Verification Photo)

W Swann Ave is fully inundated in **Figure 4-13** with the flood extents reaching the base of the shrub in the upper right-hand corner of both photos. The modeled flood stage at this location is 17.96 FT which aligns with the elevation estimated by the DEM at this location.



Figure 4-13 – W Swann Ave (Verification Photo)

Unit D on Swann Ave shows flooding above the second step leading up to the door in **Figure 4-14.** The photo on the left represents the flood extents, while the middle photograph provides perspective for the depth of flooding. The photograph on the right shows the height of the steps. The modeled flood stage at this location is 17.96 FT. The sidewalk outside of Unit D has an estimated elevation of 16.5 FT and the FFE of this building was surveyed at 18.94 FT. This information was used to estimate a peak flood stage of 17.9 FT.



Figure 4-14 – Unit D on W Swann Ave (Verification Photo)

The park bench shown **Figure 4-15** on W Swann Ave sits on a slab of concrete that has an estimated surface elevation of 16.5 FT. Based on the measurement, the peak flood stage observed is estimated to be 18.0 FT. The modeled flood stage is 17.96 FT.



Figure 4-15 – Park Bench on W Swann Ave (Verification Photo)

The results of the RECM's calibration and verification simulations demonstrate the model's accuracy, including peak flood stages that are generally accurate within a few inches. The validation of these reliable model results builds confidence in the SHFR project's solution, whose proposed conditions model was built upon the RECM.

4.8 RECM Results

4.8.1 Flood Protection Level-of-Service Analysis

An existing condition FPLOS analysis was performed using the RECM results and the 2017 DEM. The intent of the analysis was to both identify and quantify the existing FPLOS deficiencies within the SHFR Model Update Area. The criteria used to evaluate FPLOS conditions is shown in **Table 4-6**.

Table 4-6 – SHFR FPLOS Criteria

FPLOS Type	Storm Event	Criteria Description
Roadway(s)[1]	5-year/8-hour (20% Chance)	Peak flood stage less than 4 inches above low EOP

[1]Criteria is used for all roadway categories in the City, including neighborhood/local, collector, and arterial roads.

Low EOP elevations were estimated for model nodes within the SHFR Model Update Area using the 2017 DEM. The peak stages for these nodes were compared against their corresponding low EOP elevations to determine predicted flood depths and roadway FPLOS deficiencies. These comparisons are shown in **Table 4-7** and **Figure 4-16** for the 5-year/8-hour design storm event. Flooding depths over the FPLOS target of 4 inches above the low EOP are highlighted in red, signaling a FPLOS deficiency. Flooding depths between zero and 4 inches above the low EOP are shown in red text but are not highlighted. **It is important to remember that the flood extents shown below assume that the existing stormwater infrastructure is fully maintained and unobstructed.**

Table 4-7 – Summary of Roadway FPLOS Analysis (RECM, 5-year/8-hour design storm)

Node	Location	RECM Peak Stage (ft, NAVD88)	Low EOP Elevation (ft, NAVD88)	Existing Flood Depth (ft)
NRU0955	W Horatio St at S Audubon Ave (north side)	19.23	16.9	2.3
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	19.21	15.2	4.0
NCL3510	W Cleveland St at S Habana Ave	19.65	19.1	0.5
NCL3450	W Horatio St at S Habana Ave	19.23	16.9	2.3
NCL3490	W Platt St at S Habana Ave	19.23	17.7	1.5
NRU0790	W Swann Ave at S Audubon Ave (north side)	19.22	15.9	3.3
NRU0970	W Horatio St at S Tampania Ave	19.23	17.4	1.8
NCL3520	S Arrawana Ave at W Cleveland St	19.37	19.0	0.4
NRU1050	W Platt St at S Armenia Ave	19.23	17.3	1.9
NCL3550	W Kennedy Blvd at S Habana Ave (north side)	20.51	18.8	1.7
NRU0960	W Azeele St at S Audubon Ave (south side)	19.23	17.0	2.2
NRU0785	W Swann Ave at S Audubon Ave (south side)	19.22	15.5	3.7
NRU1030	W Azeele St at S Armenia Ave (north side)	19.23	17.4	1.8
NBW2090	W De Leon St at S Gomez Ave	19.22	18.0	1.2

Node	Location	RECM Peak Stage (ft, NAVD88)	Low EOP Elevation (ft, NAVD88)	Existing Flood Depth (ft)
NRU0710	W Parkland Blvd at S Forest Dr	19.21	17.3	1.9
NCL3640	W Kennedy Blvd at Armenia Ave	20.51	19.6	0.9
NRU0740	W Parkland Blvd between S Forest Dr and Allen Pl	19.21	17.0	2.2
NRU0810	W Swann Ave at S Tampania Ave	19.22	16.8	2.4
NBW2050	W De Leon St at S Matanzas Ave	19.37	18.5	0.9
NRU0830	W De Leon St at S Audubon Ave	19.22	17.9	1.3
NCL3530	W Kennedy Blvd at S Habana Ave (south side)	20.51	18.8	1.7
NBW2070	W De Leon St at S MacDill Ave	19.37	18.0	1.4
NRU0650	W Morrison Ave at S Forest Dr	19.15	18.2	0.9
NRU0690	W Simms Blvd at S Forest Dr	19.20	17.9	1.3
NCL3250	W Horatio St at S Gomez Ave	19.22	17.2	2.0
NRU1090	W Parkland Blvd at W Fountain Blvd	19.22	16.2	3.0
NRU1110	S Lakeview Rd at W Parkland Blvd	19.22	16.4	2.8
NCL3630	W Kennedy Blvd at S Arawana Ave	20.50	18.6	1.9
NRU1010	W Horatio St at S Armenia Ave	19.23	18.2	1.0
NRU0965	W Azeele St at S Audubon Ave (north side)	19.23	16.9	2.3
NBW2110	W De Leon St at S Habana Ave	19.22	17.3	1.9
NRU0950	W Horatio St at S Audubon Ave (south side)	19.23	17.1	2.1
NCL3470	W Azeele St at S Habana Ave	19.23	16.8	2.4
NSH18	W Stroud Ave and S Howard Ave	15.74	15.3	0.4
NRU1040	W Azeele St at S Armenia Ave (south side)	19.23	17.2	2.0
NSH19	Palm Dr and S Howard Ave	11.55	11.3	0.3
NRU1070	W Cleveland St at S Armenia Ave	19.24	18.9	0.3
NRU0745	S intersection of W Parkland Blvd and Allen Pl	19.21	16.0	3.2
NRU1170	Intersection of W Bristol Ave and S Lakeview Rd	19.22	18.0	1.2
NCL3740	Intersection of W Horatio St and S Arrawana Ave	19.23	17.1	2.1

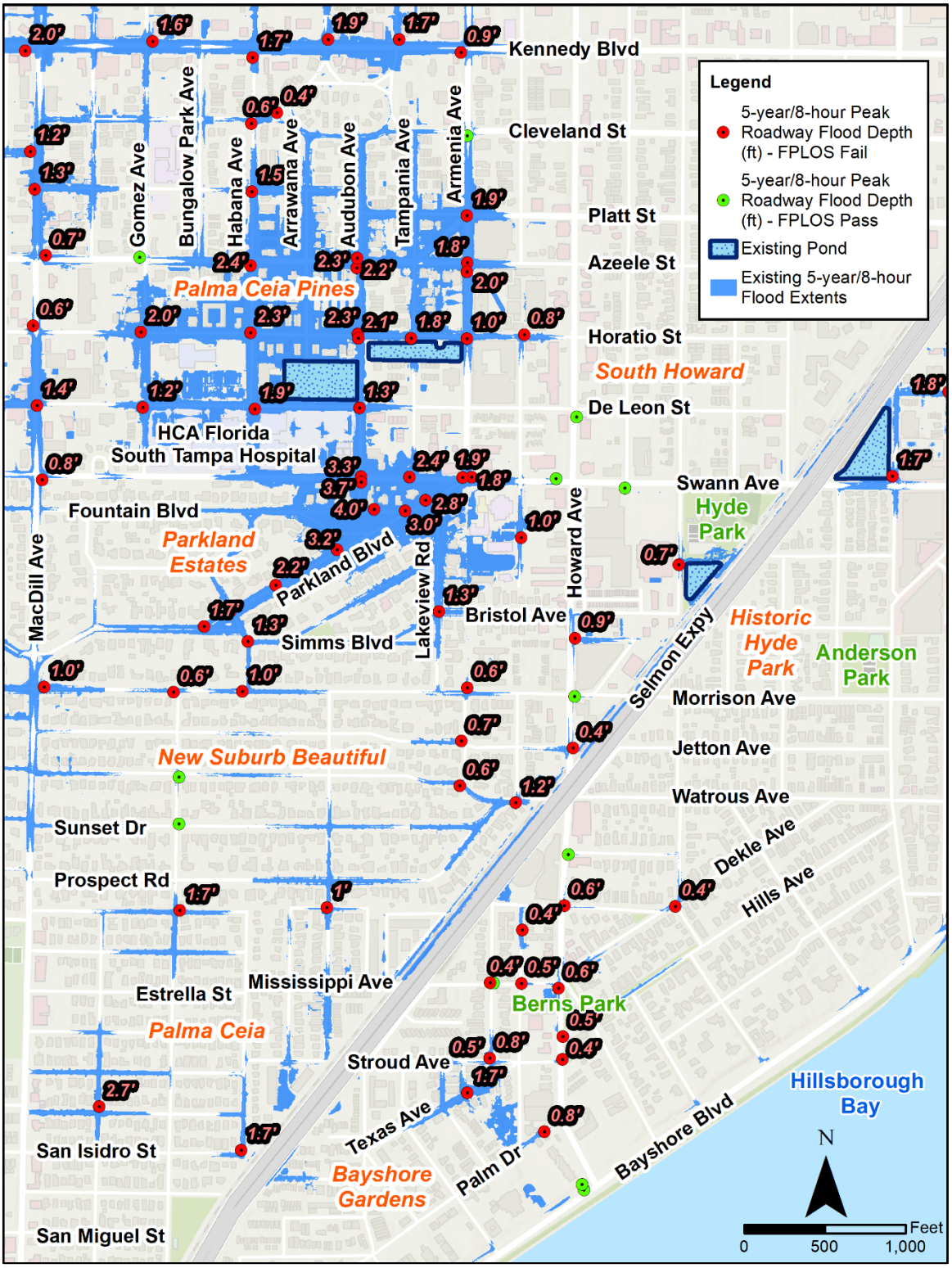


Figure 4-16 – Summary Map of Roadway FPLOS Analysis (RECM, 5-year/8-hour design storm)

.

4.8.2 Predicted Flood Impacts

Table 4-8 below summarizes the severity of the predicted flooding for a range of design storm events, as well as the calibration event. These values are predicted using the RECM results, recently surveyed finished floor elevations for over 200 buildings (which include over 400 individual first floor homes and businesses) within Parkland Estates and Palma Ceia Pines, and the DEM.

Table 4-8 –Summary of Existing Flood Impacts for Simulated Events

Flood Impact	2.33-year/ 24-hour Design Storm (4.5 inches)	5-year/ 8-hour Design Storm (5.3 inches)	10-year/ 24-hour Design Storm (7.0 inches)	25-year/ 24-hour Design Storm (8.0 inches)	50-year/ 24-hour Design Storm (10.0 inches)	100-year/ 24-hour Design Storm (11.0 inches)	Hurricane Milton (13-14.5 inches*)
Existing Number of Homes/Businesses Inundated**	0	96	123	203	255	272	333
Existing Duration of Roadway Flooding on W Swann Ave (hours)	6	8	10	12	14	15	19
Existing Max. Depth of Roadway Flooding, Parkland Estates (feet)	3.2	4.0	4.3	4.6	4.9	5.1	5.4
Existing Max. Depth of Roadway Flooding, Palma Ceia Pines (feet)	1.9	2.5	2.9	3.2	3.5	3.7	4.0

*Hurricane Milton rainfall totals vary across the model's geographic limits, and were estimated by radar (source: NEXRAD)
**Includes total number of ground floor dwellings, including single family homes, businesses, and individual apartment or townhome units, within the 206 specific buildings surveyed in 2025 by the design-build team, as predicted by the RECM, and has not been otherwise verified.
Note: All values in the table are predicted using H&H model results and have not been field verified after observed rainfall events.

Figure 4-17 and Figure 4-18 below illustrate the flooding impacts predicted within the SHFR Flood Reduction Focus Area for the 5-year-hour/8-hour design storm event and 100-year/24-hour design storm event. The 100-year/24-hour design storm event is significant because it is commonly used for insurance and regulatory purposes **Figure 4-19** illustrates the predicted number of homes and businesses inundated by Hurricane Milton in 2024 based on the RECM's calibration, with the number of first floor dwellings labeled for each structure.

As mentioned in the footnotes of **Table 4-8**, the estimated total number of homes and businesses inundated refers to the number of first floor dwellings within buildings that have a surveyed FFE below the RECM's predicted flood stage. This number includes individual apartment and townhome units, and leased office spaces within commercial buildings. The certified survey of the FFEs evaluated for this project can be found in **Appendix D.**

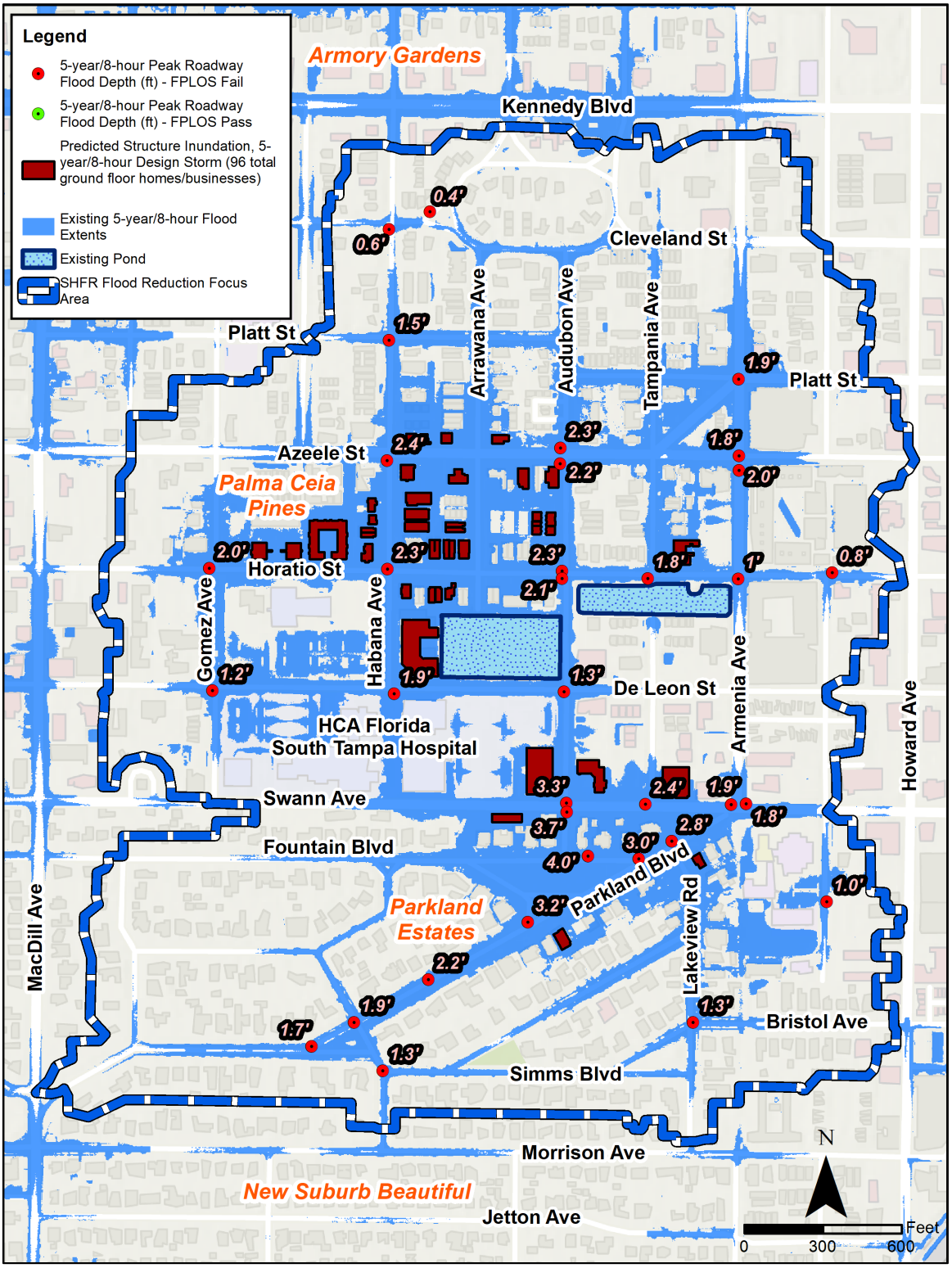


Figure 4-17 – SHFR Existing Condition 5-year/8-hour Flood Impacts

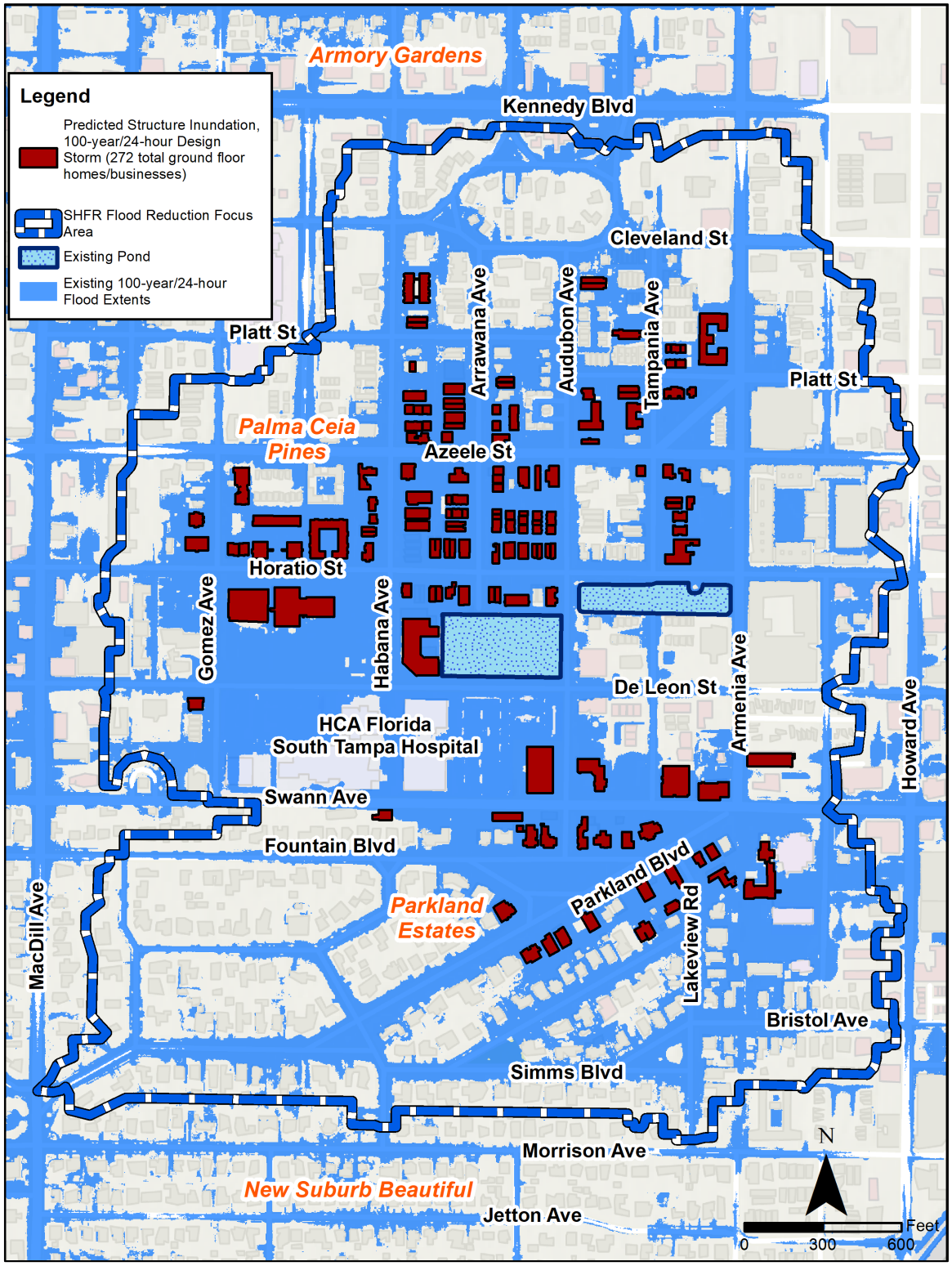


Figure 4-18 – SHFR Existing Condition 100-year/24-hour Flood Impacts

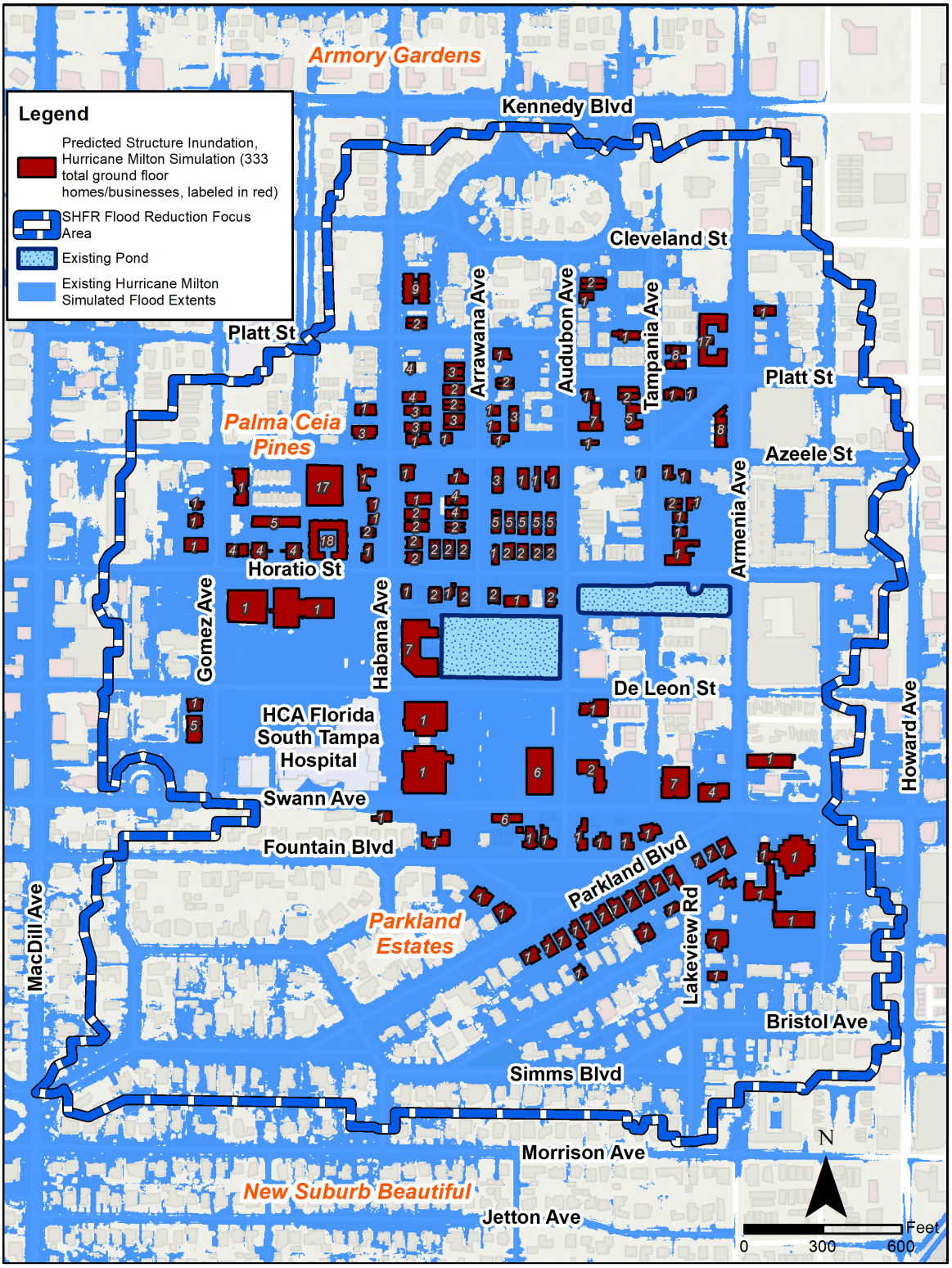


Figure 4-19 – SHFR Existing Condition Hurricane Milton Simulated Flood Impacts

5. Proposed Design Analysis

5.1 Sizing of Proposed Box Culvert and Pipes

5.1.1 Sizing Overview

Given the natural topography and drainage capacity challenges discussed in **Section 3**, a new or significantly upgraded stormwater conveyance system is needed to efficiently convey excess rainfall from the streets of Parkland Estates and Palma Ceia Pines into the bay and significantly reduce flooding in these neighborhoods.

The calibrated RECM was used as a base model to optimize a configuration of new pipes and box culverts that achieve the project's flood reduction goals in a hydraulically efficient, cost-effective way. To achieve this, the proposed conditions model (PCM) analyzed numerous iterations of design configurations to find the recommended solution. Changes made as part of the PCM development follow the same methodology discussed in **Section 4**. These **iterations began with the proposed system recommended in the project's Design Criteria Package (a 5'x10' box culvert terminating at W Swann Ave & S Audubon Ave) and progressed into larger box culvert sizes that extended further north, providing equity of flood reduction benefits between Parkland Estates and Palma Ceia Pines.**

The proposed infrastructure was sized to meet the FPLOS goal of 4 inches or less of flood depth over the lowest edge of pavement (EOP) within the SHFR Flood Reduction Focus Area, as defined in **Section 1.3**. Additional pipe connections have been added to the model to ensure that the trunkline is large enough to provide capacity for future flood reduction projects, which are discussed in **Sections 5.1.2 and 5.1.3** below.

Modeling efforts show that the following improvements are sufficient to meet the FPLOS goal, from downstream to upstream, consistent with the sequence of construction:

- The existing three 4'x6' box culverts beneath Bayshore Blvd at S Howard Ave, and its termination into Hillsborough Bay, will remain. No additional pipe or box culvert is proposed to discharge into the Bay.
- A 10'x10' box culvert (or equivalent conveyance) will convey stormwater beneath S Howard Ave between the existing triple box culverts at Bayshore Blvd and the Selmon Expressway.
- The existing 5'x10' box culvert along S Howard Ave beneath the CSX railroad and Selmon Expressway will remain and be supplemented by a parallel 60" pipe (to be installed via micro tunnel) for additional capacity.
- A 10'x10' box culvert will convey stormwater beneath S Howard Ave and other streets between the CSX railroad crossing at S Howard Ave and the intersection of W Swann Ave & S Audubon Ave, using one of three routes discussed in **Section 5.3.**
- A 10'x10' box culvert will convey stormwater beneath S Audubon Ave between the W Swann Ave and the AMI Pond, just north of W De Leon St. With a new adequate outfall, pond will now function as a massive stormwater inlet for the Palma Ceia Pines neighborhood during severe rainfall events, when surcharged pipe systems overflow into the pond using the adjacent low-lying roadway corridors as conveyance channels.
- The 10'x10' box culvert will discharge excess runoff directly from the pond into Hillsborough Bay and will use large weirs to control water levels within the pond, preserving the pond's permitted treatment function and capacity.
- New stormwater collection systems will need to extend from the AMI Pond or 10'x10' box culvert into portions of Parkland Estates and Palma Ceia Pines (among other locations). This is necessary to provide enough combined inlet and pipe capacity to meet the FPLOS goal for the entire SHFR Flood Reduction Focus Area.

The future phase collection systems, which are discussed in **Section 5.1.3** are a concept level design that provides the conveyance needed to meet the FPLOS goal within these areas once Phase I is constructed, and funding is secured.

While the conveyance system has been sized based on the 5-year/8-hour design storm, it also will provide significant reduction in flood stages for all storm events, including storms like Hurricane Milton. This was modeled to quantify flood reduction benefits if the proposed system had been in place prior to the 2024 wet season.

5.1.2 Proposed Conditions Model (PCM) Components – Phase I

5.1.2.1 Primary Box Culvert Trunkline

A 10'x10' box culvert will serve as a new major artery for conveyance of stormwater, allowing smaller collection systems to "tap in" along the culvert's route to Hillsborough Bay. In the PCM, the box culvert begins at S Howard Ave & Bayshore Blvd and ends at the AMI Pond on the west side of S Audubon Ave between W De Leon St and W Horatio St. This section discusses the recommended route selected. A discussion of all alternative routes evaluated can be found in **Sections 5.3 and 5.4** of this report.

Due to ground cover restrictions, dual 7'x7' box culverts are needed instead of a single 10'x10' box culvert for a portion of the trunkline along S Howard between W Palm Dr and Bayshore Blvd to shallow up the flowline and avoid a hydraulic sump condition in the trunkline's profile. This not only improves hydraulic efficiency but reduces maintenance needs for the City throughout the system's service life.

The most significant hydraulic restriction point in the new trunkline is located at its crossing with the CSX railroad and the Selmon Expressway. Due to constructability challenges beneath the railroad and overpass, the existing 5'x10' box culvert at this crossing will be supplemented with a new parallel pipe, to be installed with a microtunnel operation, eliminating the need to fully excavate this portion of South Howard Ave. While the combination of 5'x10' box culvert and 60" pipe represents a hydraulic restriction in the PCM, it provides enough conveyance to meet the project's FPLOS goal with a 10'x10' box culvert serving as the trunkline between this location and Palma Ceia Pines.

It can be thought of as a nozzle, like holding a thumb partially over the end of a garden hose. The restriction increases the velocity of flow through this short segment but still allows for a high enough flow rate to meet the project's FPLOS goal. Reducing the size of the entire stormwater trunkline to this equivalent conveyance would be like using a smaller diameter garden hose, which reduces the overall flow rate, and would not allow the project to meet its FPLOS goal due to significant additional friction losses.

A second hydraulic restriction in the proposed system occurs within the median of Bayshore Blvd at S Howard Ave, where the incoming dual 7'x7' box culverts meet the outgoing existing triple 4'x6' box culverts, which will discharge the system into Hillsborough Bay beneath Bayshore Blvd's northbound lanes and sidewalk. At this location, a large conflict structure is needed to accommodate the change in pipe size and to provide area for conveyance above and below the existing 48-inch diameter sanitary sewer gravity main that will continue through the structure. The interruption of flow through the conflict structure will result in hydraulic head loss to the system, however this configuration is needed to accommodate utilities and connect existing and proposed infrastructure.

Hydraulic head losses can be thought of as system inefficiencies. Designers do their best to avoid them to optimize a stormwater system's conveyance efficiency, however sometimes they are unavoidable. The anticipated hydraulic head loss associated with each restriction can be seen as a steeper slope of the hydraulic grade line profile, which is plotted in **Figure 6-1**, in **Section 6.1**.

Minor losses were introduced within the new box culvert trunkline using the following assumptions, consistent with the RECM's underlying methodology:

- At model nodes that represent locations within straight and continuous box culvert, entrance and exit loss coefficients were set to zero for pipe links that represent the box culvert, because nothing is significantly restricting conveyance through these locations.

- At the CSX railroad/Selmon crossing and at W Palm Dr, where the trunkline changes size, entrance and exit loss coefficients of 0.5 were given to account for the large junction structures needed to connect the trunkline segments.
- At Bayshore Blvd and S Howard Ave, an exit loss of 1 was given to the incoming dual 7'x7' culverts due to the nature of the large conflict structure, which will include a sump beneath the large gravity sanitary sewer passing through the structure in front of the outgoing triple box culverts.
- The triple 4'x6' box culverts were given an exit loss coefficient of 1 due to the static nature of the receiving water body (Hillsborough Bay).
- Pipe links entering 90-degree deflections within the box culvert alignment, which will likely consist of two continuous and precast 45-degree turns, were given an exit loss coefficient of 0.5 to account for the bend.

5.1.2.2 Parkland Estates

The configuration of stormwater infrastructure needed in Parkland Estates is dependent on the route of the 10'x10' box culvert. The project scope identifies three alternative routes that use S Howard Ave to reach W Swann Ave at S Audubon Ave – W Morrison Ave, W Bristol Ave, and W Swann Ave. A detailed comparison of these three routes can be found in **Section 5.3**. For the W Bristol Ave and W Morrison Ave routes, which both navigate Parkland Estates along S Lakeview Rd, new inlets and smaller pipes would connect directly into the box culvert.

For the W Swann Ave route, the low-lying portions of W Fountain Blvd and W Parkland Blvd would connect to the box culvert on W Swann Ave using both the existing 42-inch pipe along S Audubon Ave and a new 72-inch pipe that uses W Parkland Blvd. Both pipes are needed because of significant backflow anticipated through the existing 48-inch x 76-inch elliptical pipe along W Parkland Blvd (Upper Peninsula East outfall system discussed previously in **Section 3.2.3**) that currently carries stormwater south through New Suburb Beautiful, Palma Ceia, and Bayshore Gardens before discharging to Hillsborough Bay. These three pipes will connect within a single structure near the lowest portion of W Fountain Blvd, at which point stormwater can take the path of least resistance to reach Hillsborough Bay. **Figure 5-1** below illustrates this connection and the proposed stormwater pipe configuration for the W Swann Ave route.

The proposed 30-inch pipe along S Lakeview Rd, which will be constructed as part of a future phase project, will allow the intersection of W Bristol Ave and S Lakeview Rd to meet the FPLOS goal once the recommended pipe along W Morrison Ave is constructed. If no upgrades were to occur on W Morrison Ave, the proposed pipe along S Lakeview Rd would need to extend south to W Bristol Ave to achieve the FPLOS goal at that intersection.

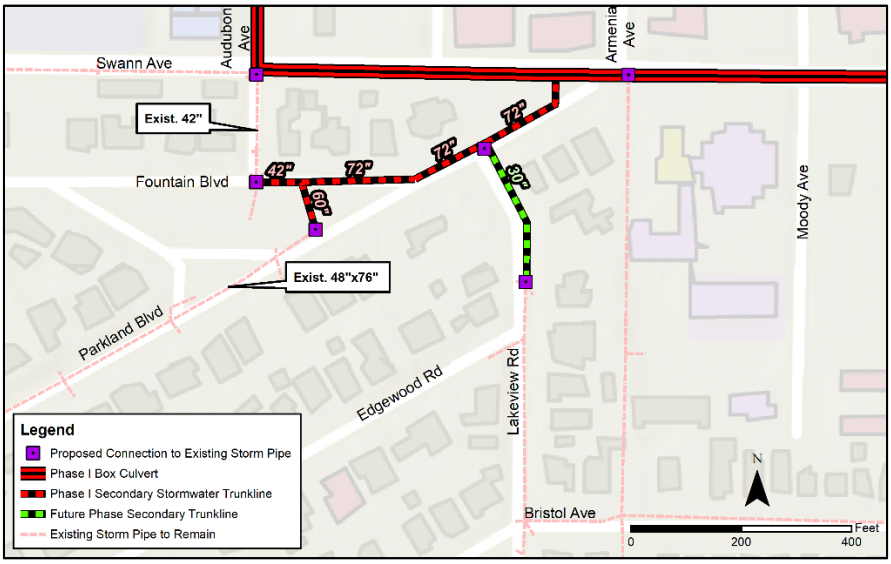


Figure 5-1 – Parkland Estates Proposed Stormwater Connections (W Swann Ave Route)

5.1.2.3 Selmon Expressway Connection Points

All proposed models for the SHFR project account for the South Selmon Capacity Project and reflect THEA's concept-level design plans documented as part of the project's ERP application. A new pipe is proposed along W Bristol Ave to receive discharges from Albany Pond as part of a proposed agreement between the City of Tampa and THEA, who is dependent on this new outfall for their South Selmon Capacity project, which includes the addition of lanes on the Selmon Expressway. The proposed agreement also includes a connection point at W Watrous Ave and S Howard Ave, where the proposed box culvert will receive discharge from the Selmon Expressway ditch that lies between the Selmon Expressway and the railroad.

- A 36" pipe along W Bristol Ave between S Howard Ave and the Albany Pond, which will connect to the pond's control structure.
- A 30" pipe along W Watrous Ave, terminating on the east side of the railroad track, which will connect to THEA's 24" pipe entering the W Watrous Ave right of way from a proposed ditch system. This pipe was sized to accommodate a future extension of the system west beneath the railroad tracks, which will alleviate flooding in New Suburb Beautiful, as discussed in **Section 5.1.3.4.**

The volume and discharge rates of stormwater runoff that the box culvert will receive from these locations are very small in comparison to the stormwater runoff from Parkland Estates and Palma Ceia Pines. The conceptual drainage design and impervious footprint for the Selmon Expressway project, as documented in ERP application 915140, is included in the proposed conditions models for the SHFR project. The locations of these connection points are shown in **Figure 5-2**.

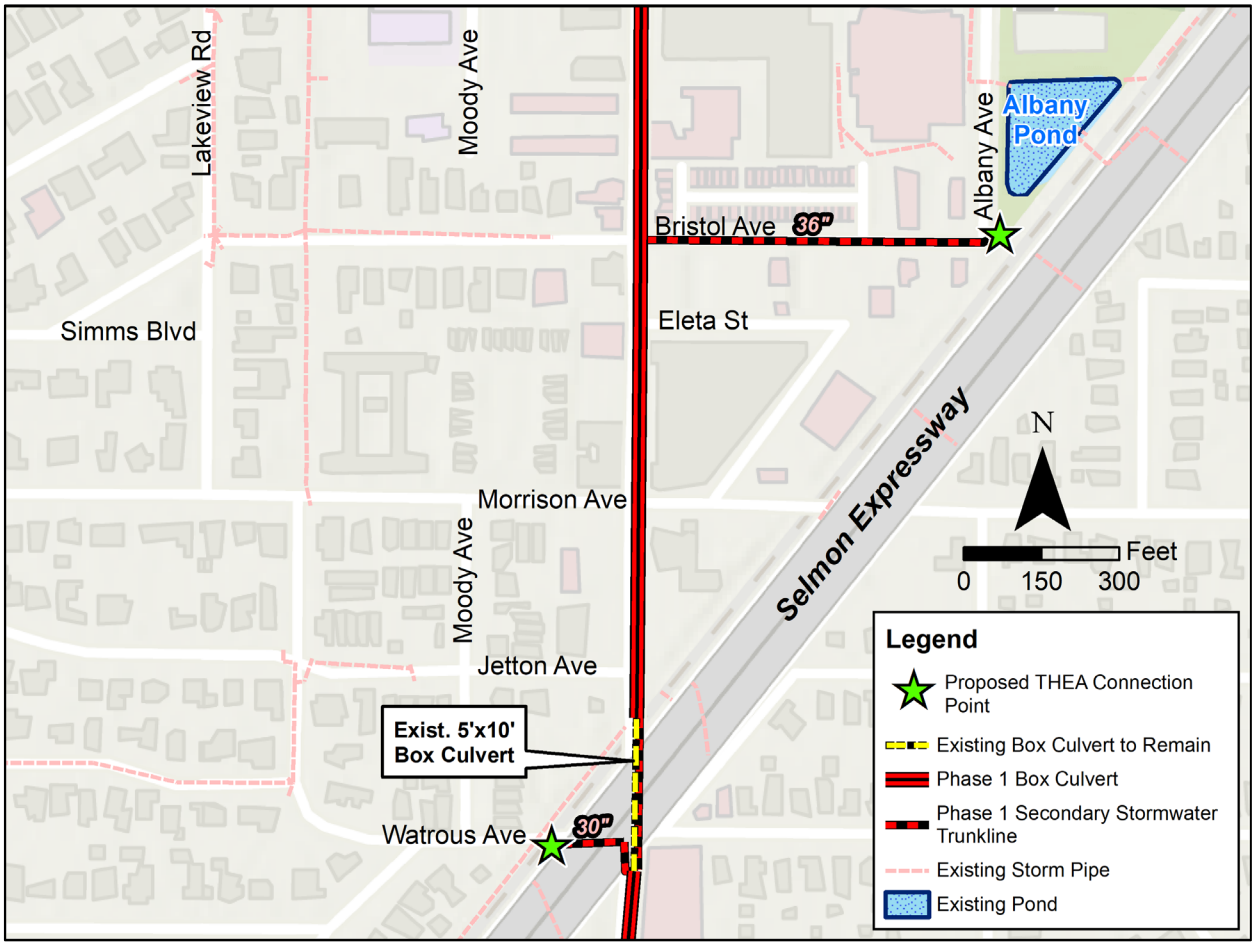


Figure 5-2 – Selmon Expressway Project Connection Points

5.1.2.4 W Kennedy Blvd (by others)

The Florida Department of Transportation (FDOT) began construction on W Kennedy Blvd in October 2025 to upgrade the existing roadway surface and drainage system along the corridor. The proposed stormwater collection system upgrades are included in the PCM to evaluate the future benefit to W Kennedy Blvd upon completion of both projects. However, for the SHFR project's benefit-cost analysis discussed in this report, the ongoing work along Kennedy Blvd was excluded from that version of the PCM so that the analysis did not take credit for drainage improvements that are not reflected in the BCA's project cost.

Because the W Kennedy Blvd system directly to the north of the SHFR Flood Reduction Focus Area outfalls through a City system (along S Habana Ave and into the AMI Pond) and the pipes leaving the W Kennedy Blvd right of way will not change as part of FDOT's project, it is unlikely that the FDOT project alone will result in an increase in runoff into Palma Ceia Pines. According to the SHFR models, most of the flow that enters Palma Ceia Pines from W Kennedy Blvd occurs as overland flow from an easily overwhelmed pipe system.

The SHFR project's H&H models show that **until the significant overland flows onto W Kennedy Blvd from the north are addressed by increasing capacity of City stormwater pipes north of Kennedy, these FDOT improvements will do very little to alleviate flooding on Kennedy, even if the existing S Habana Ave system between Kennedy and the AMI Pond were to be upsized.** Discussion of this issue along with potential solutions can be found in **Section 5.1.4.**

A map that illustrates the drainage improvements currently under construction on W Kennedy Blvd can be found below in **Figure 5-3.**

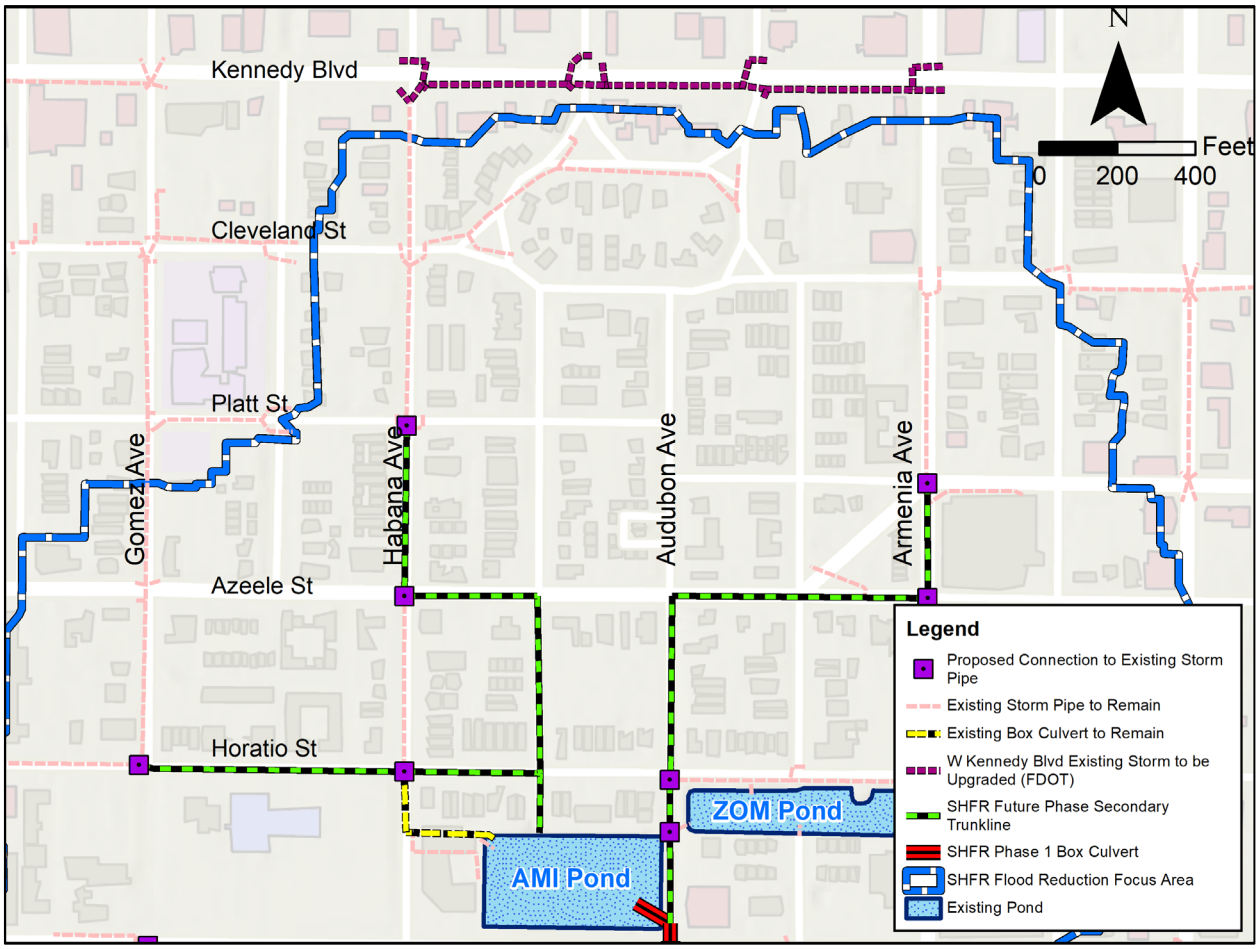


Figure 5-3 – W Kennedy Blvd Drainage Improvements (FDOT)

5.1.3 Proposed Conditions Model (PCM) Components – Future Phases

5.1.3.1 Palma Ceia Pines Collection Systems

An iterative modeling analysis was carried out to provide a concept-level design solution that collects water within Palma Ceia Pines and brings it into the new 10'x10' box culvert in an efficient and cost-effective way, achieving the FPLOS goal within the SHFR Flood Reduction Focus Area, while maintaining existing stormwater treatment within detention ponds to the extent possible.

The concept design includes several weir structures that preserve stormwater treatment capacity within the AMI and ZOM ponds during manageable rainfall events while allowing excess runoff during severe rainfall events to bypass those ponds and use the new box culvert trunkline. These collections systems are critical to meeting the FPLOS goal within Palma Ceia Pines. They not only convey direct runoff generated within the SHFR Flood Reduction Focus Area, but also bring in stormwater from west of S MacDill Ave, which is forced east through the existing pipes along W Horatio St and W De Leon St. Although designed to flow west toward Old Tampa Bay (as discussed previously in **Section 3**), in the proposed condition these systems will temporarily reverse flow during heavy rainfall and will discharge into the AMI pond and the new box culvert trunkline, which becomes the path of least resistance for the overwhelmed existing systems. This will provide some flood relief to the western portion of Palma Ceia Pines and other areas to the west along the Upper Peninsula West Outfall and Cleveland Street Outfall systems.

To reduce the size of the proposed secondary collection systems, an 18-inch-tall weir has been introduced (in the model) within the bottom of the proposed three-way junction structure at the intersection of S Gomez Ave and W Horatio St to limit backflows from the west. These backflows occur within the large existing elliptical pipe that is part of the Cleveland Street Outfall system, as discussed previously in **Section 3.2.1**.

The conceptual future phase pipes north of W Swann Ave demonstrate the conveyance needed to meet the FPLOS goal and assume that the existing trunklines within the same corridor will be removed and replaced. There will likely be opportunities to use existing pipes in certain areas and construct an additional trunkline alongside them, reducing the size of the new pipes and potentially reducing construction costs. These value engineering opportunities will be evaluated further during the design phase of the future project, when topographic survey and subsurface utility exploration is complete. Potential locations for these opportunities include W Horatio St between S Gomez Ave and S Habana Ave, W De Leon St between S Gomez Ave and S Habana Ave, and S Armenia Ave between W Platt St and W Horatio St. Because this hasn't been fully evaluated, and requires additional survey and data collection, a formal cost estimate has not been finalized for these future systems.

Figure 5-4 below provides a map of the Palma Ceia Pines conceptual design developed as part of this analysis.

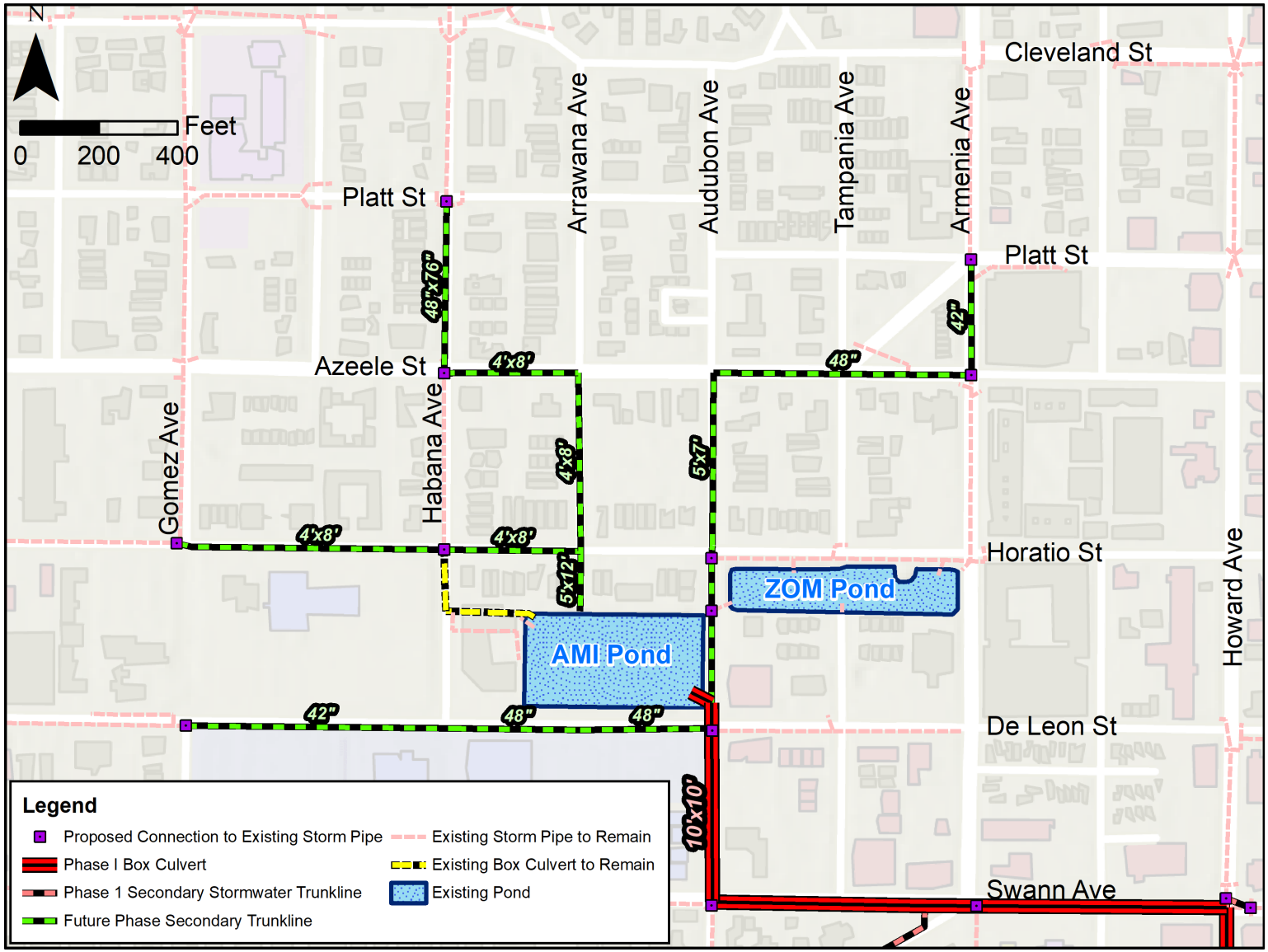


Figure 5-4 – Palma Ceia Pines Future Phase Conceptual Design

5.1.3.2 W Texas Ave

W Texas Ave, between South Carolina Ave and S Alabama Ave, experiences roadway flooding during heavy rainfall due to its elevation relative to the surrounding area and an undersized pipe system that carries runoff south and east to Bayshore Blvd through several private properties. The RECM predicts 5-year/8-hour flood depths over the roadway that exceed 18 inches at the lowest point – the intersection with S Glen Ave. This localized flooding also impacts W Stroud Ave, S Lorenzo Ave, S Bay Villa Ave, and S Moody Ave. A series of stormwater pipes that range in size between 24-inch and 36-inch diameter have been sized in the PCM to connect the low areas along W Texas Ave to the proposed box culvert along S Howard Ave. These pipes would supplement and connect to the existing 24-inch pipe that provides drainage to this area today. A 36-inch pipe stub-out will be provided on W Stroud Ave at S Howard Ave as part of the Phase I project to accommodate this as a future project. A map of these future concept-level improvements can be found in **Figure 5-5** below.

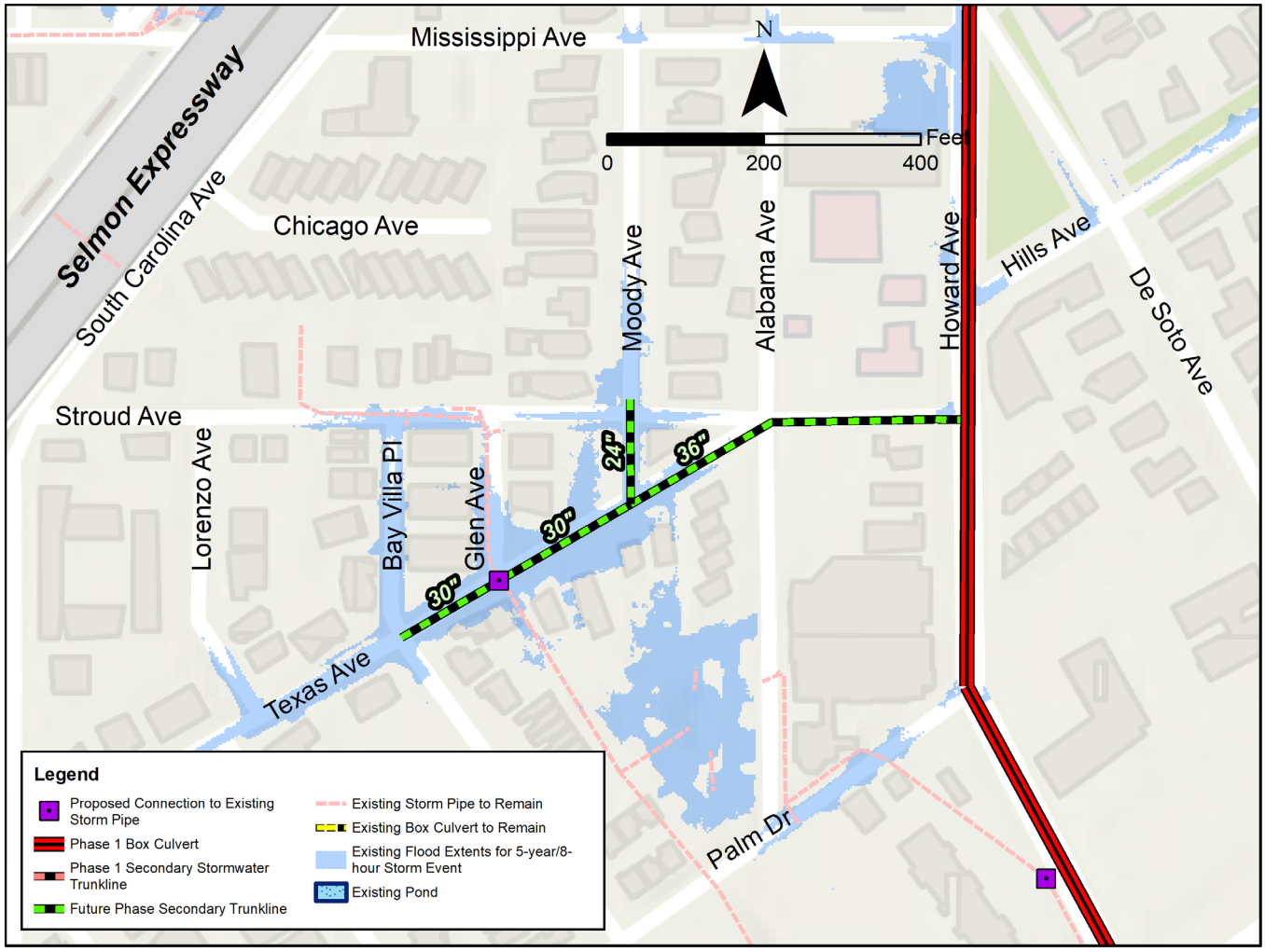


Figure 5-5 – Future W Texas Ave Drainage Improvements

5.1.3.3 W Morrison Ave and S Armenia Ave

The RECM predicts 5-year/8-hour flood depths between 7 and 9 inches over the lowest edges of pavement along W Morrison Ave at S Armenia Ave, and along W Jetton Ave at S Armenia Ave. For the W Swann Ave route**,** a 30” pipe along W Morrison Ave between the South Howard box culvert and S Armenia Ave was analyzed and achieves two goals:

- Reduces peak stages on W Morrison Ave to meet FPLOS goal.
- Provides a secondary outlet for runoff at W Bristol Ave and S Lakeview Rd, allowing FPLOS goal to be met at that location without constructing a new pipe along the full length of S Lakeview Rd between W Bristol Ave and W Parkland Blvd.

This future system eliminates the need for approximately 430 feet of stormwater pipe installation, utility relocations, and roadway restoration on S Lakeview Rd, which reduces construction costs, impacts to residents, and impacts to the many large oak trees that line this corridor. A 30-inch pipe stub-out will be provided on W Morrison Ave at S Howard Ave as part of the Phase I project to accommodate this as a future project. A map of these future concept-level improvements can be found in **Figure 5-6** below.

5.1.3.4 W Watrous Ave

The RECM predicts a peak 5-year/8-hour flood depth of 15 inches above the low edge of pavement along W Watrous Ave, just west of the CSX railroad crossing and S Howard Ave. To achieve the FPLOS at this location, a new 18” pipe is needed to carry runoff from this area beneath the railroad tracks and into the new box culvert system. This pipe will need to be installed using a jack and bore method, and construction will need to be coordinated with and permitted through CSX. Without this new pipe, the project can still provide a reduction in flooding to this location, however it will not be enough to meet the FPLOS goal. An 18-inch pipe stub-out will be provided on W Watrous Ave near the Selmon Expressway as part of the Phase I project to accommodate this as a future project. A map of these future concept-level improvements can be found in **Figure 5-6** below.

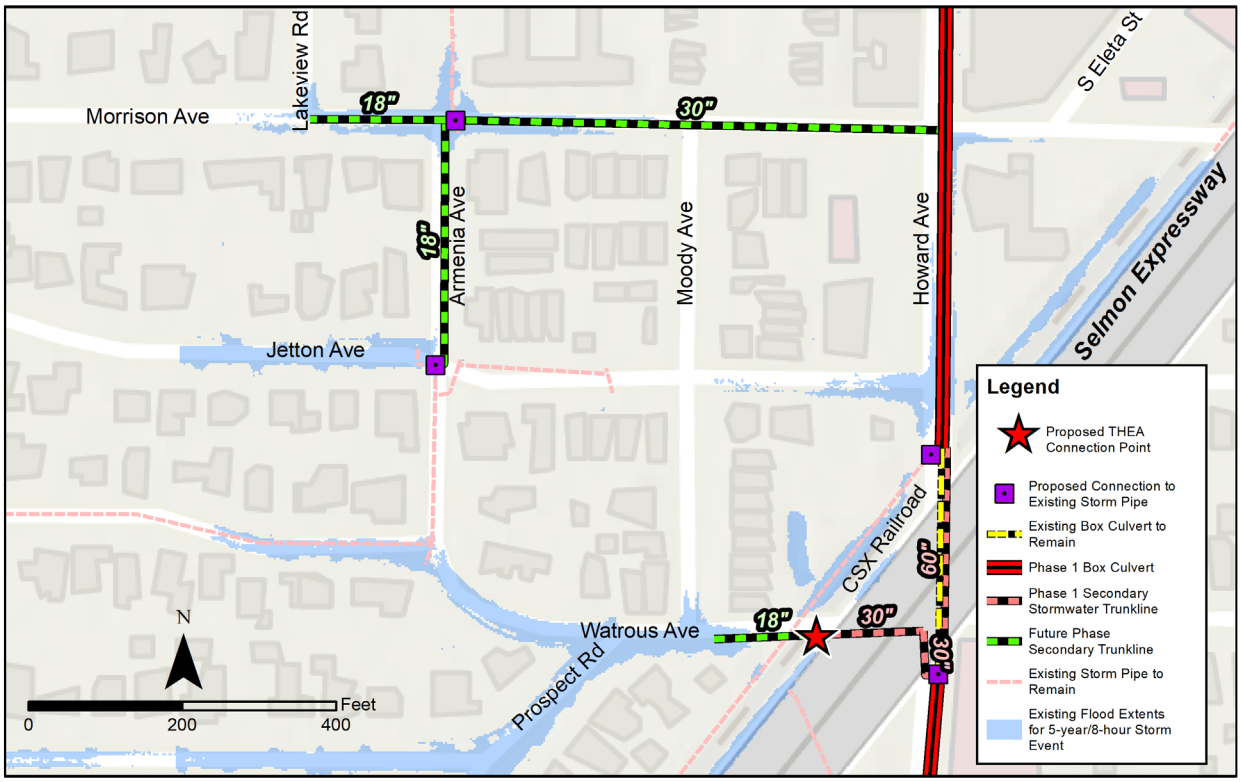


Figure 5-6 – Future W Morrison Ave, S Armenia Ave, and W Watrous Ave Drainage Improvements

5.1.3.5 W Eleta St

W Eleta St is a roughly 400 LF section of roadway to the east of S Howard Ave, one block to the south of W Bristol Ave. The RECM predicts significant street flooding at its intersection with S Howard Ave due to poor roadway grading and lack of stormwater infrastructure. Two permitted detention ponds along the north side of W Eleta St discharge excess runoff across the existing sidewalk and into the roadway, contributing to the flooding and creating a hazard to pedestrians.

There are also numerous isolated ponding issues along the south side of W Eleta St and along S Eleta St between W Eleta St and W Morrison Ave, due to lack of a drainage system at low points within the roadway profile. The SHFR project presents an opportunity to address these issues by extending new storm inlets and pipes east to capture runoff and carry it directly into the box culvert along S Howard Ave.

Extending a pipe along W Eleta St to S Eleta St will provide a connection point for a future system that can alleviate the ponding along S Eleta St. Regrading of the roadway may also be necessary to facilitate drainage and eliminate ponding, and would be prudent along S Eleta St to reduce the number of inlets needed to solve the problem. It has been determined that an 18" pipe that connects directly into the 10'x10' box culvert on S Howard Ave will be adequate to meet the FPLOS goal on W Eleta St and S Eleta St.

An 18-inch pipe stub-out will be provided on W Eleta St to the east of S Howard Ave as part of the Phase I project to accommodate this as a future project.

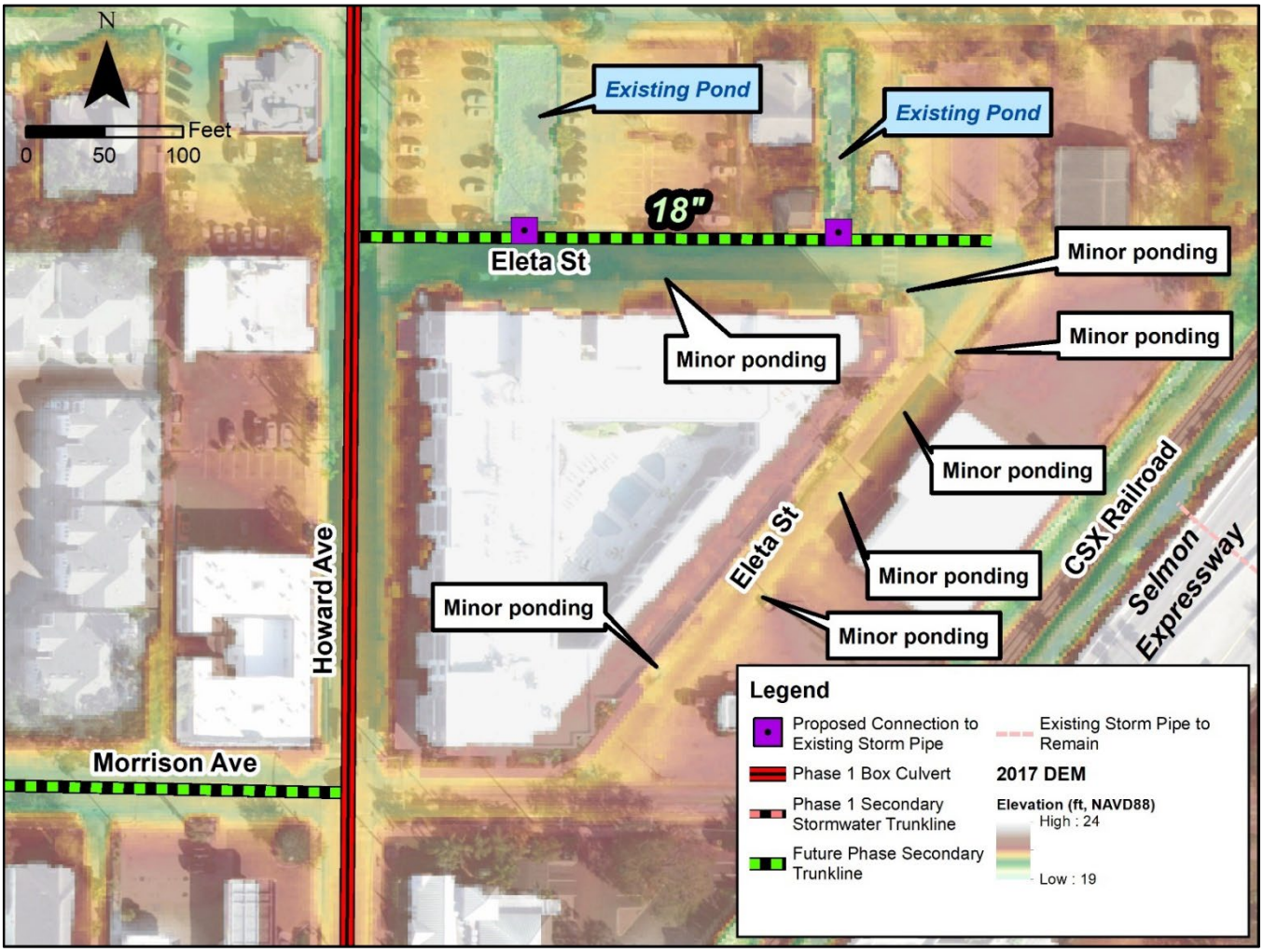


Figure 5-7 – Future W Eleta St Drainage Improvements

5.1.4 Opportunity for Additional Future Flood Relief Projects

The improvements discussed in this section were evaluated at a concept level by the design team as potential future projects that can either benefit from or provide benefit to the SHFR project. Pipe stub-outs will be provided along S Howard Ave during the construction of Phase I to accommodate the future W Mississippi Ave, W Dekle Ave, and W Marjory Ave improvements. While promising opportunities have been identified in the other future improvements discussed in this section, their design is beyond the scope of the SHFR project and they will need to be evaluated further.

5.1.4.1 Cypress Street Outfall Extension

The RECM predicts significant overland stormwater flow reaching W Kennedy Blvd from the Armory Gardens neighborhood to the north because of inadequate capacity within the pipe systems designed to drain this neighborhood. A portion of this flow comes from as far north as Midtown, between W Cypress St and I-275. The existing storm pipes that serve Armory Gardens are part of the Cleveland Street Outfall system, which in its entirety is severely undersized, as discussed in **Sections 2.1 and 3.2**.

The overland flow reaching W Kennedy Blvd totals a combined peak flow rate of approximately 200 cfs during the 5-year/8-hour design storm, and reaches W Kennedy Blvd along the north-south roadways between (and including) N MacDill Ave and N Armenia Ave. When the Kennedy Blvd storm sewer system becomes overwhelmed (which happens frequently), excess stormwater is then carried south over land as sheet flow into Palma Ceia Pines, contributing to the flooding that the SHFR project intends to reduce.

Based on an initial evaluation of the recently constructed (2023) Cypress Street Outfall system's design documentation, its box culvert system has additional capacity available and a portion of the overland flow that reaches Kennedy Blvd could be intercepted and diverted into it. This would provide flood relief to Armory Gardens, W Kennedy Blvd, and Palma Ceia Pines.

While there appears to be capacity available, the scale to which these overland flows can be intercepted will need to be evaluated further. **There is a limit to the amount of additional stormwater runoff the Cypress Street Outfall system can handle, and it is apparent from the models that there is not enough capacity available to use it as an alternative to the SHFR project.** This is evident by the peak flow rates shown in **Table 5-1** below, which reflect only the flows generated to the north of W Kennedy Blvd, which reach W Kennedy Blvd between MacDill Ave and Armenia Ave.

A version of the PCM has been evaluated under the assumption that all these overland flows are intercepted, and while it certainly can reduce the size of the Palma Ceia Pines secondary collection systems, a large box culvert trunkline with a new outfall to the bay is still needed to meet the project's FPLOS goal. However, any runoff that can be intercepted before reaching Kennedy Blvd is an added benefit and would further reduce both roadway and structure flooding within Palma Ceia Pines.

Reducing the hydraulic burden placed on the SHFR project's 10'x10' box culvert would provide capacity that opens the door for even more future stormwater improvements projects in this region. It could be a cost-effective way to help the overburdened Cleveland Street Outfall system. A summary of the modeled peak rate of overland flows reaching W Kennedy Blvd between S MacDill Ave and S Armenia Ave for a range of rainfall event simulations within the RECM are shown below in **Table 5-1**.

Table 5-1 – Combined Peak Overland Flow Rates Reaching W Kennedy Blvd

Model Simulation	Combined Peak Flow Rate (CFS)
2.33-year/24-hour (Mean-Annual)	172
5-year/8-hour	214
10-year/24-hour	372
25-year/24-hour	446
50-year/24-hour	589
100-year/24-hour	659
Calibration Event (Hurricane Milton, 2024)	374

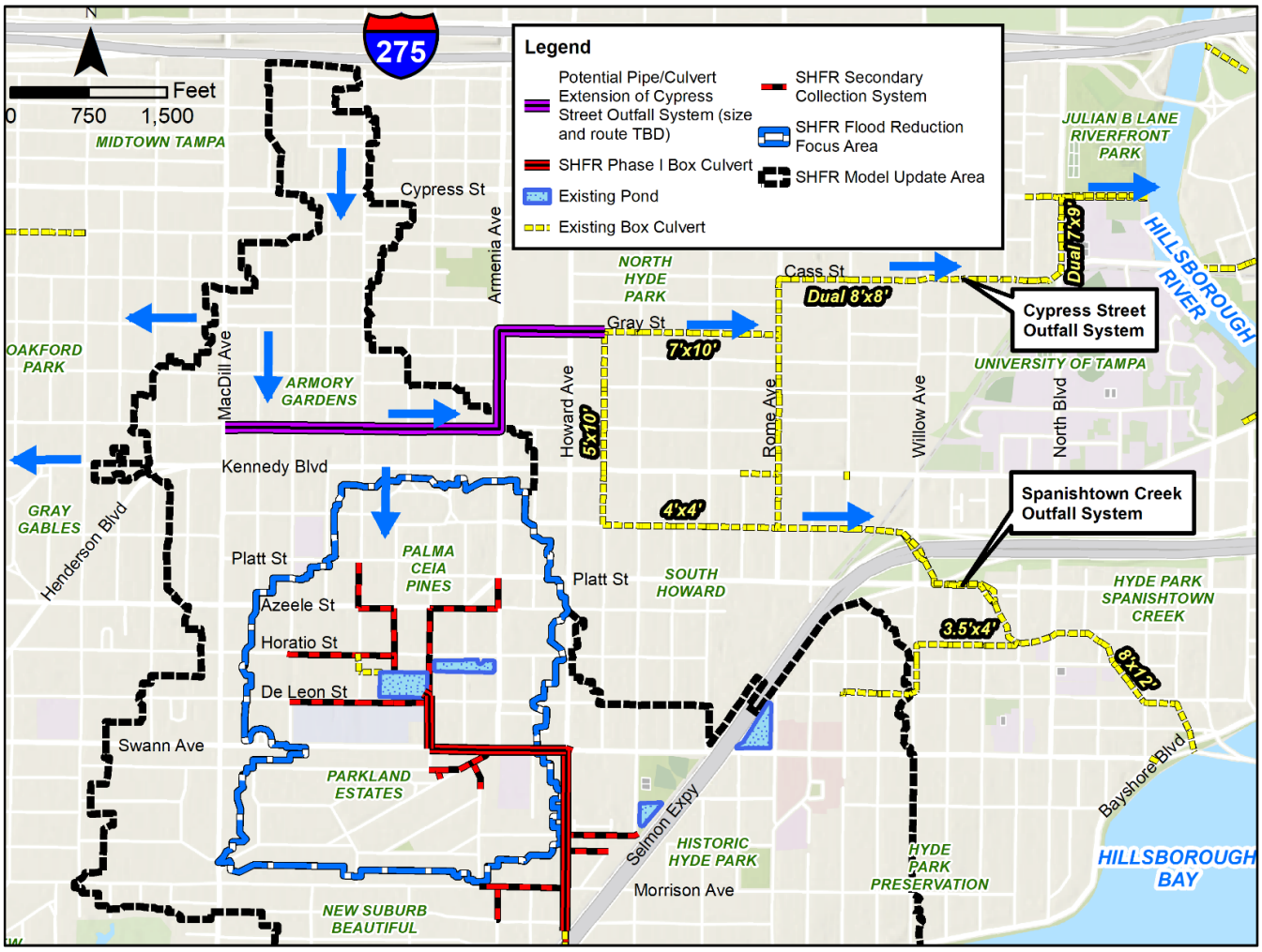


Figure 5-8 – Potential Future Extension of the Cypress Street Outfall System

5.1.4.2 W Kennedy Blvd

As mentioned previously in **Section 5.1.2.4**, FDOT is in the process of upgrading its storm sewer system along W Kennedy Blvd. However, based on analysis of the SHFR H&H models, until the significant overland flows onto W Kennedy Blvd from the north are addressed by increasing capacity of City stormwater pipes north of the corridor, these FDOT improvements will do very little to alleviate flooding on Kennedy Blvd during the significant rainfall events analyzed in this report.

Once these overflows are addressed, flooding conditions will improve along W Kennedy Blvd. For W Kennedy Blvd (between S Habana Ave and S Armenia Ave) to meet the FPLOS goal of the SHFR project, the pipe system along S Habana Ave, that serves as the outfall for this portion of W Kennedy Blvd, will need to be upsized between W Kennedy Blvd and W Platt St. This assumes that the secondary collection systems shown in **Figure 5-4** and **Figure 5-8** are constructed as currently modeled in the PCM (extending north to W Platt St and S Habana Ave). The need to upsize the S Habana Ave trunkline is also discussed by the W Kennedy Blvd project's design team within their design documentation.

5.1.4.3 S MacDill Ave

The model identifies several roadway FPLOS deficiencies that will remain in the proposed condition to the west of the SHFR Flood Reduction Focus Area, along S MacDill Ave, particularly at the intersections with W Swann Ave, W De Leon St, W Azeele St, W Platt St, and W Cleveland St.

There is an opportunity to size the future phase collection systems in Palma Ceia Pines to accommodate future projects that further alleviate roadway flooding on S MacDill Ave. Because upgrading its multiple outfalls (which travel over 2 miles to Old Tampa Bay) would be challenging, **a more feasible way to alleviate flooding on S MacDill Ave could be to use the SHFR trunkline and/or an extension of the Cypress Street Outfall** (discussed in **Section 5.1.4.1**). A map showing one potential future configuration that reduces this flooding can be found below in **Figure 5-9.**

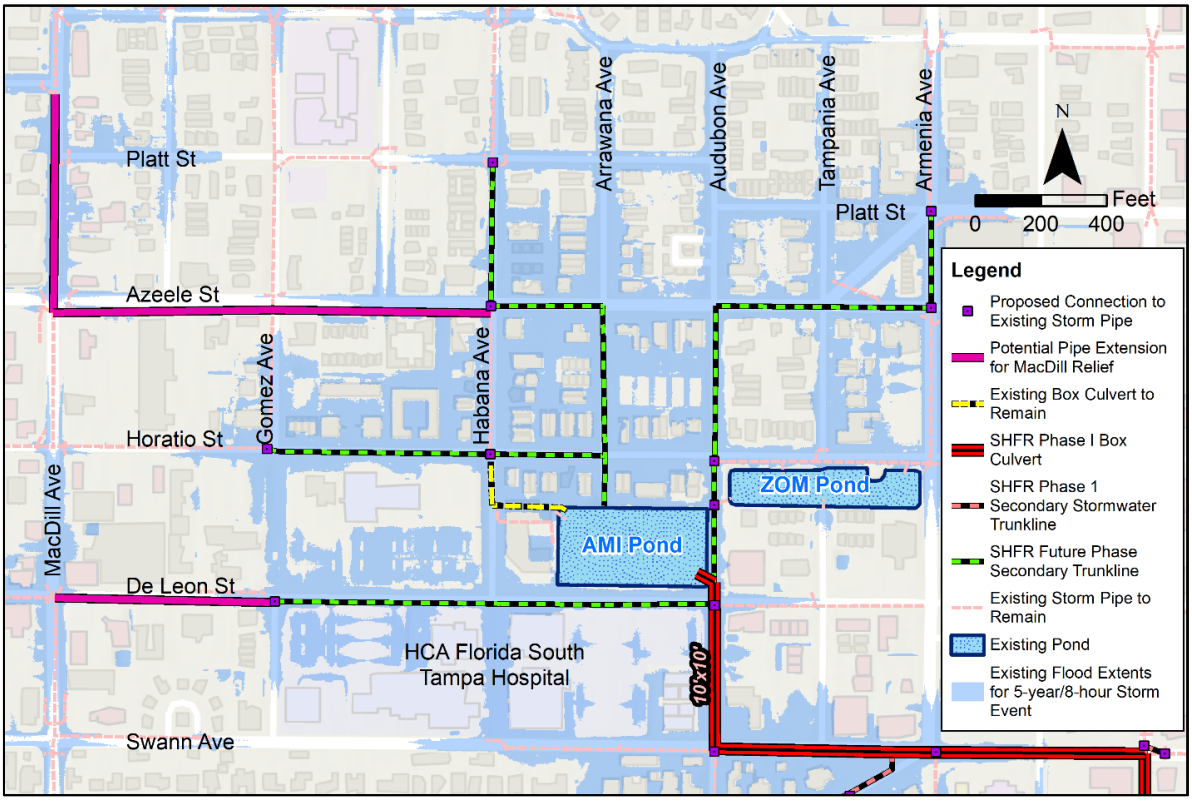


Figure 5-9 – Potential Concept for Future MacDill Ave Flood Relief

5.1.4.4 W Mississippi Ave

Minor roadway flooding occurs on W Mississippi at S Moody Ave and S Alabama Ave due to a lack of stormwater infrastructure at the low portions the roadway. Although not included in the PCM, it was determined through a separate model iteration that a new 18-inch pipe connecting these intersections to the S Howard Ave box culvert is adequate to handle the relatively small peak flow rates that reach these intersections, and that this pipe connection would not impact predicted flood reduction benefits upstream. An 18-inch pipe stub-out will be provided on W Mississippi Ave at S Howard Ave as part of the Phase I project to accommodate this as a future project.

5.1.4.5 W Dekle Ave and W Marjory Ave

Similar to the issues on W Mississippi Ave, nuisance ponding occurs at the intersections of W Dekle Ave & S Albany Ave and W Marjory Ave & S Albany Ave due to lack of stormwater infrastructure. Although not included in the PCM, it was determined through a separate model iteration that a new 18-inch pipe connecting W Dekle Ave at S Albany Ave to the S Howard Ave box culvert using W Southview Ave is adequate to handle the relatively small peak flow rates that reach these intersections, and that this pipe connection would not impact predicted flood reduction benefits upstream. To eliminate the nuisance ponding at S Albany Ave & W Marjory Ave, S Albany Ave would need to be regraded between W Marjory Ave and W Dekle Ave to ensure that stormwater can flow to future inlets at W Dekle Ave and S Albany Ave. An 18-inch pipe stub-out will be provided along W Southview Ave at S Howard Ave as part of the Phase I project to accommodate this as a future project.

A map of these future concept-level improvements can be found in **Figure 5-10** below.

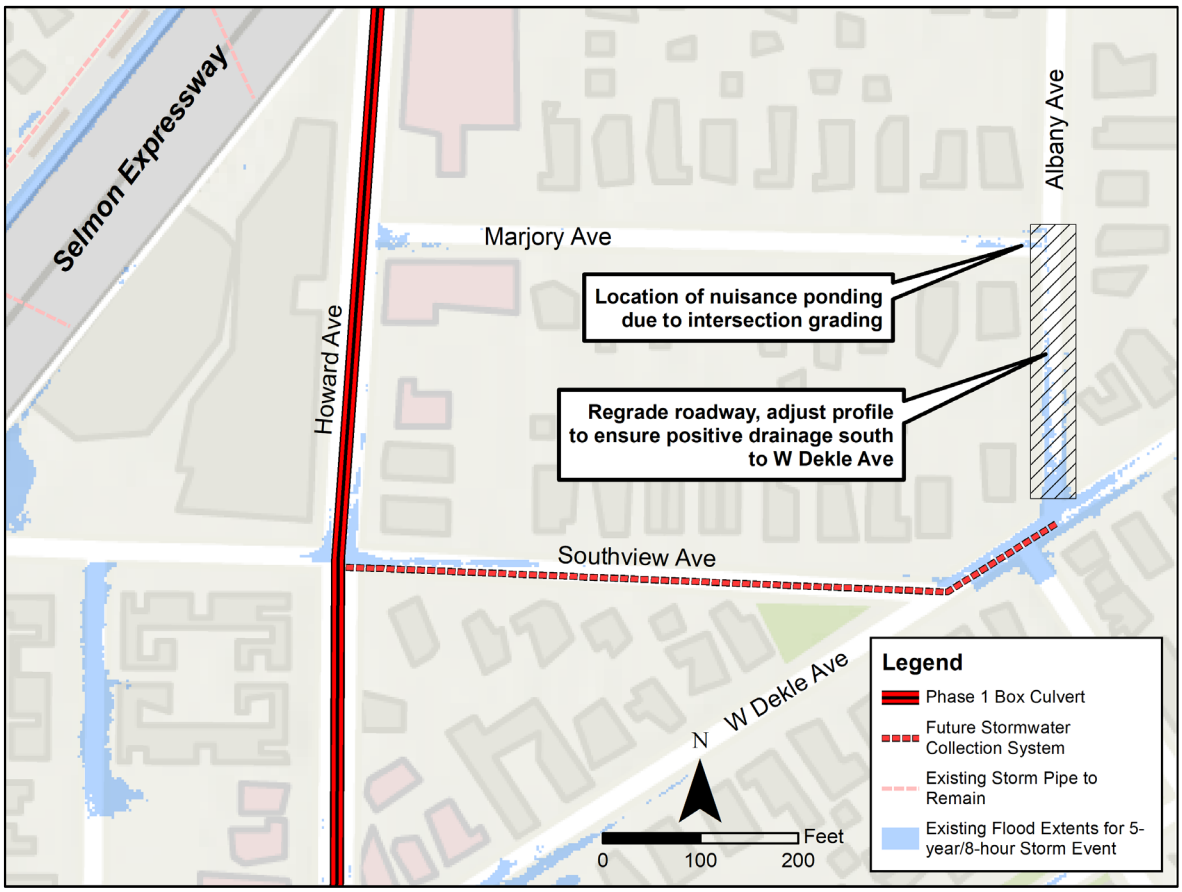


Figure 5-10 – Potential Future Drainage Improvements- S Albany Ave: W Dekle Ave to W Marjory Ave

5.1.4.6 S Dakota Ave and W De Leon St

The SHFR project will significantly reduce flooding around Swann Pond during the 5-year/8-hour design storm by diverting a portion of the existing stormwater taken there today into the new 10'x10' box culvert at S Howard Ave. This adds capacity to Swann Pond in the proposed condition, which overtops its bank during the 5-year/8-hour design storm in the existing condition. It should be noted that the PCM accounts for the impervious area added as part of the Selmon Expressway widening project and the resulting additional runoff into Swann Pond.

Field investigation of this area in 2025 revealed that an existing pipe that once entered Swann Pond from the intersection of W De Leon St and S Rome Ave has since been filled with grout, disconnecting the flood-prone W De Leon St from Swann Pond. While the RECM's 5-year/8-hour peak stages are similar between the pond and this intersection (6 inches higher in Swann Pond), the SHFR proposed condition lowers peak stages in Swann Pond and creates a 1.7-foot differential in peak stage, as shown in **Figure 5-11** below**.**

This provides an opportunity to reestablish this connection and provide flood relief to the low-lying portion of W De Leon St between S Rome Ave and S Orleans Ave, which experience 5-year/8-hour flood depths of nearly 2 feet at the intersection of W De Leon St and S Dakota Ave. This connection could also provide treatment for stormwater runoff that currently discharges directly to Hillsborough Bay through the Spanishtown Creek box culvert system, with no treatment.

Figure 5-11 below illustrates the 5-year/8-hour flood reduction anticipated from the SHFR project and shows a conceptual layout of the potential connection discussed. The flood reduction predicted by the new connection is not shown.

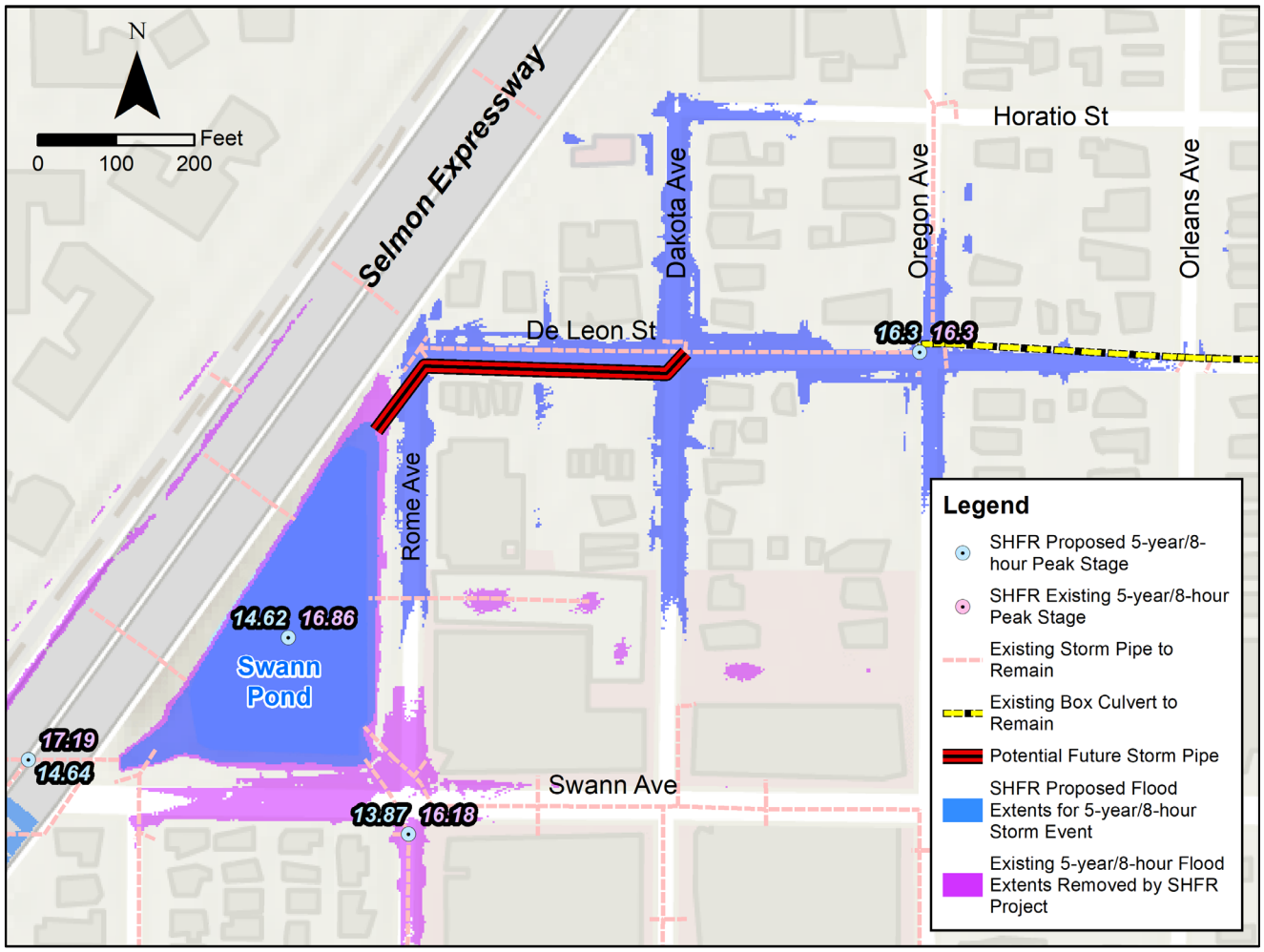


Figure 5-11 – Potential Future De Leon St Connection to Swann Pond

5.2 Inlet Capacity

The project's H&H models assume there is no restriction of runoff entering a pipe system due to lack of inlet capacity along the roadways. This assumption ensures that the project's proposed pipes and culverts are sized adequately at this conceptual level design phase.

As the project progresses into its final design phase, peak runoff rates for each model subbasin will be used to ensure that enough inlets are designed and constructed along the project corridor to provide the flood relief predicted by the model. The runoff rates used to size the combined inlet capacity along the project's route will include direct runoff from the subbasin and overland flows coming in from adjacent subbasins as sheet flow or as channelized flow through curb and gutter systems, which occurs when underground pipe systems become overwhelmed.

5.3 Comparison of Primary Design Alternatives

5.3.1 Route Study Criteria

The three primary alternatives evaluated by the project scope are shown in **Figure 5-12.** Each alternative uses S Howard Ave to provide a new hydraulic connection between Hillsborough Bay and Palma Ceia Pines, picking up stormwater runoff from Parkland Estates along the way. The three alternatives were compared based on the following criteria:

- Construction cost
- Constructability challenges
- Environmental impacts (tree canopy reduction)
- Traffic impacts
- Residences impacted
- Businesses impacted
- Hydraulic efficiency and flood reduction benefit

Kimmins Contracting provided preliminary cost estimates for the three primary alternatives based on proposed box culvert size and depth, knowledge of existing site conditions (such as corridor widths and utilities), the current market and cost of materials, and comparison to actual costs for similar projects such as the Lower Peninsula Stormwater Improvements Project.

Because the estimated cost for all three was very similar, construction cost was considered irrelevant for this comparative analysis. The concept-level cost estimate for the recommended alternative can be found in **Appendix L.**



Figure 5-12 – Comparison Map for SHFR Primary Alternatives (Morrison, Bristol, and Swann)

Each alternative was evaluated by the design-build team for constructability challenges using desktop resources and data collected in the field. A summary of the evaluation criteria is listed below:

- The most recent parcel information from the Hillsborough County Property Appraiser website was used along with site visits to identify the stakeholders – both residential and commercial, that would see impacts due to construction.
- Property boundaries and inventory of the City's water and wastewater utilities (discussed in **Section 3.3**) were used to evaluate constructability challenges, including complexity of anticipated utility relocations.
- The tree survey discussed in **Section 2.6.6** was used to determine how many oak trees would likely be impacted during construction, and how many oak trees likely could be preserved, based on size, condition and location. The comparison was limited to oak trees because most of the others surveyed are palms and exotics. The tree inventory developed as part of the SHFR project, which includes all species, can be found in **Appendix C**.
- Traffic data, as discussed in **Section 2.6.7**, was used to determine estimated traffic volumes impacted by each alternative. The new traffic data collected for the SHFR project can be found in **Appendix E**.
- A H&H model was developed for each of the three primary alternatives, and the model results were compared to identify differences in hydraulic efficiency.

Because both the flood reduction benefits and estimated cost for each of the three primary alternatives are similar, a formal benefit-cost analysis was only performed for the recommended alternative – W Swann Ave. This benefit-cost analysis uses SWFWMD's Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis Tool, which was developed to estimate a present-day dollar value of benefits over a flood relief project's life cycle based on reduction of roadway and property damages, as well as reduction in duration of undriveable roadway conditions. This analysis is discussed in **Section 6.6.**

5.3.2 Shared Improvements Between Primary Alternatives

Each of the three primary alternatives shares the following components, which were excluded from the comparative analysis:

- Box culvert trunkline and secondary collection systems within Palma Ceia Pines (north of W Swann Ave), as described in **Sections 5.1.2.1 and 5.1.3.1.**
- THEA connections for the Selmon Expressway project discussed in **Section 5.1.2.3.**
- Future secondary collection systems proposed to the south of W Morrison Ave and along W Eleta St, which are discussed in **Section 5.1.3.**

The comparative analysis of the three primary alternatives only includes construction of the proposed primary box culvert trunkline between Bayshore Blvd and the intersection of W Swann Ave and S Audubon Ave, and the secondary stormwater collection systems needed in Parkland Estates, to the west of S Howard Ave.

5.3.3 Alternative 1 – W Morrison Ave Route

5.3.3.1 Description of Alternative 1

Alternative 1 uses W Morrison Ave, S Lakeview Rd, W Parkland Blvd, W Fountain Blvd, and S Audubon Ave to reach W Swann Ave through the Parkland Estates neighborhood. This alternative follows the route recommended in the JMT report, which can be found in **Appendix A.**

While hydraulically effective, this alternative comes with significant constructability challenges given the size and depth of the proposed box culvert near residential properties. Box culvert construction and utility relocation through the narrow residential corridors of Parkland Estates will require significant oak tree canopy removal and damage to the character of a historic Tampa neighborhood.

Figure 5-13 below provides an overview map of the proposed improvements and flood reduction associated with Alternative 1.

5.3.3.2 Alternative 1 Flood Reduction Benefits

A comparison of peak stage elevations between the RECM and the Alternative 1 PCM for the 5-year/8-hour storm event is shown in **Table 5-2** below. Alternative 1 meets the FPLOS goal for the 5-year/8-hour design storm simulation and does not cause adverse flood impacts to any node within the study area for the nine simulated storm events**.**

While flood reduction near Swann Pond and S Rome Ave were not the primary goal of the project, the three primary alternatives provide a reduction in flooding in this area because they intercept stormwater runoff that currently discharges to the pond, so it has been included in the analysis for comparison.

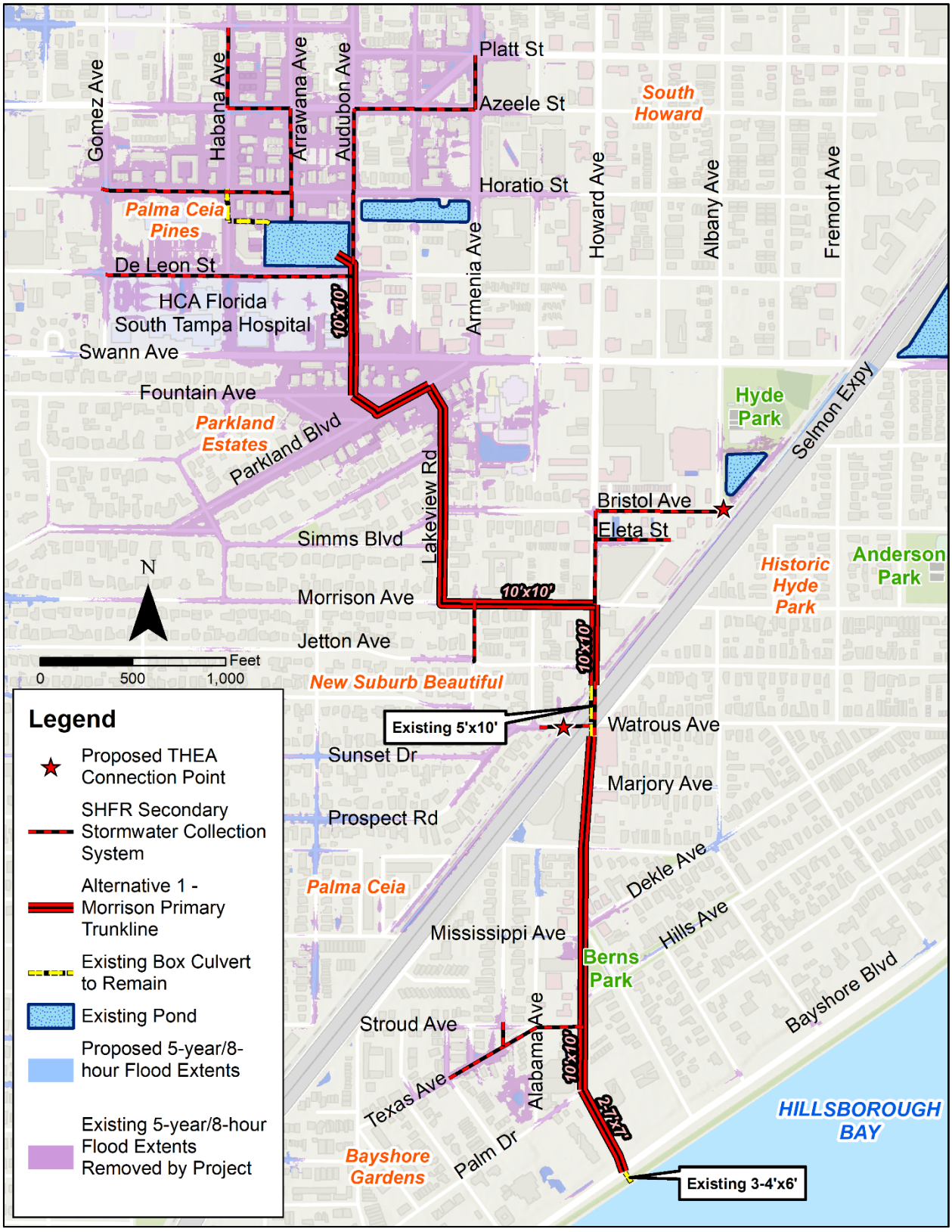


Figure 5-13 – Alternative 1 Concept Plan and Flood Reduction Map

Table 5-2 – Summary of Roadway FPLOS Analysis (Alternative 1, 5-year/8-hour)

Node	Location	RECM Peak Stage (ft, NAVD88)	PCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)	Low EOP Elevation (ft, NAVD88)	Proposed Flood Depth (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	19.21	15.54	-3.67	15.2	0.34*
NCL3510	W Cleveland St at S Habana Ave	19.65	19.47	-0.18	19.1	0.37*
NCL3450	W Horatio St at S Habana Ave	19.23	16.70	-2.53	16.9	-0.20
NCL3490	W Platt St at S Habana Ave	19.23	17.86	-1.37	17.7	0.16
NRU0790	W Swann Ave at S Audubon Ave (north side)	19.22	15.86	-3.36	15.9	-0.04
NRU1050	W Platt St at S Armenia Ave	19.23	17.64	-1.59	17.3	0.34*
NRU0960	W Azeele St at S Audubon Ave (south side)	19.23	17.13	-2.10	17.0	0.13
NRU1030	W Azeele St at S Armenia Ave (north side)	19.23	17.38	-1.85	17.4	-0.02
NBW2090	W De Leon St at S Gomez Ave	19.22	18.37	-0.85	18.0	0.37*
NCL3250	W Horatio St at S Gomez Ave	19.22	17.44	-1.78	17.2	0.24
NRU1010	W Horatio St at S Armenia Ave	19.23	17.12	-2.11	18.2	-1.08
NRU0965	W Azeele St at S Audubon Ave (north side)	19.23	17.24	-1.99	16.9	0.34*
NBW2110	W De Leon St at S Habana Ave	19.22	17.21	-2.01	17.3	-0.09
NCL3470	W Azeele St at S Habana Ave	19.23	17.12	-2.11	16.8	0.32
NRU1040	W Azeele St at S Armenia Ave (south side)	19.23	17.22	-2.01	17.2	0.02
NRU1070	W Cleveland St at S Armenia Ave	19.24	17.89	-1.35	18.9	-1.01
NRU1170	W Bristol Ave at S Lakeview Rd	19.22	14.41	-4.81	18.0	-3.59
NCL3740	W Horatio St at S Arrawana Ave	19.23	16.50	-2.73	17.1	-0.60
Pond B	W Swann Ave at S Rome Ave (Swann Pond)	16.86	15.68	-1.18	15.2	0.48

*Proposed flood depths in the table that are greater than 4 inches are highlighted in red. However, because the DEM was used to estimate the low edge of pavement elevations at this conceptual level of design, and there is often opportunity to elevate the low edge of pavement slightly during the final design phase, proposed peak stages within an inch of the FPLOS target are considered acceptable for this analysis.

5.3.3.3 Impacted Residents and Businesses

Construction of Alternative 1 directly impacts the most residents, in comparison to Alternatives 2 and 3. An estimated 35 residential homes and 338 multifamily units will be impacted by significant excavation directly in front of the property. This alternative will also temporarily impact access to 27 businesses along the project route. **Figure 5-14** below shows the residences and businesses impacted along the project route between W Swann Ave and the Selmon Expressway. This is the area where impacts differ between the three primary alternatives. Note that the comparative analysis in this section does not include any of the proposed work north of W Swann Ave, which has been added to the Phase I project scope.

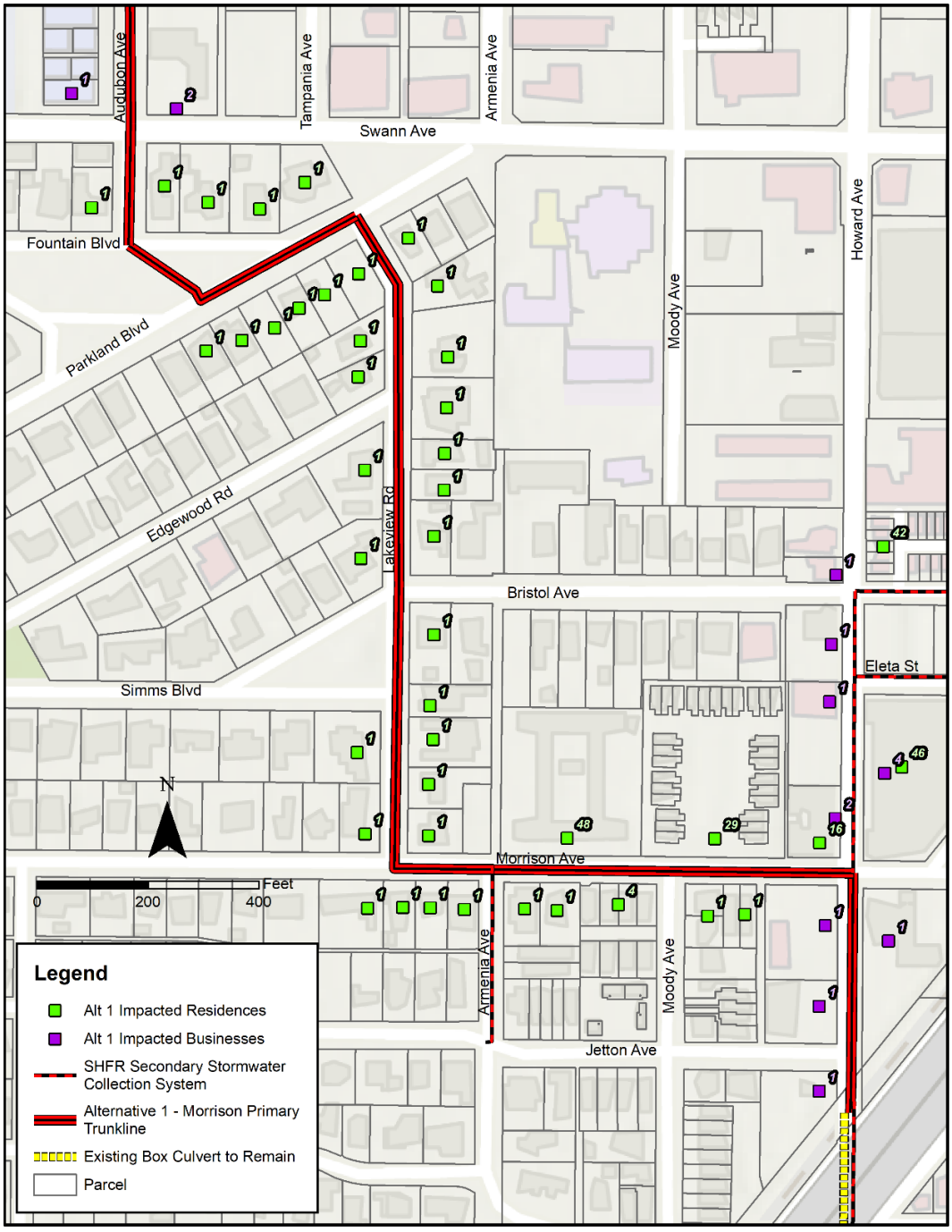


Figure 5-14 – Alternative 1 Impacted Residences and Businesses

5.3.3.4 Impacted Trees

Construction of Alternative 1 will likely result in removing 5 of the 27 grand trees and 48 of the 165 non-grand oak trees encountered along the route. Tree disposition (whether the tree is likely to remain or be removed) was estimated based on proximity of each tree to the anticipated limits of excavation for box culvert construction. It is assumed that smaller storm pipes can be constructed in a way that does not require removal of a tree**. Figure 5-15** below summarizes the anticipated impacts to grand trees and non-grand oaks along the Alternative 1 route between W Swann Ave and the Selmon Expressway. This is the area where impacts differ between the three primary alternatives.

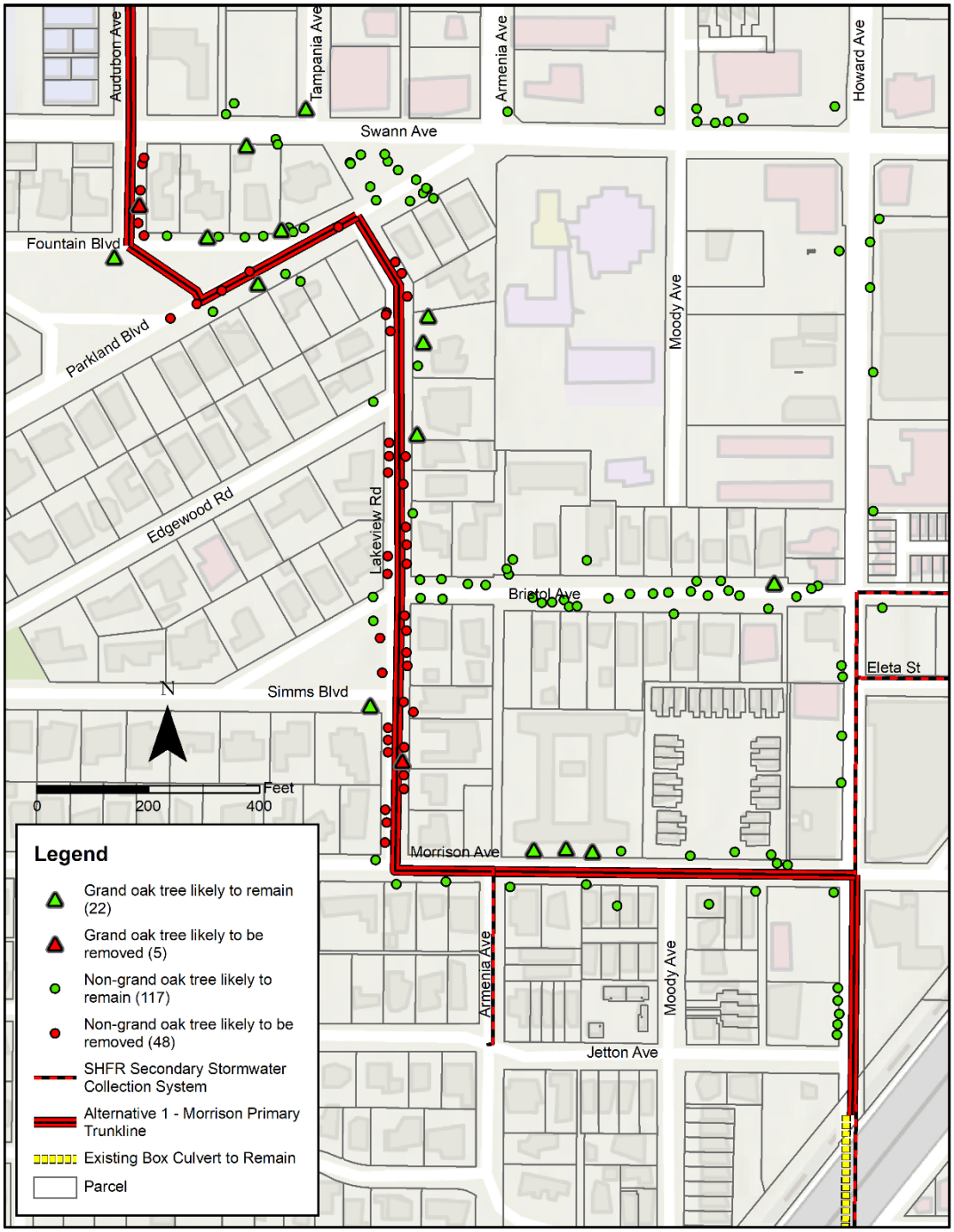


Figure 5-15 – Alternative 1 Tree Impacts

5.3.3.5 Impacts on Traffic

Most traffic impacts associated with this alternative will come from the box culvert installation along S Howard Ave. Using the traffic data discussed in **Section 2.6.7**, **a weighted average AADT of 5,876 was calculated** for the entire route between Bayshore Blvd and the W Swann Ave intersection with S Audubon Ave. This was done to compare traffic impacts between the three primary alternatives and is shown below in **Table 5-3.**

Table 5-3 – Alternative 1 Weighted AADT Calculation

Segment	Roadway	Segment AADT	Length of Segment (feet)	% of Total Length	AADT * % of Total Length
1	S Howard Ave (south of Selmon Expy)	9000	2500	44%	3982
2	S Howard Ave (north of Selmon Expy)	12000	430	8%	913
3	W Morrison Ave	4400	830	15%	646
4	S Lakeview Rd	1000	1200	21%	212
5	W Parkland Blvd	1000	320	6%	57
6	W Fountain Blvd	1000	150	3%	27
7	S Audubon Ave	1000	220	4%	39
Totals			**5650**	**100%**	**5876**

5.3.3.6 Utility Impacts

Construction of Alternative 1 will include relocation and reconstruction of existing potable water, reclaimed and wastewater pipes which are standard for this type of project. Maps illustrating the existing water and wastewater utilities in this area can be found in **Section 3.3**. A high-level summary of the anticipated impacts is listed below:

- Reclaimed water mains up to 12-inch in diameter will be impacted within Parkland Estates, and notably along S Lakeview Rd where a 12-inch diameter line connects W Parkland Blvd and W Morrison Ave. It is likely that all of these lines will need to be relocated. The box culvert will cross an existing 8-inch line that runs along Bayshore Blvd.
- Aside from the large sanitary sewer force main and gravity main at Bayshore Blvd (discussed in **Section 3.3**), box culvert installation will be accompanied by widespread reconstruction of 8-inch sanitary sewer gravity mains alongside construction of the box culvert for much of the route. Individual service lines will be replaced within the right of way.
- Potable water mains ranging from 2-inches and 8-inches in diameter will need relocation within Parkland Estates. This is typically done ahead of box culvert installation and requires a short disruption to water service for residents when each property's service line is transferred to the new main. An existing 12-inch diameter main will also need to be relocated along S Howard Ave and Bayshore Blvd.

5.3.4 Alternative 2 – W Bristol Ave Route

5.3.4.1 Description of Alternative 2

Alternative 2 uses W Bristol Ave, S Lakeview Rd, W Parkland Blvd, W Fountain Blvd, and S Audubon Ave to reach W Swann Ave from S Howard Ave, through the Parkland Estates neighborhood. Similar to Alternative 1, this alternative comes with significant constructability challenges given the size and depth of the proposed box culvert through residential streets. Box culvert construction and utility relocation through the narrow residential corridors in Parkland Estates will come with significant oak tree canopy removal.

While hydraulically effective, this alternative has significant constructability concerns given the size and depth of the proposed box culvert near residential properties.

Figure 5-16 below provides an overview map of the proposed improvements and flood reduction associated with Alternative 2.

5.3.4.2 Alternative 2 Flood Reduction Benefits

A comparison of peak stage elevations between the RECM and the Alternative 2 PCM for the 5-year/8-hour storm event is shown in **Table 5-4** below. Alternative 2 meets the FPLOS goal for the 5-year/8-hour design storm simulation and does not cause adverse flood impacts to any node within the study area for the nine simulated storm events.

While flood reduction near Swann Pond and S Rome Ave were not the primary goal of the project, the three primary alternatives provide a reduction in flooding in this area because they intercept stormwater runoff that currently discharges to the pond, so it has been included in the analysis for comparison.

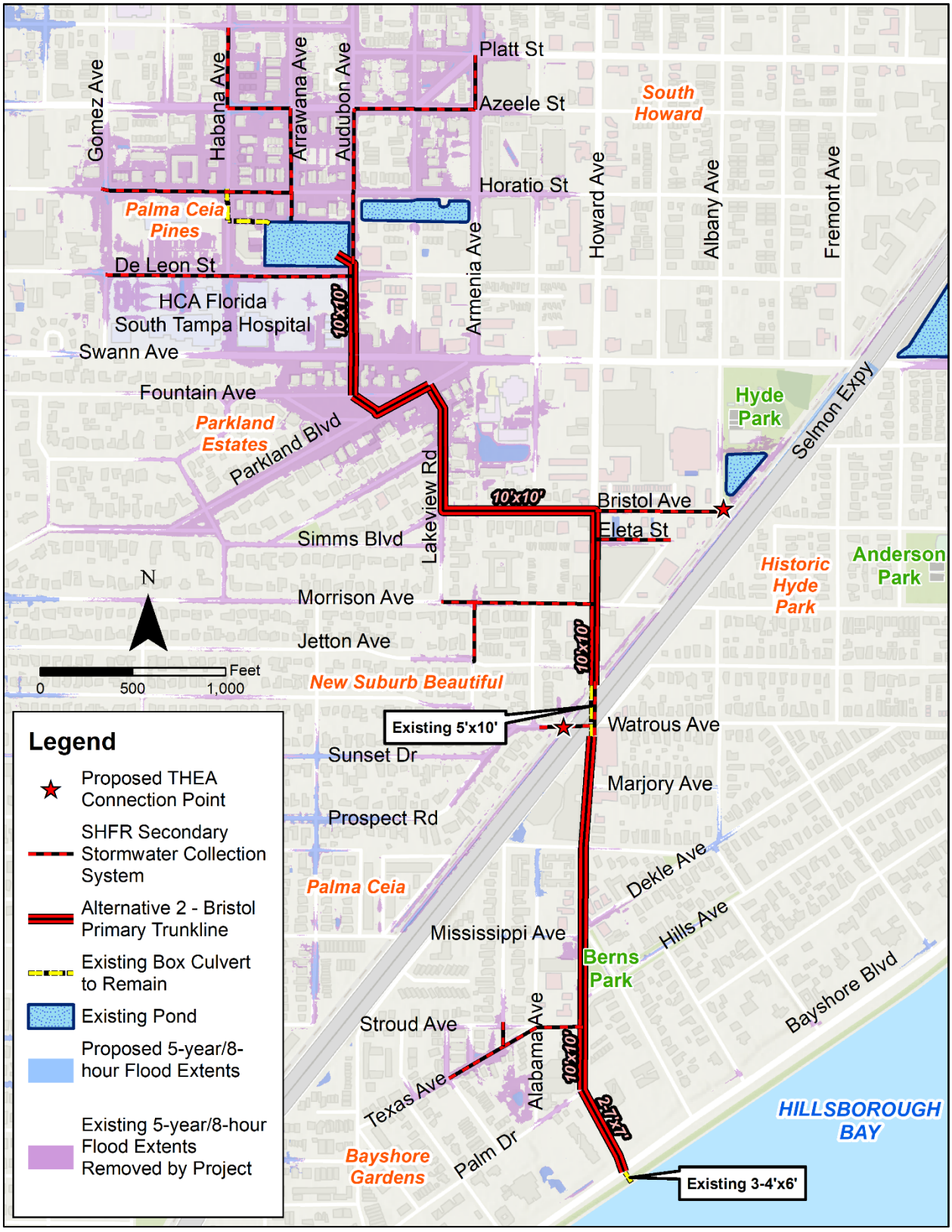


Figure 5-16 – Alternative 2 Concept Plan and Flood Reduction Map

Table 5-4 – Summary of Roadway FPLOS Analysis (Alternative 2, 5-year/8-hour)

Node	Location	RECM Peak Stage (ft, NAVD88)	PCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)	Low EOP Elevation (ft, NAVD88)	Proposed Flood Depth (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	19.21	15.55	-3.66	15.2	0.35*
NCL3510	W Cleveland St at S Habana Ave	19.65	19.46	-0.19	19.1	0.36*
NCL3450	W Horatio St at S Habana Ave	19.23	16.71	-2.52	16.9	-0.19
NCL3490	W Platt St at S Habana Ave	19.23	17.83	-1.40	17.7	0.13
NRU0790	W Swann Ave at S Audubon Ave (north side)	19.22	15.88	-3.34	15.9	-0.02
NRU1050	W Platt St at S Armenia Ave	19.23	17.54	-1.69	17.3	0.24
NRU0960	W Azeele St at S Audubon Ave (south side)	19.23	17.04	-2.19	17.0	0.04
NRU1030	W Azeele St at S Armenia Ave (north side)	19.23	17.30	-1.93	17.4	-0.10
NBW2090	W De Leon St at S Gomez Ave	19.22	18.37	-0.85	18.0	0.37*
NCL3250	W Horatio St at S Gomez Ave	19.22	17.44	-1.78	17.2	0.24
NRU1010	W Horatio St at S Armenia Ave	19.23	17.04	-2.19	18.2	-1.16
NRU0965	W Azeele St at S Audubon Ave (north side)	19.23	17.15	-2.08	16.9	0.25
NBW2110	W De Leon St at S Habana Ave	19.22	17.22	-2.00	17.3	-0.08
NCL3470	W Azeele St at S Habana Ave	19.23	17.08	-2.15	16.8	0.28
NRU1040	W Azeele St at S Armenia Ave (south side)	19.23	17.15	-2.08	17.2	-0.05
NRU1070	W Cleveland St at S Armenia Ave	19.24	17.79	-1.45	18.9	-1.11
NRU1170	W Bristol Ave at S Lakeview Rd	19.22	14.18	-5.04	18.0	-3.82
NCL3740	W Horatio St at S Arrawana Ave	19.23	16.51	-2.72	17.1	-0.59
Pond B	W Swann Ave at S Rome Ave (Swann Pond)	16.86	15.68	-1.18	15.2	0.48

*Proposed flood depths in the table that are greater than 4 inches are highlighted in red. However, because the DEM was used to estimate the low edge of pavement elevations at this conceptual level of design, and there is often opportunity to elevate the low edge of pavement slightly during the final design phase, proposed peak stages within an inch of the FPLOS target are considered acceptable for this analysis.

5.3.4.3 Impacted Residents and Businesses

Construction of Alternative 2 directly affects the most single-family homes, in comparison to Alternatives 1 and 3. This comes with damage to the neighborhood's character, as construction will significantly alter the aesthetic of these quiet, tree-lined neighborhood streets, which will be difficult to reconstruct. This alternative directly impacts less residents overall than Alternative 1 because of the large number of multifamily units along W Morrison Ave. An estimated 46 residential homes and 270 multifamily units will be impacted by construction directly in front of the property. This alternative will also temporarily impact access to 27 businesses along the project route. **Figure 5-17** below summarizes residences and businesses impacted along the project route between W Swann Ave and the Selmon Expressway. This is the area where impacts differ between the three primary alternatives. Note that the comparative analysis in this section does not include any of the proposed work north of W Swann Ave, which has been added to the Phase I project scope.

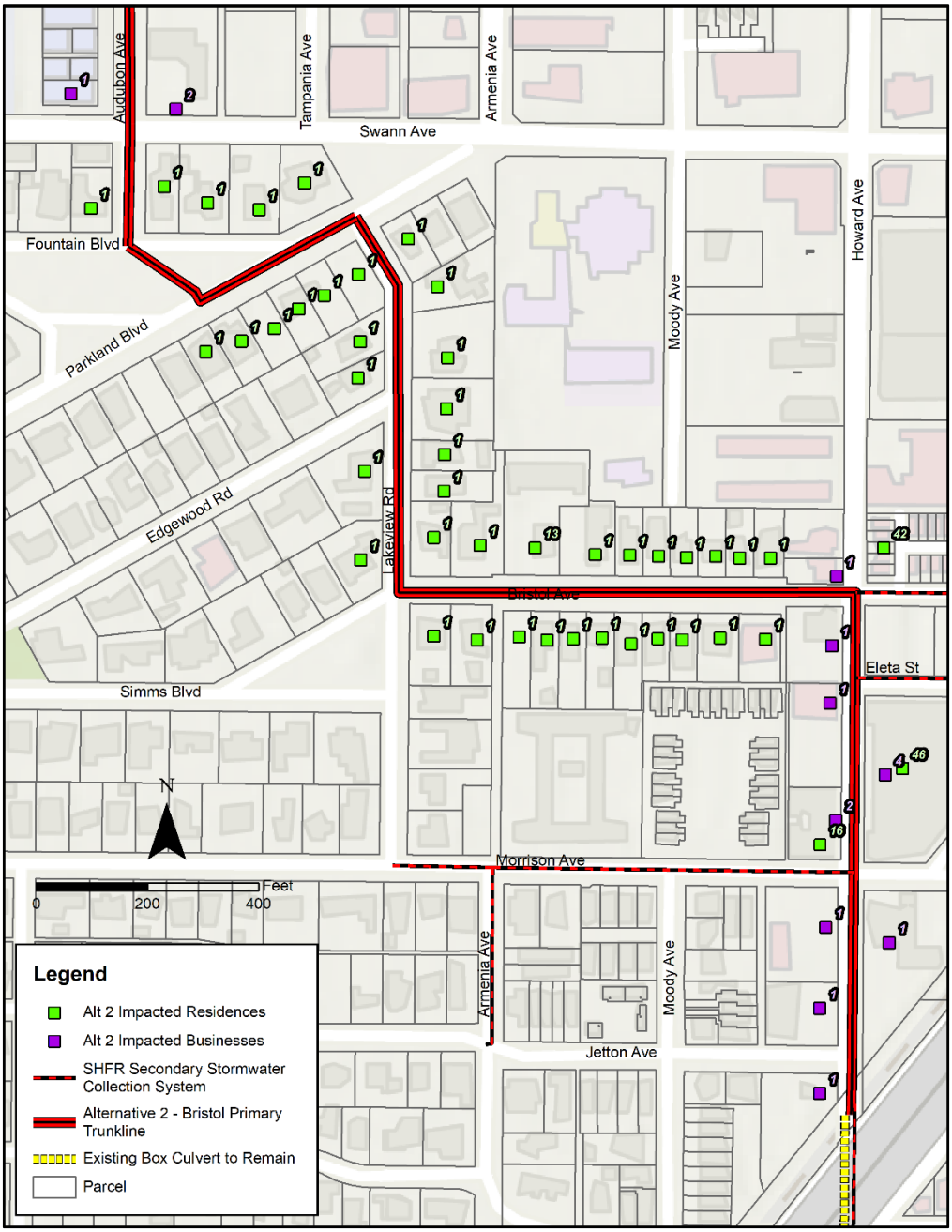


Figure 5-17 – Alternative 2 Impacted Residences and Businesses

5.3.4.4 Impacted Trees

Construction of Alternative 2 will likely result in removing 5 of the 27 grand trees and 58 of the 165 non-grand oak trees encountered along the route. Tree disposition (whether the tree is likely to remain or be removed) was estimated based on proximity of each tree to the anticipated limits of excavation for box culvert construction. It is assumed that smaller storm pipes can be constructed in a way that does not require removal of a tree, as the design-build team has successfully demonstrated in other City stormwater improvements projects**. Figure 5-18** below summarizes the anticipated impacts to grand trees and non-grand oaks along the Alternative 2 route between W Swann Ave and the Selmon Expressway. This is the area where impacts differ between the three primary alternatives.

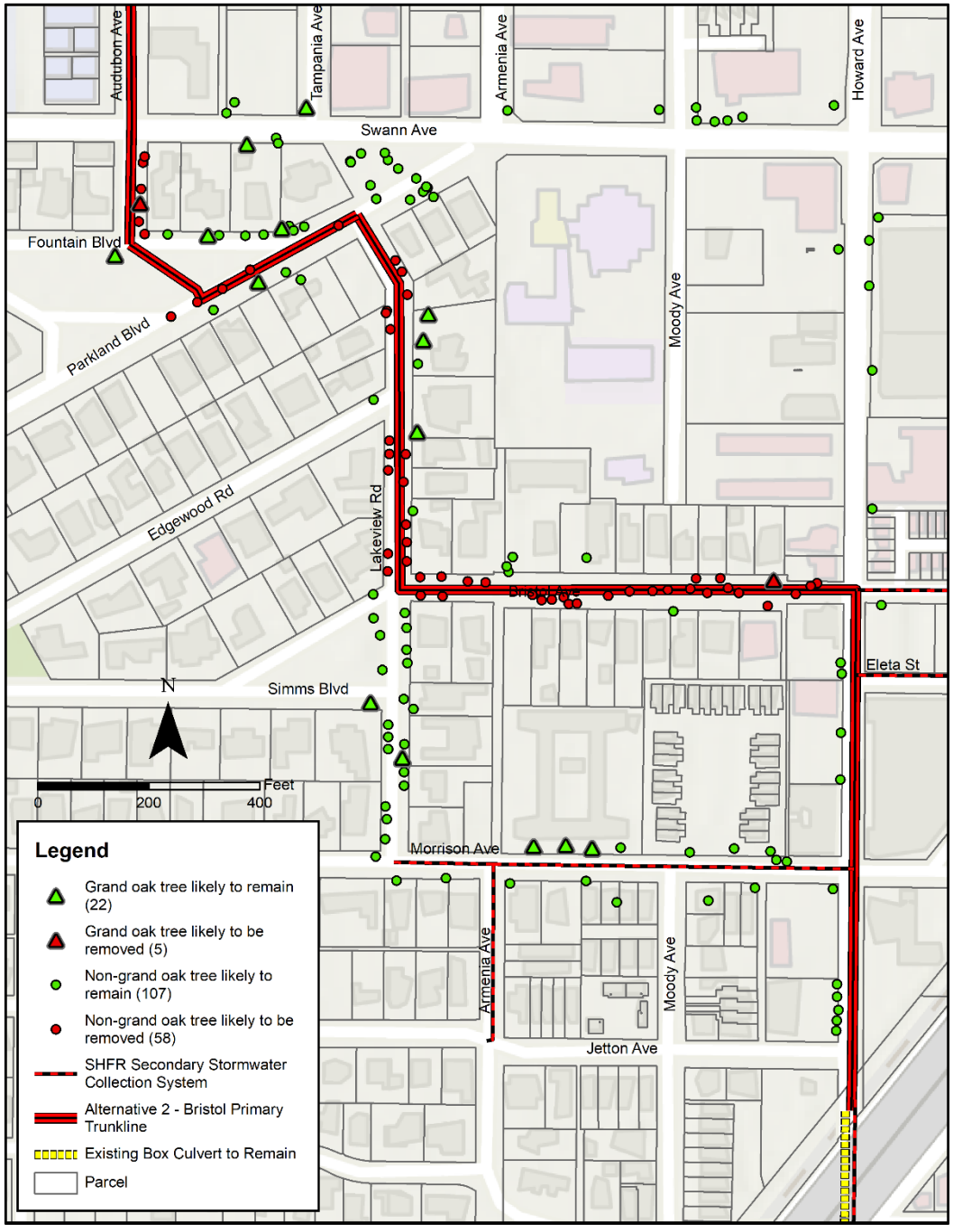


Figure 5-18 – Alternative 2 Tree Impacts

5.3.4.5 Impacts on Traffic

Most traffic impacts associated with this alternative will come from box culvert installation along S Howard Ave. Using the traffic data discussed in **Section 2.6.7**, **a weighted average AADT of 6,370 was calculated** for the entire route between Bayshore Blvd and the W Swann Ave intersection with S Audubon Ave. This was done to compare traffic impacts between the three primary alternatives. This calculation is shown below in **Table 5-5.**

Table 5-5 – Alternative 2 Weighted AADT Calculation

Segment	Roadway	Segment AADT	Length of Segment (feet)	% of Total Length	AADT * % of Total Length
1	S Howard Ave (south of Selmon Expy)	9000	2500	44%	3982
2	S Howard Ave (north of Selmon Expy)	12000	940	17%	1996
3	W Bristol Ave	1000	820	15%	145
4	S Lakeview Rd	1000	700	12%	124
5	W Parkland Blvd	1000	320	6%	57
6	W Fountain Blvd	1000	150	3%	27
7	S Audubon Ave	1000	220	4%	39
Totals			**5650**	**100%**	**6370**

5.3.4.6 Utility Impacts

Construction of Alternative 2 will include relocation and reconstruction of existing potable water, reclaimed and wastewater pipes which is standard for this type of project. Maps illustrating the existing water and wastewater utilities in this area can be found in **Section 3.3**. A high-level summary of the anticipated impacts is listed below:

- Reclaimed water mains up to 12-inch in diameter will be impacted within Parkland Estates, and notably along S Lakeview Rd where a 12-inch diameter line connects W Parkland Blvd and W Morrison Ave. It is likely that all of these lines will need to be relocated. The box culvert will cross an existing 8-inch line that runs along Bayshore Blvd.
- Aside from the large sanitary sewer force main and gravity main at Bayshore Blvd (discussed in **Section 3.3**), box culvert installation will be accompanied by widespread reconstruction of 8-inch sanitary sewer gravity mains alongside construction of the box culvert for much of the route. Individual service lines will be replaced within the right of way.
- Potable water mains ranging from 2-inches and 8-inches in diameter will need relocation within Parkland Estates. This is typically done ahead of box culvert installation and requires a short disruption to water service for residents when each property's service line is transferred to the new main. An existing 12-inch diameter main along S Howard Ave and Bayshore Blvd.

5.3.5 Alternative 3 – W Swann Ave Route

5.3.5.1 Description of Alternative 3

Alternative 3 uses W Swann Ave and S Howard Ave to convey stormwater from the intersection of W Swann Ave and S Audubon Ave into Hillsborough Bay. This alternative is minimally invasive to the surrounding neighborhoods, reducing impacts to Parkland Estates and New Suburb Beautiful. Alternative 3 creates temporary impacts to more businesses than Alternatives 1 and 2, but nearly all the businesses along the route can be provided with temporary access from adjacent streets, therefore that access can be maintained for the duration of construction.

Figure 5-19 below provides an overview map of the proposed improvements and flood reduction associated with Alternative 2.

5.3.5.2 Alternative 3 Flood Reduction Benefits

A comparison of peak stage elevations between the RECM and the Alternative 3 PCM for the 5-year/8-hour storm event is shown in **Table 5-6** below. Alternative 3 meets the FPLOS goal for the 5-year/8-hour design storm simulation and does not cause adverse flood impacts to any node within the study area for the nine simulated storm events.

While flood reduction near Swann Pond and S Rome Ave were not the primary goal of the project, the three primary alternatives provide a reduction in flooding in this area because they intercept stormwater runoff that currently discharges to the pond, so it has been included in the analysis for comparison.

This alternative provides more flood relief to locations along W Swann Ave and S Howard Ave in comparison to Alternatives 1 and 2, by providing a second outfall for the existing system along W Swann Ave that currently conveys stormwater into Swann Pond. Comparing **Table 5-6** below to **Table 5-2 and Table 5-4** shows that Alternative 3 allows W Swann Ave near S Rome Ave to meet the project's FPLOS goal, while Alternatives 1 and 2 do not.

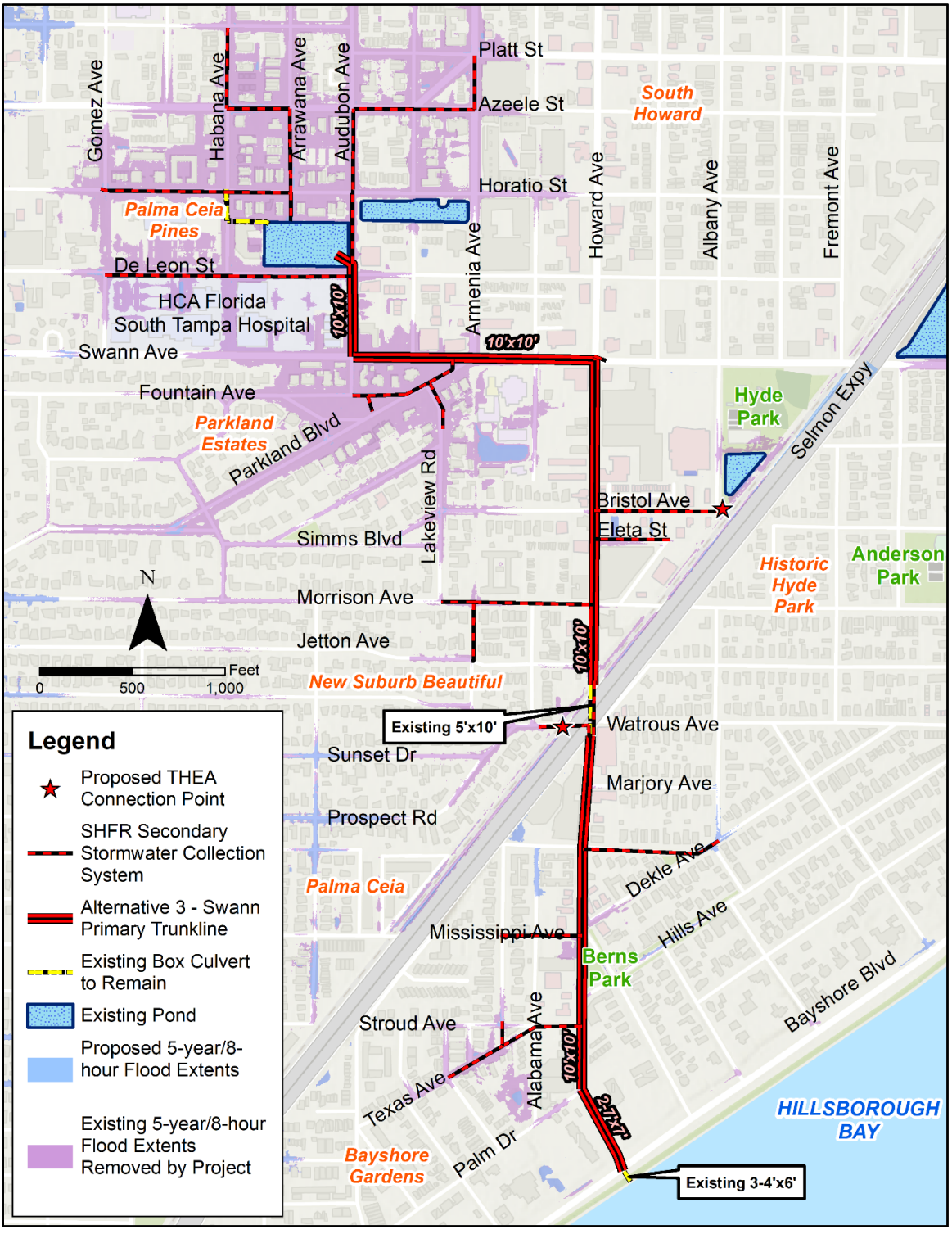


Figure 5-19 – Alternative 3 Concept Plan and Flood Reduction Map

Table 5-6 – Summary of Roadway FPLOS Analysis (Alternative 3, 5-year/8-hour)

Node	Location	RECM Peak Stage (ft, NAVD88)	UCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)	Low EOP Elevation (ft, NAVD88)	Proposed Flood Depth (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	19.21	15.62	-3.59	15.2	0.42**
NCL3510	W Cleveland St at S Habana Ave	19.65	19.44	-0.21	19.1	0.34*
NCL3450	W Horatio St at S Habana Ave	19.23	16.60	-2.63	16.9	-0.30
NCL3490	W Platt St at S Habana Ave	19.23	17.72	-1.51	17.7	0.02
NRU0790	W Swann Ave at S Audubon Ave (north side)	19.22	15.59	-3.63	15.9	-0.31
NRU1050	W Platt St at S Armenia Ave	19.23	17.50	-1.73	17.3	0.20
NRU0960	W Azeele St at S Audubon Ave (south side)	19.23	17.04	-2.19	17.0	0.04
NRU1030	W Azeele St at S Armenia Ave (north side)	19.23	17.29	-1.94	17.4	-0.11
NBW2090	W De Leon St at S Gomez Ave	19.22	18.33	-0.89	18.0	0.33
NCL3250	W Horatio St at S Gomez Ave	19.22	17.36	-1.86	17.2	0.16
NRU1010	W Horatio St at S Armenia Ave	19.23	17.06	-2.17	18.2	-1.14
NRU0965	W Azeele St at S Audubon Ave (north side)	19.23	17.15	-2.08	16.9	0.25
NBW2110	W De Leon St at S Habana Ave	19.22	17.13	-2.09	17.3	-0.17
NCL3470	W Azeele St at S Habana Ave	19.23	16.98	-2.25	16.8	0.18
NRU1040	W Azeele St at S Armenia Ave (south side)	19.23	17.17	-2.06	17.2	-0.03
NRU1070	W Cleveland St at S Armenia Ave	19.24	17.75	-1.49	18.9	-1.15
NRU1170	W Bristol Ave at S Lakeview Rd	19.22	18.24	-0.98	18.0	0.24
NCL3740	W Horatio St at S Arrawana Ave	19.23	16.40	-2.83	17.1	-0.70
Pond B	W Swann Ave at S Rome Ave (Swann Pond)	16.86	14.62	-2.24	15.2	-0.58

*Proposed flood depths in the table that are greater than 4 inches are highlighted in red. However, because the DEM was used to estimate the low edge of pavement elevations at this conceptual level of design, and there is often opportunity to elevate the low edge of pavement slightly during the final design phase, proposed peak stages within an inch of the FPLOS target are considered acceptable for this analysis.

**Based on the SHFR project's preliminary roadway design, which is at the 30 percent phase at the time of this report, it is likely that the lowest edge of pavement elevation along W Fountain Blvd will be elevated by several inches, which will reduce the anticipated flood depth here to less than four inches.

5.3.5.3 Impacted Residents and Businesses

Construction of Alternative 3 directly impacts the lowest number of residents in comparison to Alternatives 1 and 2. The tradeoff is an increased number of businesses impacted, due to construction within the commercial South Howard Ave corridor between W Swann Ave and W Bristol Ave. As mentioned previously, because nearly all the businesses along the route can be provided with temporary access from adjacent streets, the design-build team is confident that access can be maintained for the duration of construction.

An estimated 23 residential homes (primarily due to construction of smaller pipes within Parkland Estates) and 285 multifamily units will be impacted by construction directly in front of the property.

This alternative will temporarily impact access to 57 businesses along the project route, but not at once and not for the entire duration of the project. Construction will move forward in segments, with full restoration of one segment occurring before another is started. This minimizes the duration of road closures along S Howard Ave and W Swann Ave during construction. **Figure 5-20** below summarizes residences and businesses impacted along the project route between W Swann Ave and the Selmon Expressway. This is the area where impacts differ between the three primary alternatives. Note that the comparative analysis in this section does not include any of the proposed work north of W Swann Ave, which has been added to the Phase I project scope.

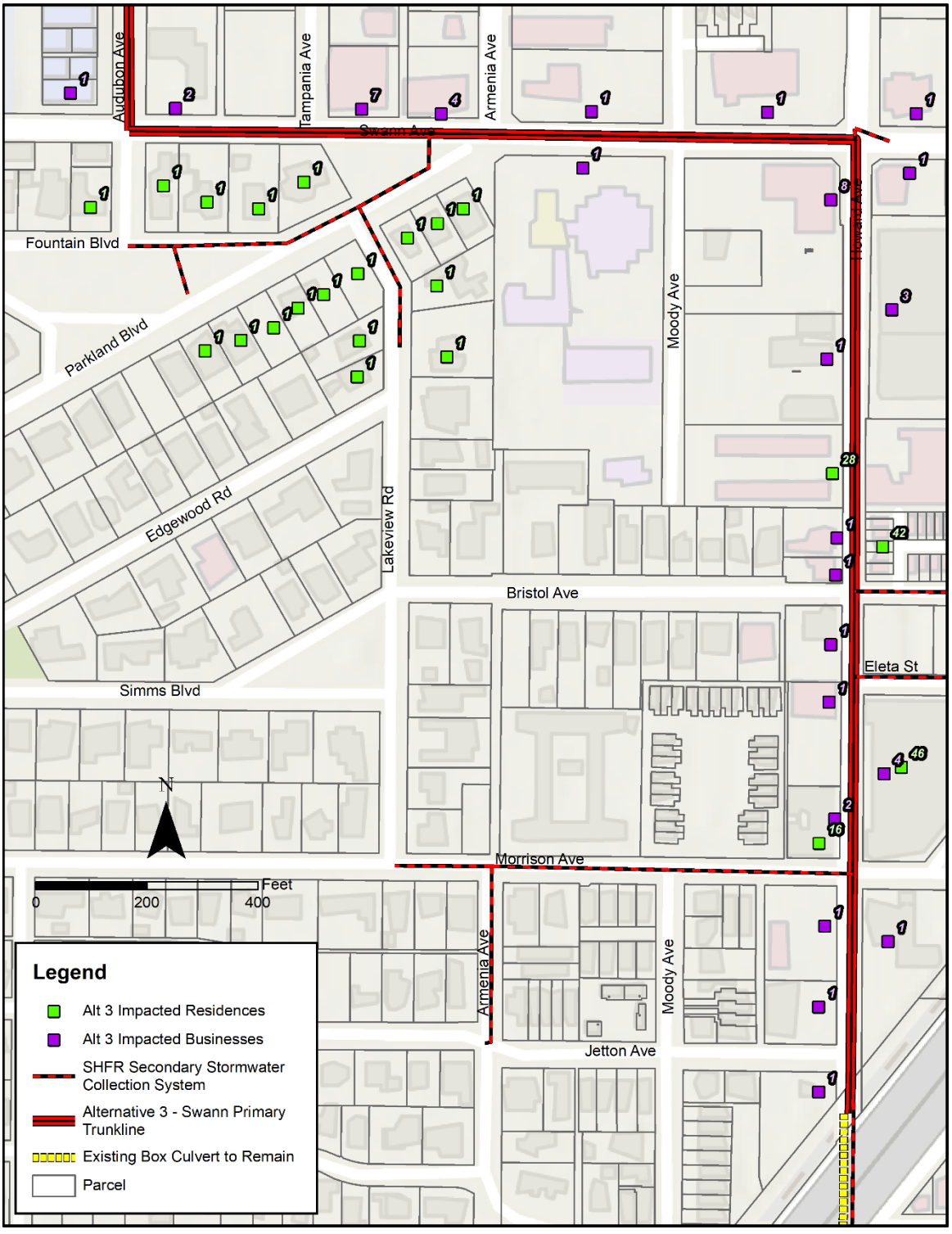


Figure 5-20 – Alternative 3 Impacted Residences and Businesses

5.3.5.4 Impacted Trees

Construction of Alternative 3 will likely result in removing 4 of the 27 grand trees and 13 of the 165 non-grand oak trees encountered along the route. Tree disposition (whether the tree is likely to remain or be removed) was estimated based on proximity of each tree to the anticipated limits of excavation for box culvert construction. It is assumed that smaller storm pipes can be constructed in a way that does not require removal of a tree, as the design-build team has successfully demonstrated in other City stormwater improvements projects**. Figure 5-21** below summarizes the anticipated impacts to grand trees and non-grand oaks along the Alternative 3 route between S Audubon Ave and the Selmon Expressway. This is the area where impacts differ between the three primary alternatives.

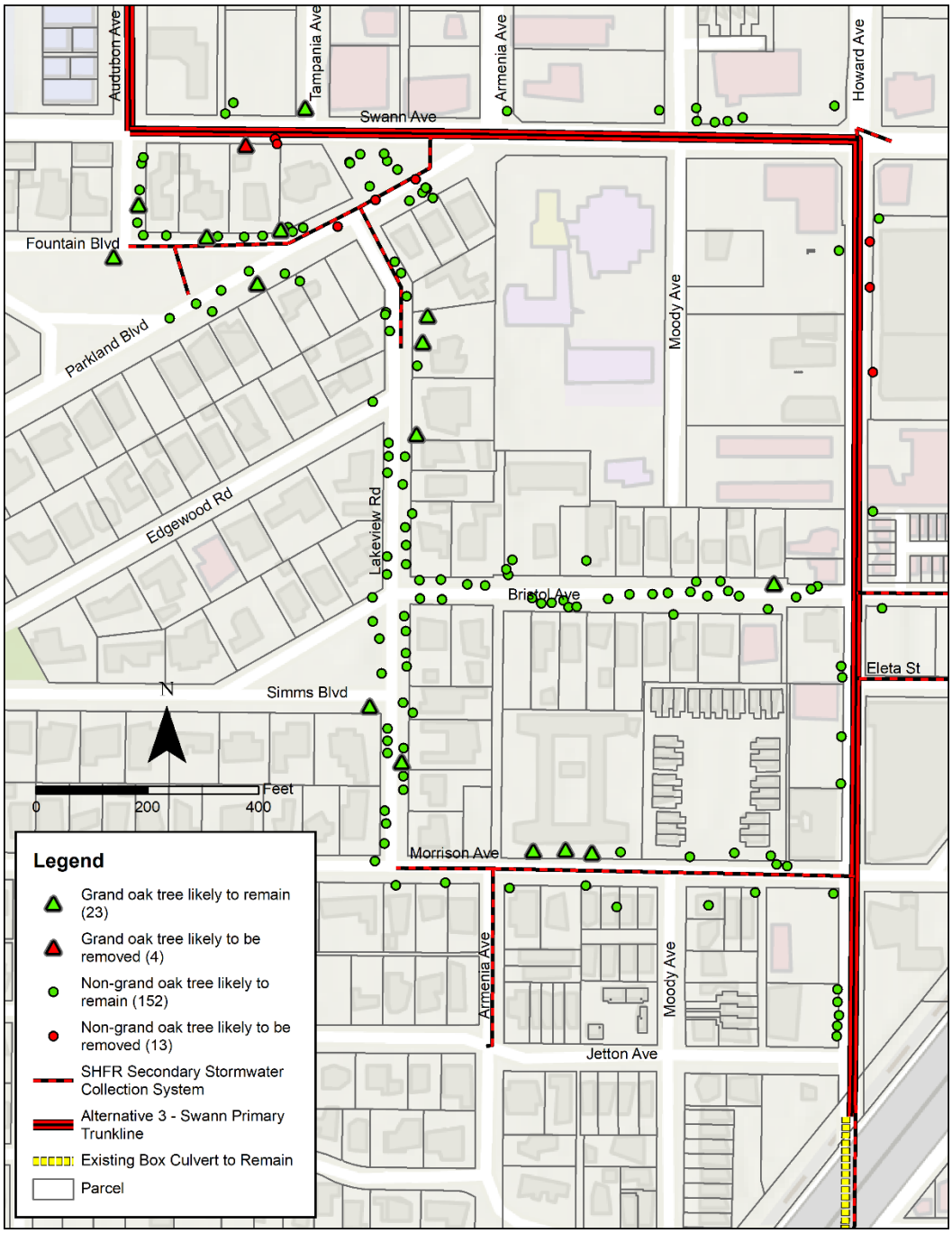


Figure 5-21 – Alternative 3 Tree Impacts

5.3.5.5 Impacts on Traffic

Most traffic impacts associated with this alternative will come from box culvert installation along S Howard Ave and W Swann Ave. Using the traffic data discussed in **Section 2.6.7**, **a weighted average AADT of 10,649 was calculated** for the entire route between Bayshore Blvd and the W Swann Ave intersection with S Audubon Ave. This was done to compare traffic impacts between the three primary alternatives. This calculation is shown below in **Table 5-7.**

Table 5-7 – Alternative 3 Weighted AADT Calculation

Segment	Roadway	Segment AADT	Length of Segment (feet)	% of Total Length	AADT * % of Total Length
1	S Howard Ave (south of Selmon Expy)	9000	2500	45%	4054
2	S Howard Ave (north of Selmon Expy)	12000	1750	32%	3784
3	W Swann Ave	12000	1300	23%	2811
Totals			**5550**	**100%**	**10649**

5.3.5.6 Utility Impacts

Construction of Alternative 3 will include relocation and reconstruction of existing potable water, reclaimed and wastewater pipes which is standard for this type of project. Maps illustrating the existing water and wastewater utilities in this area can be found in **Section 3.3**. A high-level summary of the anticipated impacts are listed below:

- Reclaimed water mains up to 12-inch in diameter will be impacted within Parkland Estates, and notably along S Lakeview Rd where a 12-inch diameter line connects W Parkland Blvd and W Morrison Ave. It is likely that all of these lines will need to be relocated. The box culvert will cross an existing 8-inch line that runs along Bayshore Blvd.
- Aside from the large sanitary sewer force main and gravity main at Bayshore Blvd (discussed in **Section 3.3**), box culvert installation will be accompanied by widespread reconstruction of 8-inch sanitary sewer gravity mains alongside construction of the box culvert for much of the route. Individual service lines will be replaced within the right of way.
- Potable water mains ranging from 2-inches and 8-inches in diameter will need relocation within Parkland Estates. This is typically done ahead of box culvert installation and requires a short disruption to water service for residents when each property's service line is transferred to the new main. An existing 12-inch diameter main along S Howard Ave and Bayshore Blvd.

5.3.6 Primary Alternative Summary and Recommendations

As discussed in **Section 5.3.1**, the three primary alternatives have very similar estimated construction costs and flood reduction benefits, so those two metrics were not used to select a recommended route. While the Swann route impacts more daily traffic and businesses along the commercial corridors, managing this is preferred over the significant impacts to historic residential neighborhood expected with Alternatives 1 and 2. Alternative 3 is less impactful to the character of the Parkland Estates neighborhood and removes less oak tree canopy. It also provides more opportunities for the low-lying areas surrounding and directly east of Swann Pond for flood relief. **Based on this comparative analysis, Alternative 3 was selected.**

A comparison matrix of the three primary alternatives is shown below in **Table 5-8**. The value that has the advantage over the other two for each metric is shown in bold.

Table 5-8 – Primary Alternative Comparison Summary Matrix

Criteria	1-Morrison	2-Bristol	3-Swann
Phase I Total Project Cost (design and construction)	*$95M-$100M*	*$95M-$100M*	*$95M-$100M*
Constructability Challenges	High	High	**Medium**
Estimated Grand Trees Removed	5	5	**4**
Estimated Non-Grand Oak Trees Removed	48	58	**13**
Average AADT	**5876**	6370	10649
Total Number of Residential Homes Directly Impacted	35	46	**23**
Total Number of Apartment/Condo/Townhome Units Directly Impacted	338	**270**	285
Total Number of Businesses/Schools/Churches Impacted	**27**	**27**	57
Utility Impacts	Medium	Medium	Medium

5.4 Other Alternatives Considered

5.4.1 Alternative Projects Analyzed for S Howard Businesses

In 2025 the design-build team evaluated several potential alternative projects (aside from the three primary alternatives in the project scope) that could achieve the SHFR Project's flood reduction goal while reducing impacts on the many businesses along S Howard Ave. A memo was developed for an organized group of businesses along S Howard Ave that discussed the findings of this analysis, which can be found in **Appendix M.**

In the memo, six project alternatives were evaluated for feasibility and hydraulic efficiency, including the recommended project that uses W Swann Ave and S Howard Ave to convey stormwater runoff into Hillsborough Bay through a 10'x10' box culvert. This section provides a high-level summary of the five other alternatives.

5.4.1.1 W Swann Ave Gravity System

This alternative consists of approximately 7700 LF of 10'x10' box culvert between the AMI Pond in Palma Ceia Pines and the intersection of Bayshore Blvd & W Swann Ave, using the S Audubon Ave and W Swann Ave corridors. A new outfall will need to be constructed into Hillsborough Bay.

This alternative increases the length of box culvert trunkline by approximately 30 percent, and therefore the construction cost increases by approximately 30 percent in comparison to the project's recommended route. The duration of construction will also be significantly longer, due to the increased length and utility conflicts – most notably the 48-inch diameter sanitary sewer force main at S Rome Ave, which is discussed in **Section 3.3**. Construction of a new outfall into Hillsborough Bay will have significant impacts to northbound traffic on Bayshore Blvd and traffic onto Davis Islands.

While model results show that the project's flood reduction goal can be met with this alternative, a 96-inch diameter pipe (with a 108-inch diameter steel casing) will need to be installed beneath the CSX railroad and Selmon Expressway rather than two smaller pipes with equivalent conveyance, due to conflict with an existing pipe that cannot be relocated. This is discussed in **Appendix M.**

A microtunnel operation for a pipe this large will be costly, and difficult to permit through CSX, whose maximum allowable steel casing size is 72 inches. The project will cost substantially more to provide the same level of flood relief, reducing the benefit-ratio.

Furthermore, **this alternative will not reduce temporary impacts to residents and businesses – it will just transfer them to a different (and larger) group of stakeholders along W Swann Ave between S Howard Ave and Bayshore Blvd, including Hyde Park Village.**

A map of this alternative is shown below in **Figure 5-22.**

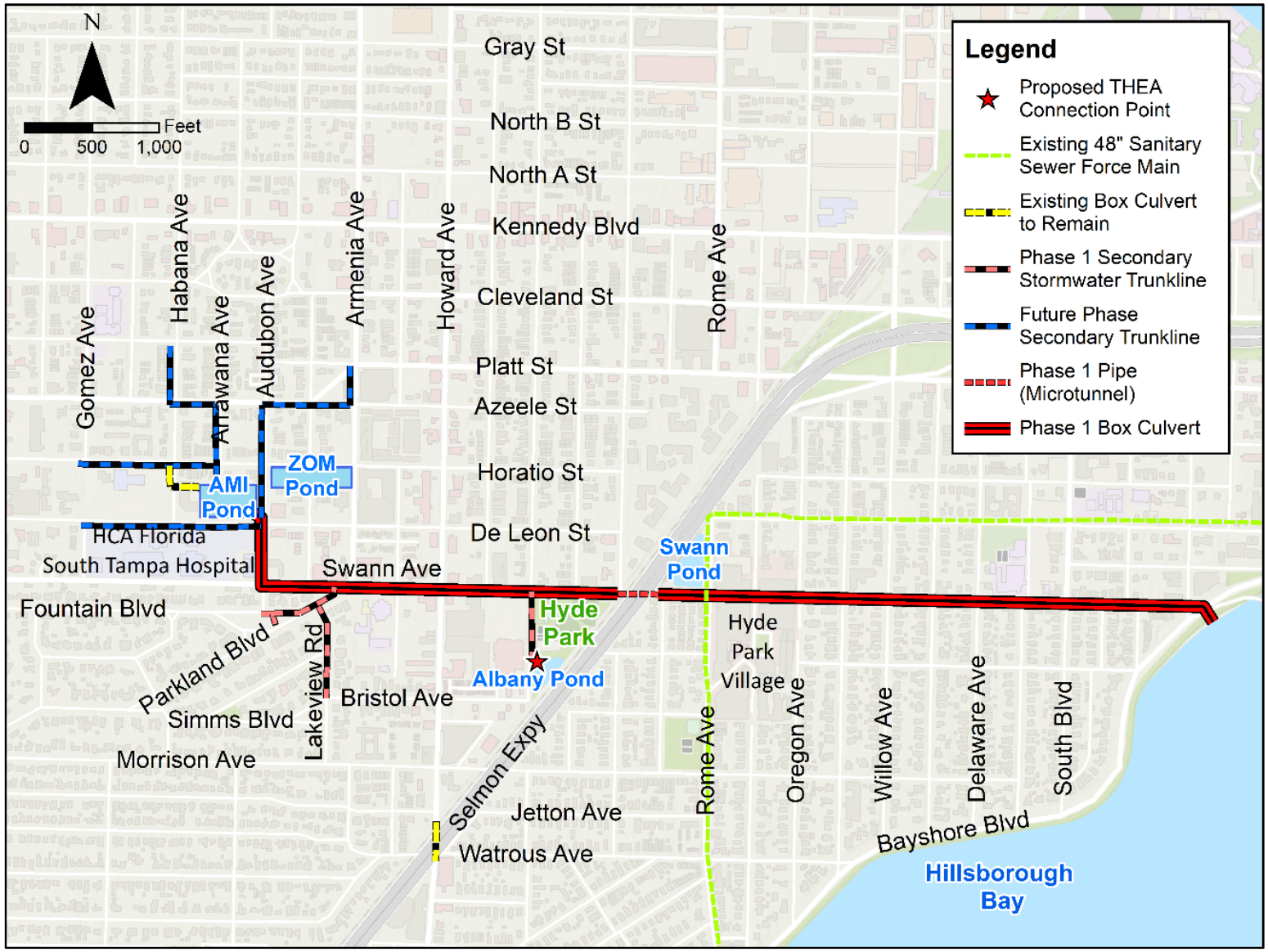


Figure 5-22 – W Swann Ave Gravity System

5.4.1.2 Detention Ponds within Parkland Estates and Palma Ceia Pines

A common suggestion over the years has been to implement a regional stormwater pond in Parkland Estates or Palma Ceia Pines to hold the stormwater runoff. This alternative was modeled to include three hydraulically connected stormwater detention ponds within the lowest portions of Parkland Estates and Palma Ceia Pines that provide enough storage for runoff to meet the project's LOS goal without constructing a new conveyance system to Hillsborough Bay.

Iterations of the model were evaluated until the ponds and their associated pipe connections provided similar results to the recommended alternative. This alternative alleviates roadway flooding around the HCA Florida South Tampa Hospital, on W Swann Ave, and along the roadways that have not been converted into a stormwater pond.

Constructing an adequate regional stormwater pond in lieu of a new stormwater conveyance system and outfall to the bay **will displace hundreds of residents and businesses and** require the use of the eminent domain process. The eminent domain process requires a genuine public need for property, and lack of safe and feasible alternatives. In this case, a new stormwater trunkline, like the one recommended, provides a valid alternative that does not displace property owners, making a regional stormwater pond unlikely to pass the eminent domain process. Furthermore, **the estimated property value alone exceeds $150 million and acquiring these properties will come with significant legal fees.** It is estimated that this alternative will cost more than $200 million.

While this alternative is not justifiable due to the relocation impacts to residents and businesses, it demonstrates the magnitude of storage volume needed to mitigate the flooding without constructing a new outfall. **The combined ponds will need to store over 70 acre-ft of stormwater above the pond's normal water surface to meet the project's FPLOS goal.**

A map of this alternative is shown below in **Figure 5-23.**

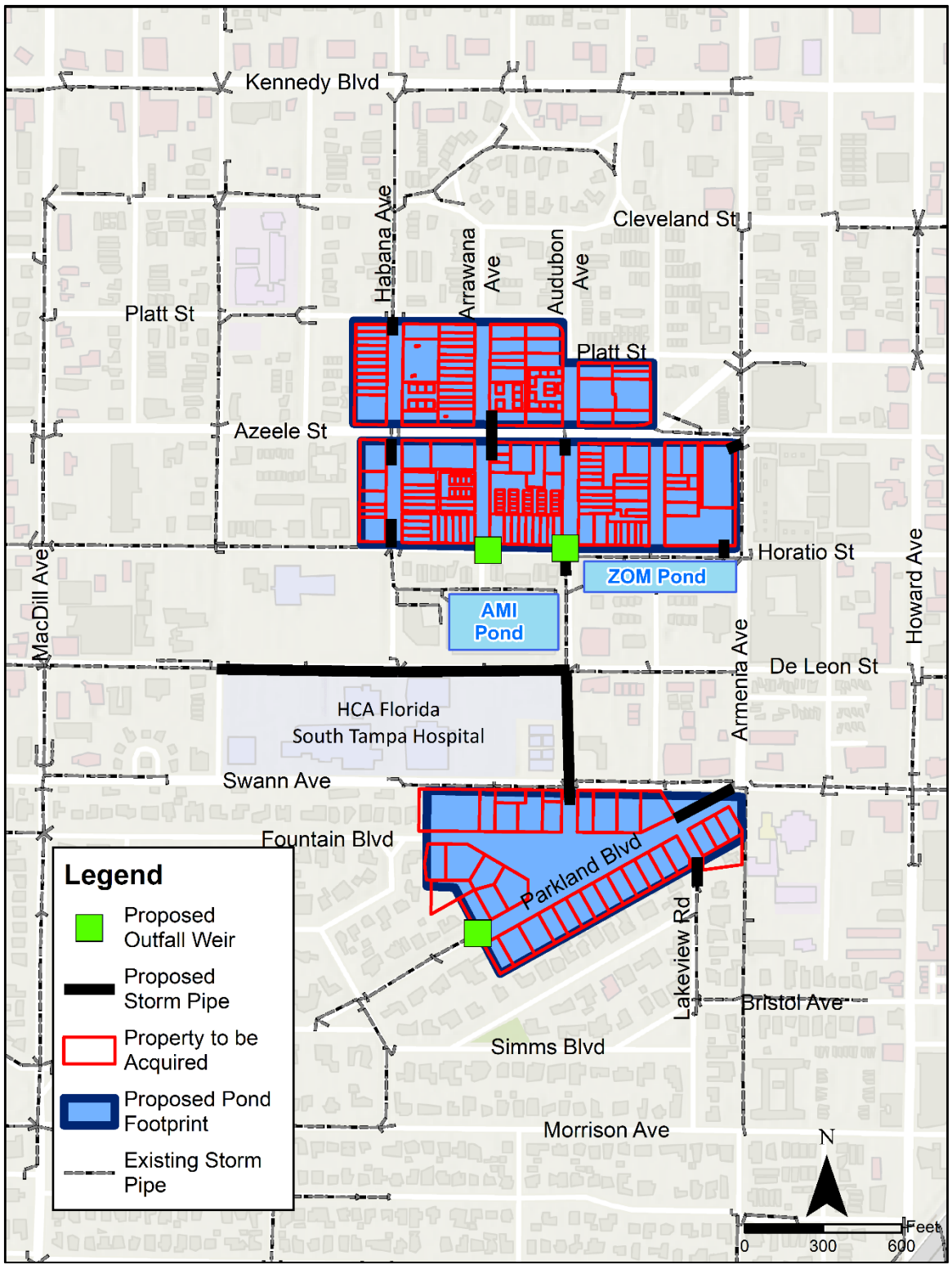


Figure 5-23 – Detention Ponds within Parkland Estates and Palma Ceia Pines

5.4.1.3 Parkland Estates Stormwater Pump Station

Because of significant operation and maintenance costs and risk of failure during severe storm events, stormwater pump stations should be considered a "last resort" solution to drainage issues. They are commonly used when there is a lack of sufficient hydraulic head (change in elevation between upstream and downstream water surfaces of a conveyance system) for a gravity system to work effectively. This is applicable on some barrier islands or places where ground elevations are not much higher than the nearby ocean or other large receiving water body. This is not the case here – **the lowest elevations in Parkland Estates are 15 feet above Hillsborough Bay and can be drained effectively using a gravity system.**

A stormwater pump station also **eliminates the opportunity to alleviate localized flooding downstream of the pump station using this project's infrastructure.** The smaller gravity systems discussed in **Section 6.1.2** will not be able to "tap in" to a pressurized force main like they can with the box culvert solution that relies on gravity flow. The recommended solution for this project is a passive, low maintenance system that lets gravity do the work, rather than a power intensive collection of pumps.

With that said, two pump station alternatives that achieve the project's flood reduction goal were modeled and evaluated. A 600-CFS (or 270,000 gallons per minute) capacity stormwater pump station in Parkland Estates, located above a new half-acre underground stormwater vault could be constructed in lieu of a new gravity system. This will be located within open space between W Fountain Blvd and W Parkland Blvd at S Audubon Ave.

This pump station will need to discharge through a 10-foot diameter force main pipe that outfalls into Hillsborough Bay, so **construction impacts along S Howard Ave (or any alternative route) will be comparable to those of the recommended solution.** This alternative will also be more expensive to construct than the recommended box culvert solution, and the pump station will bring permanent noise and aesthetic impacts to the Parkland Estates neighborhood.

A map of this alternative is shown below in **Figure 5-24.**

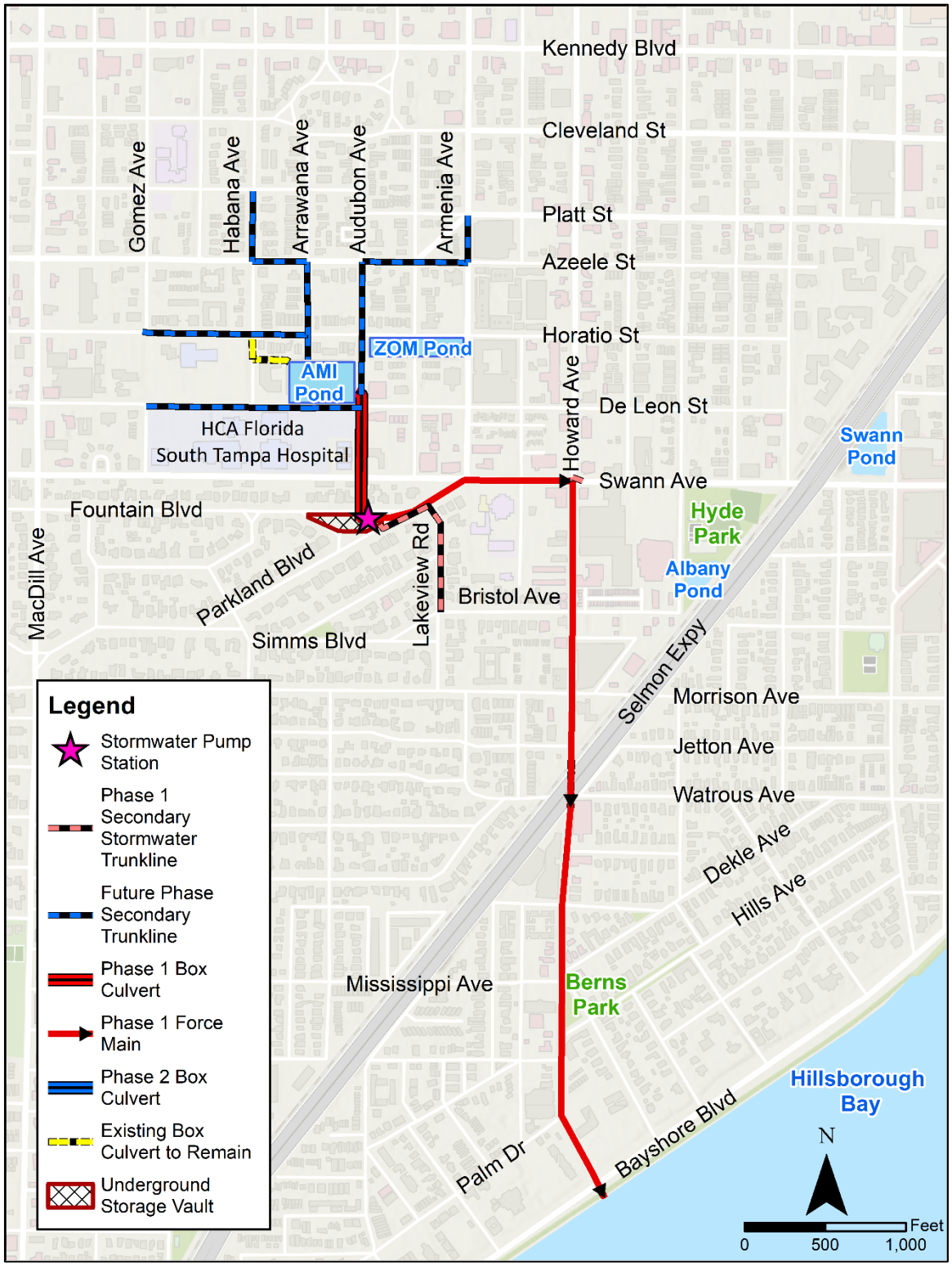


Figure 5-24 – Parkland Estates Stormwater Pump Station

5.4.1.4 Hyde Park Softball Field Stormwater Pump Station

Using the City-owned park on the south side of W Swann Ave between S Albany Ave and the CSX railroad to construct an underground storage vault on the order of 30 feet deep for stormwater runoff will allow for a smaller stormwater pump station than the Parkland Estates Stormwater Pump Station alternative, but it **will not eliminate the need for a new outfall to Hillsborough Bay**.

At 30 feet below ground, the vault is well below the groundwater table as well as sea level and will need a substantial pump. Model results show that a 300-CFS (135,000 gallons per minute) capacity pump station and a 7-foot diameter main pipe into Hillsborough Bay will still be needed to meet the FPLOS goal, provided it could be constructed with a 3-acre underground stormwater vault and pump station wet well. Given the anticipated groundwater conditions, this will be difficult and costly to construct.

This alternative has the same challenges as the pump station discussed in **Section 5.4.1.3** and will require installation of approximately 3,000 linear feet of box culvert to convey stormwater runoff between Palma Ceia Pines and the pump station's wet well. The cost of this alternative will be substantially more than the estimated cost of the recommended alternative and will result in unnecessary power consumption and operating costs.

A map of this alternative is shown below in **Figure 5-25.**

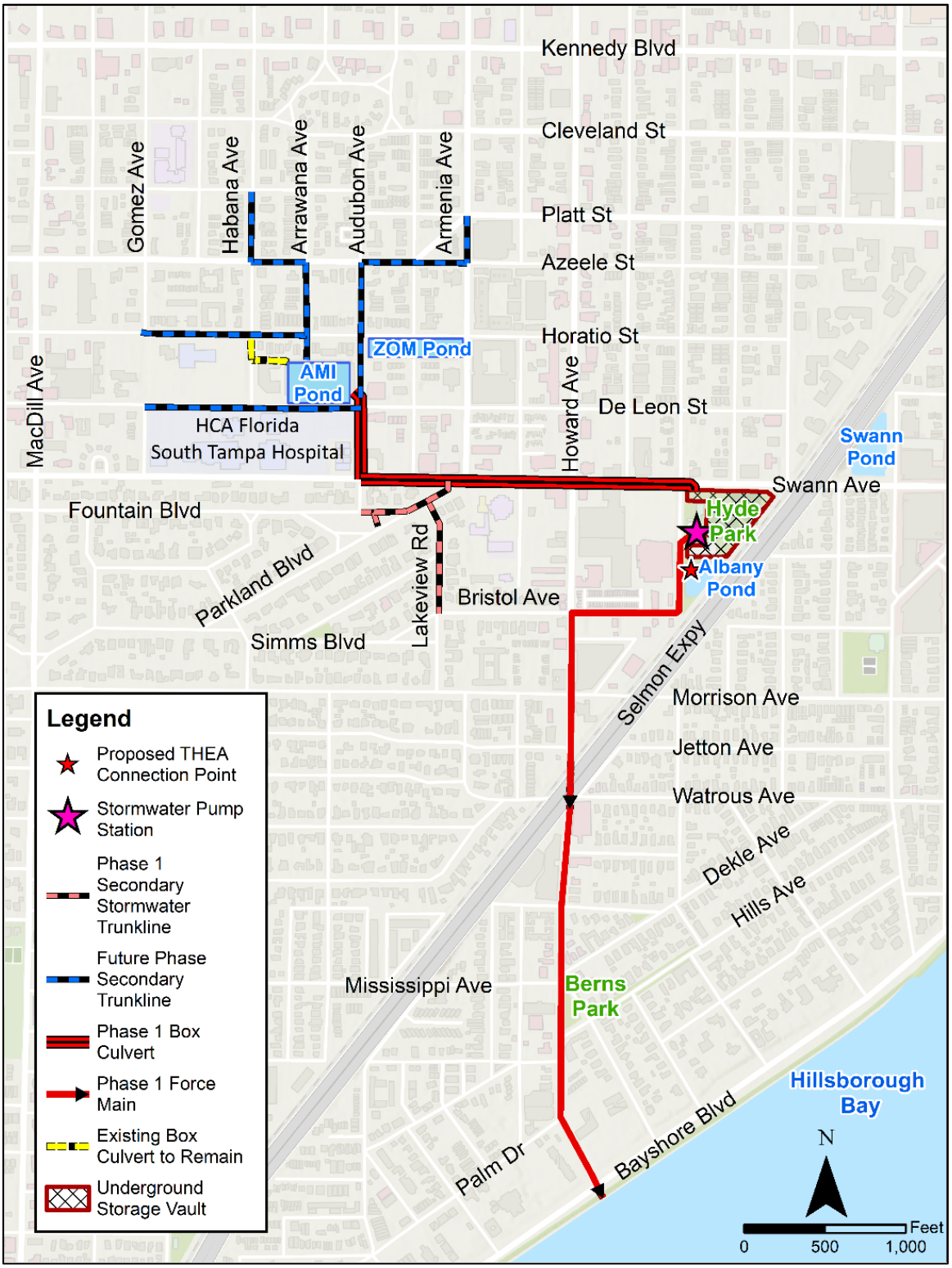


Figure 5-25 – Hyde Park Softball Field Stormwater Pump Station

5.4.1.5 Increased Stormwater Conveyance Alongside CSX Railroad and Selmon Expressway

This alternative has been suggested numerous times by members of the community because it will lessen temporary construction impacts for residents, businesses, and motorists. However, because of the significant right of way acquisition and constructability challenges associated with the infrastructure required, and increased route length, this alternative is not feasible and therefore was not modeled.

The capacity of the existing ditch system along this route is a fraction of what is required to efficiently convey the volume of runoff from Parkland Estates and Palma Ceia Pines and will need to be significantly upsized (similar conveyance to a 10'x10' box culvert) to handle these flow rates. The ditch is also several feet higher than the low roadway elevations in those neighborhoods, so an upsized gravity conveyance system will need a deep installation, "below the bowl", to provide flood relief using gravity.

CSX generally requires that construction activities stay 25 feet away from the center of the tracks, which leaves a 10- to 12-foot-wide corridor to install the conveyance system between the railroad tracks and the Selmon Expressway's wall.

Given the size and depth of the conveyance system needed (either gravity or force main), this is not a feasible solution. **Figure 5-26** below was taken in July 2025 and shows the narrow corridor provided for construction of this alternative, looking southwest from W Swann Ave.

Even if the CSX right of way was available, this alternative will increase the overall project length by 80%, which will result in significantly higher construction costs to achieve the same goal. The rate of stormwater runoff now flowing to the Rubideaux Street outfall will require a significant increase in outfall capacity to avoid worsening flooding within Palma Ceia and Bayshore Gardens. **There is no existing stormwater outfall in this region that can provide the additional conveyance necessary for this alternative – a new outfall to Hillsborough will be required to achieve the SHFR project's flood reduction goal.**

A map of this alternative is shown below in **Figure 5-27.**



Figure 5-26 – Existing shallow ditch system between Selmon Expressway & CSX Railroad



Figure 5-27 – Increased Stormwater Conveyance Alongside CSX Railroad and Selmon Expressway

5.4.2 Other Routes Suggested by the Public

The five alternatives discussed in this section were provided by the public in the spring of 2025. These alternatives were screened for feasibility and constructability but were not modeled or analyzed as those discussed in **Section 5.4.1** were**.** Three of these alternatives are variations of the CSX/Selmon route discussed previously in **Section 5.4.1.5** and therefore have the same challenges. Further development of these alternatives requires understanding of the conveyance capacity and/or storage volume required to provide noticeable flood relief to Parkland Estates and Palma Ceia Pines and meet the project's FPLOS goal.

5.4.2.1 S Georgia Ave to W Mississippi Ave

This scenario **increases the length of box culvert by over 30%** between W Swann Ave and Hillsborough Bay, which increases construction cost and duration. Similar to Alternatives 1 and 2 discussed in **Section 5.3**, the narrow residential corridors of S Lakeview Rd and S Georgia Ave make the deep installation of a 10'x10' box culvert and utility relocations difficult and will impact the character of the Parkland Estates and New Suburb Beautiful neighborhoods. The limited right of way available along W Mississippi Ave at the railroad and Selmon Expressway crossing limits additional stormwater conveyance through this location, making it difficult to meet the project's flood reduction goal.

A map of this alternative, provided by the community, is shown below in **Figure 5-28.**

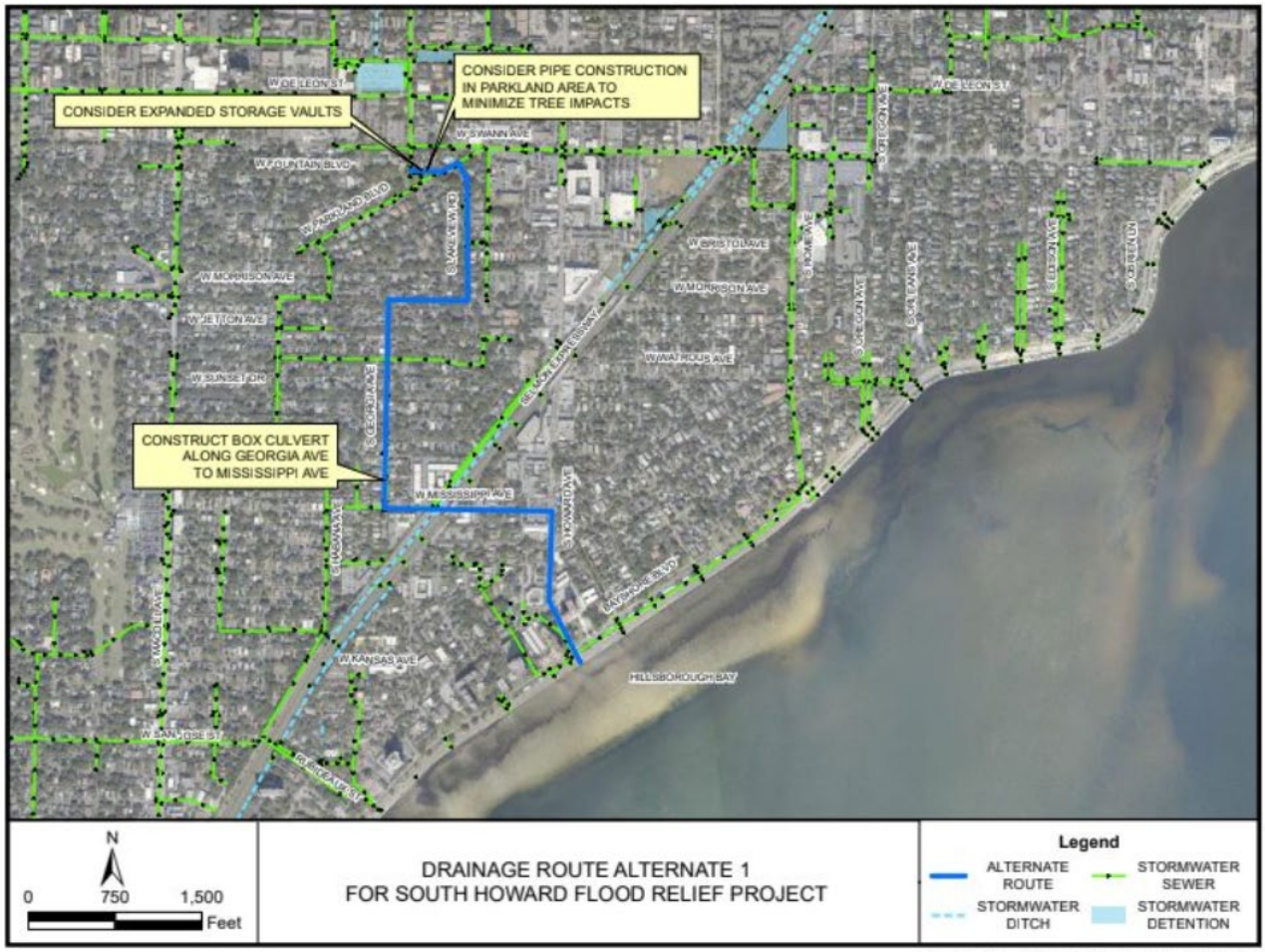


Figure 5-28 – S Georgia Ave to W Mississippi Ave

5.4.2.2 W Morrison Ave to S Rome Ave

This scenario **increases the length of box culvert by nearly 20%** between W Swann Ave and Hillsborough Bay. Like the S Georgia Ave alternative, this route will impact the narrow residential corridors within Parkland Estates and Historic Hyde Park, impacting the character of these neighborhoods.

Using the S Rome Ave corridor for a new box culvert trunkline and outfall at Bayshore Blvd will require a costly and time-consuming relocation of the existing 48-inch diameter sanitary sewer force main, as discussed in **Section 3.3**.

A new outfall into Hillsborough Bay will increase the cost and duration of construction and will result in additional traffic impacts to Bayshore Blvd. Lack of available space for conveyance beneath the CSX railroad along W Morrison Ave limits the hydraulic capacity of the new system in comparison to the S Howard Ave alternatives. Similar (or less) flood reduction benefits along with much higher construction costs substantially reduce the project's benefit-cost ratio.

A map of this alternative, provided by the community, is shown below in **Figure 5-29.**



Figure 5-29 – W Morrison Ave to S Rome Ave

5.4.2.3 CSX Route 1

Discussion of this alternative can be found in **Section 5.4.1.5**. A map of this alternative, provided by the community, is shown below in **Figure 5-30.**



Figure 5-30 – CSX Route 1

5.4.2.4 CSX Route 2

This scenario is not hydraulically effective without upsizing the S Rome Ave system or constructing a new outfall between the CSX right of way and Hillsborough Bay. As mentioned previously, there is no existing stormwater outfall in this region that can provide the additional conveyance of stormwater required to achieve the SHFR project's flood reduction goal, therefore a new outfall to Hillsborough Bay is needed.

A new system and outfall along S Rome Ave presents the same construction and utility challenges discussed **Section 5.4.2.2**. The existing conveyance capacity of the ditch system along the railroad is a fraction of what is needed to meet the project's flood reduction goal and will provide little additional benefit.

As discussed in **Section 5.4.1.4**, even adding a 3-acre vault to depths of 30 feet below the park will not eliminate the need for a new outfall to the bay. There is simply too much stormwater that needs to be efficiently removed from Parkland Estates and Palma Ceia Pines to meet the project's flood reduction goal.

A map of this alternative, provided by the community, is shown below in **Figure 5-31.**



Figure 5-31 – CSX Route 2

5.4.2.5 CSX Route 3

The challenges presented by the CSX corridor are discussed in **Section 5.4.1.5.**

As discussed in **Section 5.1.4.1**, there is a limit to the amount of additional stormwater runoff the Cypress Street Outfall system can handle, and the project's H&H models indicate there is not enough capacity available to use it as an alternative to the SHFR project. The existing Spanishtown Creek system has limited capacity during heavy rainfall events and cannot accommodate the additional flows.

Providing adequate conveyance to the north and east along W Kennedy Blvd toward the Hillsborough River is not hydraulically efficient and will require over 10,000 linear feet of new trunkline. Furthermore, W Kennedy Blvd is a state road, and any new system that uses this corridor will need to be designed and constructed by FDOT. Even if this made sense hydraulically, and FDOT agreed to move forward with such a project, it will delay the SHFR project's completion date by years.

Splitting the project into two new trunklines and outfalls is not practical and will further increase the cost and duration of construction.

A map of this alternative, provided by the community, is shown below in **Figure 5-32.**



Figure 5-32 – CSX Route 3

6. Recommended Project

6.1 Overview

Based on the evaluation of alternatives discussed in **Sections 5.3 and 5.4**, along with routes previously mentioned in the drainage studies discussed in **Section 2.1**, Alternative 3 has the lowest capital costs, the shortest duration of construction, and is the least impactful to the environment, while achieving the project's flood reduction goals. **For these reasons, and at the recommendation of the design-build team, the City has decided to move forward with Primary Alternative 3 – W Swann Ave to S Howard Ave as the most cost-effective solution to reduce flooding within Parkland Estates, Palma Ceia Pines, and other neighborhoods adjacent to the project's route.**

The individually modeled components of the recommended alternative are discussed in **Section 5.1**. This section will build upon **Section 5.1** and focus on the PCM results and predicted flood reduction benefits. It is important to remember that even though this report consistently refers to the SHFR Flood Reduction Focus Area, the recommended system has capacity to alleviate flooding at other locations outside of this area. The PCM includes all the future phase projects discussed in **Section 5.1.3**, along with the primary box culvert trunkline, which has been designed to include capacity for other future drainage connections to use the system to provide regional flood relief.

Key project details, findings, and assumptions for the recommended alternative are listed below:

- A new 10'x10' box culvert trunkline from Bayshore Blvd to the AMI detention pond, along S Audubon Ave between W De Leon St and W Horatio St.
- Existing box culverts remain in place beneath Bayshore Blvd, Selmon Expressway, and the CSX railroad.
- Additional parallel 60" pipe is to be installed beneath Selmon Expressway and CSX railroad via microtunnel.
- The route includes S Howard Ave, W Swann Ave, and S Audubon Ave corridors.
- A new weir that controls water levels within and discharges from the City-maintained AMI Pond, eliminating the need for the existing pump that recovers the pond's available storage and treatment volume. The pond's primary existing outfall – a 4'x8' box culvert along W Horatio St – will remain to function as a secondary outfall.
- **Estimated Phase I Construction Cost: $92,136,452** (cost estimate is based on 30% design and can be found in **Appendix L**)
- Future project phases will include smaller stormwater trunklines throughout Palma Ceia Pines and local roads adjacent to the main trunkline's route to collect stormwater runoff and address FPLOS deficiencies.

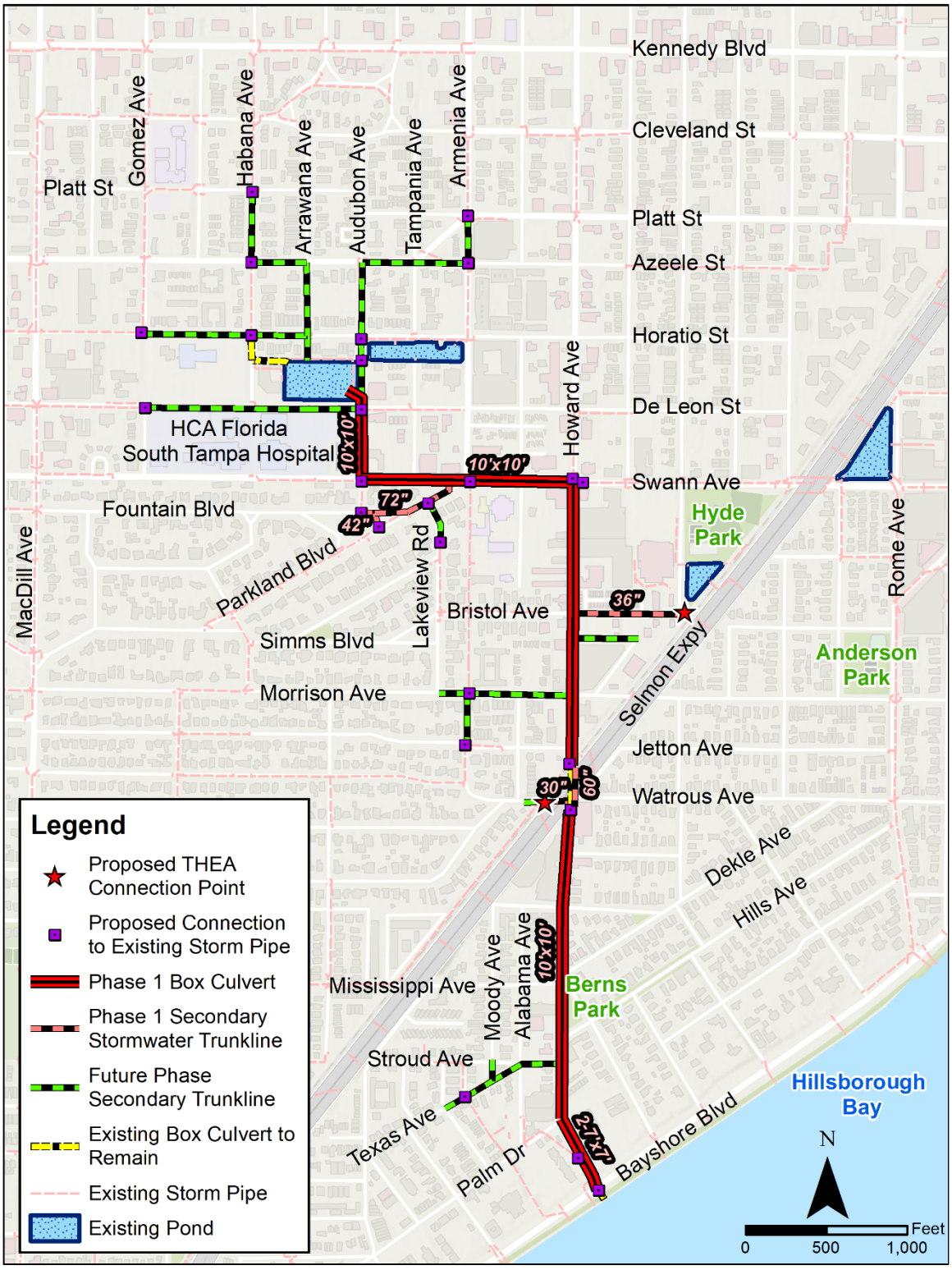


Figure 6-1 – SHFR Project Recommended Alternative

6.1.1 Hydraulic Grade Line (HGL)

Figure 6-2 and Figure 6-3 illustrate a profile view of the proposed trunkline between the AMI pond and Hillsborough Bay. The figures illustrate the existing and proposed hydraulic grade line (HGL) profiles as predicted by the models for the 5-year/8-hour and 100-year/24-hour design storm events, respectively.

The hydraulic grade line can be considered a graphical representation of the energy available to push water through the culvert at any given point along the route. It generally reflects what elevation the water surface will reach within or above the system's pipes, inlets, and manholes during the peak flood conditions of the respective rainfall event. A HGL profile below the ground surface reflects a peak water level that is contained during the event, while a HGL profile above the ground surface reflects flooding above a surcharged system during the event.

The slope of the HGL indicates energy losses due to friction within the culvert (major losses) and minor losses due to localized areas of turbulence, such as deflections within the culvert alignment or intersection with another major conveyance system. A steeper slope means more friction due to a large amount of water being forced through a tight space. A sudden rise in HGL reflects a significant restriction in the system, like the crossing beneath the railroad and Selmon Expressway or the large conflict structure at Bayshore Blvd.

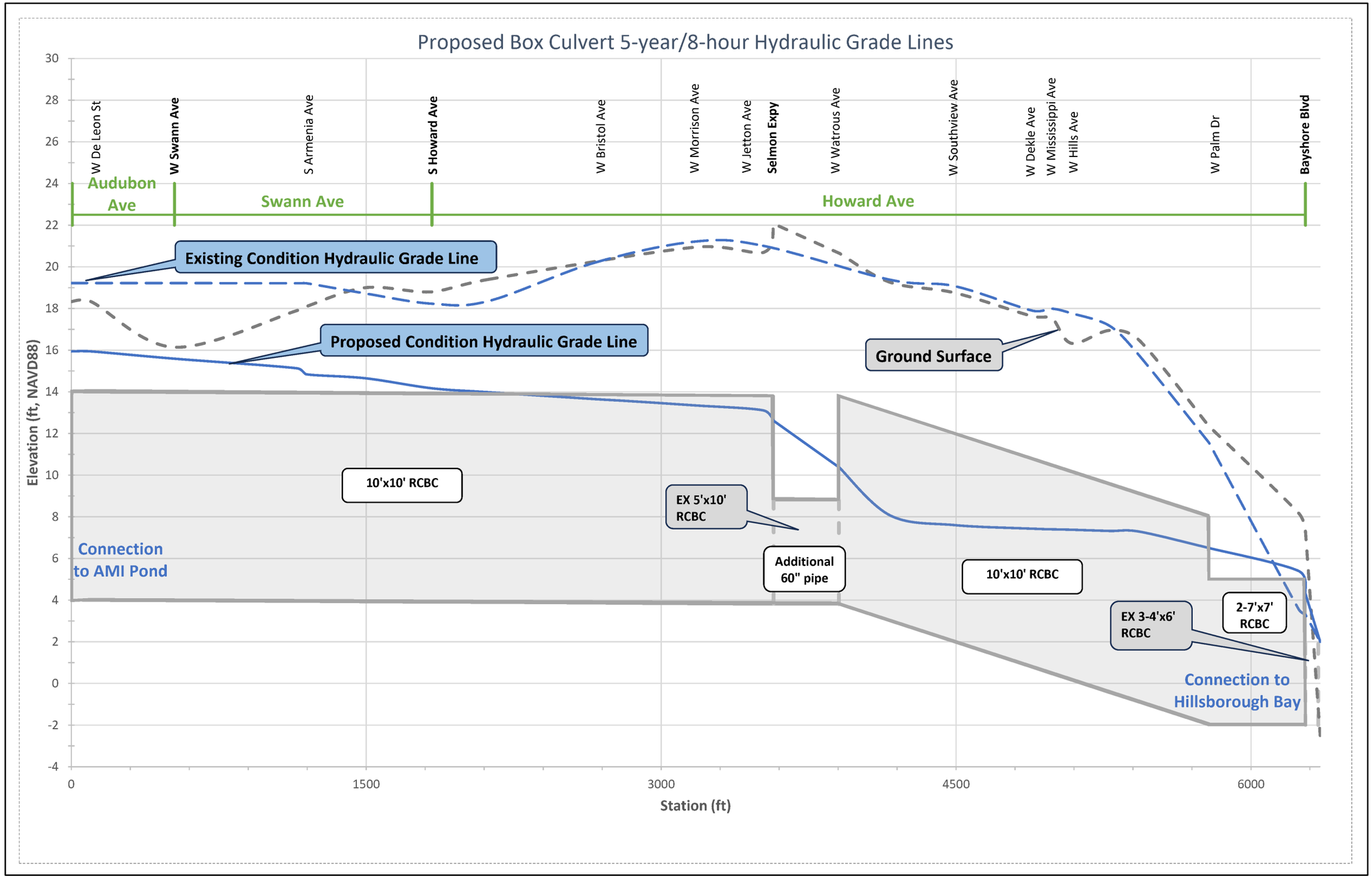


Figure 6-2 – Recommended Alternative Profile View and 5-year/8-hour HGL Comparison

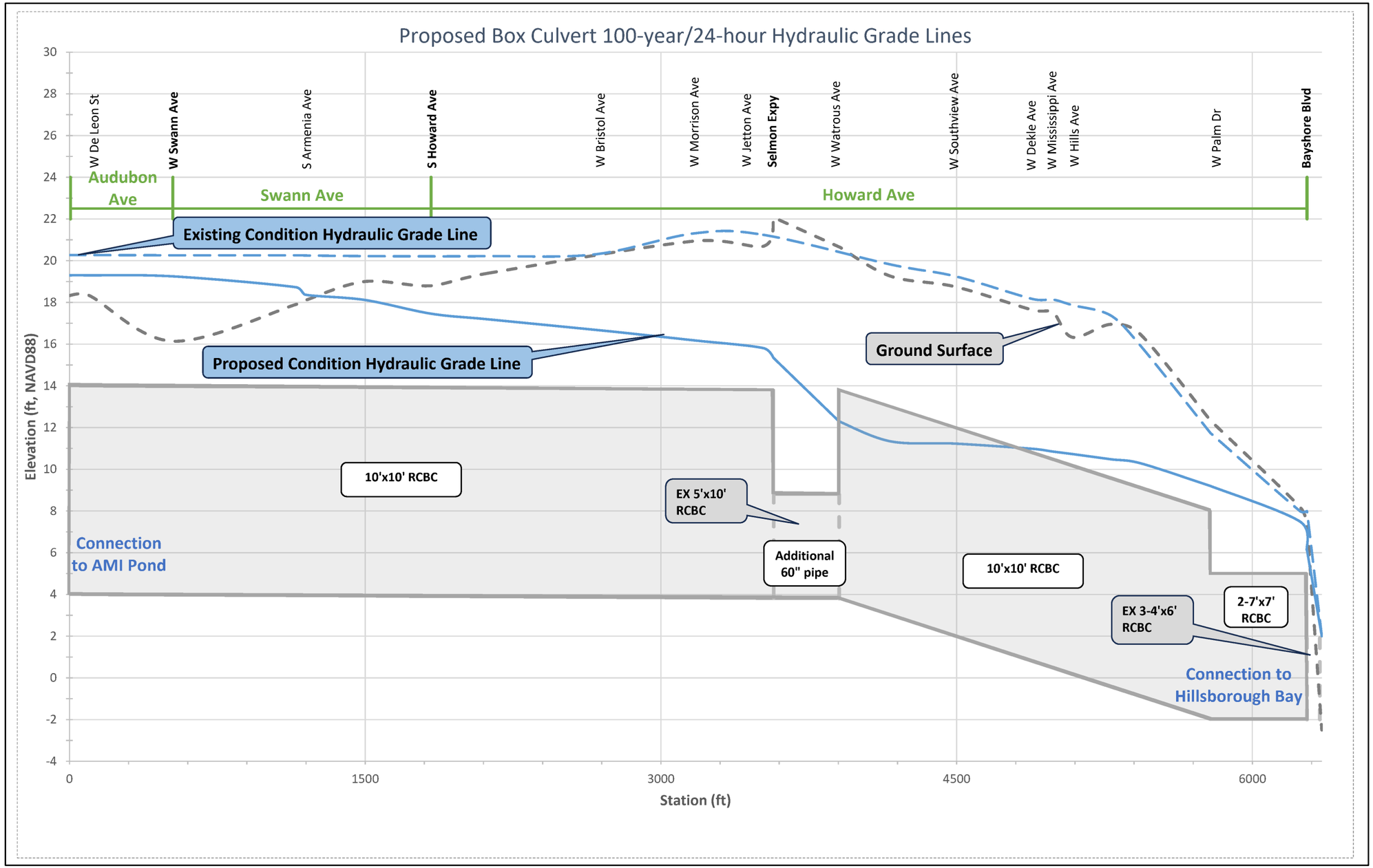


Figure 6-3 – Recommended Alternative Profile View and 100-year/24-hour HGL Comparison

6.2 Phase I Flood Reduction Benefits

While future phase projects are ultimately needed to meet the FPLOS goal and keep water off roadways, **Phase I significantly reduces the duration of roadway flooding both inside and outside of the SHFR Flood Reduction Focus Area. It will also provide significant structure flooding reduction and protection to homes and businesses during severe rainfall events.**

Phase I provides the major artery needed for stormwater conveyance and future phases connections. These future projects will further reduce flooding to allow specific roadways and intersections to meet the FPLOS goal. **Table 6-1** below provides a summary of benefits anticipated after the construction of **only Phase I.**

Table 6-1 – Summary of Proposed Phase I Flood Reduction Benefits

Flood Impact/Reduction Benefit	2.33-year/ 24-hour Design Storm (4.5 inches)	5-year/ 8-hour Design Storm (5.3 inches)	10-year/ 24-hour Design Storm (7.0 inches)	25-year/ 24-hour Design Storm (8.0 inches)	50-year/ 24-hour Design Storm (10.0 inches)	100-year/ 24-hour Design Storm (11.0 inches)	Hurricane Milton (13-14.5 inches*)
Existing Duration of Roadway Flooding on S Habana Ave at W Horatio St (hours)	3	6	8	9	11	12	15
Proposed Duration of Roadway Flooding on S Habana Ave at W Horatio St (hours)	0	1	2	2	3	4	5
Existing Number of Homes/Businesses Inundated**	0	96	123	203	255	272	333
Proposed Reduction of Inundated Homes/Businesses**	N/A	96	113	172	183	153	225
% Reduction of Inundated Homes/Businesses**	N/A	100%	92%	85%	72%	56%	68%

*Hurricane Milton rainfall totals vary across the model's geographic limits, and were estimated by radar (source: NEXRAD)
**Includes predicted total number of ground floor dwellings, including single family homes, businesses, and individual apartment or townhome units, within the 206 specific buildings surveyed in 2025 by the design-build team.
Note: Benefits reflect all proposed Phase I improvements as depicted in red in **Figure 6-4.** Additional future projects that reduce runoff to this area will further increase these benefits. All values in the table are predicted using H&H model results and have not been field verified after observed rainfall events.

6.2.1 Structure Flooding Reduction

Table 6-1 provides a summary of the predicted reduction in structure flooding for each event simulated. The middle row shows how many of the structures that flood in the existing condition no longer flood during the same rainfall event, after Phase I is complete. The bottom row specifies what percentage of inundated structures will now be protected and no longer flood after Phase I is complete. While the project was designed to reduce roadway flooding, the additional benefit to vulnerable homes and businesses is tremendous, even during generational events like Hurricane Milton.

6.2.2 Flooding Extents Reduction

Figure 6-4 shows the reduction in flood extents for the 5-year/8-hour design storm for only the Phase I project. The purple shading represents existing flooding extents predicted by the model that will be eliminated during the same storm event once the project is complete. **What is not visible is the significant reduction in structure flooding and the duration of roadway flooding after the completion of Phase I.** It is anticipated that Phase I alone will eliminate all structure flooding within the SHFR Flood Reduction Focus Area for the 5-year/8-hour design storm (see **Table 6-1**).

Flood reduction maps for a variety of simulated rainfall events can be found in **Appendix K**.

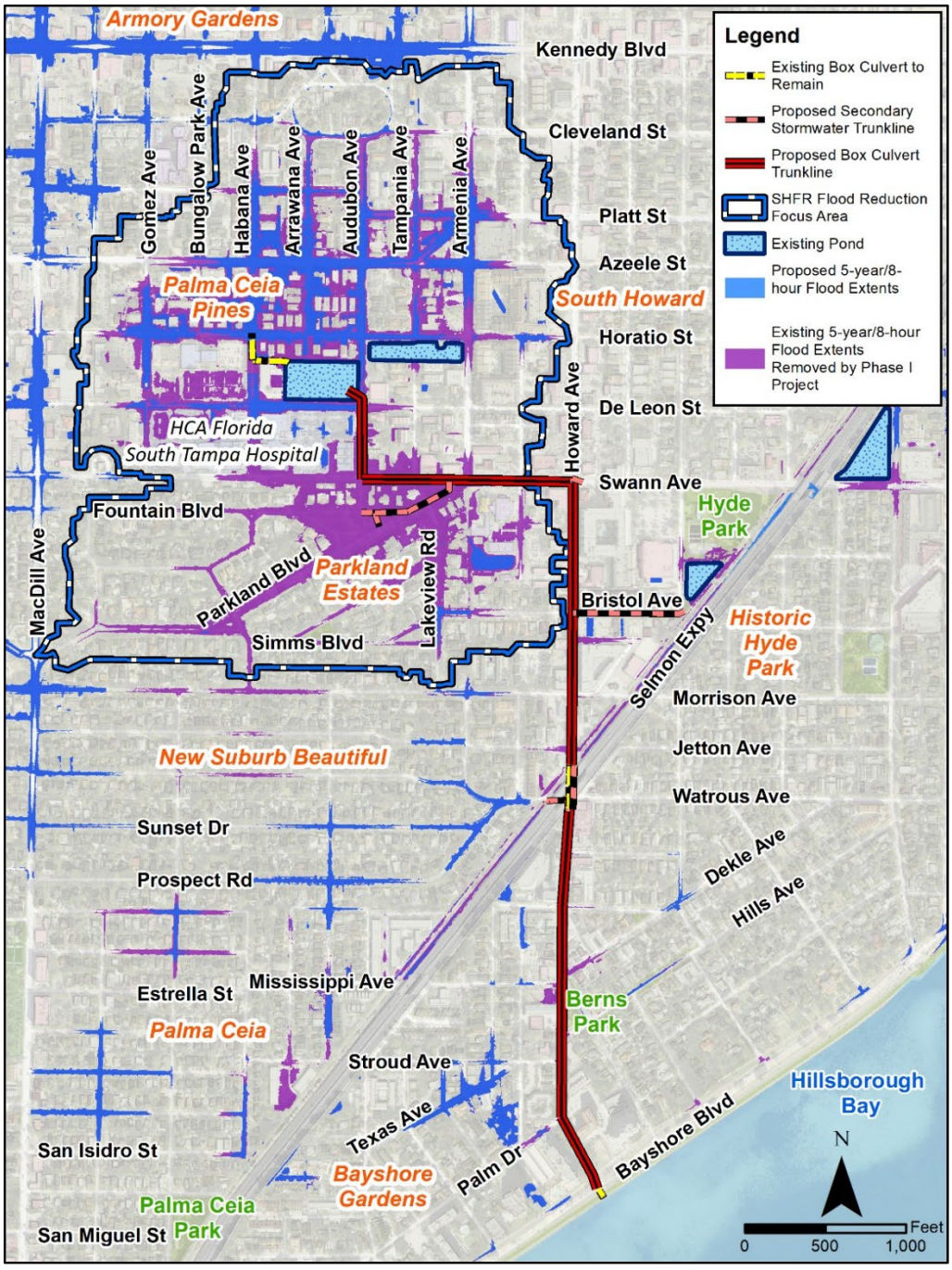


Figure 6-4 – Phase I - 5-year/8-hour Proposed Flood Extents Reduction

6.2.3 Flooding Depth Reduction

Table 6-2 and Table 6-3 show the predicted reduction in peak stage for only the Phase I project, for the 5-year/8-hour and 100-year/24-hour design storm events, respectively.

Table 6-2 – Summary of 5-year/8-hour Flood Reduction and Proposed Flood Depths (Phase I only)

Node	Location	RECM Peak Stage (ft, NAVD88)	Phase I PCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)	Low EOP Elevation (ft, NAVD88)	Proposed Flood Depth (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	19.21	14.26	**-4.95**	15.2	-0.94
NCL3510	W Cleveland St at S Habana Ave	19.65	19.64	**-0.01**	19.1	0.54
NCL3450	W Horatio St at S Habana Ave	19.23	17.77	**-1.46**	16.9	0.87
NCL3490	W Platt St at S Habana Ave	19.23	18.74	**-0.49**	17.7	1.04
NRU0790	W Swann Ave at S Audubon Ave (north side)	19.22	14.18	**-5.04**	15.9	-1.72
NRU1050	W Platt St at S Armenia Ave	19.23	18.55	**-0.68**	17.3	1.25
NRU0960	W Azeele St at S Audubon Ave (south side)	19.23	18.52	**-0.71**	17	1.52
NRU1030	W Azeele St at S Armenia Ave (north side)	19.23	18.55	**-0.68**	17.4	1.15
NBW2090	W De Leon St at S Gomez Ave	19.22	18.71	**-0.51**	18.0	0.71
NCL3250	W Horatio St at S Gomez Ave	19.22	18.56	**-0.66**	17.2	1.36
NRU1010	W Horatio St at S Armenia Ave	19.23	18.42	**-0.81**	18.2	0.22
NRU0965	W Azeele St at S Audubon Ave (north side)	19.23	18.52	**-0.71**	16.9	1.62
NBW2110	W De Leon St at S Habana Ave	19.22	18.29	**-0.93**	17.3	0.99
NCL3470	W Azeele St at S Habana Ave	19.23	18.48	**-0.75**	16.8	1.68
NRU1040	W Azeele St at S Armenia Ave (south side)	19.23	18.54	**-0.69**	17.2	1.34
NRU1070	W Cleveland St at S Armenia Ave	19.24	18.96	**-0.28**	18.9	0.06
NRU1170	W Bristol Ave at S Lakeview Rd	19.22	18.73	**-0.49**	18.0	0.73
NCL3740	W Horatio St at S Arrawana Ave	19.23	18.26	**-0.97**	17.1	1.16
PondB	W Swann Ave at S Rome Ave (Swann Pond)	16.86	14.62	**-2.24**	15.2	-0.58

*Proposed flood depths in the table that are greater than 4 inches are highlighted in red. However, because the DEM was used to estimate the low edge of pavement elevations at this conceptual level of design, and there is often opportunity to elevate the low edge of pavement slightly during the final design phase, proposed peak stages within an inch of the FPLOS target are considered acceptable for this analysis.

Table 6-3 – Summary of 100-year/24-hour Flood Reduction and Proposed Flood Depths (Phase I only)

Node	Location	RECM Peak Stage (ft, NAVD88)	Phase I PCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	20.26	19.30	**-0.96**
NCL3510	W Cleveland St at S Habana Ave	20.28	20.11	**-0.17**
NCL3450	W Horatio St at S Habana Ave	20.27	19.46	**-0.81**
NCL3490	W Platt St at S Habana Ave	20.27	19.49	**-0.78**
NRU0790	W Swann Ave at S Audubon Ave (north side)	20.26	19.30	**-0.96**
NRU1050	W Platt St at S Armenia Ave	20.28	19.48	**-0.80**
NRU0960	W Azeele St at S Audubon Ave (south side)	20.27	19.48	**-0.79**
NRU1030	W Azeele St at S Armenia Ave (north side)	20.27	19.48	**-0.79**
NBW2090	W De Leon St at S Gomez Ave	20.26	19.36	**-0.90**
NCL3250	W Horatio St at S Gomez Ave	20.27	19.47	**-0.80**
NRU1010	W Horatio St at S Armenia Ave	20.27	19.47	**-0.80**
NRU0965	W Azeele St at S Audubon Ave (north side)	20.27	19.48	**-0.79**
NBW2110	W De Leon St at S Habana Ave	20.27	19.36	**-0.91**
NCL3470	W Azeele St at S Habana Ave	20.27	19.48	**-0.79**
NRU1040	W Azeele St at S Armenia Ave (south side)	20.27	19.48	**-0.79**
NRU1070	W Cleveland St at S Armenia Ave	20.27	19.58	**-0.69**
NRU1170	W Bristol Ave at S Lakeview Rd	20.26	19.30	**-0.96**
NCL3740	W Horatio St at S Arrawana Ave	20.27	19.46	**-0.81**
PondB	W Swann Ave at S Rome Ave (Swann Pond)	17.86	17.64	**-0.22**

6.2.4 Flooding Duration Reduction

Phase I alone cannot achieve the FPLOS goal in many locations without upsizing the secondary collection systems that drain roadway intersections several blocks away from the box culvert trunkline. However, roadways that still become inundated after the completion of Phase I due to undersized local stormwater infrastructure will drain much more quickly because of the new trunkline.

Figure 6-5 below shows a hydrograph of the most severe flooding expected in Palma Ceia Pines after Phase I is complete, at the low-lying portion of W Azeele St near S Habana Ave. While the roadway will still be temporarily impassable until a future phase project increases pipe sizes between this location and the AMI pond, the duration of flooding will be reduced from 6.7 to 2.4 hours.

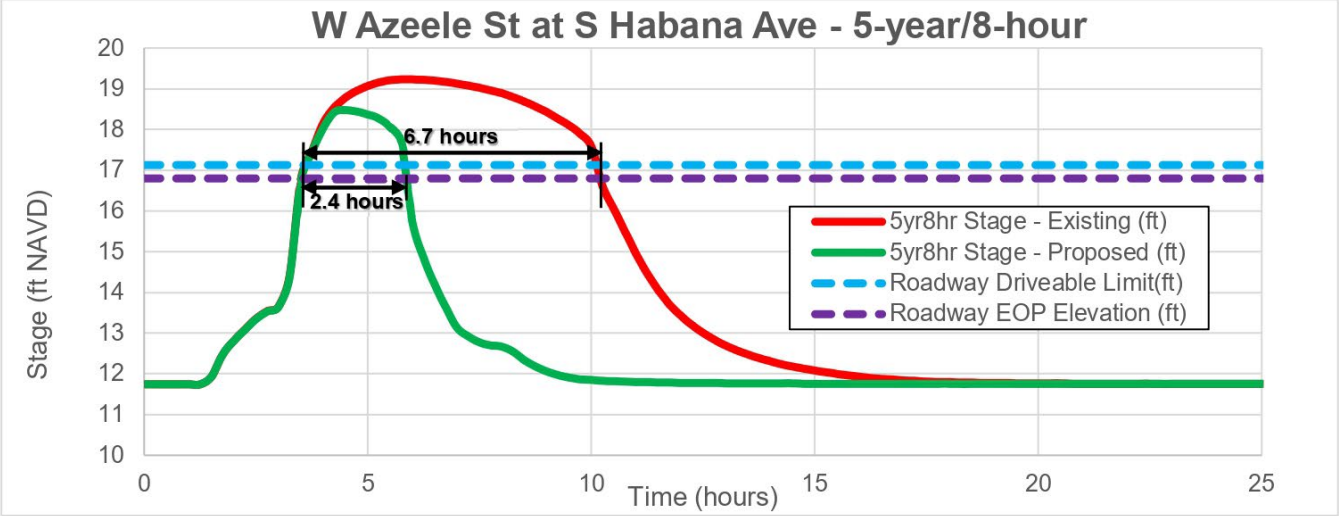


Figure 6-5 – Phase I – Reduction in Duration of Roadway Flooding, 5-year/8-hour Design Storm

The reduction in duration of flooding is perhaps even more significant for the larger events. The hydrograph comparison in **Figure 6-6** below shows the Phase I reduction in flooding duration predicted for W Kennedy Blvd near S Habana Ave for the 25-year/24-hour design storm event. Seven and a half hours of inundation in the existing condition is now reduced to 3.2 hours.

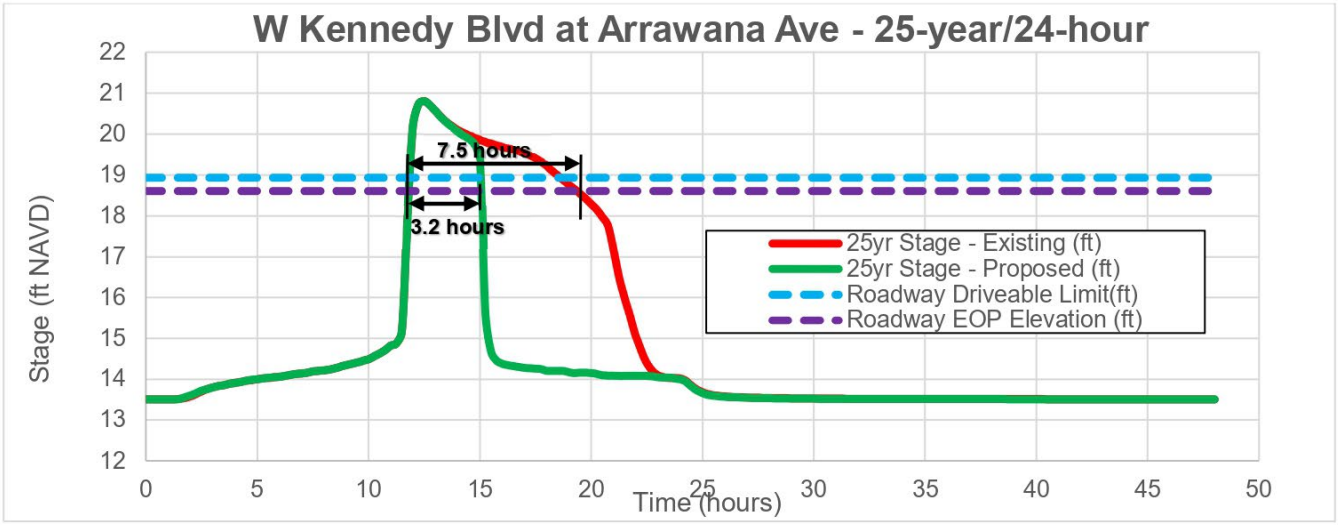


Figure 6-6 – Phase I – Reduction in Duration of Roadway Flooding, 25-year/24-hour Design Storm

6.2.5 Hurricane Milton Simulation

Hurricane Milton was a rainfall event of historic proportions, causing the inundation of over 300 homes and businesses within Parkland Estates and Palma Ceia Pines on October 9th, 2024. While designing stormwater infrastructure to handle extreme rainfall events like this one is generally not considered feasible, infrastructure designed for a more probable event like the 5-year/8-hour design storm can still provide a significant reduction in flooding during these anomalies.

To quantify the expected reduction in flooding if a storm similar to Hurricane Milton was to make landfall again, the simulation of this event, which was used to calibrate the RECM, was applied to the Phase I PCM and results were compared to show the significant benefit Phase I could provide for the community during another historic rainfall event.

Figure 6-7 and Figure 6-8 below show a significant reduction in both peak flood stage (and therefore the number of homes and vehicles damaged) and flood duration (and therefore the amount of time streets are inaccessible to emergency vehicles). The predicted peak stage reduction is between 15 and 17 inches throughout Parkland Estates and Palma Ceia Pines, and the duration of roadway flooding in Parkland Estates is reduced from 19 hours to less than 5 hours. **The model results predict that the Phase I improvements would have protected 225 of the 333 ground floor homes and businesses that flooded during Hurricane Milton if they had been in place prior to the 2024 hurricane season.**

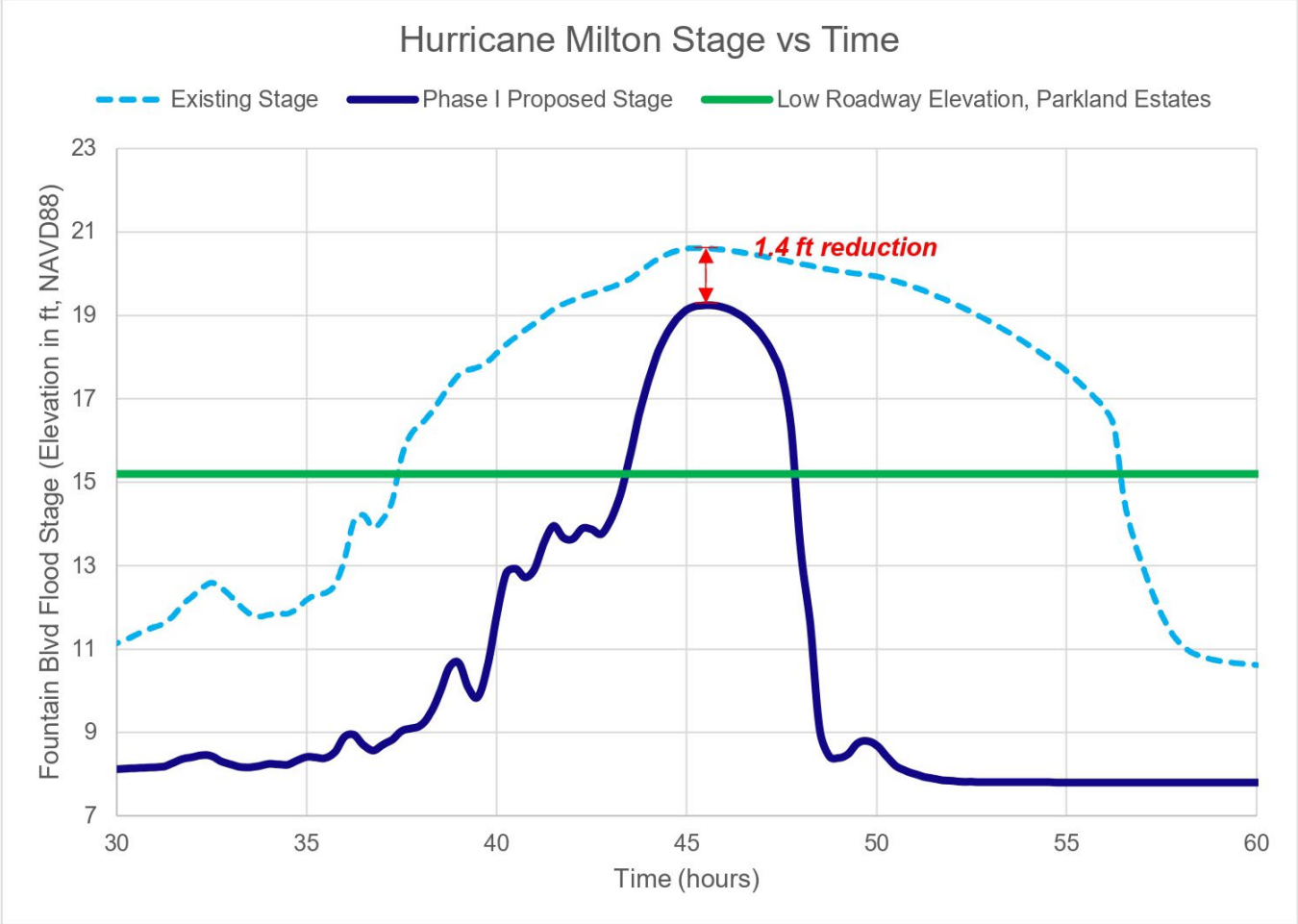


Figure 6-7 – Proposed Hurricane Milton Flood Reduction, Parkland Estates (Phase I only)

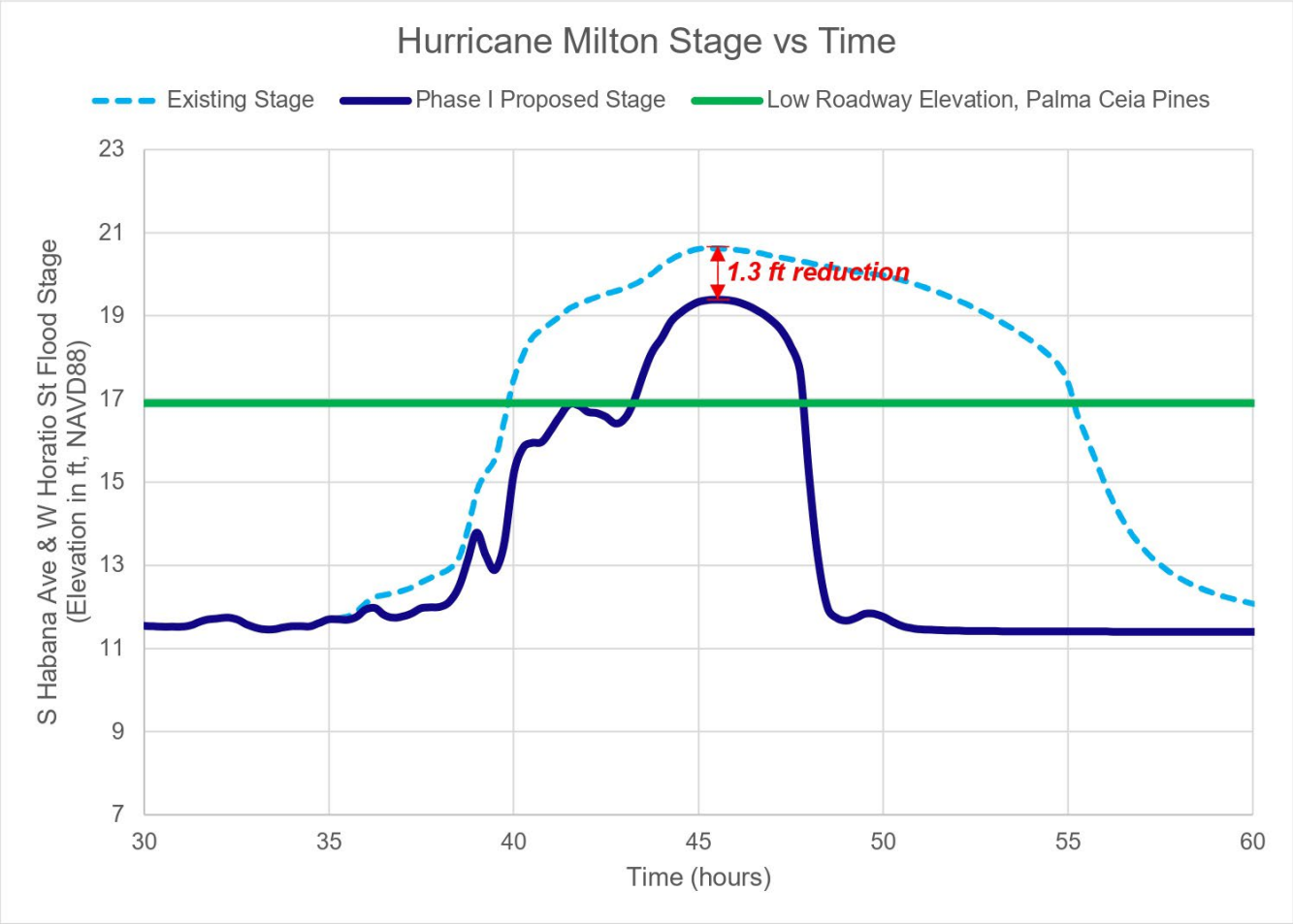


Figure 6-8 – Proposed Hurricane Milton Flood Reduction, Palma Ceia Pines (Phase I only)

A map showing the anticipated Phase I reduction in flood extents for the Hurricane Milton simulations can be found below in **Figure 6-9.**

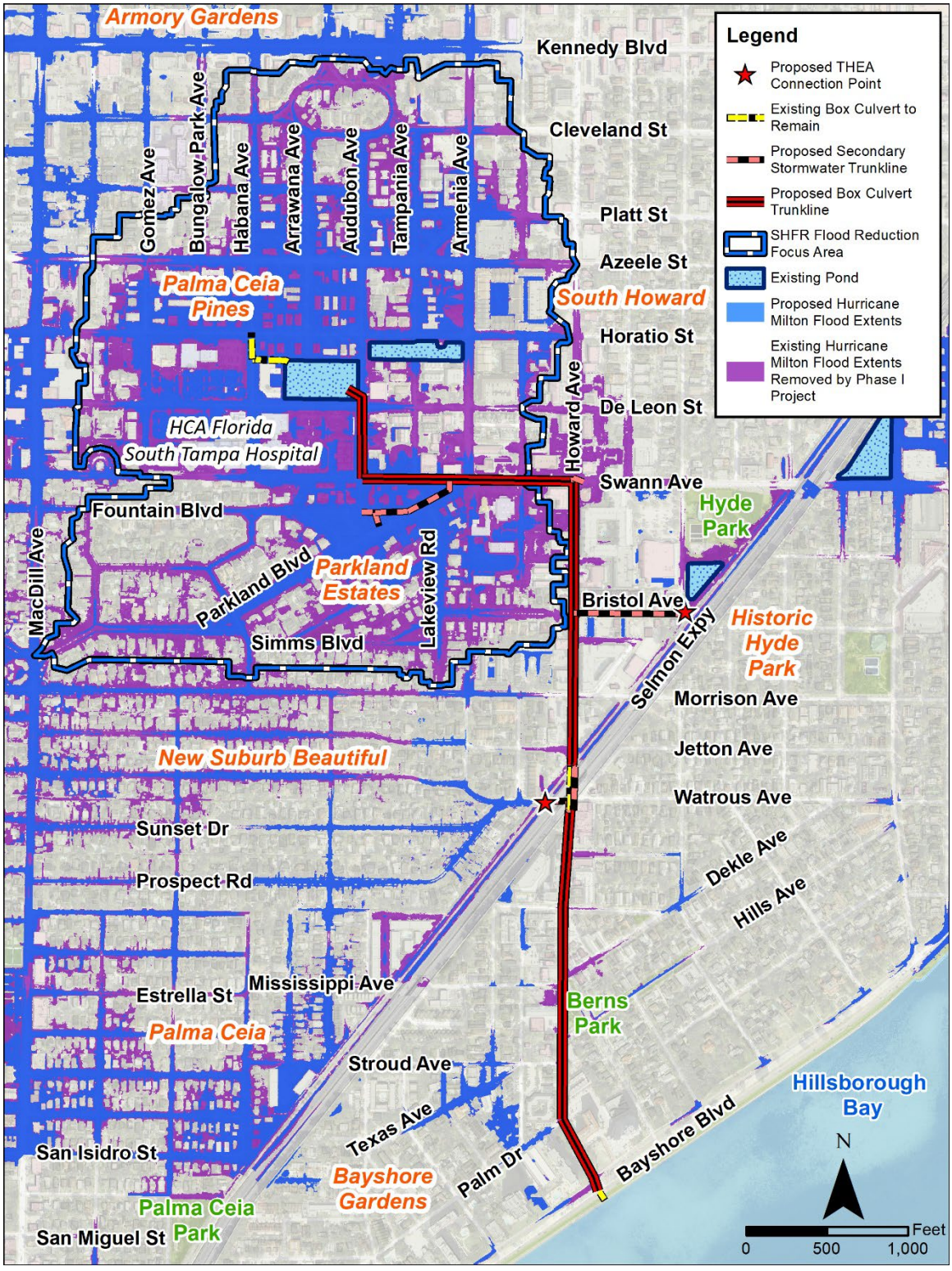


Figure 6-9 – Existing and Proposed (Phase I Only) Hurricane Milton Flood Extents Comparison

6.3 Future Phase Flood Reduction Benefits

This section focuses on the expected flood reduction benefits provided by the secondary stormwater collection systems to be constructed as part of future phase projects (discussed in **Section 5.1.3**), once the Phase I improvements outlined in **Section 5.1.2** are in place.

These collection systems are critical to achieving the FPLOS throughout the SHFR Flood Reduction Focus Area and at peripheral locations with FPLOS deficiencies, which are discussed in **Sections 4.8 and 5.1**. Much of the existing stormwater infrastructure that connects to the Phase I trunkline is undersized by City standards and unable to handle the amount of stormwater runoff expected in the 5-year/8-hour storm event.

Table 6-4 below provides a summary of benefits anticipated after the construction of **Phase I AND all recommended secondary stormwater collection systems discussed in Section 5.1.3.**

Table 6-4 – Summary of Proposed Future Phase Flood Reduction Benefits

Flood Impact/Reduction Benefit	2.33-year/ 24-hour Design Storm (4.5 inches)	5-year/ 8-hour Design Storm (5.3 inches)	10-year/ 24-hour Design Storm (7.0 inches)	25-year/ 24-hour Design Storm (8.0 inches)	50-year/ 24-hour Design Storm (10.0 inches)	100-year/ 24-hour Design Storm (11.0 inches)	Hurricane Milton (13-14.5 inches*)
Proposed **Reduction** of Roadway Inundation (miles)	6.0	8.1	5.0	4.6	3.9	3.3	4.6
Existing Duration of Roadway Flooding on W Swann Ave at S Audubon Ave (hours)	6	8	10	12	14	15	19
Proposed Duration of Roadway Flooding on W Swann Ave at S Audubon Ave (hours)	0	0	1	2	3	4	4
Existing Number of Homes/Businesses Inundated**	0	96	123	203	255	272	333
Proposed **Reduction** of Inundated Homes/Businesses**	N/A	96	123	198	197	164	235
% Reduction of Inundated Homes/Businesses**	N/A	100%	100%	98%	77%	60%	71%

*Hurricane Milton rainfall totals vary across the model's geographic limits, and were estimated by radar (source: NEXRAD)
**Includes predicted total number of ground floor dwellings, including single family homes, businesses, and individual apartment or townhome units, within the 206 specific buildings surveyed in 2025 by the design-build team.
Note: Benefits reflect all proposed improvements in **Figure 6-10** below. Additional future projects that reduce runoff to this area could further increase these benefits. All values in the table are predicted using H&H model results and have not been field verified after observed rainfall events.

6.3.1 Structure Flooding Reduction

Table 6-4 provides a summary of the predicted reduction in structure flooding for each event simulated.

The middle row shows how many of the structures that flood in the existing condition no longer flood during the same rainfall event, after all the recommended improvements are complete. The bottom row specifies what percentage of inundated structures will now be protected and no longer flood after the improvements are complete. This predicted reduction in structure flooding is tremendous and protects hundreds of vulnerable homes and businesses in a variety of heavy rainfall events.

6.3.2 Flooding Extents Reduction

Comparing **Table 6-4** back to **Table 6-1**, it is apparent that while the future phase improvements provide some additional relief to structure flooding, they significantly reduce the extent and depth of roadway flooding throughout Parkland Estates, Palma Ceia Pines, New Suburb Beautiful, Bayshore Gardens, and other neighborhoods.

Figure 6-10 shows the reduction in flood extents for the 5-year/8-hour design storm upon completion of **Phase I AND all recommended secondary stormwater collection systems.** The purple shading represents existing flooding extents predicted by the model that will be eliminated during the same storm event once the projects are complete.

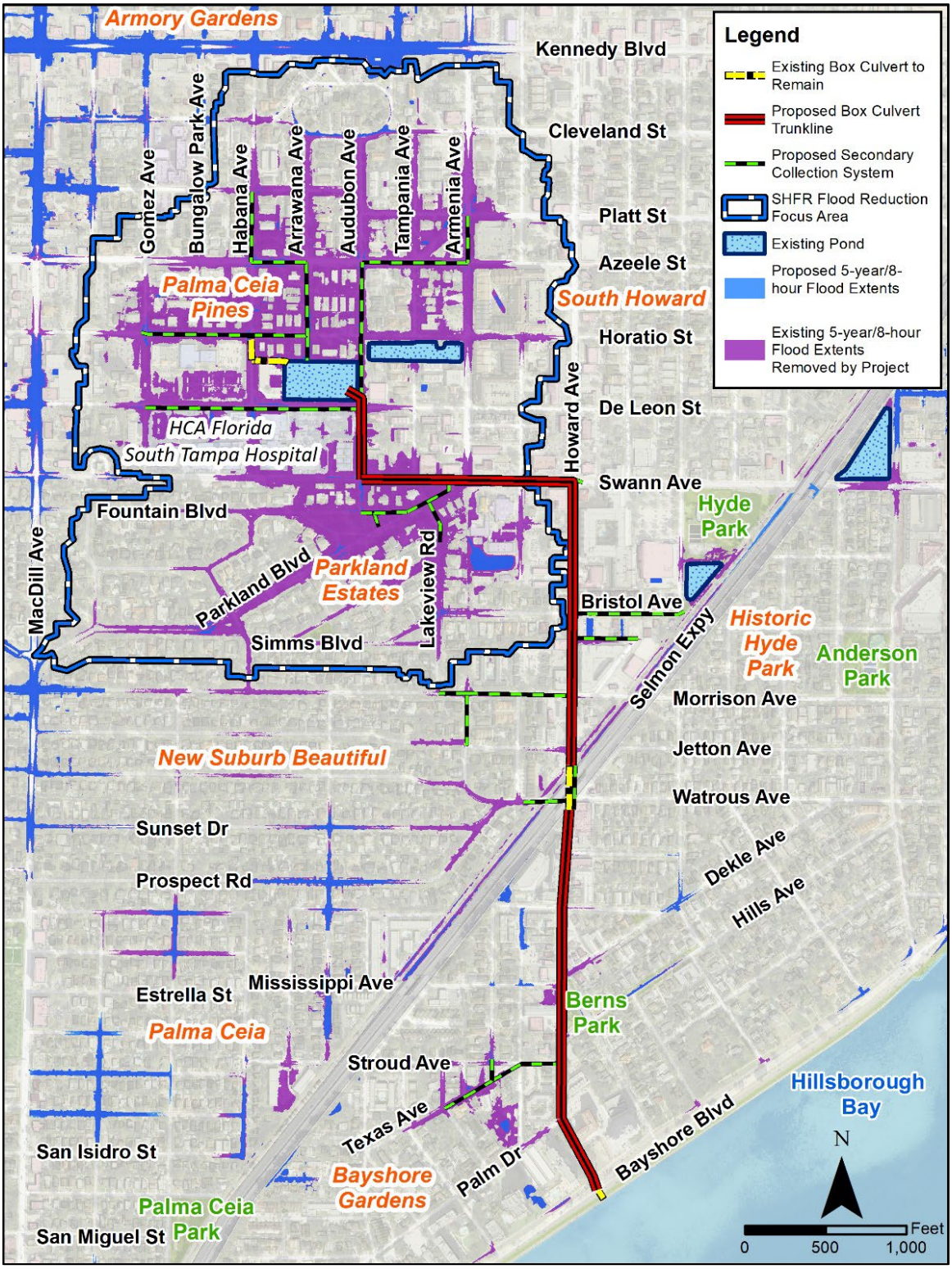


Figure 6-10 – Future Phase – 5-year/8-hour Proposed Flood Extents Reduction

6.3.3 Flooding Depth Reduction

Table 6-5 and Table 6-6 show the predicted reduction in peak stage for Phase I AND all recommended secondary stormwater collection systems, for the 5-year/8-hour and 100-year/24-hour design storm events, respectively.

Table 6-5 – Summary of 5-year/8-hour Flood Reduction and Proposed Flood Depths (Future Phase)

Node	Location	RECM Peak Stage (ft, NAVD88)	PCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)	Low EOP Elevation (ft, NAVD88)	Proposed Flood Depth (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	19.21	15.62	**-3.59**	15.2	0.42**
NCL3510	W Cleveland St at S Habana Ave	19.65	19.44	**-0.21**	19.1	0.34*
NCL3450	W Horatio St at S Habana Ave	19.23	16.6	**-2.63**	16.9	-0.30
NCL3490	W Platt St at S Habana Ave	19.23	17.72	**-1.51**	17.7	0.02
NRU0790	W Swann Ave at S Audubon Ave (north side)	19.22	15.59	**-3.63**	15.9	-0.31
NRU1050	W Platt St at S Armenia Ave	19.23	17.5	**-1.73**	17.3	0.20
NRU0960	W Azeele St at S Audubon Ave (south side)	19.23	17.04	**-2.19**	17.0	0.04
NRU1030	W Azeele St at S Armenia Ave (north side)	19.23	17.29	**-1.94**	17.4	-0.11
NBW2090	W De Leon St at S Gomez Ave	19.22	18.33	**-0.89**	18.0	0.33
NCL3250	W Horatio St at S Gomez Ave	19.22	17.36	**-1.86**	17.2	0.16
NRU1010	W Horatio St at S Armenia Ave	19.23	17.06	**-2.17**	18.2	-1.14
NRU0965	W Azeele St at S Audubon Ave (north side)	19.23	17.15	**-2.08**	16.9	0.25
NBW2110	W De Leon St at S Habana Ave	19.22	17.13	**-2.09**	17.3	-0.17
NCL3470	W Azeele St at S Habana Ave	19.23	16.98	**-2.25**	16.8	0.18
NRU1040	W Azeele St at S Armenia Ave (south side)	19.23	17.17	**-2.06**	17.2	-0.03
NRU1070	W Cleveland St at S Armenia Ave	19.24	17.75	**-1.49**	18.9	-1.15
NRU1170	W Bristol Ave at S Lakeview Rd	19.22	18.24	**-0.98**	18.0	0.24
NCL3740	W Horatio St at S Arrawana Ave	19.23	16.4	**-2.83**	17.1	-0.70
PondB	W Swann Ave at S Rome Ave (Swann Pond)	16.86	14.62	**-2.24**	15.2	-0.58

*Proposed flood depths in the table that are greater than 4 inches are highlighted in red. However, because the DEM was used to estimate the low edge of pavement elevations at this conceptual level of design, and there is often opportunity to elevate the low edge of pavement slightly during the final design phase, proposed peak stages within an inch of the FPLOS target are considered acceptable for this analysis.

**Based on the SHFR project's preliminary roadway design, which is at the 30 percent phase at the time of this report, it is likely that the lowest edge of pavement elevation along W Fountain Blvd will be elevated by several inches, which will reduce the anticipated flood depth here to less than four inches.

Table 6-6 – Summary of 100-year/24-hour Flood Reduction and Proposed Flood Depths (Future Phase)

Node	Location	RECM Peak Stage (ft, NAVD88)	Future Phase PCM Peak Stage (ft, NAVD88)	Peak Stage Difference (ft)
NRU0750	W Fountain Blvd at Fountain Park, Parkland Estates	20.26	19.25	**-1.01**
NCL3510	W Cleveland St at S Habana Ave	20.28	20.11	**-0.17**
NCL3450	W Horatio St at S Habana Ave	20.27	19.38	**-0.89**
NCL3490	W Platt St at S Habana Ave	20.27	19.41	**-0.86**
NRU0790	W Swann Ave at S Audubon Ave (north side)	20.26	19.25	**-1.01**
NRU1050	W Platt St at S Armenia Ave	20.28	19.40	**-0.88**
NRU0960	W Azeele St at S Audubon Ave (south side)	20.27	19.40	**-0.87**
NRU1030	W Azeele St at S Armenia Ave (north side)	20.27	19.40	**-0.87**
NBW2090	W De Leon St at S Gomez Ave	20.26	19.30	**-0.96**
NCL3250	W Horatio St at S Gomez Ave	20.27	19.39	**-0.88**
NRU1010	W Horatio St at S Armenia Ave	20.27	19.39	**-0.88**
NRU0965	W Azeele St at S Audubon Ave (north side)	20.27	19.40	**-0.87**
NBW2110	W De Leon St at S Habana Ave	20.27	19.30	**-0.97**
NCL3470	W Azeele St at S Habana Ave	20.27	19.40	**-0.87**
NRU1040	W Azeele St at S Armenia Ave (south side)	20.27	19.40	**-0.87**
NRU1070	W Cleveland St at S Armenia Ave	20.27	19.55	**-0.72**
NRU1170	W Bristol Ave at S Lakeview Rd	20.26	19.25	**-1.01**
NCL3740	W Horatio St at S Arrawana Ave	20.27	19.38	**-0.89**
PondB	W Swann Ave at S Rome Ave (Swann Pond)	17.86	17.63	**-0.23**

6.3.4 Flooding Duration Reduction

Once the secondary collection systems are in place, roadways outside of the SHFR Flood Reduction Focus Area that still flood due to undersized local stormwater infrastructure (S MacDill Ave for example) will drain more quickly because of the SHFR project's new stormwater infrastructure. Additionally, the roadways that achieve the FPLOS goal will see significant reduction in flood duration during events that are more severe than the 5-year/8-hour design storm.

The hydrograph in **Figure 6-11** below shows the reduction in flooding duration expected on S MacDill Ave near W De Leon St once the recommended pipe is installed along W De Leon St between S Audubon Ave and S Gomez Ave. The duration of flooding will be reduced from 5.0 to 2.5 hours. The depth of this flooding can be further reduced by extending the new pipe connection to S MacDill Ave, as discussed in **Section 5.1.4.3.**

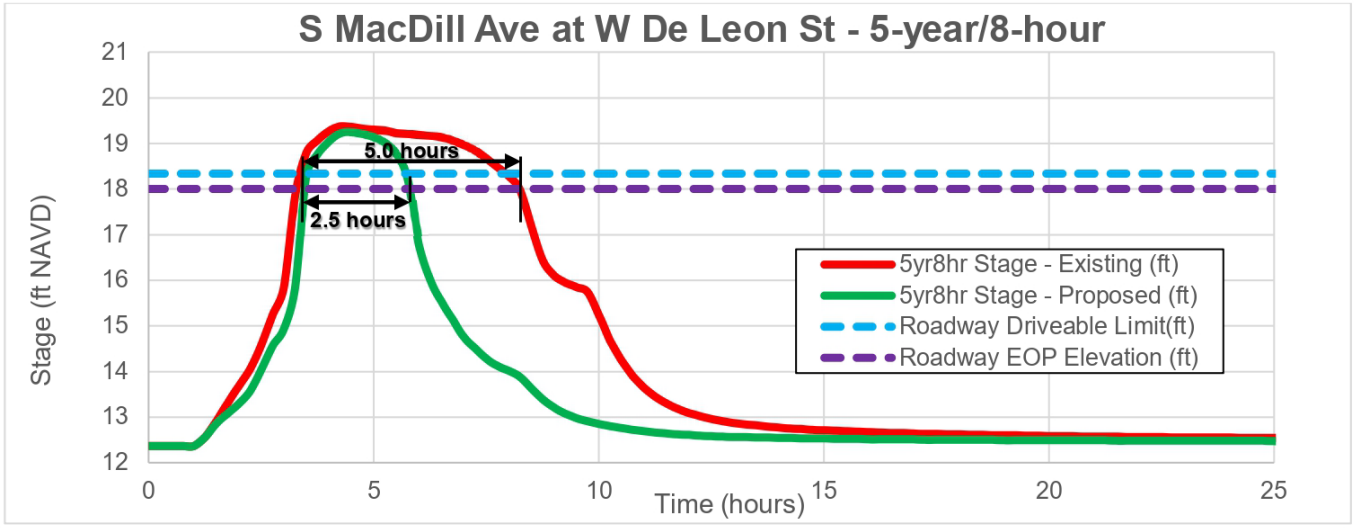


Figure 6-11 – Future Phase – Reduction in Duration of Roadway Flooding, 5-year/24-hour Design Storm

The hydrograph comparison in **Figure 6-12** below shows the predicted reduction in flooding duration at the same location for the 25-year/24-hour design storm event, once the secondary collection systems are installed in Palma Ceia Pines. Six and a half hours of roadway inundation in the existing condition will be reduced to 3.0.

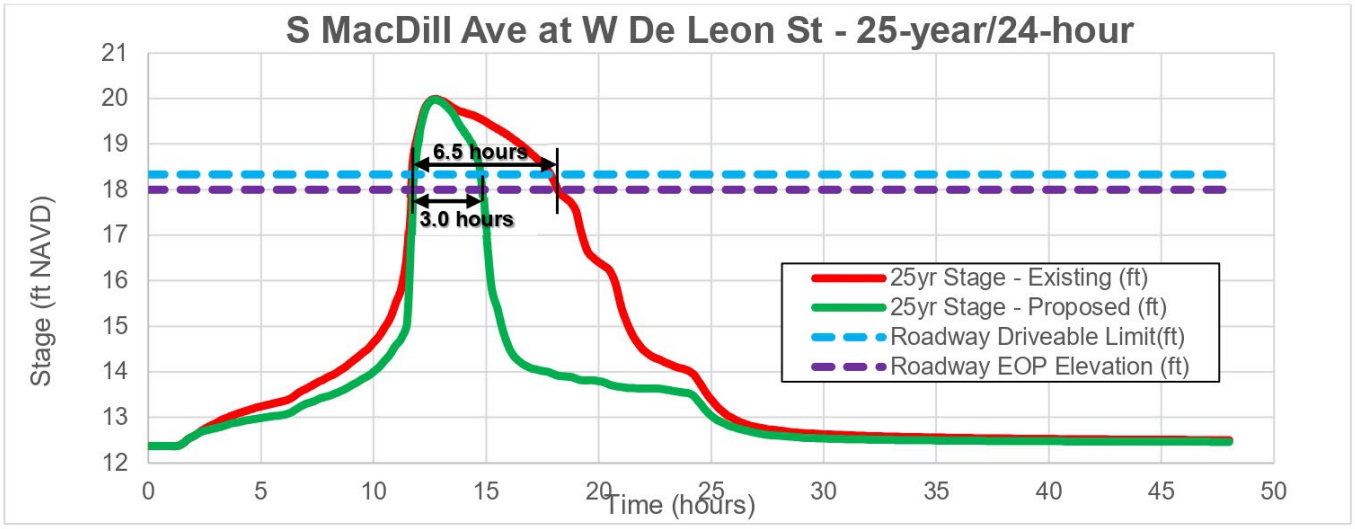


Figure 6-12 – Future Phase – Reduction in Duration of Roadway Flooding, 25-year/24-hour Design Storm

6.3.5 Hurricane Milton Simulation

To quantify the expected reduction in flooding if a storm of similar magnitude to Hurricane Milton were to make landfall again after the full project is complete, the simulation of Hurricane Milton was applied to the PCM, and results were compared to show the significant benefit this project could provide for the community during another historic rainfall event. The comparison shows a similar reduction in peak flood stage between Phase I and the future phase improvements, with the future phase collection systems providing a slight additional benefit.

Figure 6-13 and Figure 6-14 below show a significant reduction in both peak flood stage (and therefore the number of homes and vehicles damaged) and flood duration (and therefore the amount of time streets are inaccessible to emergency vehicles). The Phase I hydrographs were plotted in gray for reference. The predicted peak stage reduction is between 16 and 18 inches throughout Parkland Estates and Palma Ceia Pines. **Model results predict that the future phase collection systems would have protected an additional 10 homes and businesses – now 235 of the 333 ground floor homes and businesses that flooded during Hurricane Milton if they had been in place prior to the 2024 hurricane season.**

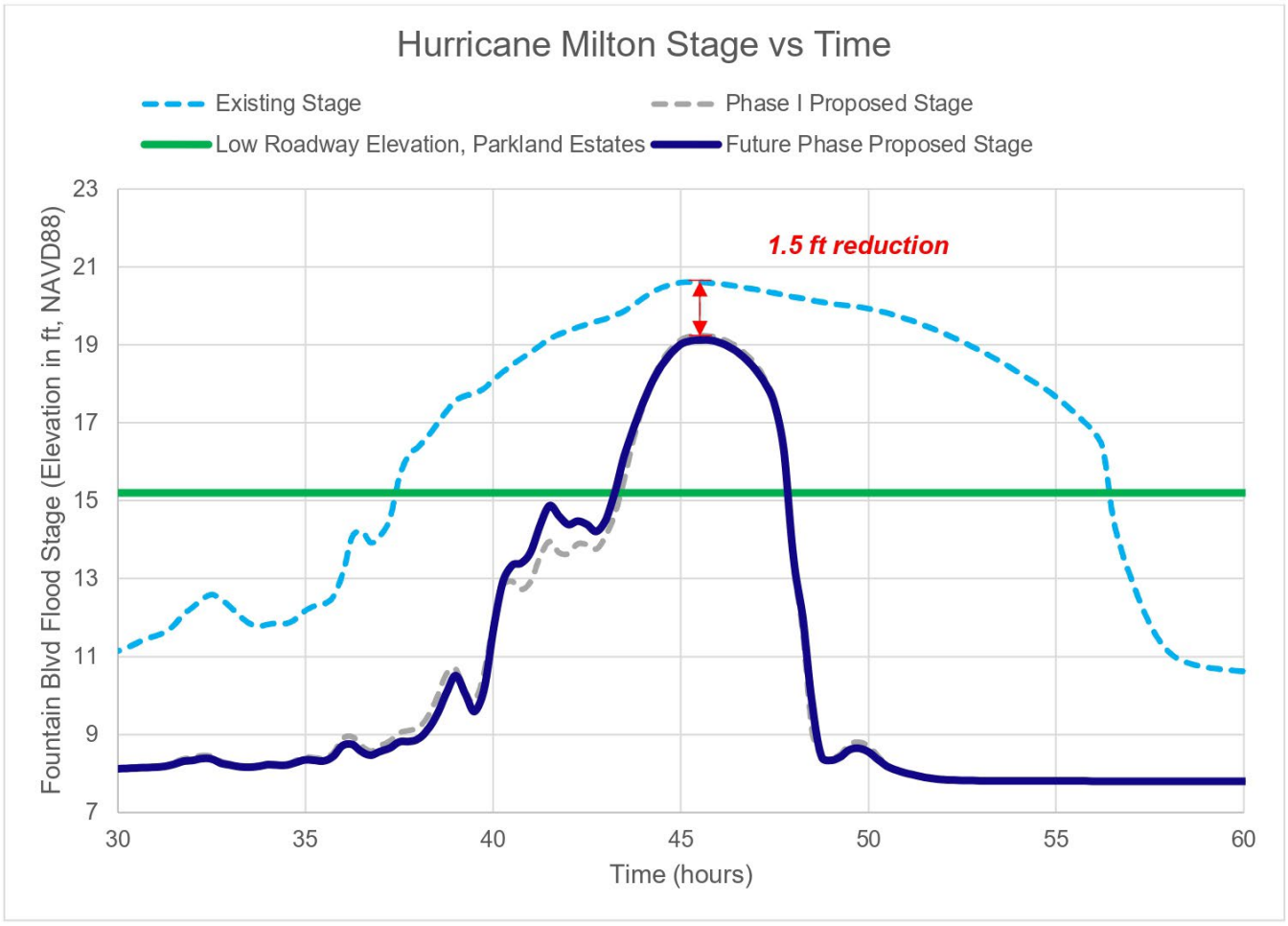


Figure 6-13 – Proposed Hurricane Milton Flood Reduction, Parkland Estates (Future Phase)

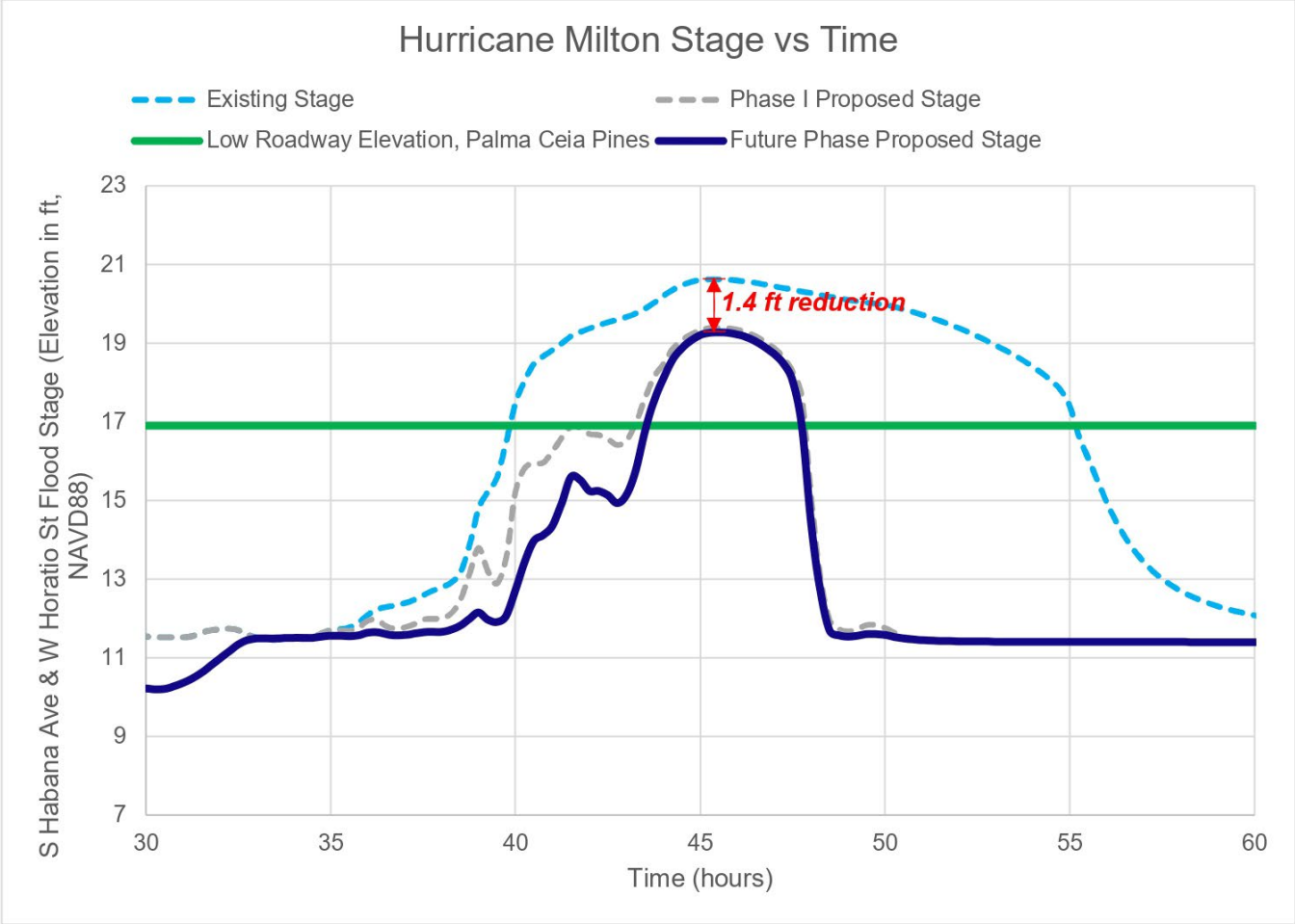


Figure 6-14 – Proposed Hurricane Milton Flood Reduction, Palma Ceia Pines (Future Phase)

A map showing the anticipated Phase I AND future phase reduction in flood extents for the Hurricane Milton simulations can be found below in **Figure 6-15.**

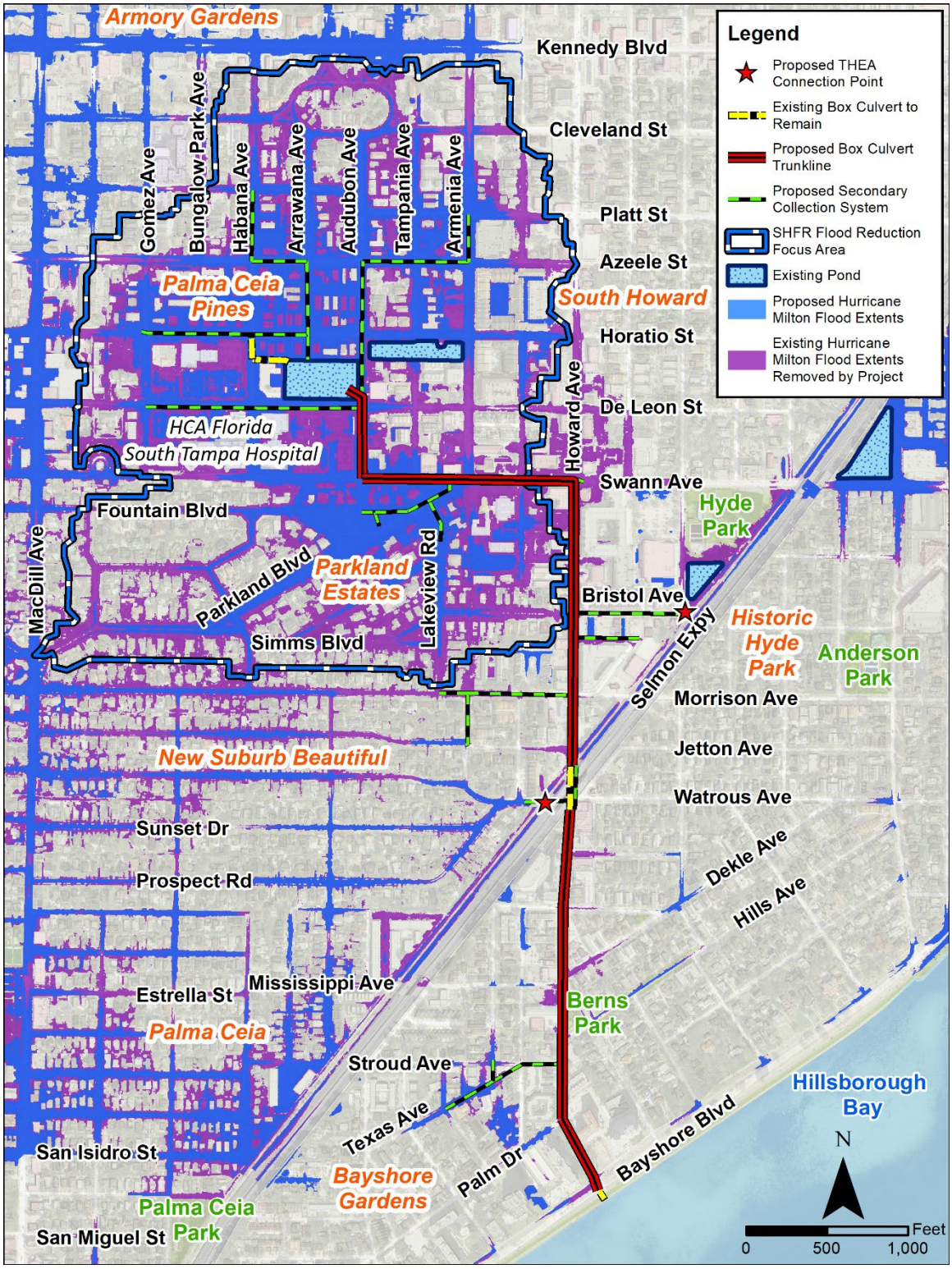


Figure 6-15 – Existing and Proposed (Future Phase) Hurricane Milton Flood Extents Comparison

6.4 Benefit-Cost Analysis

SWFWMD developed a Benefit-Cost Analysis (BCA) tool, in the form of detailed Excel workbook, for use in evaluating stormwater improvement and flood protection projects. The tool requires manual input of data including predicted lengths of roadway inundation, roadway classification and traffic data, estimated (or surveyed, in this case) finished floor elevations, and existing and proposed H&H model results. The tool uses the input data to quantify a dollar amount of predicted damages over the life cycle of the project for both existing and proposed conditions, based on assumptions documented in the tool and the project's H&H modeling results for six 24-hour design storm events. The recurrence interval is used to factor in the annual probability for each storm event and calculate an expected annual dollar value of damages, which is then applied to the service life of the project. **The tool calculates a benefit-cost ratio (BCR) by dividing the total present value of future benefits by the estimated total project cost.**

The tool provides an objective way to compare the monetary benefits of one project versus another. It only considers flood reduction benefits and does not consider other benefits such as water quality and/or socio-economic impacts. The flood reduction metrics used to calculate the project's benefits include:

- Reduction of property damage due to inundation (structures and vehicles)
- Reduction of roadway replacement cost due to repetitive inundation
- Reduction in loss of service cost associated with duration of impassable roadway flooding

This tool was used to complete a phased BCA of the entire selected alternative (W Swann Ave to S Howard Ave), which includes Phase I and the future phase collection systems as two individual BCAs, and then together for one combined BCA.

A detailed estimate of the Phase I construction cost can be found in **Appendix L** and is based on the 30% design. Because the conceptual design of the future phase improvements is subject to change, a formal cost estimate of future phase projects has not been developed for this report, and the estimated range of those projects' costs used was provided by the City. **Estimated project costs shown in each table include construction costs as well as engineering and permitting fees.**

It is important to note that the estimated costs are preliminary, based on present-day economic conditions when this document was written, and are subject to change. It is also important to remember that the future phases include Palma Ceia Pines, as well as other secondary stormwater collection systems that extend beyond the Phase I project corridor (see **Figure 6-1**), and they are subject to change.

The calculated benefits are confined to the model update area, which does not extend far west of S MacDill Ave. The SHFR project will certainly provide benefit to the west of this area, especially along the Cleveland Street Outfall system's primary trunkline, but it is not calculated as part of this exercise. For example, Henderson Blvd between W Horatio St and W De Leon St can expect to see a noticeable reduction in roadway flooding, but it was not included in this analysis. The BCR associated with the project is likely higher than what is quantified in this report, which can be thought of as the lower end of a range of benefits.

A summary of the three separate BCAs performed for the recommended project is shown in **Table 6-7, Table 6-8, and Table 6-9** below.

Table 6-7 – Benefit-Cost Analysis – Phase I only

Expected Annual Damage Without Project	$21,040,904
Expected Annual Damage with Project	$12,457,632
Expected Annual Damage Benefit	$8,583,272
Discount Rate	7.0%
Project Useful Life (# years)	50
Total Present Value of Future Benefits	$118,455,560
Total Project Cost	$99.8M
Benefit/Cost Ratio	**1.2**

Table 6-8 – Benefit-Cost Analysis – Future phases only, with Phase I already complete

Expected Annual Damage Without Project	$12,457,632
Expected Annual Damage with Project	$7,276,528
Expected Annual Damage Benefit	$5,181,104
Discount Rate	7.0%
Project Useful Life (# years)	50
Total Present Value of Future Benefits	$71,503,100
Total Project Cost	$32M to $50M*
Benefit/Cost Ratio	**1.4 to 2.2**

*Future phase project cost estimate range was provided by the City, and is based on present day dollars

Table 6-9 – Benefit-Cost Analysis – Total Project (Phase I and Future Phases)

Expected Annual Damage Without Project	$21,040,904
Expected Annual Damage with Project	$7,276,528
Expected Annual Damage Benefit	$13,764,376
Discount Rate	7.0%
Project Useful Life (# years)	50
Total Present Value of Future Benefits	$189,958,660
Total Project Cost	$132M to $150M*
Benefit/Cost Ratio	**1.3 to 1.4**

*Future phase project cost estimate range was provided by the City, and is based on present day dollars

The phased benefit-cost analysis shows that the majority of structure flooding reduction occurs with Phase I and is more beneficial than the reduction in roadway-associated damages. The future phase benefits rely heavily on reduction of roadway flooding and loss of service due to impassable roadways. For meaningful flood relief for the roadways in Palma Ceia Pines to occur, a new outfall to the bay must be constructed as part of Phase I.

Generally, for larger projects of this size, a BCR greater than 1 provides meaningful justification for implementation. While this project's cost is indeed significant, so are the much-needed flood reduction benefits.

6.5 Streetscape Design

As part of the reconstruction of S Howard Ave, the design-build team is developing a comprehensive streetscape and aesthetics package that enhances full corridor functionality while introducing context-sensitive upgrades suitable for this urban area of significance. The streetscape plan assembles a cohesive set of elements incorporating Complete Streets principles to improve mobility, safety, and overall corridor character. Design development is prioritizing increased walkability, neighborhood enhancement, recognition of the historic district, and the support and promotion of local businesses. The streetscape will be crafted to elevate quality of life and reinforce a strong sense of place for residents and visitors, while integrating safety, sustainability, and long-term maintainability.

The streetscape design approach is unifying all street elements into a coordinated corridor-specific vision. Key components include sidewalk organization, pedestrian circulation systems, enhanced pavement materials, and aesthetic crosswalk treatments. Pedestrian zones incorporate transit stop improvements, potential street furnishings, and integrated signage and lighting systems. Additional features include traffic-calming strategies and enhanced pedestrian safety measures to foster a safer and more comfortable walking environment.

Street tree plantings will be incorporated to provide shade, enhance corridor identity, and support traffic calming. Tree system design considerations include irrigation infrastructure and root-cell technologies to ensure the long-term health and sustainability of urban canopy.

All streetscape elements will follow a unified theme that establishes S Howard Ave as a specific district within Tampa's urban fabric. Paving materials, furnishings, lighting, and all other streetscape components are being selected to reinforce this cohesive identity.

Many of these goals were further refined based on public input received during a formal public meeting held in June 2025. At that meeting, conceptual layouts of proposed streetscape elements were presented along with several potential unifying design styles. The most popular design feature identified by participants was the inclusion of wider sidewalks to enhance the pedestrian experience, while the least favored feature was the addition of on-street parking.

Of the design styles presented, two emerged as preferred options, each suited to different segments of the corridor. The project area is divided by the Selmon Expressway, with the southern portion influenced more heavily by the Hyde Park Historic District and the northern portion characterized by a slightly more urban context. Most participants selected a modern "Industrial Chic" style for the northern section, and a historic "Craftsman" style for the southern section—consistent with the predominant architectural character of the Hyde Park Historic District.

Streetscape development will be fully coordinated with City's Mobility Department and Transportation and Stormwater Operations Division to ensure all proposed improvements meet City requirements and procedures. Coordination will also include reviewing existing and proposed utilities to avoid conflicts. Additionally, streetscape development will be coordinated with HART (Hillsborough Area Regional Transit) regarding any transit stop enhancements.

All streetscape design efforts will follow applicable guidelines from AASHTO and the FDOT Design Manual.

7. Environmental Impacts

The project consists of new underground stormwater infrastructure within a largely developed and urbanized part of South Tampa. Most of the runoff within the project's drainage area is currently discharged to either Old Tampa Bay or Hillsborough Bay with minimal to no treatment. The SHFR project intends to preserve existing stormwater treatment within detention ponds (see **Figure 7-1**), to the extent possible, and will ensure there is no net increase in pollutant loading to Tampa Bay because of the project.

No impacts to wetlands, mangroves, or sea grasses are expected because of the project. The permits necessary to secure project approval from local, state, and federal government will be applied for and navigated by the design-build team during and after the 60 percent design phase.

7.1 Environmental Permitting Requirements

The permitting effort for this project is considered standard and will require coordination with SWFWMD for Statewide Environmental Resource Permitting (ERP), which primarily regulates stormwater management (water quality, water quantity), floodplain impacts, and impacts to wetlands and other surface waters. Most of the permitting requirements for the alternatives proposed are typical in terms of conducting H&H analysis, demonstrating no adverse flood impacts, and quantifying wetland impacts. No freshwater-wetland impacts are anticipated as part of this project.

The project's design will require coordination with SWFWMD regarding previously issued permits associated with the AMI pond and Swann Pond. The SHFR project intends to construct a new outfall for the AMI pond, while preserving its existing treatment function by constructing a weir that matches the existing weir as part of the new outfall. **While the new weir and box culvert outfall from the pond will provide significant capacity for relief during severe rainfall events, it will not change the treatment provided by the pond.**

Virtual pre-application meetings were held with SWFWMD on July 24, 2025 and April 22, 2026 to get an understanding of anticipated permitting requirements specific to this project. The meetings allowed the opportunity to provide SWFWMD staff with an overview of the project and to discuss applicable permitting considerations and requirements. The proposed improvements will require an ERP Individual Permit.

Because of the anticipated velocity of runoff entering Hillsborough Bay through the existing box culverts beneath Bayshore Blvd, it's recommended that revetment is installed within the bay to prevent scour that will undermine the structural integrity of the existing seawall along Bayshore Blvd. This will most likely consist of rip rap – a layer of large rocks sized to handle the force of wave action and the velocity of stormwater leaving the system during significant rainfall events like the 100-year/24-hour design storm. Any work within the limits of Hillsborough Bay will require a permit from the United States Army Corps of Engineers (USACE), along with a minor work permit from the Hillsborough County Environmental Protection Commission (HCEPC). No impacts to mangroves or sea grasses are expected during the installation of revetment.

Project will need to obtain a Section 404 Clean Water Act permit from the U.S. Army Corps of Engineers (USACE). This will likely be accomplished through verification under Nationwide Permit (NWP) 7 for outfalls and associated intake structures. The Nationwide Permit Program is designed to streamline approvals for certain minor activities. While some NWPs, including NWP 7, require pre-construction notification and verification, this process is expedited and typically completed within three months. Once issued by SWFWMD, the ERP will satisfy Section 401 Water Quality Certification (WQC) under the Clean Water Act. A WQC is required before the USACE will issue a Section 404 permit. Minutes from the pre-application meeting and information relevant to key permits like the AMI Pond and Swann Pond ERPs can be found in **Appendix P.**

Figure 7-1 below provides a conceptual illustration of the proposed culvert's connection to the AMI pond, which will maintain the pond's stormwater treatment capacity and will eliminate the need for the existing pump station that currently recovers the pond's treatment volume.

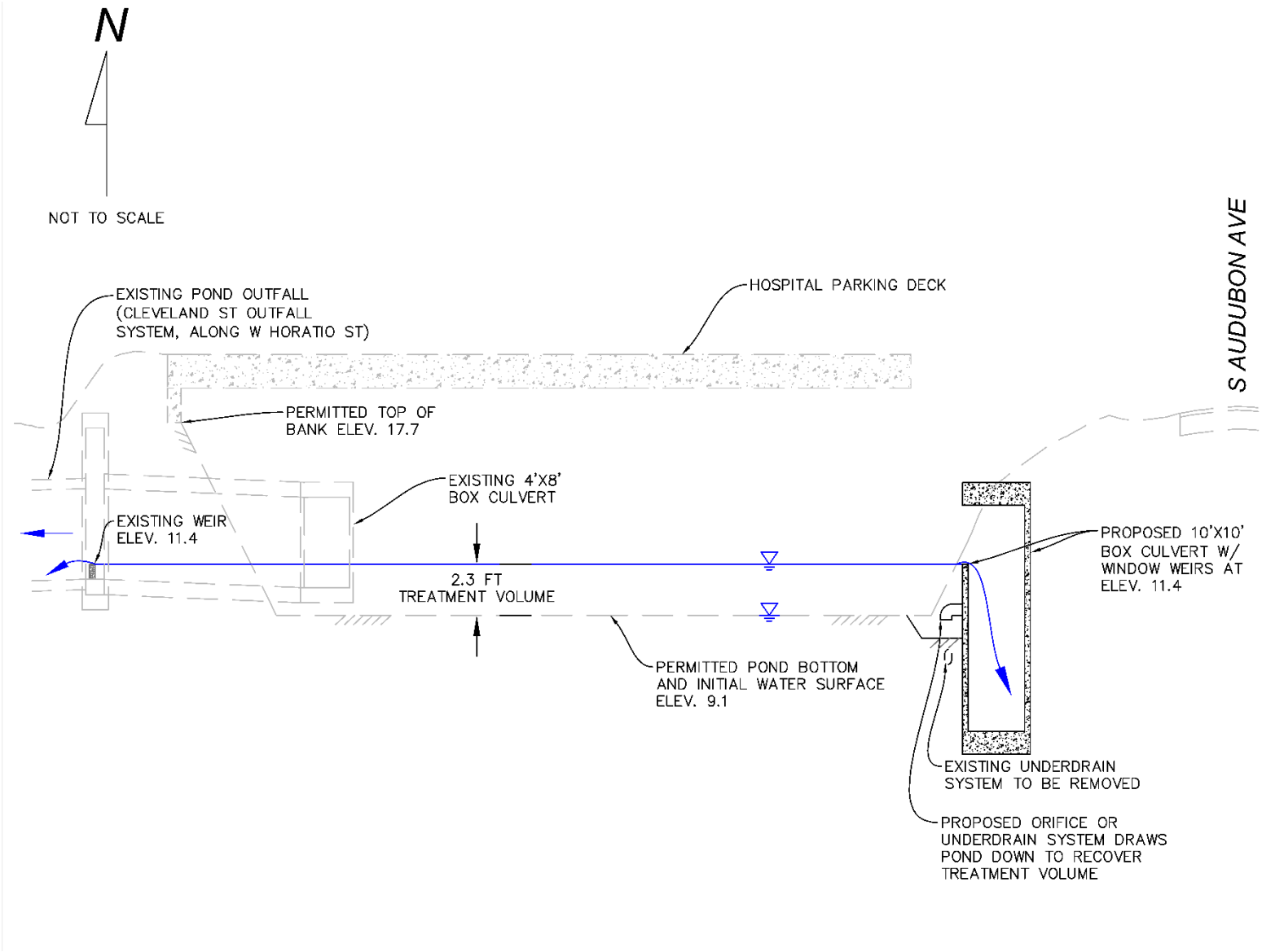


Figure 7-1 – Conceptual Proposed Box Culvert Connection to AMI Pond

7.2 Water Quality Impacts and Green Infrastructure Improvements

Much of the stormwater runoff generated in South Tampa currently discharges straight into the surrounding bays without treatment. The overall water quality goal of the SHFR project is to provide a net reduction in nutrients and other pollutants currently being discharged into Old Tampa Bay and Hillsborough Bay.

The SHFR project has been conceptually designed to preserve existing stormwater treatment to the extent possible without sacrificing the project's flood reduction goal. Based on pre-application meetings with SWFWMD, existing stormwater treatment is expected to be fully preserved, if not increased, and formal compensatory treatment should not be required by SWFWMD to issue an ERP for the project.

Design features currently being evaluated **to help preserve existing treatment** include:

- Phase I - A parallel 18-inch diameter pipe system along the north side of W Swann Ave between S Armenia Ave and S Howard Ave, which continues to send stormwater runoff from north of W Swann Ave into Swann Pond during low-flow conditions (when most pollutants are flushed into the storm sewer system)
- Phase I - New weir structures incorporated into the walls of the new 10'x10' box culvert alongside the eastern slope of the AMI Pond that maintains the pond's existing treatment volume. This is illustrated in **Figure 7-1** and was discussed previously in **Section 7.1.**
- Phase I – ZOM Pond's outfall and stormwater treatment function are left alone
- Future Phase – An internal weir structure can be installed underground at the intersection of W Azeele St and S Armenia Ave to preserve treatment of stormwater runoff generated to the south of W Azeele St, provided by ZOM Pond.

Design features that could potentially be added **to provide new stormwater treatment** include:

- Phase I - Bioretention swale within the open space between W Fountain Blvd and W Parkland Blvd
- Phase I - There is potential to slightly elevate the existing and proposed weirs that will control water levels in the AMI Pond to increase treatment volume within the pond while maintaining the flood reduction needed to meet the project's goals.
- Phase I or II - Nutrient Separating Baffle Boxes (NSBB) – these have been successfully incorporated into several City stormwater projects in recent years. They filter stormwater runoff using a series of screens, baffles, sediment chambers and floating skimmers, all within a single compact structure.

APPENDICES

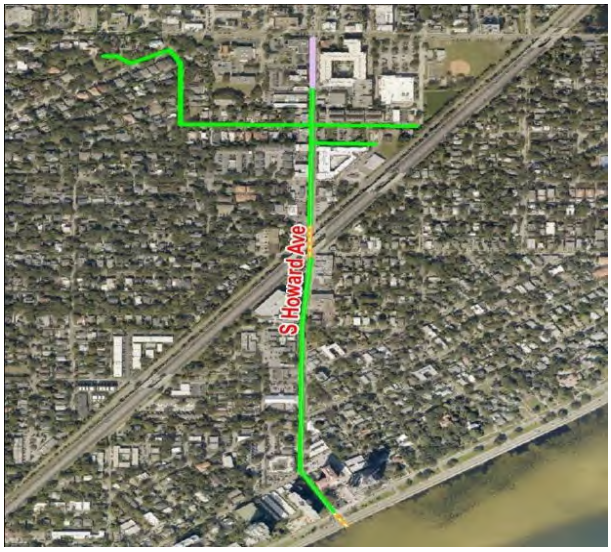
Table of Contents

Appendix A. South Howard Flood Relief Design Criteria Package
Appendix B. Field Investigation Photos
Appendix C. Tree Survey
Appendix D. Finished Floor Elevations
Appendix E. Traffic Data Collection
Appendix F. Existing Drainage Basins
Appendix G. Model Subbasin Maps
Appendix H. Model Hydraulic Connectivity Maps
Appendix I. Roadway FPLOS Maps
Appendix J. RECM Predicted Structure Flooding Maps
Appendix K. Flood Extents Comparison versus Proposed
Appendix L. Preliminary Construction Cost Estimate
Appendix M. Memo – Findings from Analysis of Alternative Projects
Appendix N. Geotechnical Exploration Documentation
Appendix O. Model Input / Results
Appendix P. Relevant Permitting Documentation
Appendix Q. Relevant As-built Plans
Appendix R. Historical Stormwater Inventory Data

Appendix A. South Howard Flood Relief Design Criteria Package

RFQ: 23-C-0021
DESIGN-BUILD SERVICES
for the
SOUTH HOWARD
FLOOD RELIEF & STREETSCAPE PROJECT

DESIGN CRITERIA PACKAGE



PREPARED BY:
RICHARD A. HOEL, P.E., CHIEF ENGINEER
CONTRACTOR
City of Tampa Mobility Department
Stormwater Engineering Division

September 2023

RICHARD ALFRED HOEL
LICENSE
No. 41026
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

This item has been digitally signed and sealed by Richard Alfred Hoel, P.E. on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

INTRODUCTION

The City of Tampa Stormwater Engineering Division has prepared this Design Criteria Package for RFQ: 23-C-0021: Design-Build (DB) Services for the South Howard Flood Relief and Streetscape Project. The primary intent of the project is to provide flood relief along S. Howard Ave. and in the neighborhoods within the watershed. It is also the intent of this project to comply with the Mayor's Executive Order, the City's Climate Action and Equity Plan, and the findings from the regional Climate Science Advisory Panel (CSAP) regarding Sea Level Rise.

The scope shall include, but not limited to, the following:

- Preconstruction Services:
    - Right-of-way, Topographic and Tree Survey
    - Review and update of the existing hydrologic/hydraulic analysis with survey level data for the design of the proposed stormwater system to meet a level of service that utilizes the largest box culvert size to the extent feasible within the available corridor. It is the City of Tampa's intent to utilize the box culvert sizes identified in the attached project map unless a more efficient design is conceived
    - Geotechnical investigation to assess soils for stability and identify locations of unsuitable materials
    - Subsurface Utility Engineering (SUE) for City-owned utilities. SUE for private utilities shall be performed by the utility owner. In an effort to minimize construction delays, the DB team shall verify all private and City provided SUE information during the design phase. No additional compensation will be paid during the Construction phase for these services.
    - Arborist services for assessment and disposition of all trees along the route, in or immediately adjacent to the right-of-way
    - Assessment and identification of economical Green Stormwater Infrastructure (GSI) alternatives to address water quality improvements
    - Preparation of a Preliminary Engineering Report
    - Public Outreach Services to foster high quality public relations and acceptance of the planned improvements with community stakeholders, including:
        - Listening phase to gain stakeholder input
        - Design charrette(s) to gain general community consensus with the design concepts
        - Follow-up outreach services to address stakeholder concerns including coordination of responses
    - Comprehensive Design Services to current City standards, including:
        - Primary stormwater conveyance system and secondary storm

sewers within and directly adjacent to the route
        - Design of water and wastewater systems, either planned upgrades or otherwise displaced by the storm system improvements
        - Determination of extent of required demolition
        - Right-of-way surface restoration improvements
        - Urban design and landscape architectural services for development of the streetscape upgrade improvements to gain public acceptance
        - Utility Coordination to accommodate as-needed relocation of underground utilities along the entire route and for the underground relocation of aerial utilities along Howard Avenue
        - Maintenance of Traffic (MOT) and Detour Routes Planning
    - Permitting assistance including determining extent of permits required, applying for, and obtaining the necessary regulatory permits
    - Contractor design review for value engineering and constructability
    - Design Schedule Updates
    - Construction cost estimating during development of the design
    - Development of a fair and reasonable Guaranteed Maximum Price (GMP) for construction of the improvements at 60% design phase
- Construction Services:
    - Full and complete construction of the approved design extent of the project
    - Public Relation activities to maintain a positive response from community stakeholders throughout the construction phase
    - Construction Schedule Updates
    - Construction Stakeout and As-built Surveying
    - Limited Construction Engineering and Inspection Services (CEI)
    - Vibration Monitoring
    - Materials Testing
    - Construction permitting
    - Citizen Accommodations
    - Utility Coordination
    - Maintenance of Traffic
- Post-Construction Services
    - Closeout documentation
    - Record Drawing preparation

The DB project budget for this project is as follows:

- Stormwater Engineering Division $49,000,000.
- THEA $11,000,000.
- Water Department upgrades $4,500,000.
- **TOTAL BUDGET: $64,500,000**

A project schedule has been developed and is attached (see attached Project Schedule).

The City intends to contract separately with a consulting firm to provide an Owner Representative to act as an extension of the City's staff to assist the City with the general administration of this project.

1. Purpose

1.1 This document provides the criteria for the design and construction of a reinforced concrete box and/or pipe culvert drainage system along with the associated secondary storm sewer systems and all other infrastructure improvements identified in the scope above for the relief of flooding for an approximate 260-acre basin within and adjacent to the Upper Peninsula Watershed which includes the Parkland Estates basins where the most frequent and severe flooding occurs. The proposed system shall also be designed to accommodate additional runoff created by the expansion of an adjacent segment of the Leroy Selmon Expressway which is being planned, designed, and constructed by the Tampa Hillsborough Expressway Authority (THEA). The intent of this work is to provide the project area and directly adjacent areas with flood relief to the extent feasible within the available corridor, and to accommodate drainage from the expressway expansion.

1.2 The following is intended to be the minimum design-build criteria for the analysis, design, permitting, and construction of the stormwater improvements. The project also includes transportation and water system improvements.

1.3 This package is not a specification or prescriptive checklist and is not intended to replace the professional judgment of competent licensed professionals after coordination with City staff, end-users, and stakeholders of the City of Tampa.

2. Design Criteria

2.1 The project scope includes construction of a new box and/or pipe culvert system and associated secondary storm sewers, streetscape surface improvements along S. Howard Ave.,

utility upgrades and relocations, and neighborhood surface restoration. A route recommendation for the improvements was presented in an extensive alternatives analysis performed by the City and summarized in a report entitled "Upper Peninsula Stormwater Improvements – East Region, Preliminary Engineering Report" prepared by JMT, dated April 2022 (see attached report). The route recommendation presented in that report builds upon an existing box culvert segment in S. Howard Ave. beneath the CSX railroad and Selmon Expressway and a second existing box culvert segment that lies beneath the northbound lanes of Bayshore Blvd (see attached as-built drawings of the existing installations). The box culvert beneath the Selmon Expressway was confirmed via Geotechnical borings (see attached report). The final recommended route depicted on the Project Map has been further refined based on on-site reconnaissance and an arborist field review (see attached Project Map). No additional route analysis is required.

2.2 The design shall generally be based on the results from the updated H&H model provided in the JMT report with refinements to optimize the solution using more detailed project-specific survey data and a general confirmation and acceptance of the assumptions and modelling approach in the provided model. Value engineering should be employed to optimize the design solution considering constructability issues, culvert shapes and size options, and location and depth with respect to the design hydraulic grade line. The proposed drainage facilities shall meet the needs of the City to effectively and efficiently relieve flooding for the design storm as well as reduce flood levels for greater events up to the 100-year storm events. The analysis and design should also identify and accommodate potential locations for future extensions to address flooding in adjacent areas along the route. It is expected that the final designer and preparer of construction documents fully understand the system requirements (modeling results), permitting, site logistics (residential and business impacts) and all related requirements to design the stormwater facilities accordingly.

2.3 A preliminary construction staging approach should be included in the submission. Construction staging and material storage will not be allowed in the right-of-way other than within an active construction phase. No construction staging of materials and equipment shall occur outside an active construction phase unless it is within private property with use rights secured by the DB Team. The DB Team is encouraged to identify staging areas proximate to the project and present those to the City for consideration.

2.4 To the greatest extent practical, the DB Team shall construct the project in a manner that will minimize the disturbance and duration of access limitations to residences and businesses during construction. It is the City's intent to build the project in phases such that one phase must be completed and opened to local traffic prior to beginning construction in the subsequent phase. Within a construction phase segment, to the extent practical, the DB

Team should endeavor to provide full-time vehicular access to each property owner needing access. When full access is not practical, the DB Team shall provide other access accommodation, as can reasonably be provided.

2.5 A preliminary phasing plan has been developed that generally anticipates the level of construction activities along the proposed route (see attached Preliminary Construction Phasing Plan). To accommodate drainage during construction, phasing has been arranged to begin construction at the existing outfall location at Bayshore Blvd. and proceed upstream. This preliminary plan should be considered a baseline to meet the City's intent and may be modified by the DB Team with the City's acceptance when the modification is shown to better accommodate adjacent residents and business's needs.

2.6 The surrounding area is highly urbanized; therefore, the construction means and methods should carefully assess the appropriate needs for traffic maintenance, access to residences and businesses, trees in or near the right-of-way, and utility service relocations and/or adjustments. The MOT plans shall be prepared by the DB Team for each phase of construction and submitted for approval by the City. Preliminary detour routes have been established based on the anticipated phasing of the project (see attached Preliminary Detour Route Exhibit). These detours should be considered a baseline to meet the City's intent and may be modified by the DB Team with the City's acceptance.

2.7 Streetscaping enhancement services shall include green infrastructure, increased sidewalk coverage, safety features, traffic calming measures, expanded street parking, landscaping, pervious pavers, and pervious pavement installation and coordinated with the Transportation Engineering Division. Design elements shall consider City initiatives, programs and/or guidelines including Complete Streets, Vision Zero, and other similar guidance. Street and pedestrian lighting design and bicycle and micro-mobility accommodations shall be provided. The DB Team shall develop streetscaping enhancement renderings for presentation to stakeholders for consideration and final selection. This effort will be coordinated to achieve community acceptance. To the greatest extent practical, GSI solutions shall be incorporated into the streetscape design and neighborhood restoration improvements.

2.8 Project coordination with THEA on timing and development for interconnection of the new system with the expanded Selmon Expressway conveyance system is required to be performed in a manner that minimizes disruption of existing traffic patterns and access to residents and businesses during construction while accommodating THEA's needs to the greatest extent practical. Two points of connection are indicated on the Project Map.

2.9 Project coordination with City of Tampa Water and Mobility Departments is required for

an “early works” design-build phase that will include water main installation and roadway pavement improvements on adjacent streets in preparation for project construction (see attached Preliminary Early Works Exhibit). It is the intent of the early works phase to address improvements outside of the primary route along South Howard, Bristol and into Parkland Estates to better prepare the adjacent streets for increased use during construction of the project. This work will include potable water system replacement and/or upgrades totaling approximately 9600 LF of new 4” to 12” water mains along and adjacent to the selected route, including the replacement of fire hydrants, valves, service lines, and other appurtenances (see attached Water Main Replacement Map). Road resurfacing to better accommodate local traffic circulation and temporary additional on-street parking during construction of the project will also be included. The DB Team shall work with the City Mobility team to identify locations for roadway resurfacing including profile milling and overlay work on roads identified on the Preliminary Early Works Exhibit or other identified locations to ascertain the extent of needed resurfacing work (i.e.., full or partial mil/overlay).

2.10 Project Coordination with Tampa Electric Co. (TECO) and other private utilities is required for the relocation of overhead power and communication lines, as necessary, to accommodate streetscape improvements along S. Howard Ave. The City has made initial contact and has been working with TECO for the conversion of their facilities to underground service. The DB Team will continue coordination of these relocation efforts with all affected utilities.

3. Project Development Criteria

3.1 The DB Team will lead the effort to conceptualize and develop the design to meet all City, Regional, State standards and requirements. Design submittals will include construction drawings and specifications as well as all other required items identified in the submittal schedule (see attached Submittal Schedule).

3.2 Final plans and specifications are to be provided in AutoCAD (.dwg) and Word format, as applicable as well as PDF format. A pricing proposal developed to a GMP document with all associated exhibits (scope, pricing, and qualifications) shall also be provided. The GMP agreement shall be organized into separate costs for each of the three City departments/divisions.

3.3 Final construction drawings and specifications, construction schedule, equipment purchases and placement, utility agreements, right of way permits and all required approvals from regulatory agencies and local authorities shall be provided.

4. Environmental Criteria

4.1 The DB effort shall incorporate to a practical extent, GSI solutions as part of the proposed stormwater infrastructure. Potential solutions include, but are not limited to, water quality treatment systems appropriate for an urban area such as rain gardens, vortex separators, filters, baffle boxes, bioswales and wetlands to reduce pollutant loading into Hillsborough Bay. The DB Team shall identify feasible GSI for consideration by the City.

4.2 The DB Team will be responsible for all required environmental testing and permitting needed to complete the project. The scope of these requirements will be determined by the DB Team based on the selected improvements and construction requirements.

5. Construction Engineering and Inspection and Construction Management

5.1 The DB Team will be responsible for primary construction management activities and general project oversight with full and consistent coordination with the City's Contract Administration Department (CAD) during construction. The CAD provides construction management and administration for stormwater projects which includes:

- Scheduling and leading progress meetings
- Inspecting the work with one full-time inspector
- Reviewing and responding to simple/straightforward Requests for Information (RFIs)
- Reviewing and responding to simple/straightforward submittals
- Witnessing system testing and test report preparation
- Confirming materials testing
- Reviewing and approving pay requests
- Preparing and processing work change directives and change orders
- Receiving and reviewing as-builts

5.2 DB Team CEI services are to include only the following services, which will generally be performed as requested by CAD or as deemed necessary by the Engineer of Record (EOR):

- EOR to attend construction progress meetings
- Construction observation sufficient to confirm compliance with the design
- Coordinate and perform submittal and shop drawing reviews
- Coordinate and respond to RFIs
- Redesign, including prepare sketches or drawing revisions to address changes in the work
- For phased projects, apply for and obtain City right-of-way permits with MOT design
- Confirm testing requirements pursuant to the specifications and/or permit conditions
- Coordinate and submit EOR permit clearances and certifications

- Prepare record drawings from information provided on as-built survey and changes in the work identified in field orders or otherwise documented

5.3 In addition to generally accepted and customary construction management activities, the DB Team will provide for the following additional activities:

- Preparation of a general Quality-Control Plan to be submitted in format(s) acceptable to the City, in which personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out the DB Team's quality-assurance and quality-control responsibilities will be identified. Coordinate with Contractor's construction schedule
- Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for project
- Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review
- Include a comprehensive schedule of work requiring testing or inspection, including the following:
    - Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections
    - Owner-required tests include soil density, concrete for all structural or structurally related work and asphalt
    - Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions needed to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups
    - Maintain testing and inspection reports including log of approved and rejected results, including work the City has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction

5.4 Upon completion of construction, the DB Team will provide AutoCAD Record Drawings in PDF and AutoCAD formats accurately depicting the as-built conditions of all of the improvements in accordance with City standards, in addition to any pertinent design data (geotechnical reports, survey, hydraulic analysis). Hard copies of the as-built drawings will also be required as will be determined during the design phase.

6. Public Relations and Communications

6.1 Community engagement services shall include managing the project public relations efforts through communications with all interested and/or affected community stakeholders (Stakeholders) during the project initiation, the design, and the construction phases. Stakeholders shall include interested and/or affected residents, business owners, institutions such as schools, churches, and other organizations as well as City staff, officials, consultants and contractors. All communications are to be fully documented. All community engagement efforts will be planned and implemented in full consultation with City staff through regularly scheduled project meetings and written communications.

6.2 General Requirements: Throughout the phases of the project, consultant shall assist the City with community engagement by developing and updating project information, disseminating that information to and soliciting input from Stakeholders to provide project transparency. For each Stakeholder interaction, consultant shall plan and develop project information, seek City input and approval, coordinate, organize, notify, and implement the dissemination of information, and provide full documentation of interaction with and input from all Stakeholders.

6.3 Project Initiation Phase (Communication Purpose: Listen First): The listening phase occurs when the project is presented to the Stakeholders. With the following interactions, present the project context with goals and benefits. Listen and document Stakeholder input including their ideas, concerns, priorities and provide direct responses, and develop an FAQ document, with the assistance of other team members, for the more common questions/concerns. Stakeholder interactions shall include:

- Community Meeting(s)
- Small Group Meetings
- One-on-One Meetings

6.4 Design Phase (Communication Purpose: Listen First & Awareness): In response to the input received from the Project Initiation Phase, further develop sources of communication with the project Stakeholders to continue dissemination of project information and input solicitation through the following interactions:

- Project Website
- Community Meeting(s)
- Small Group Meetings
- One-on-One Meetings

6.5 Construction Phase (Communication Purpose: Awareness): Upon completion of the design phase, update and further develop sources of communication with the project Stakeholders to continue dissemination of project information and input solicitation through the following interactions:

- Project Website
- Community Meeting(s)
- Small Group Meetings
- On-on-One Meetings
- Traffic Advisories

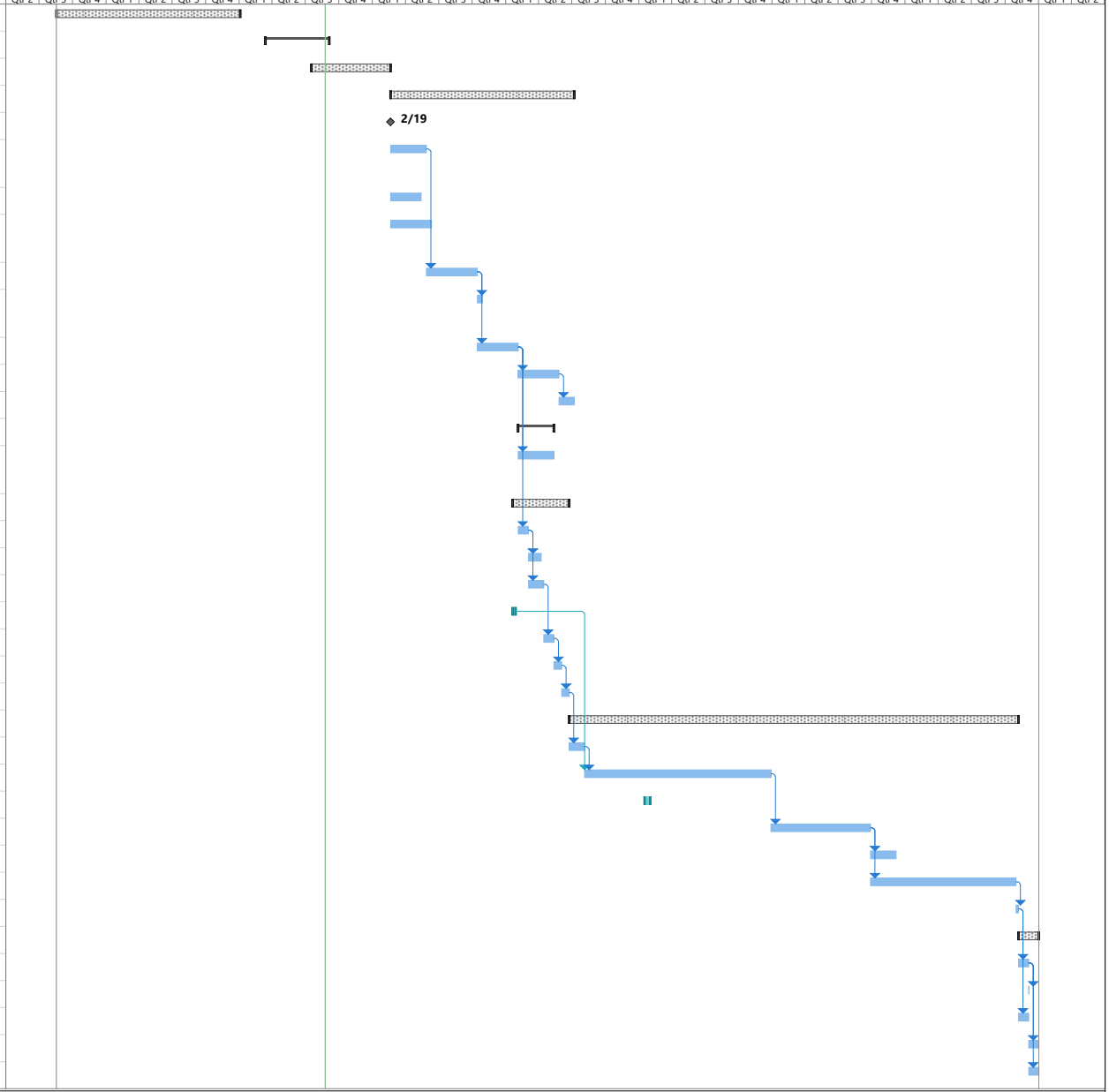
List of attachments:

1. Project Schedule
2. Upper Peninsula Stormwater Improvements – East Region, Preliminary Engineering Report" prepared by JMT, dated April 2022 and H & H model (including XP-SWMM files)
3. As-built drawings:
    a. Howard Ave. box culvert under CSX and the Selmon Expressway
    b. Bayshore Blvd. box culverts under the northbound lanes
4. Project Map
5. Preliminary Construction Phasing Plan
6. Preliminary Detour Routes Exhibit
7. Preliminary Early Works Exhibit
8. Water Main Replacement Map
9. Submittal Schedule
10. Howard Ave. box culvert Geotechnical Report

SoHo Flooding Relief and Streetscape Project

Project Schedule

ID	Task Mode	Task Name	Duration	Start	Finish	Predece
1		**Project Initiation**	**72 wks**	**Wed 8/18/21**	**Tue 1/3/23**	
5		**Preliminary Public Outreach**	**25 wks**	**Tue 3/14/23**	**Mon 9/4/23**	
11		**DB Team Selection & NTP**	**31 wks**	**Tue 7/18/23**	**Mon 2/19/24**	
21		**Design & Permitting Phase**	**72 wks**	**Mon 2/19/24**	**Mon 7/7/25**	
22		Notice to Proceed - Design	0 days	Mon 2/19/24	Mon 2/19/24	20
23		Pre-Design Services (Survey & Geotech)	14 wks	Tue 2/20/24	Mon 5/27/24	20
24		H&H Modeling	12 wks	Tue 2/20/24	Mon 5/13/24	20
25		Streetscape Concept Designs/Community Mtg (Listening)	16 wks	Tue 2/20/24	Mon 6/10/24	20
26		Prelim Engrg, 30% Design & PER	20 wks	Tue 5/28/24	Mon 10/14/24	23
27		Community Meeting - Concept Presentation	2 wks	Tue 10/15/24	Mon 10/28/24	26
28		60% Design	16 wks	Tue 10/15/24	Mon 2/3/25	26
29		90% Design	16 wks	Tue 2/4/25	Mon 5/26/25	28
30		100% Design	6 wks	Tue 5/27/25	Mon 7/7/25	29
31		**Permitting Phase**	**14 wks**	**Tue 2/4/25**	**Mon 5/12/25**	
32		ERP, R/W, FDEP W&WW, Review and Permit Issuance	14 wks	Tue 2/4/25	Mon 5/12/25	28
33		**GMP Negotiation & Approval**	**22.2 wks**	**Mon 1/20/25**	**Mon 6/23/25**	
34		GMP Preparation @ 60%	4 wks	Tue 2/4/25	Mon 3/3/25	28
35		EBO Review and Set Goals	5 wks	Tue 3/4/25	Mon 4/7/25	34
36		GMP Review & Negotiation	6 wks	Tue 3/4/25	Mon 4/14/25	34
37		Gasparilla Parades	1.2 wks	Mon 1/20/25	Mon 1/27/25	
38		Sire Process, Clerk's Office Reso	4 wks	Tue 4/15/25	Mon 5/12/25	36
39		CC GMP Approval	3 wks	Tue 5/13/25	Mon 6/2/25	38
40		Notice To Proceed - Construction	3 wks	Tue 6/3/25	Mon 6/23/25	39
41		**Construction Phase**	**176 wks**	**Tue 6/24/25**	**Mon 11/6/28**	
42		Mobilization	6 wks	Tue 6/24/25	Mon 8/4/25	40
43		Phases 1-4 (to Expwy)	73 wks	Tue 8/5/25	Mon 12/28/26	42,37
44		Gasparilla Parades	2.4 wks	Sat 1/17/26	Sat 1/31/26	
45		Phases 5-7 (to Bristol)	39 wks	Tue 12/29/26	Mon 9/27/27	43
46		Phase 8 (to Albany)	10 wks	Tue 9/28/27	Mon 12/6/27	45
47		Phases 9-11 (to Parkland)	57 wks	Tue 9/28/27	Mon 10/30/28	45
48		Substanital Completion	1 wk	Tue 10/31/28	Mon 11/6/28	47
49		**Project Closeout**	**8 wks**	**Tue 11/7/28**	**Mon 1/1/29**	
50		Punch List	4 wks	Tue 11/7/28	Mon 12/4/28	48
51		Final Completion	0.2 wks	Tue 12/5/28	Tue 12/5/28	50
52		Closeout Docs (As-builts, etc.)	4 wks	Tue 11/7/28	Mon 12/4/28	48
53		Record drawing preparation	4 wks	Tue 12/5/28	Mon 1/1/29	50
54		Final Change Order and Payment	4 wks	Tue 12/5/28	Mon 1/1/29	50



Project: SoHo Project Schedule
Date: Fri 8/25/23

Task
Split
Milestone
Summary
Project Summary
Inactive Task
Inactive Milestone
Inactive Summary
Manual Task
Duration-only
Manual Summary Rollup
Manual Summary
Start-only
Finish-only
External Tasks
External Milestone
Deadline
Progress
Manual Progress

April 2022

CA No. 5917

UPPER PENINSULA STORMWATER IMPROVEMENTS – EAST REGION

PRELIMINARY ENGINEERING REPORT

Submitted to:
Stormwater Engineering Division
Mobility Department
City of Tampa



W. Fountain Blvd Flooding at Parkland Estates (August 2015)

Contents

EXECUTIVE SUMMARY 1
UPPER PENINSULA STORMWATER IMPROVEMENTS – EAST REGION 1
INTRODUCTION 2
BACKGROUND AND PURPOSE 2
GENERAL CONDITIONS OF THE PROJECT AREA 5
PRIOR STUDIES 10
1 – 2017 PARKLAND ESTATES DRAINAGE IMPROVEMENTS PRELIMINARY ENGINEERING REPORT (JMT – September 2017) 11
2 – PARKLAND ESTATES FEASIBILITY STUDY (DEWBERRY – December 2018) 11
3 – INTERNAL ANALYSES (CITY OF TAMPA – January 2019 to August 2020) 12
4 – CITY ALTERNATIVES REVISITED (JMT – August 2020) 13
5 – STORMWATER PUMPING STATION AND FORCE MAIN (JMT – March 2021) 13
CURRENT ANALYSIS 15
EXISTING CONDITIONS 15
MODEL APPROACH 15
RECOMMENDED ALTERNATIVE 23
MODEL APPROACH 24
MODELING RESULTS 24
ADDITIONAL PROJECT BENEFITS 26
HOWARD AVENUE CORRIDOR 26
GREEN INFRASTRUCTURE 27

Figure 1: Sample Floodplain in Problem Area 2
Figure 2: Project Drainage Area 6
Figure 3: Project Area Soils Map 7
Figure 4: Topography 8
Figure 5: Existing Drainage Network 9
Figure 6: Limits of Upper Peninsula Model 10
Figure 7: Bristol-Albany Pond off Selmon Expressway 16
Figure 8: Added Sub-Basins 17
Figure 9: Drainage Sub- Basins with Insufficient Inlets Near Project Area 19
Figure 10: Reported Nodes 20
Figure 11: Recommended Alternative Project Route 23
Figure 12: Nutrient Separating Baffle Box (NSBB®) 27
Figure 13: Green Infrastructure Tree Well and Bio-Swale Examples 28

Table 1: Mean Annual, 5-, 10-, 25-, 50-, and 100-year/8-hour Storm Event Under Existing Conditions 21
Table 2: Mean Annual, 5-, 10-, 25-, 50-, and 100-year/24-hour Storm Event Under Existing Conditions 22
Table 3: Mean Annual, 5-, 10-, 25-, 50- and 100-year/8-Hour Storm Event under Recommended Alternative 24
Table 4: Mean Annual, 5-, 10-, 25-, 50- and 100-year/24-Hour Storm Event under Recommended Alternative 25

APPENDIX A 30
ALTERNATIVE ROUTES CONSIDERED ..... A-1 - A-12
APPENDIX B .....
TECHNICAL MEMORANDUM ..... B-1 - B-25
APPENDIX C .....
JMT CONCEPTUAL BOX CULVERT PLANS ..... C-1 - C-14
APPENDIX D .....
COST ESTIMATE D-1
APPENDIX E .....
BENEFIT/COST ANALYSIS WITH BMPTRAINS REPORT AND EXHIBIT ..... E1 - E-14

EXECUTIVE SUMMARY

UPPER PENINSULA STORMWATER IMPROVEMENTS – EAST REGION

Severe flooding has occurred in the Parkland Estates neighborhood, and in particular near West Fountain Boulevard and Audubon Avenue extending up to Swann Avenue in the City of Tampa (City) for decades. The problems experienced within the project area are created by several issues, not the least of which is that the area is a low-lying portion of the City, basically a bowl, which collects runoff from the surrounding commercial and residential areas. Limited outfall capacity makes the recovery of the area from rainfall events slow, and limited inlet capacity adds overland flow from areas which would normally not contribute runoff to the area. Reducing the depth, duration, and frequency of the flooding within the area without exacerbating problems downstream has been a challenge.

The City has been seeking solutions to this problem for many years, but has continuously struggled to find a feasible and realistic alternative that provides project benefits commensurate with the significant associated costs. The recent discovery of some over 40-year old as-built information has been a revelation for City staff. This as-built information identified existing infrastructure that, while dictating the necessary location of a substantial portion of the recommended alternative, relieved several of the most significant time delays and cost concerns related to all proposed alternatives. More importantly, the size and location of the existing infrastructure discovered allows for the proposed recommendation to not only address the issues that initiated the project but also address other flooding areas along the proposed route. Incorporating other currently planned City improvements and addressing identified deficiencies along the corridor can also be accomplished. The potential for the project to address future drainage requirements and known concerns from the Tampa Hillsborough Expressway Authority (THEA) related to their long-range plans is an additional benefit. All these items further the Transforming Tampa's Tomorrow initiative and provide opportunities that align with Resilient Tampa.

The recommended alternative in this Preliminary Engineering Report (PER) is regional in nature and is expected to qualify for cooperative funding from the Southwest Florida Water Management District. Moreover, the possibility of THEA contributing to the project in order to utilize the new outfall for their future widening projects gives the City the best possible return on their investment, all while meeting the design level of service at the specified problem location.

This report provides background information on the problem and its causes. More importantly, this report details the comprehensive efforts and exhaustive analyses undertaken by the City over many years. Pertinent details from each of the many previous studies are contained herein along with a description of the flooding relief and potential benefits associated with the final selected alternative.

INTRODUCTION

BACKGROUND AND PURPOSE

Flooding occurs in portions of seven different neighborhoods in the watershed, including the Parkland Estates, Palma Ceia Pines, South Howard, New Suburb Beautiful, Historic Hyde Park, Palma Ceia, and Bayshore Gardens, but primarily near West Fountain Boulevard and Audubon Avenue extending up to Swann Avenue in the City of Tampa (City). Limited outfall capacity was identified as the primary cause for this flooding.

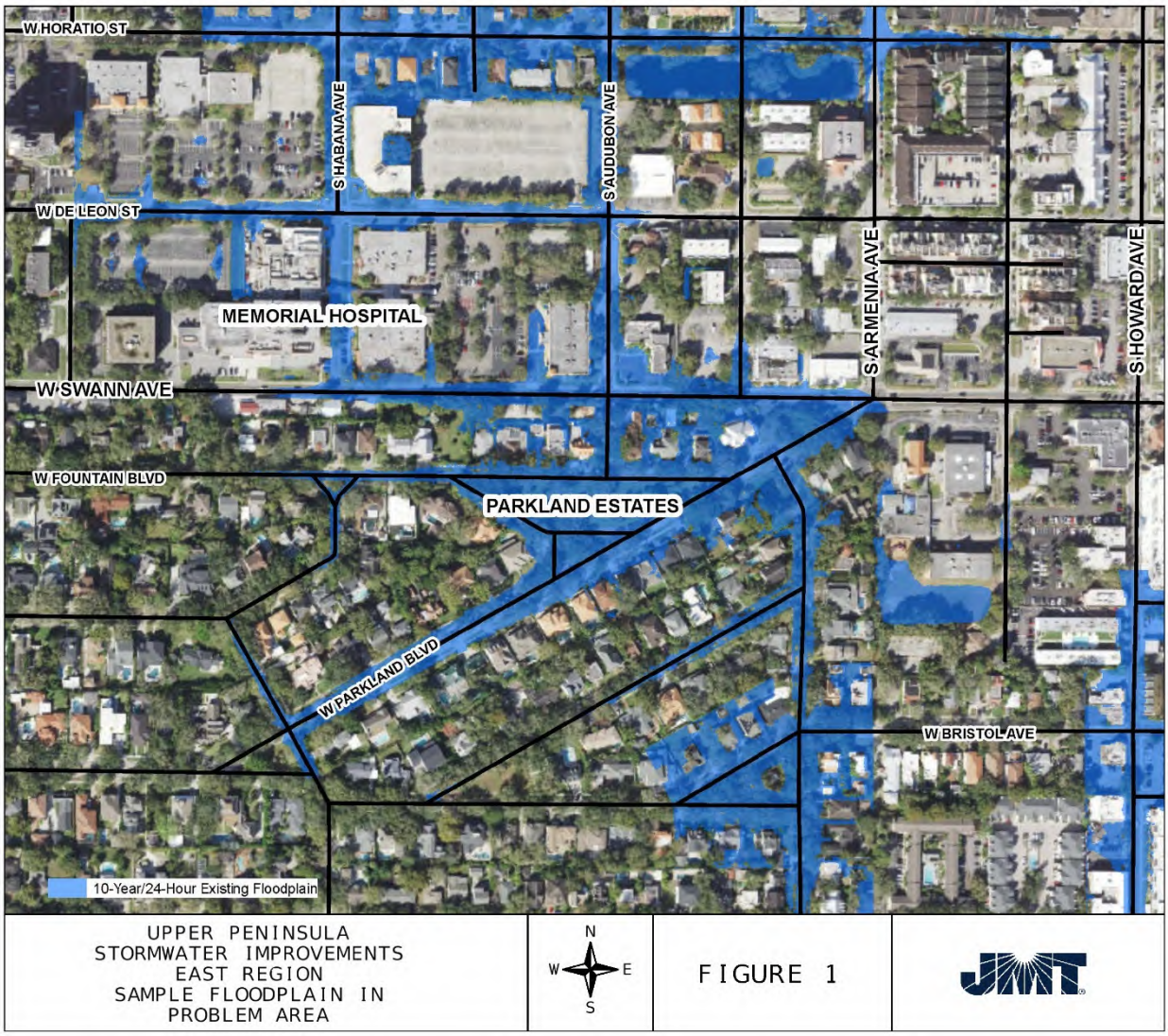


Figure 1: Sample Floodplain in Problem Area

The inadequate capacity of the storm pipe system near West Fountain Boulevard, Audubon Avenue, and Swann Avenue results in frequent flooding of homes and the roadways. Memorial Hospital, location

shown in Figure 1, frequently has ambulances and other emergency vehicles stall out in the resulting floodwaters. The next several pages show photographs documenting the problem.



Home on W. Fountain Blvd, Parkland Estates (August 2015)



Water 4' deep at street level, W. Fountain Blvd (August 2015)



W. Fountain Blvd flooding at Parkland Estates (August 2015)



W. Fountain Blvd flooding at Parkland Estates (August 2015)



S. Howard Ave near W. Bristol Ave (September 2016)



W. Fountain Blvd flooding at Parkland Estates (June 2017)



W. Swann Ave near S. Audubon Ave (June 2017)



W. Swann Ave at Memorial Hospital Diagnostic Center (June 2021)



W. Swann Ave at W. Audubon Ave (April 2020)

These photographs provide documentary evidence of the necessity for this project. Residents and businesses in the neighborhoods have only seen the flooding become more severe and frequent over the years.

GENERAL CONDITIONS OF THE PROJECT AREA

Flooding conditions occur within the Parkland Estates, Palma Ceia Pines, South Howard, New Suburb Beautiful, Historic Hyde Park, Palma Ceia, and Bayshore Gardens neighborhoods. The drainage area is primarily residential but also includes commercial and institutional properties and is mostly developed. The drainage area likely to see the most significant benefits from the selected alternative is identified in Figure 2 and is approximately 260 acres. For the purposes of this PER, the focus is on this project drainage area and the runoff which contributes to the low-lying area of Parkland Estates. The project drainage area is roughly bounded by W. Kennedy Boulevard to the north, the Selmon Expressway and S. Howard Avenue to the east, S. MacDill Avenue to the west, and Hillsborough Bay to the south.

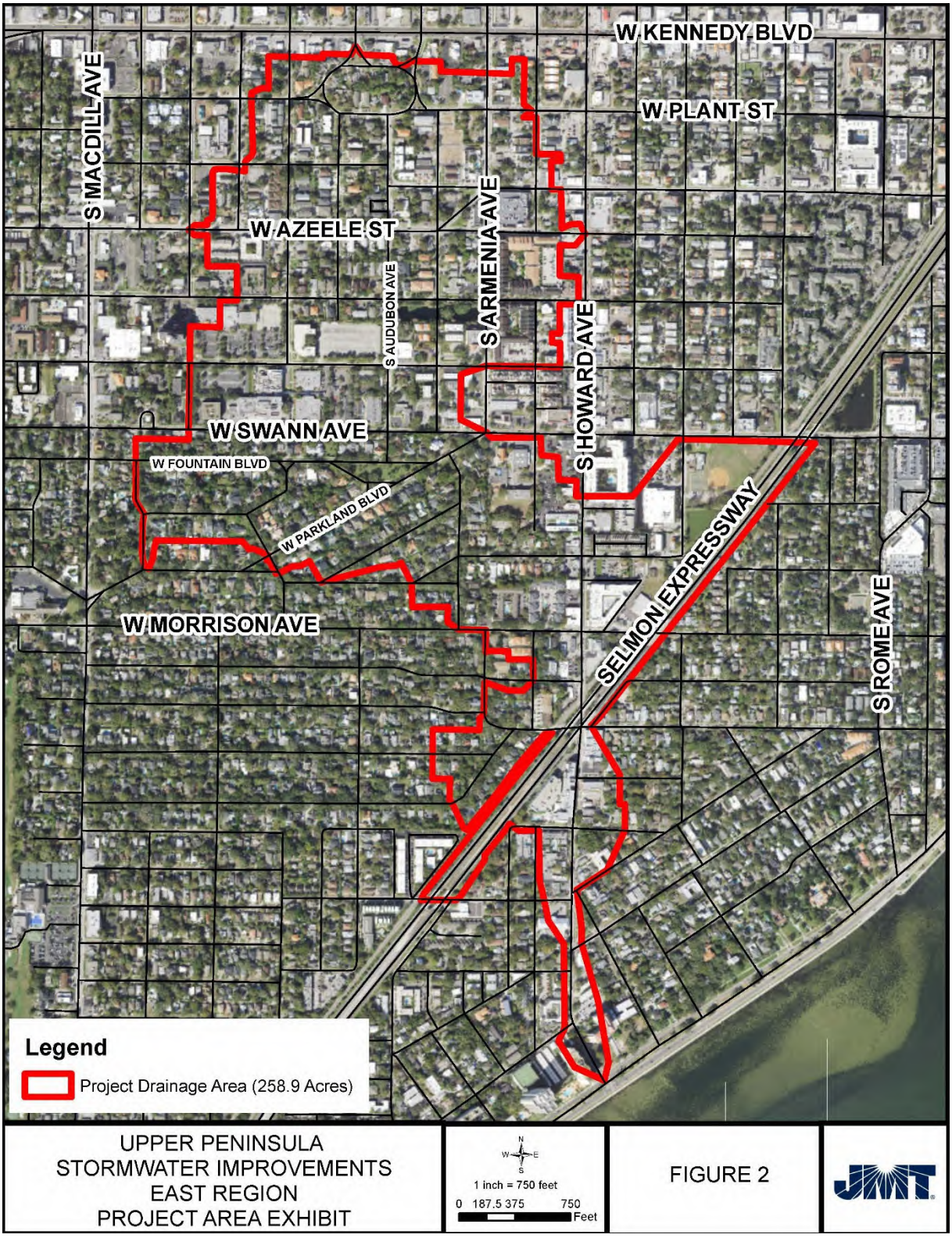


Figure 2: Project Drainage Area

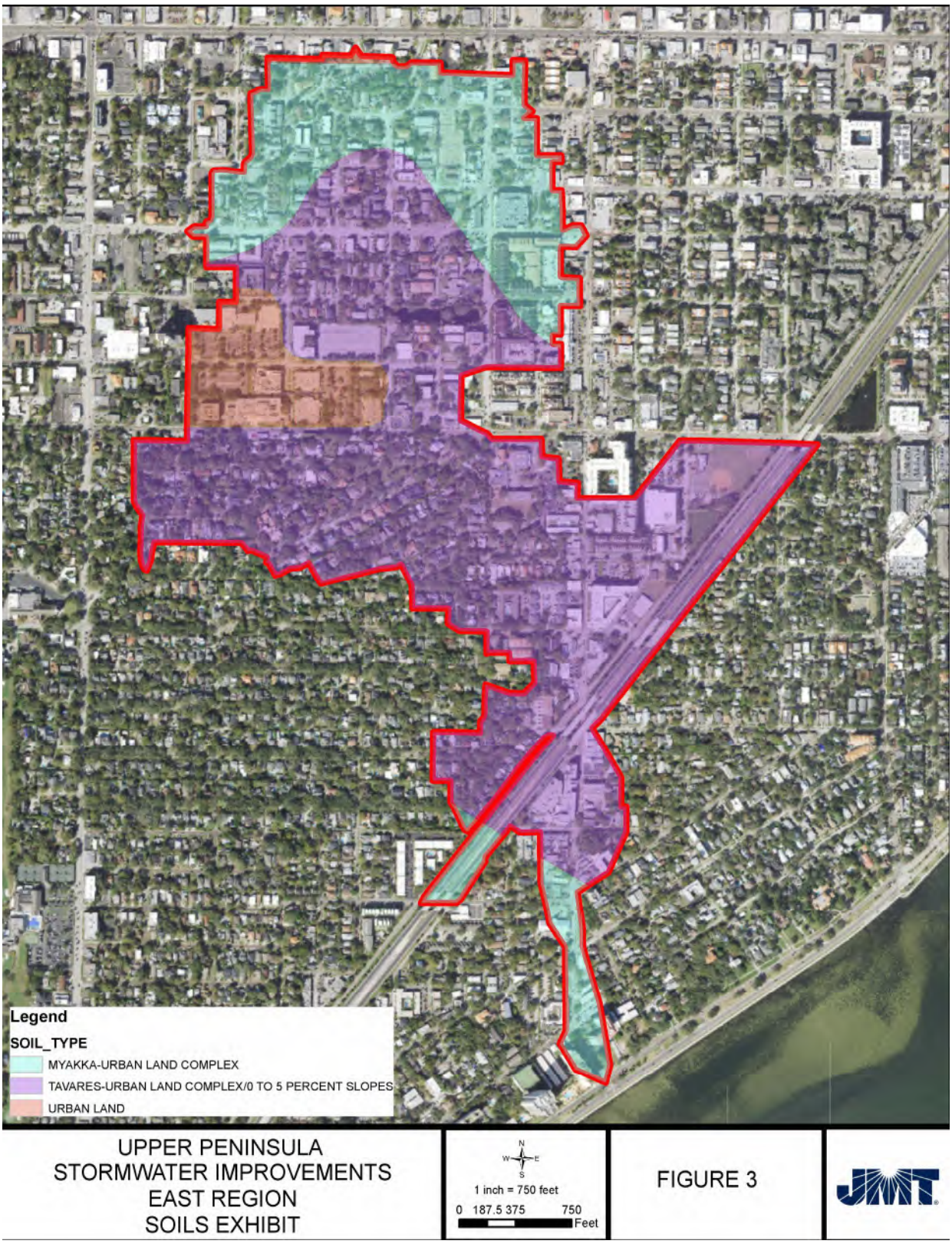


Figure 3: Project Area Soils Map

Figure 3 shows the soils in the project area are 39.3 percent Myakka-Urban land complex (hydrologic soil group A/D), 41.7 percent Tavares-Urban land complex (hydrologic soil group A), and soils in the remaining areas consist of Urban Land (a mixture of soil types with no parent material sometimes referred to as made lands).

There is little topographic relief in the low-lying portions of the project area with most slopes being 0.5 percent or less. Figure 4 depicts a "heat map" based upon 2017 LiDAR data where lighter colors reflect lower elevations. As can be seen in the figure, the flooding near W Fountain Boulevard, S Audubon Avenue, and W Swann Avenue is partly because that area is a low point in the drainage basin. Overland runoff that is not captured by storm sewers throughout the watershed flows to this location.

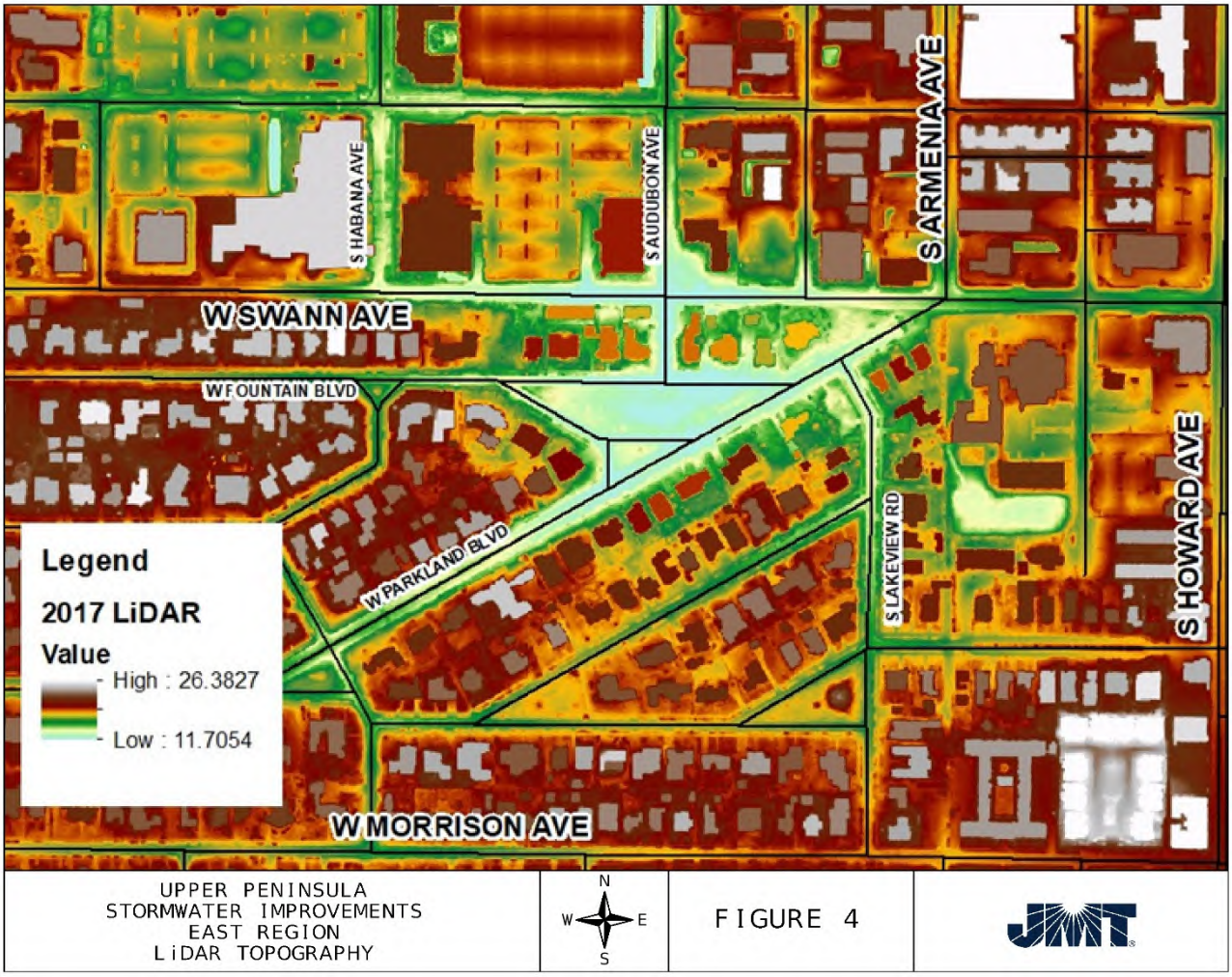


Figure 4: Topography

At W. Fountain Boulevard, inlet throat/rim elevations range from 15.7 feet, North American Vertical Datum of 1988 (NAVD), to 16.2 feet NAVD. Runoff from this area is currently conveyed by a 42-inch reinforced concrete pipe (RCP) to W. Parkland Boulevard where it joins a 36-inch RCP from the northeast and a 48x76-inch elliptical RCP from the southwest. Runoff is then conveyed south under Forest Drive, W.

Morrison Avenue, S. Marti Street, W. Neptune Street, S. Habana Avenue, and eventually to a Hillsborough Bay outlet near Rubideaux Street and the Fred Ball Park. The existing drainage network shown in Figure 5 is inadequate for addressing flooding along Swann Avenue, in Parkland Estates, and generally in the entire 500+ acre basin the system currently serves.



Figure 5: Existing Drainage Network

PRIOR STUDIES

As has been stated, the City has been seeking solutions to the identified flooding problem for many years. The existing primary drainage system connected to the area required analysis in order to explore solutions to the flooding problem. The City developed the Upper Peninsula Watershed Model to assist in this analysis. The Upper Peninsula Model covers a large portion of the City of Tampa and includes the existing outfall for the project area as shown in Figure 6. This existing XP-SWMM modeling was utilized as a starting point for all efforts described below.

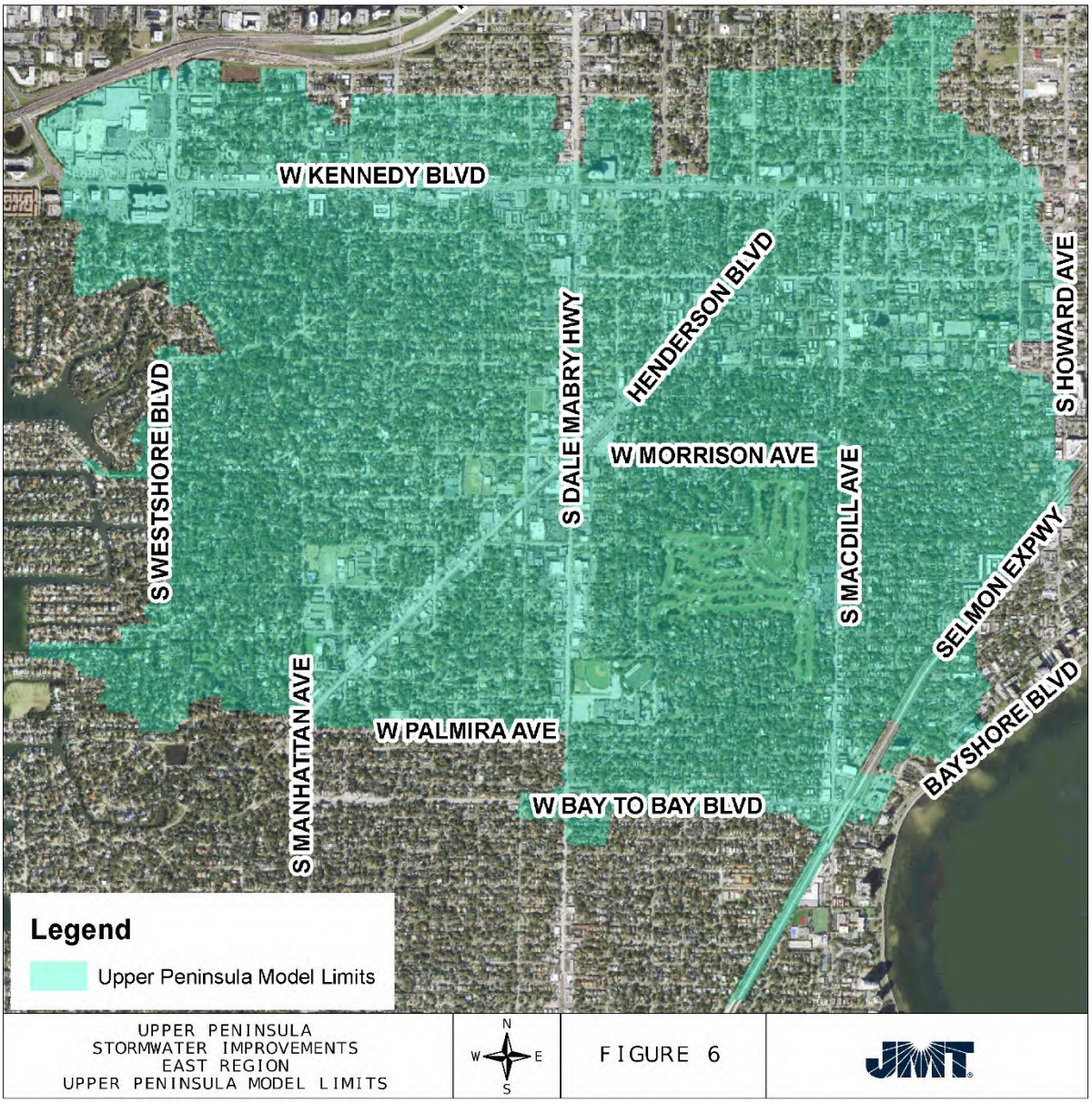


Figure 6: Limits of Upper Peninsula Model

Appendix A contains depictions for most of the various alternative routes described below. Some of the alternatives analyzed internally by the City do not include a specific exhibit, but a description is included.

1 – 2017 PARKLAND ESTATES DRAINAGE IMPROVEMENTS PRELIMINARY ENGINEERING REPORT (JMT – SEPTEMBER 2017)

This study reviewed the City's watershed model and updated it with project area specific field survey data. A total of eight alternatives were analyzed in this study with a target Level of Service (LOS) of no roadway flooding for the 5-year/24-hour design storm event on Swann Avenue, or at Audubon Avenue and W. Fountain Boulevard.

The eight alternatives contained in this study can be described as follows:

- The addition of a stormwater detention facility within the Parkland Estates area;
- Three gravity outfall storm sewer alignments analyzed both with and without a stormwater detention facility (for a total of 6 alternatives); and
- A pumping option.

Each alternative was analyzed for its respective project area benefits. The gravity and pump station solutions were analyzed in an iterative fashion to determine the smallest pipe/pump size which would meet the target LOS. The three alternative routes were evaluated against a set of established factors including costs, environmental factors, safety, constructability, property needs/issues, long range/area planning, and public input. This evaluation resulted in the selection of a preferred gravity alternative and route. (Note: The pump option was similar in cost to the gravity system but was ruled not viable as ongoing operation/maintenance and pump replacement costs would far exceed the maintenance costs for a gravity system.)

The recommended alternative included the addition of a storm sewer collection system along Swann Avenue which has since been constructed. However, implementation of the recommended alternative was not completed as the proposed stormwater system must cross the railroad tracks, the Selmon Expressway and an existing 48" sanitary force main in Bayshore Boulevard. Each of those crossings generate significant time and cost concerns with no definitive expectation of a satisfactory resolution. Considering the significant cost expenditures forecast, the City opted to explore further options and gather more detail on the issues affecting those costs.

2 – PARKLAND ESTATES FEASIBILITY STUDY (DEWBERRY – DECEMBER 2018)

This study modified the existing conditions modeling to include the stormwater improvements on Swann Avenue and further subdivided the model to include the existing stormwater inlets within West Parkland

Boulevard as new nodes to provide additional project-oriented detail. These revisions slightly reduced the predicted existing peak stages from the previous study.

The three gravity solutions from the previous report (Study 1), and the pumping option (each without the stormwater detention facility) were re-evaluated to reduce the required culvert sizes and maintain the same LOS as obtained previously. A fourth gravity route was also explored in this study.

Following an evaluation process matching that from Study 1, the preferred gravity alternative route from Study 1 again was chosen. This alternative was then compared in more detail to the pump alternative. Conceptual plans (not intended for construction) were generated to evaluate the potential construction costs, utility conflicts, and overall feasibility of each alternative.

This study looked at transportation impacts, business and residential impacts, utility impacts, and tree impacts associated with each alternative. In addition to the fact that the proposed stormwater system still must cross the railroad tracks, the Selmon Expressway, and the existing 48" sanitary force main in Bayshore Boulevard, this study identified high impacts on existing landscaping and trees along portions of the recommended route. The City again opted to explore other options.

3 – INTERNAL ANALYSES (CITY OF TAMPA – JANUARY 2019 TO AUGUST 2020)

The City, internally, looked at multiple options to provide relief to the Parkland Estates area. Upstream of the project area, the existing weir structure at 'Zom Pond' (located on W. Horatio Street between S. Audubon Avenue and S. Armenia Avenue) was analyzed for alteration. Modeling results, however, demonstrated no significant impact on flood stages in the Parkland Estates area. Redirection of some upstream flows into the existing Cleveland Street drainage basin were investigated and discarded due to numerous existing flooding conditions downstream in that system.

Baslee Engineering Services, Inc. (BES) was engaged by the city to prepare conceptual plans for an additional gravity outfall route from Lakeview to Morrison to Georgia to Mississippi to Moody to Stroud to Howard to Hillsborough Bay. These conceptual plans were analyzed by the City similarly to Study 2. Again, the proposed problematic crossings still were necessary, and this route also yielded Grand Tree impacts and generated new construction related concerns due to the narrow right-of-way (ROW) along the corridor.

Upgrades to the existing Parkland Estates system downstream and south of the Morrison/Marti intersection, such as parallel pipes, upsized pipes, and outfall improvements were considered. These options did not yield sufficient relief at Parkland Estates commensurate with the anticipated construction costs. The noted limited ROW, tree, traffic, and utility impacts plus issues crossing the Selmon Expressway were also factors.

A parallel 60-inch pipe along the eastern boundary of the Palma Ceia Park and adjacent to the Selmon Expressway was explored but yielded adverse downstream impacts and limited peak flood stage reduction at Parkland Estates.

Weir adjustments in the junction chamber on the west side of the Selmon Expressway and upstream of the existing Rubideaux outfall were considered. Similar to the parallel 60-inch pipe discussed previously, adverse downstream impacts and limited peak flood stage reduction at Parkland Estates discounted this option.

Pump station options of pumping to the existing system at the Marti/Morrison intersection or pumping to the existing Swann Pond basin on Rome Avenue were also analyzed. Again, adverse downstream impacts discounted these options as well.

4 – CITY ALTERNATIVES REVISITED (JMT – AUGUST 2020)

JMT was re-engaged in August of 2020 to explore further possibilities that could benefit the overall system.

Initial alternative analysis efforts began with a focus on the City's alternative (Study 3) of providing a parallel 60-inch RCP gravity storm sewer system starting at the intersection of S. Marti Street and W. Morrison Avenue heading south to W. Neptune Street, east to S. Habana Avenue, and then south to the Selmon Expressway. Multiple variations on this concept were analyzed, including the addition of a flap gate to eliminate backflow in the existing closed conduit system along W. Parkland Boulevard near S. Forest Drive, changing the parallel systems termination point along the Selmon Expressway to mitigate adverse downstream impacts, and other modifications to the existing system along the route similar to many the City had envisioned with their previous alternatives. Ultimately, as in the City's analysis (Study 3), limited relief at Parkland Estates, unreasonably high costs, limited ROW, tree, traffic, and utility impacts plus the problematic crossings associated with the construction of these systems continued to adversely affect their feasibility. Additionally, attempts to resolve localized flooding concerns along the route(s) served to increase the associated costs and diminish the relief provided in the Parkland Estates area.

5 – STORMWATER PUMPING STATION AND FORCE MAIN (JMT – MARCH 2021)

Following review of the previous studies and discussions with the City, JMT then began an earnest analysis of a pumping alternative with a wet well in the park located immediately south of the flooding area along W. Fountain Boulevard and a force main from there to Hillsborough Bay. While the construction of this force main alternative would still generate many of the same issues plaguing the gravity solutions, doing nothing was simply not an option. The City made the conscious decision at this point to accept the additional operation and maintenance costs associated with the pumping alternative, since the most significant issues associated with the construction would be mitigated by the smaller conduit size and

available construction methods. In order not to expend monies evaluating another route, the gravity alternative route for which construction plans had been previously prepared by BES (Study 3), from W. Fountain Boulevard, east to W. Parkland Boulevard, north to S. Lakeview Road, south to W. Morrison Avenue, east to S. Georgia Avenue, south to W. Mississippi Avenue, east to S. Moody Avenue, south to W. Stroud Avenue, east to S. Howard Avenue, and south to Hillsborough Bay was utilized to determine force main length.

The footprint of the Parkland Estates park was reviewed to determine a maximum feasible wet well area of 10,000 square feet, with a depth of 15 feet, and those values were utilized in an iterative process increasing pump flow rates and force main diameters until a 5-Year, 8-Hour Design Storm LOS was achieved at the park. Once the LOS result had been achieved, other variations were explored, such as adding a flap gate on W. Parkland Boulevard, varying pump on/off control elevations, and cutting the wet well area in half and repeating the process. Two alternatives were then presented to the City.

1. 10,000 square foot wet well area, 2-70 cfs pumps and a 42-inch force main and
2. 5,000 square foot wet well area, 2-90 cfs pumps and a 42-inch force main.

A conceptual site plan for the 10,000 square foot wet well and pump house was prepared. To address noise concerns, talks were initiated with Tampa Electric (TECO) to determine the feasibility of obtaining an uninterrupted power supply to the pump station versus having on-site generators. Information on this alternative was compiled into a Technical Memorandum, included in Appendix B.

Mitigating the long-term impacts to the area was a focus of the City. Noise from the pump station equipment, visual impacts from the proposed infrastructure, and significant disruption to the neighborhood and the park during construction were just some of the areas of concern for the City. Discussions even considered an additional City property at the intersection of W. Parkland Boulevard and W. Swann Avenue as a potential location for housing generators or other equipment should it become necessary. Each additional consideration added costs and concerns to a project which would not allow for any incidental flooding benefits along the force main route. Simply speaking, the flooding benefits received would be limited solely to the Parkland Estates area. While this was the intended result for the project, the likelihood of obtaining matching grant funds from other agencies to help defray the increasing costs was minimal.

While attempting to determine the appropriate mitigating actions described above, the City discovered archived as-built information dating as far back as 1972, that identified the existence of a 5’x10’ box culvert within the Howard Avenue ROW that crosses the railroad and the Selmon Expressway, and the existence of triple 4’x6’ box culverts crossing the 48” sanitary prestressed concrete cylinder pipe (PCCP) force main in Bayshore Boulevard as well. As a direct result of this discovery, the largest hurdles to a feasible gravity solution no longer existed, and JMT was immediately tasked to develop a preferred gravity solution which made use of the existing infrastructure.

CURRENT ANALYSIS
EXISTING CONDITIONS

MODEL APPROACH

This assessment expanded the existing model review beyond what had been previously considered (Studies 1 and 2). The City provided additional Geographic Information Systems (GIS) data that were then compared with the model information for consistency prior to further analysis. This comparison identified a discrepancy between the delineated and modeled watershed boundaries of a little over 4 acres. Basin names and the total number of basins also differed between the provided GIS files and the modeled data. Updating the GIS information was not performed as part of this effort, however the modeled acreages were revised and ultimately verified to match the total delineated acreage. Impervious percentages for sub-basins in the immediate vicinity of the project area were updated to better reflect the current existing conditions. Recent as-built storm sewer inlet construction and roadway improvements on Swann Avenue were also incorporated.

Once the existing culverts crossing the primary problem areas were discovered, the main obstacles to a gravity solution were eliminated. In order to utilize the discovered existing culverts, the previously selected route for the gravity alternative from Study 3 needed to be modified to continue east along W. Morrison Avenue to S. Howard Avenue and then proceed south to Hillsborough Bay. As this new route traverses a significant portion of S. Howard Avenue, further investigation in conjunction with the City was warranted and identified several localized flooding issues along the proposed route that could be addressed with the project, such as the potential elimination of the existing pump station located at Bern's Steak House and street flooding issues along W. Eleta Street and W. Bristol Avenue.

Additionally, the existing triangular pond between the CSX Railroad and S. Albany Ave, shown in Figure 7, was constructed with the original Selmon Expressway and receives discharge from a portion of the Selmon Expressway. This pond has no outfall control structure and there exists an inoperable pump station which is assumably the originally intended outfall for the runoff it receives from both the Selmon Expressway and the adjacent grocery store. During site visits, this pond's stage was about one foot below its berm indicating that no storage attenuation is being provided. As runoff enters this pond, discharge can navigate to an existing ditch within the CSX right-of-way and flow north to the Swann Avenue Pond, but in larger storm events, the pond will overflow to S. Albany Avenue and W Bristol Avenue and exacerbate the flooding conditions in this area. For this reason, the area of the Selmon Expressway draining to this existing pond was conservatively assumed to contribute in its entirety to the modeled system.



Figure 7: Bristol-Albany Pond off Selmon Expressway

To allow for pre-post comparisons within the Howard Avenue Corridor, several additional basins were required. These basins shown in Figure 8 were coarsely delineated using old plan sets provided by the City that compared reasonably to the 2017 LiDAR data. Curve numbers were calculated for these basins utilizing the Southwest Florida Water Management District's 2017 Land Use/Land Cover layer and Soil Conservation Service (SCS) soils information from Hillsborough County. Times of Concentration (TC) were set to a minimum 10 minutes for these basins to yield a conservative result, and overland flow conduits were added to the modeling to account for conveyance of runoff within the road rights-of-way.

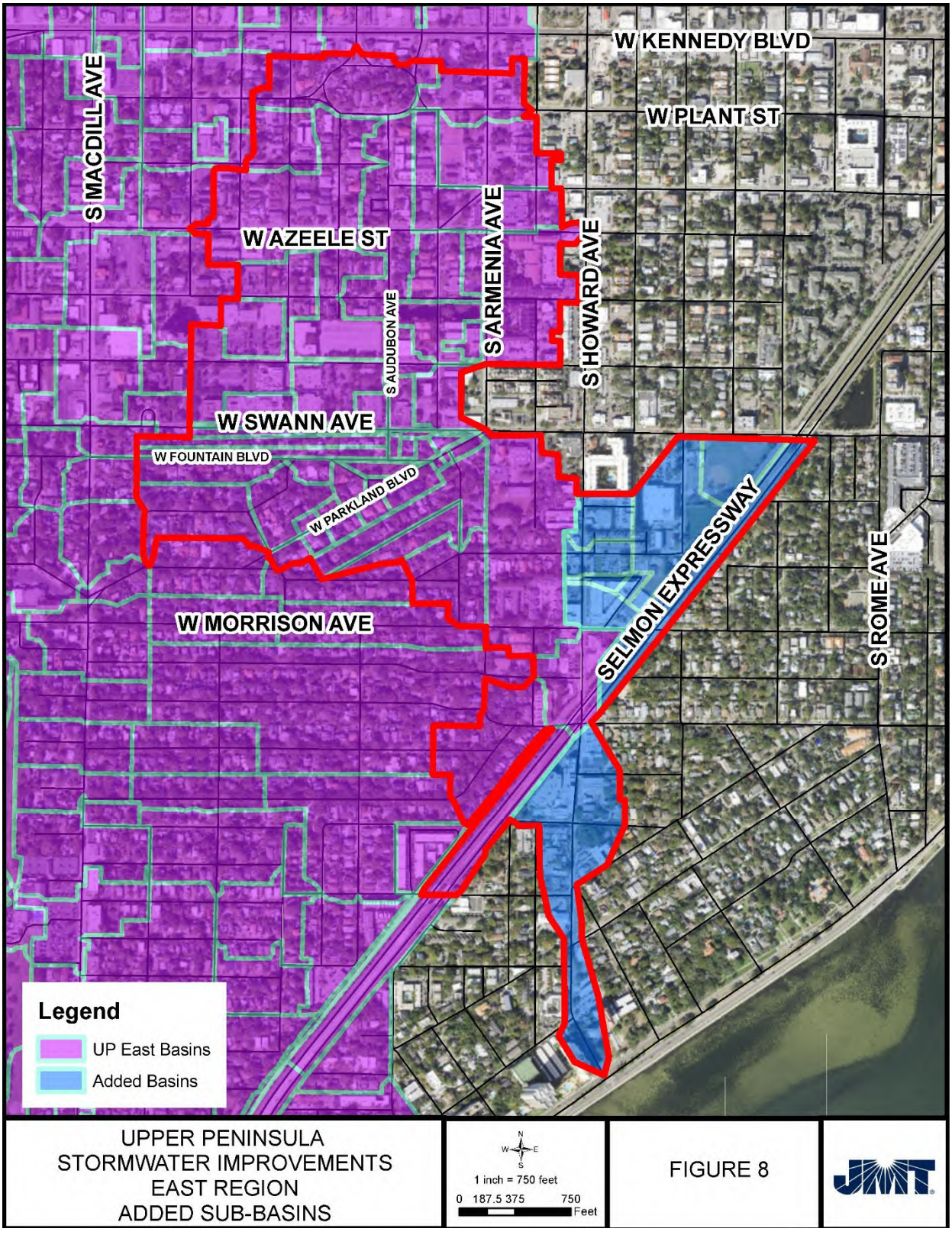


Figure 8: Added Sub-Basins

The model was then rerun to establish baseline conditions for the Mean Annual (2.33-), 5-, 10-, 25-, 50- and 100-year/8-hour and 24-hour storm events.

While the XP-SWMM model predicted flooding in the areas where flooding has been documented, to have a greater confidence in the proposed condition results, the City asked JMT if a simple calibration of the model could be accomplished that demonstrated the system's observed flooding response to frequent small intense storm events. A recent small but intense rain event, on April 20, 2020, of approximately one inch in a 20-minute time period had resulted in flooding of the roadways in Parkland Estates for several hours. The updated XP-SWMM model was executed to simulate this storm event, and the 1D results predicted lower flood elevations than had been observed. Field investigations were conducted that identified numerous inlets in the immediate vicinity of the flooding area for which actual inlet capacities had been severely diminished due to multiple pavement overlays of the roadways without milling. As the XP-SWMM 1D modeling did not take inlet capacities into account, options were investigated to account for the reduced inflow and bypass flows.

The recent Hillsborough County 2017 LiDAR was utilized to generate a 2D surface with a 5' grid size for use in the analysis. Utilization of a 2D surface provides for better definition with respect to overland flow pathways, and a quick graphical view of impacted areas, however the modeling run-times and data storage requirements are significantly increased. It is also important to note that XP-SWMM provides several options for modeling inlet capacities. Each available option has its own benefits and drawbacks. Assuming full capture of runoff at each inlet allows for the worst-case scenario for proposed pipe sizing but does not address actual or reduced inlet capacities. Setting an inlet capacity allows for the user to analyze the individual inlet, but excess runoff (that is not captured by the inlet) can be lost from the simulation. Lastly, 2D inflow capture is the most data intensive, requires all runoff to start in the 2D grid, and is limited in its ability to evaluate inlet-based solutions. The method utilized for this analysis to demonstrate reasonableness of the model results (i.e calibration) was to generate individual inlet capacity rating curves in the flooded area based upon the number and size of the inlets. This method allowed for the short-term prediction of peak stages but has the limitation of not being able to intercept bypass flows (excess runoff). Fortunately, since the selected calibration event was of such a short duration, this limitation minimally affected the predicted peak stages. However, the receding leg of the flow hydrograph was impacted. Thus, a combination of an inlet capacity simulation for peak stage prediction, combined with a full capture simulation to identify timing of the hydrograph resulted in stage predictions and timing which matched reasonably with the observed outcomes.

An added benefit of performing the inlet capacity analysis was the resulting identification of a list of subbasins with inadequate inlets in the vicinity of the problem area for the City as shown in Figure 9. Neglecting to address the inadequacies of the system in the upstream area will negatively affect the performance of any proposed solution.

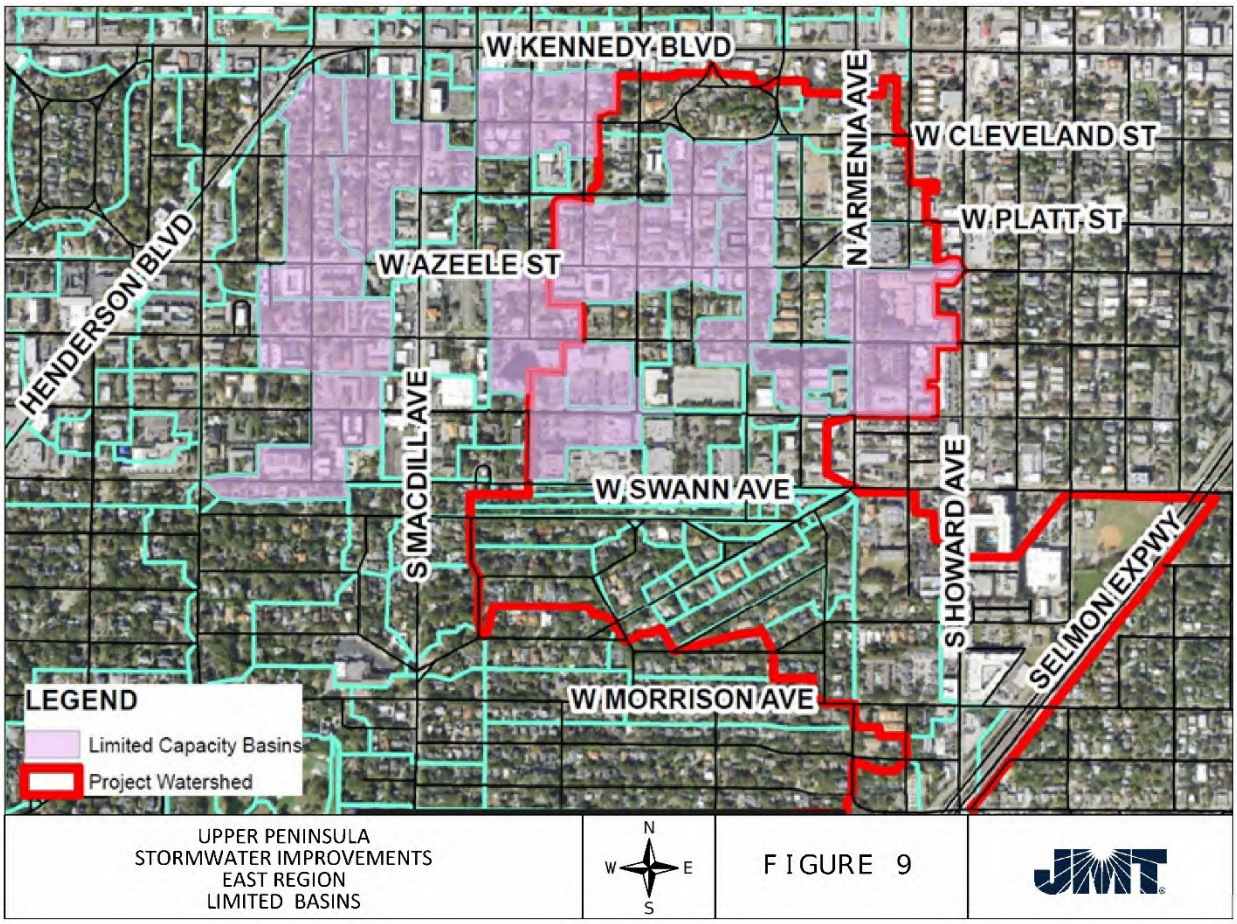


Figure 9: Drainage Sub- Basins with Insufficient Inlets Near Project Area

Following demonstration to the City that the modeled system sufficiently predicted the existing reaction to the frequently occurring short duration high intensity events, design storm and critical storm simulations were then initiated. For efficiency in model run times and alternatives analysis predictions, the existing model was reverted back to 1D for these design simulations as that was the best option for culvert sizing.

A summary of the flooding analysis is presented below and is summarized in Tables 1 and 2 for the 8-hour and 24-hour design storm events respectively.

- During the mean annual storm event, flooding along Audubon Avenue at the Swann Avenue and W. Fountain Boulevard intersections is two feet greater than the highest roadway elevations at these locations.
- Roadway flooding also occurs along Swann Avenue, W. Parkland Boulevard, and S. Lakeview Road during the mean annual storm event.



Figure 10: Reported Nodes

EXISTING CONDITIONS PEAK STAGES (8-HOUR DESIGN STORM)							
LOCATION AND XP-SWMM NODE	**ROAD EOP ELEVATION OR LOWEST INLET THROAT**	**MEAN ANNUAL PEAK STAGE**	**5-YEAR PEAK STAGE**	**10-YEAR PEAK STAGE**	**25-YEAR PEAK STAGE**	**50-YEAR PEAK STAGE**	**100-YEAR PEAK STAGE**
	FEET NAVD						
W Swann Ave and S Audubon Ave (NRU0790)	15.7 to 16.0	18.0	18.4	18.7	19.0	19.2	19.4
W Swann Ave and S Tampania Ave (NRU0810)	16.6 to 17.0	18.0	18.4	18.7	19.0	19.2	19.4
W Swann Ave and S Armenia Ave (NRU1230)	17.3 to 17.8	17.9	18.3	18.6	19.0	19.2	19.4
S Audubon Ave and W Fountain Blvd (NRU0770)	15.7	17.9	18.3	18.6	18.9	19.1	19.4
W Parkland Blvd at park (NRU0750)	16.4	17.7	18.2	18.5	18.9	19.1	19.4
W Parkland Blvd at W Fountain Blvd (NRU1090)	16.5	17.8	18.2	18.6	18.9	19.1	19.4
W Parkland Blvd at S Lakeview Rd (NRU1110)	16.9	17.9	18.3	18.6	19.0	19.2	19.4

Table 1: Mean Annual, 5-, 10-, 25-, 50-, and 100-year/8-hour Storm Event Under Existing Conditions

EXISTING CONDITIONS PEAK STAGES (24-HOUR STORM)							
LOCATION AND XP-SWMM NODE	**ROAD EOP ELEVATION OR LOWEST INLET THROAT**	**MEAN ANNUAL PEAK STAGE**	**5-YEAR PEAK STAGE**	**10-YEAR PEAK STAGE**	**25-YEAR PEAK STAGE**	**50-YEAR PEAK STAGE**	**100-YEAR PEAK STAGE**
	FEET NAVD						
W Swann Ave and S Audubon Ave (NRU0790)	15.7 to 16.0	17.8	18.1	18.5	18.9	19.2	19.4
W Swann Ave and S Tampania Ave (NRU0810)	16.6 to 17.0	17.8	18.1	18.5	18.9	19.2	19.4
W Swann Ave and S Armenia Ave (NRU1230)	17.3 to 17.8	17.7	18.0	18.5	18.8	19.2	19.4
S Audubon Ave and W Fountain Blvd (NRU0770)	15.7	17.7	18.0	18.4	18.8	19.1	19.3
W Parkland Blvd at park (NRU0750)	16.4	17.6	17.9	18.4	18.7	19.1	19.3
W Parkland Blvd at W Fountain Blvd (NRU1090)	16.5	17.6	18.0	18.4	18.8	19.1	19.3
W Parkland Blvd at S Lakeview Rd (NRU1110)	16.9	17.7	18.0	18.5	18.8	19.2	19.4

Table 2: Mean Annual, 5-, 10-, 25-, 50-, and 100-year/24-hour Storm Event Under Existing Conditions

The existing conditions modeling confirms that the primary drainage system in the vicinity of West Fountain Boulevard, Audubon Avenue, and Swann Avenue does not meet the target flooding criteria for the area of no flooding in the street for the 5-year, 8-hour design storm event.

RECOMMENDED ALTERNATIVE



Figure 11: Recommended Alternative Project Route

MODEL APPROACH

A box culvert traversing the final selected route for the gravity alternative was analyzed and sized to meet a 5-year/8-hour Level of Service at the S. Audubon Avenue and W. Fountain Boulevard intersection. A 5'x10' box culvert from Parkland Estates connects to the existing 5'x10' box culvert under the Selmon Expressway and a 4'x15' box culvert from the Selmon Expressway connects to the existing triple 4'x6' box culverts under Bayshore Boulevard. To address the previously described localized flooding issues along the proposed route, a proposed pipe system was then extended north from the proposed box culvert at the intersection of S. Howard Avenue and W. Morrison Avenue to slightly north of W. Bristol Avenue, and easterly along W. Bristol Avenue and W. Eleta Street to collect the existing contributing runoff from these areas.

MODELING RESULTS

The resulting proposed system was then analyzed producing the following results.

PROPOSED CONDITIONS PEAK STAGES (8-HOUR STORM)							
LOCATION AND XP-SWMM NODE	ROAD EOP ELEV OR LOW INLET THROAT	MEAN ANNUAL PEAK STAGE	5-YEAR PEAK STAGE	10-YEAR PEAK STAGE	25-YEAR PEAK STAGE	50-YEAR PEAK STAGE	100-YEAR PEAK STAGE
	FEET NAVD						
W Swann Ave and S Audubon Ave (NRU0790)	15.7 to 16.0	14.9	16.2	16.9	17.3	17.6	17.9
W Swann Ave and S Tampania Ave (NRU0810)	16.6 to 17.0	17.1	17.1	17.1	17.3	17.6	17.9
W Swann Ave and S Armenia Ave (NRU1230)	17.3 to 17.8	13.2	14.5	15.4	16.0	16.5	17.0
S Audubon Ave and W Fountain Blvd (NRU0770)	15.7	12.9	14.8	15.6	16.2	16.6	17.1
W Parkland Blvd at park (NRU0750)	16.4	13.6	15.2	16.1	16.6	16.9	17.4
W Parkland Blvd at W Fountain Blvd (NRU1090)	16.5	12.6	14.6	15.5	16.1	16.5	17.0
W Parkland Blvd at S Lakeview Rd (NRU1110)	16.9	12.2	14.4	15.3	15.9	16.3	16.8

Table 3: Mean Annual, 5-, 10-, 25-, 50- and 100-year/8-Hour Storm Event under Recommended Alternative

PROPOSED CONDITIONS PEAK STAGES (24-HOUR STORM)							
LOCATION AND XP-SWMM NODE	ROAD EOP ELEVATION OR LOWEST INLET THROAT	MEAN ANNUAL PEAK STAGE	5-YEAR PEAK STAGE	10-YEAR PEAK STAGE	25-YEAR PEAK STAGE	50-YEAR PEAK STAGE	100-YEAR PEAK STAGE
	FEET NAVD						
Swann Ave and Audubon Ave (NRU0790)	15.7 to 16.0	14.6	15.4	16.9	17.4	17.8	18.0
Swann Ave and Tampania Ave (NRU0810)	16.6 to 17.0	17.1	17.1	17.2	17.4	17.8	18.0
Swann Ave and Armenia Ave (NRU1230)	17.3 to 17.8	13.2	13.7	15.6	16.4	17.0	17.4
Audubon Ave and W. Fountain Blvd (NRU0770)	15.7	12.7	14.0	15.8	16.5	17.1	17.5
W. Parkland Blvd at park (NRU0750)	16.4	13.6	14.5	16.2	16.8	17.4	17.7
W. Parkland Blvd at W. Fountain Blvd (NRU1090)	16.5	12.5	13.8	15.6	16.4	17.0	17.4
W. Parkland Blvd at S. Lakeview Rd (NRU1110)	16.9	12.1	13.6	1546	16.3	16.9	17.3

Table 4: Mean Annual, 5-, 10-, 25-, 50- and 100-year/24-Hour Storm Event under Recommended Alternative

As can be seen in the above tables, some of the reported locations outside of the S. Audubon Avenue and W. Fountain Boulevard intersection do not meet the 5-year, 8-hour Level of Service and many still show flooding conditions in other design storm events. It is important to note however, that substantial benefits are realized across the system. While the peak stages achieved may not provide a "no flooding" result everywhere in the specified design storm event, the flood depths and durations are significantly reduced.

JMT prepared conceptual construction plans for the box culvert. These plans are included in Appendix C and were utilized by the City to prepare an engineer's estimate of cost for the recommended project. That cost estimate is included in Appendix D and resulted in a preliminary project cost of $45,362,600.

To evaluate the cost effectiveness for the project, the methodology set forth by the Southwest Florida Water Management District (SWFWMD) in their Cooperative Funding Initiative (CFI) Application

Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis (BCA) Tool was followed and their FY23_CFI_SIFP_BCA_Template spreadsheet was utilized. The results of the BCA analysis conservatively demonstrated an expected Annual Damage Benefit of $3,547,811, which equates to a present value of future benefits over the 30-year assumed project useful life of $44,024,933 for a Benefit/Cost ratio of 0.97. Pertinent portions of the BCA spreadsheet and the assumptions utilized to generate the data are contained in Appendix E.

This achieved ratio of 0.97 is slightly above those which have historically been ranked high enough by the SWFWMD to receive cooperative funding. Considering that all the assumptions and estimates have been conservatively applied, as the ultimate details of the project become fleshed out during the design process, the benefits are anticipated to increase and the costs to potentially decrease thus increasing the ultimate ratio achieved by the proposed project.

ADDITIONAL PROJECT BENEFITS

The methodologies utilized in the BCA result, discussed above, were focused conservatively on only those benefits associated with reductions in flooding conditions. The selected route of the recommended alternative provides many opportunities for additional co-benefits beyond those accounted for in the BCA.

HOWARD AVENUE CORRIDOR

In 2016, the City prepared a Review of Transportation Conditions on South Howard Avenue from Bayshore Boulevard to Kennedy Boulevard. The purpose of this corridor review was to identify current transportation conditions and recommend actions and improvements to address priority problems. The prioritized activities stressed improving the parking shortage, sidewalks and pedestrian safety, pavement utilization, street lighting, intersection modifications, public transportation, and drainage (there is no existing storm sewer system along S. Howard Avenue). Considering the construction of a large box culvert within S. Howard Avenue will generally necessitate a re-construction of the entire ROW, many of the identified issues beyond drainage/flooding can, and should, be addressed with this project thereby eliminating the need to disrupt the corridor for multiple activities.

Howard Avenue corridor Items that should be considered with this project include but are not limited to:

- Pavement utilization options such as:
    - Providing on-street parallel parking
    - Providing options for public transportation
    - Providing wider sidewalks meeting ADA standards with landscaping and pedestrian amenities
    - Converting the corridor back to a brick street
- Improved street lighting
- Underground electric services

- Intersection improvements
    - Include safety improvements currently proposed by the City for S. Howard Avenue and Bayshore Boulevard
    - Five-leg intersection improvements involving Dekle Avenue, Mississippi Avenue, and DeSoto Avenue.

GREEN INFRASTRUCTURE

As the City moves forward with Transforming Tampa's Tomorrow in alignment with Mayor Jane Castor's Resilient Tampa initiative, green infrastructure improvements designed to reduce and treat stormwater at its source are anticipated to be incorporated as part of the design of this project. Nutrient Separating Baffle Boxes (NSBBs) which can include the potential addition of Biological Adsorption Media (BAM) up-filters are a likely Best Management Practice (BMP) to be included at strategic locations along the project route. These systems are designed to capture and store debris. Several units resembling that shown in Figure 11 have been installed on recent City projects.

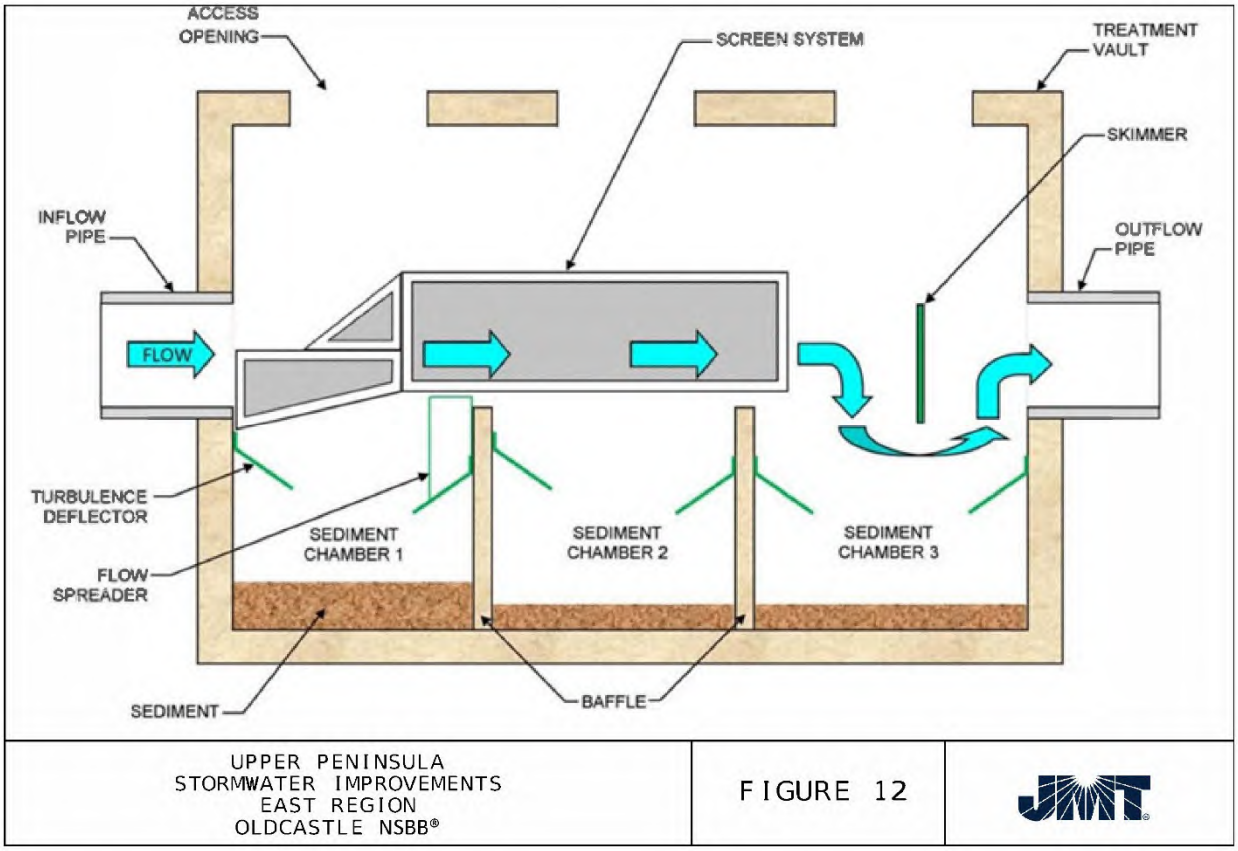


Figure 12: Nutrient Separating Baffle Box (NSBB®)

Where ROW and current tree conditions within the project area permit, bio-swales and tree wells can be implemented in conjunction with road diets, chicanes, and other traffic calming options to provide additional green infrastructure to bolster the proposed nutrient uptake. Available and applicable options to manage the runoff from the contributing drainage area prior to collection within the proposed gravity storm sewer system will be explored with the City and implemented accordingly. Inclusion of green infrastructure into the public facilitation and education components of any design process are also recommended. Some typical green infrastructure examples are shown in Figure 12, and constructed versions can be seen on City Streets such as Scott Street and Zack Street.

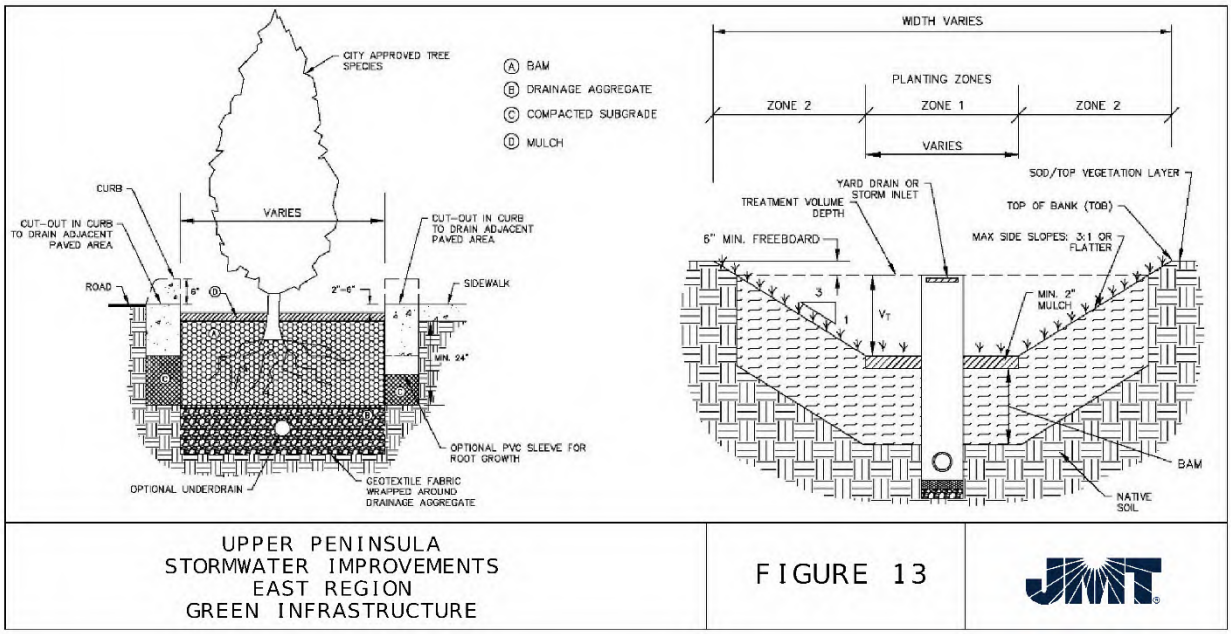


Figure 13: Green Infrastructure Tree Well and Bio-Swale Examples

In summary, the recommended alternative contributes greatly to furthering the City's Transforming Tampa's Tomorrow initiative and contributes to a more resilient Tampa. This alternative was selected for recommendation for numerous reasons. The following provides a list of those deemed most important:

- Utilization of the existing gravity culverts under the railroad, the Selmon Expressway, and the sanitary force main in Bayshore Boulevard eliminated the most significant and costly obstacles to a gravity solution.
- The ability to address localized flooding concerns along the route provided additional benefits above and beyond the intended goal of reducing flooding concerns in Parkland Estates.
- The ability to combine the project with currently planned and recommended transportation and safety improvements in the corridor increases the benefits, saves the City on construction costs, and reduces the total disruption to the community associated with multiple projects.
- Incorporating green infrastructure within the project provides water quality and other community benefits where none currently exist and can expand those benefits in other areas.

- The potential for future drainage connections by the Selmon Expressway expands the Regional nature of the project and provides the potential for obtaining cost sharing.

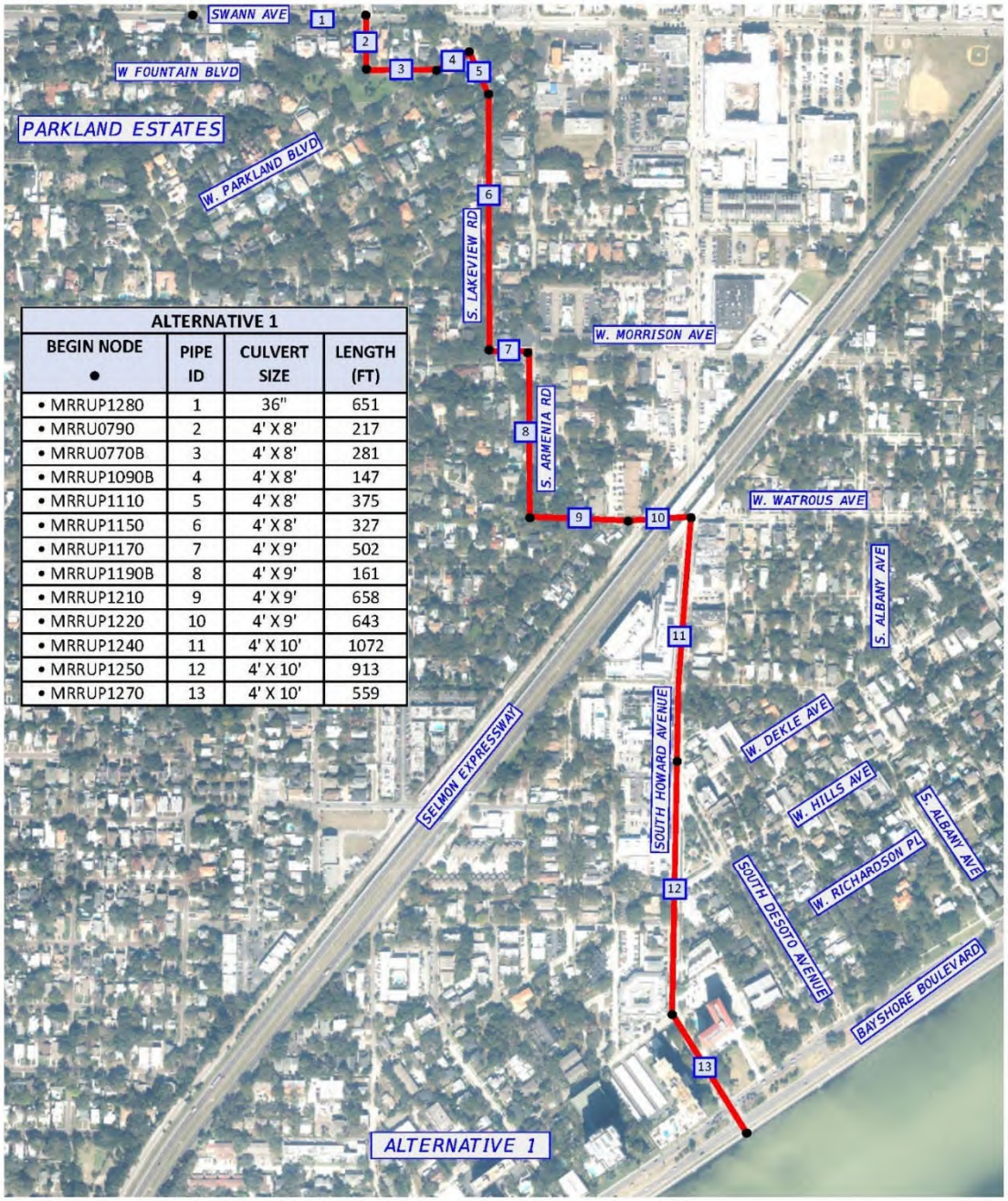
All of these reasons increase the likelihood of obtaining cooperative funding from the Southwest Florida Water Management District thereby providing a maximum return on the City's investment in resilient infrastructure.

APPENDICES

APPENDIX A

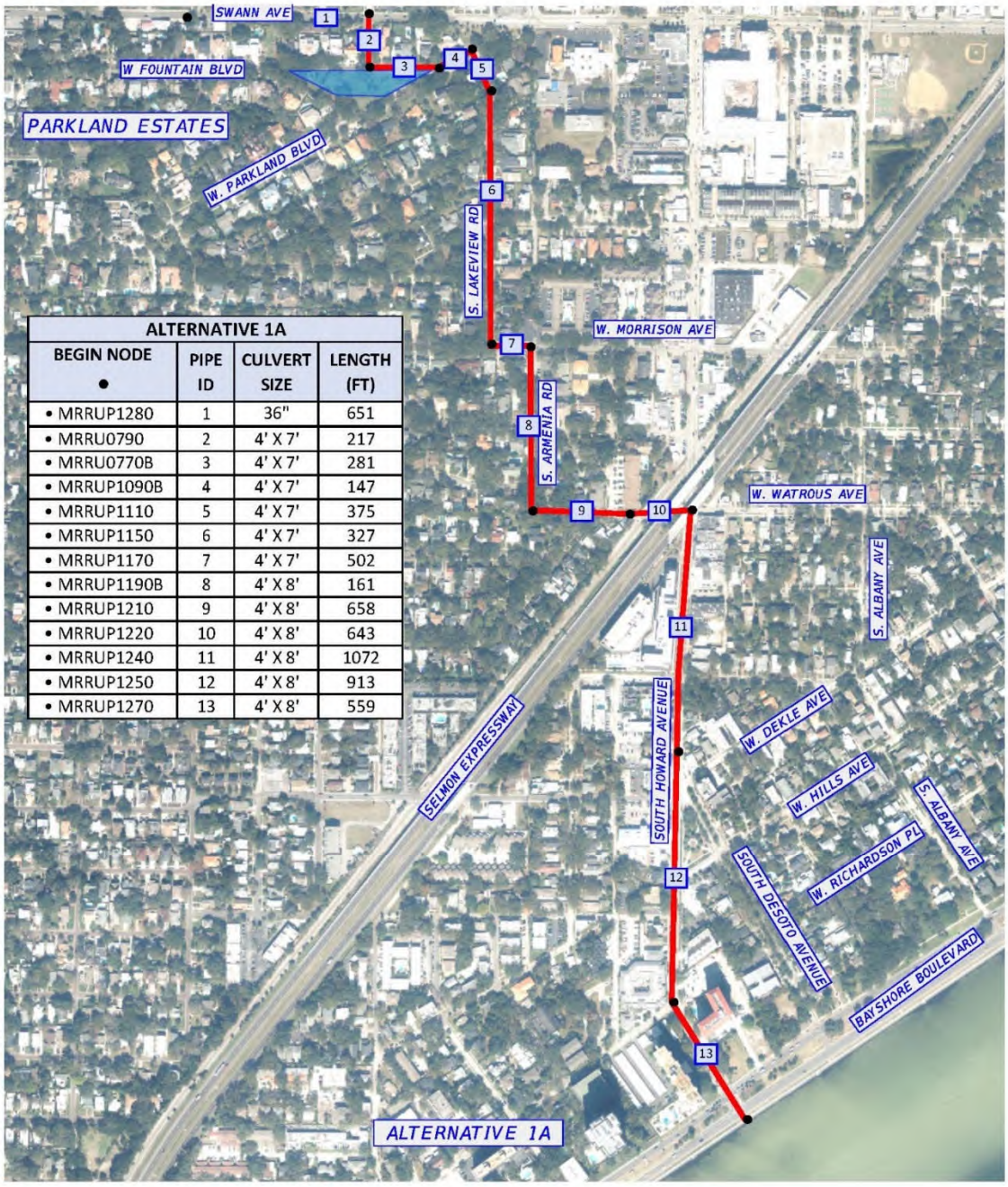
ALTERNATIVE ROUTES CONSIDERED

PARKLAND ESTATES STORMWATER IMPROVEMENTS ANALYSIS				
ALTERNATIVE	**PRIOR STUDY**	**TYPE**	**ROUTE**	**INFEASIBILITY ISSUES**
JMT Alternative 1	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard	Cost, Safety/Constructability Issues, Property Issues
JMT Alternative 1A	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard (with detention pond)	Cost, Safety/Constructability Issues, Property Issues
JMT Alternative 2	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto	Cost, Time Delays, Permitting, Property Issues
JMT Alternative 2A	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto (with detention pond)	Cost, Time Delays, Permitting, Property Issues
JMT Alternative 3	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Albany, W. Hills, S. Albany	Project Costs, Safety/Constructability Issues
JMT Alternative 3A	1	Gravity	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Albany, W. Hills, S. Albany (with pond)	Project Costs, Safety/Constructability Issues
JMT Pump Station	1	Force Main	S. Audubon, W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto	Operation/Maintenance Costs, 15-Year Pump Replacement Costs
Dewberry Alternative 2	2	Gravity	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Armenia, W. Watrous, S. Howard, S. Desoto	Cost, Depth of Construction, Time Delays, Permitting, Property Issues
Dewberry Pump Alternative	2	Force Main	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Albany, W. Watrous, S. Gunby	Impacts to Trees (Grand Oaks), Narrow Right-of-Way
COT Adjust Zom Pond Weir	3	N/A	W. Horatio between S. Audubon and S. Armenia	No Significant Impact on Flood Stages
COT Redirect Flow	3	N/A	To Existing Cleveland Street Basin	Existing Basin Overtaxed with Numerous Downstream Flooding Issues
COT New Gravity Outfall	3	Gravity	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Georgia, W. Mississippi, S. Moody, W. Stroud, S. Howard	Impacts to Trees (Grand Oaks), Narrow Right-of-Way
BES Concept	3	Gravity	See above	See above
COT Upgrades	3	Gravity	South of Morrison/Marti Intersection	No Significant Impact on Flood Stages with Reasonable Construction Costs
COT Add Parallel 60" Pipe	3	Gravity	Eastern Boundary of Palma Ceia Park Adjacent to Crosstown Expressway	No Significant Impact on Flood Stages, Adverse Downstream Impacts
COT Adjust Weir Elevations	3	Gravity	Junction Chamber West Side of Crosstown Expressway/ Upstream of Rubideaux Outfall	No Significant Impact on Flood Stages, Adverse Downstream Impacts
COT Pump Station	3	Force Main	Parkland Estates Park to Downstream System at Marti/Morrison Intersection	Adverse Downstream Impacts During Larger Storm Events
COT Pump Station	3	Force Main	To Existing Swann Pond Drainage Basin on Rome	Pond Already Overtaxed with Bayshore and Rome Intersection Flooding
JMT Parallel Gravity Outfall	4	Gravity	S. Marti, W. Neptune, S. Habana	No Significant Impact on Flood Stages, Adverse Downstream Impacts
JMT Pump Station	5	Force Main	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Georgia, W. Mississippi, S. Moody, W. Stroud, S. Howard	Benefits Limited to Parkland Estates Only, Operation/Maintenance
JMT Preferred Alternative	Current	Gravity	W. Fountain, W. Parkland, S. Lakeview, W. Morrison, S. Howard	



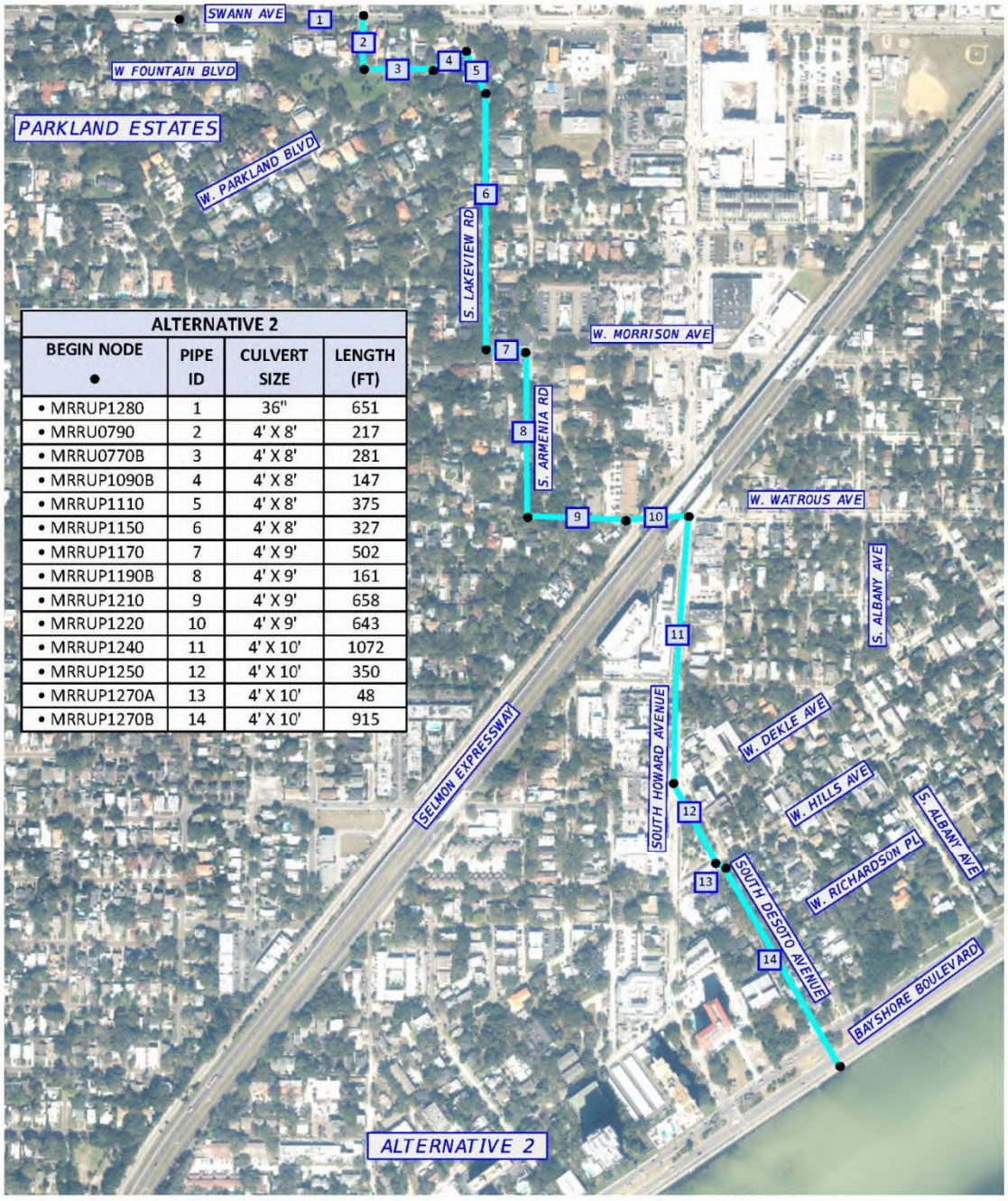
ALTERNATIVE 1			
BEGIN NODE •	PIPE ID	CULVERT SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 8'	217
• MRRU0770B	3	4' X 8'	281
• MRRUP1090B	4	4' X 8'	147
• MRRUP1110	5	4' X 8'	375
• MRRUP1150	6	4' X 8'	327
• MRRUP1170	7	4' X 9'	502
• MRRUP1190B	8	4' X 9'	161
• MRRUP1210	9	4' X 9'	658
• MRRUP1220	10	4' X 9'	643
• MRRUP1240	11	4' X 10'	1072
• MRRUP1250	12	4' X 10'	913
• MRRUP1270	13	4' X 10'	559

Figure 3 - Alternative 1 Route Diagram



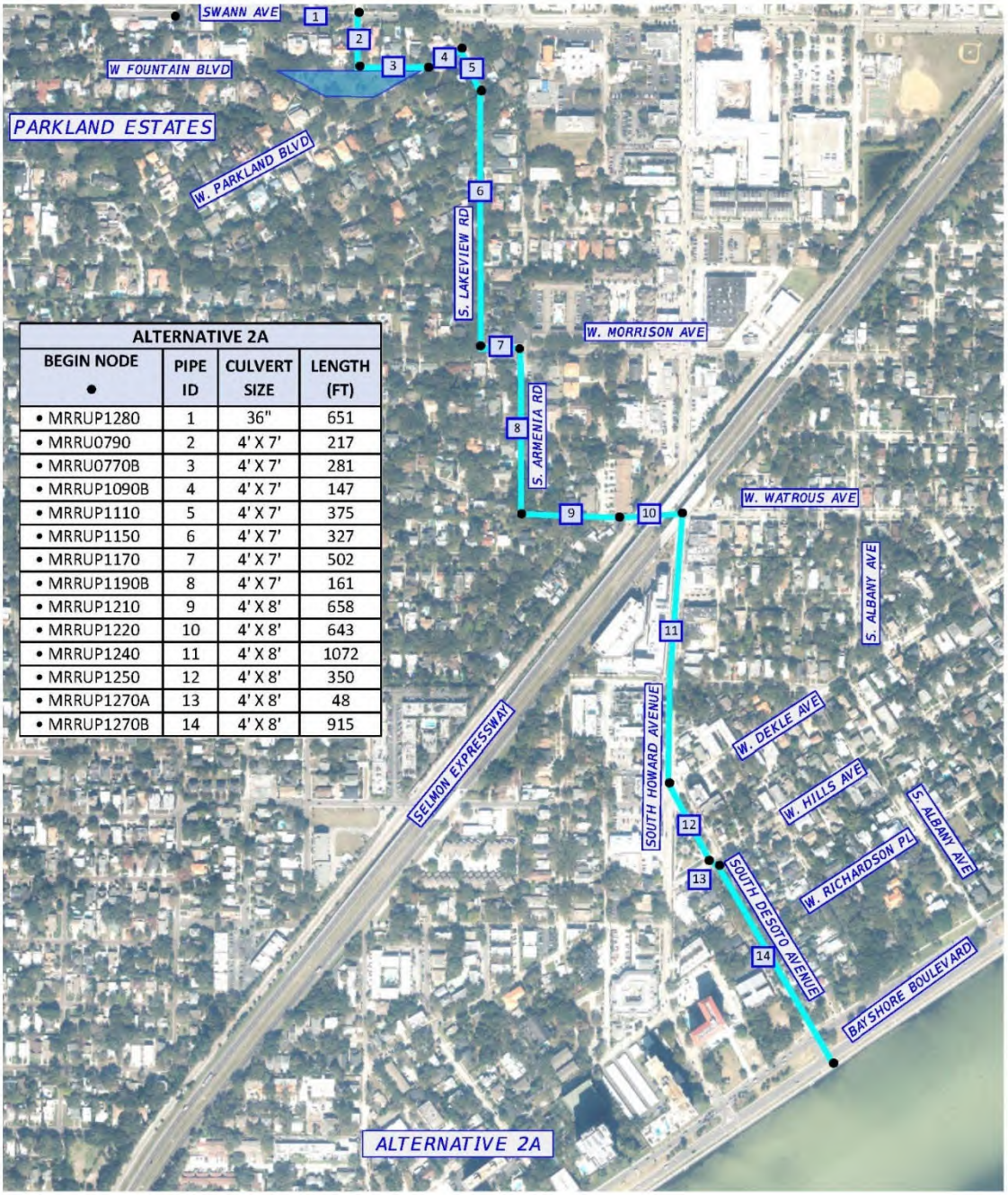
ALTERNATIVE 1A			
BEGIN NODE •	PIPE ID	CULVERT SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 7'	217
• MRRU0770B	3	4' X 7'	281
• MRRUP1090B	4	4' X 7'	147
• MRRUP1110	5	4' X 7'	375
• MRRUP1150	6	4' X 7'	327
• MRRUP1170	7	4' X 7'	502
• MRRUP1190B	8	4' X 8'	161
• MRRUP1210	9	4' X 8'	658
• MRRUP1220	10	4' X 8'	643
• MRRUP1240	11	4' X 8'	1072
• MRRUP1250	12	4' X 8'	913
• MRRUP1270	13	4' X 8'	559

Figure 4 - Alternative 1A Route Diagram



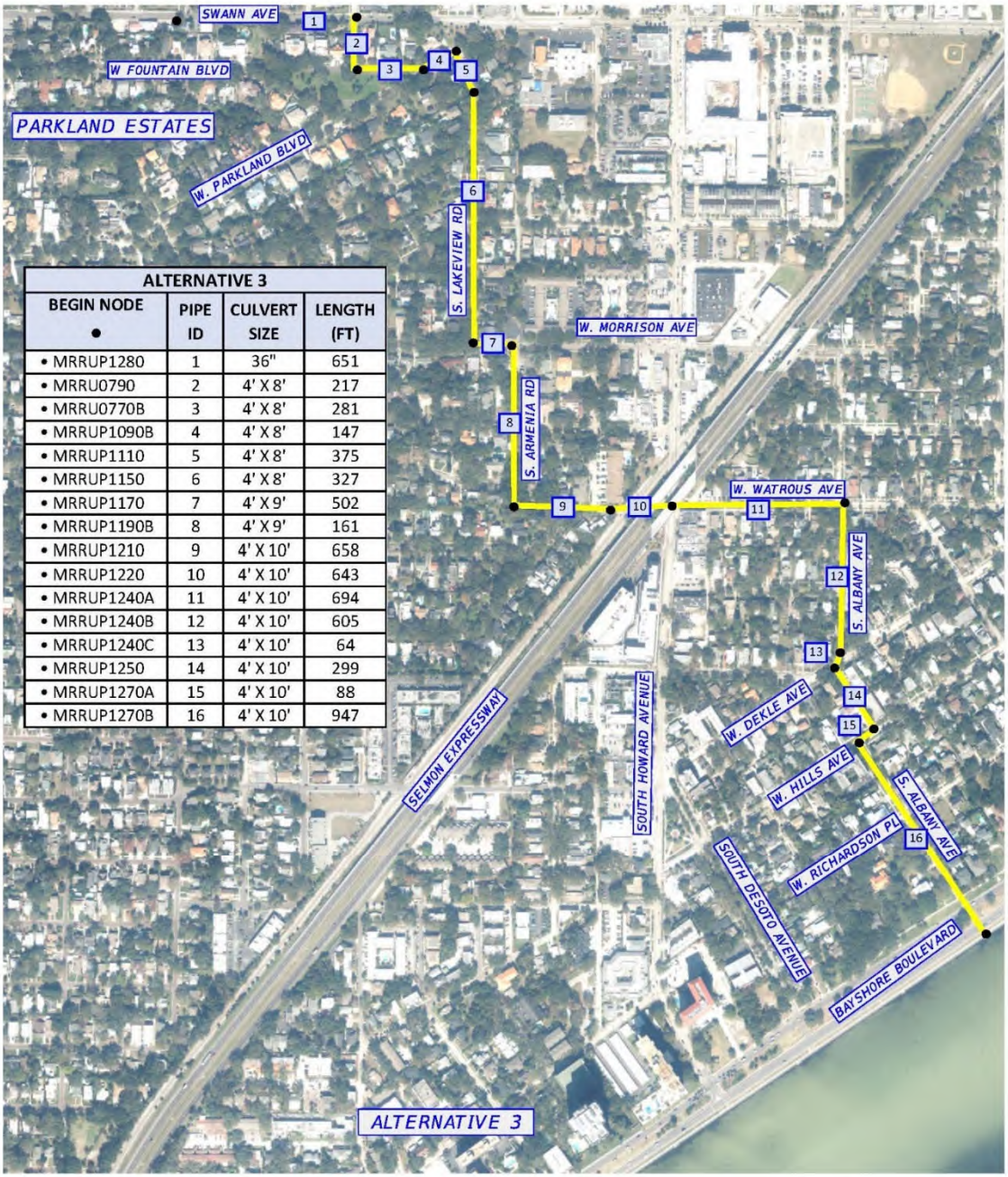
ALTERNATIVE 2			
BEGIN NODE •	PIPE ID	CULVERT SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 8'	217
• MRRU0770B	3	4' X 8'	281
• MRRUP1090B	4	4' X 8'	147
• MRRUP1110	5	4' X 8'	375
• MRRUP1150	6	4' X 8'	327
• MRRUP1170	7	4' X 9'	502
• MRRUP1190B	8	4' X 9'	161
• MRRUP1210	9	4' X 9'	658
• MRRUP1220	10	4' X 9'	643
• MRRUP1240	11	4' X 10'	1072
• MRRUP1250	12	4' X 10'	350
• MRRUP1270A	13	4' X 10'	48
• MRRUP1270B	14	4' X 10'	915

Figure 5 - Alternative 2 Route Diagram



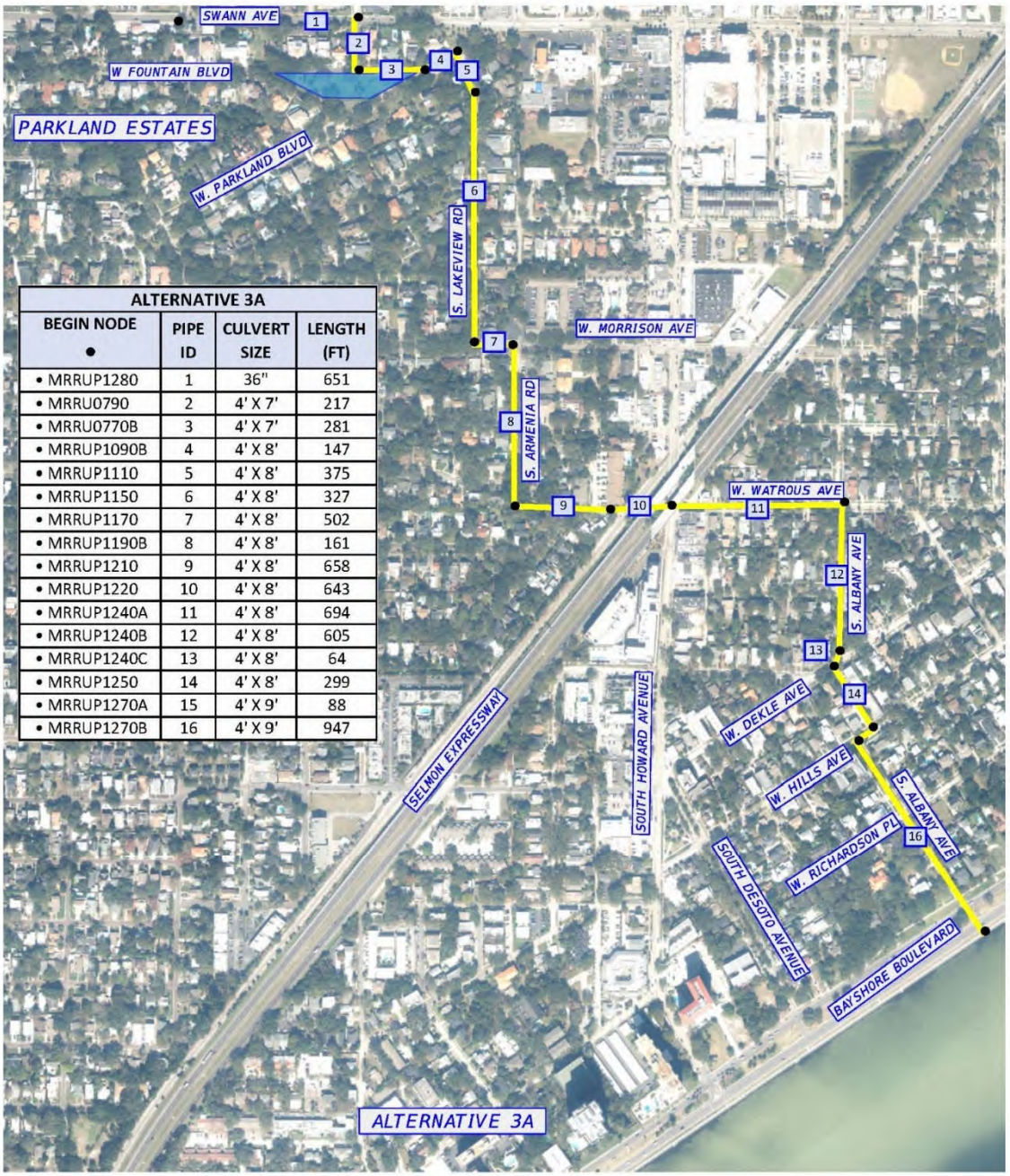
ALTERNATIVE 2A			
BEGIN NODE •	PIPE ID	CULVERT SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 7'	217
• MRRU0770B	3	4' X 7'	281
• MRRUP1090B	4	4' X 7'	147
• MRRUP1110	5	4' X 7'	375
• MRRUP1150	6	4' X 7'	327
• MRRUP1170	7	4' X 7'	502
• MRRUP1190B	8	4' X 7'	161
• MRRUP1210	9	4' X 8'	658
• MRRUP1220	10	4' X 8'	643
• MRRUP1240	11	4' X 8'	1072
• MRRUP1250	12	4' X 8'	350
• MRRUP1270A	13	4' X 8'	48
• MRRUP1270B	14	4' X 8'	915

Figure 6 - Alternative 2A Route Diagram



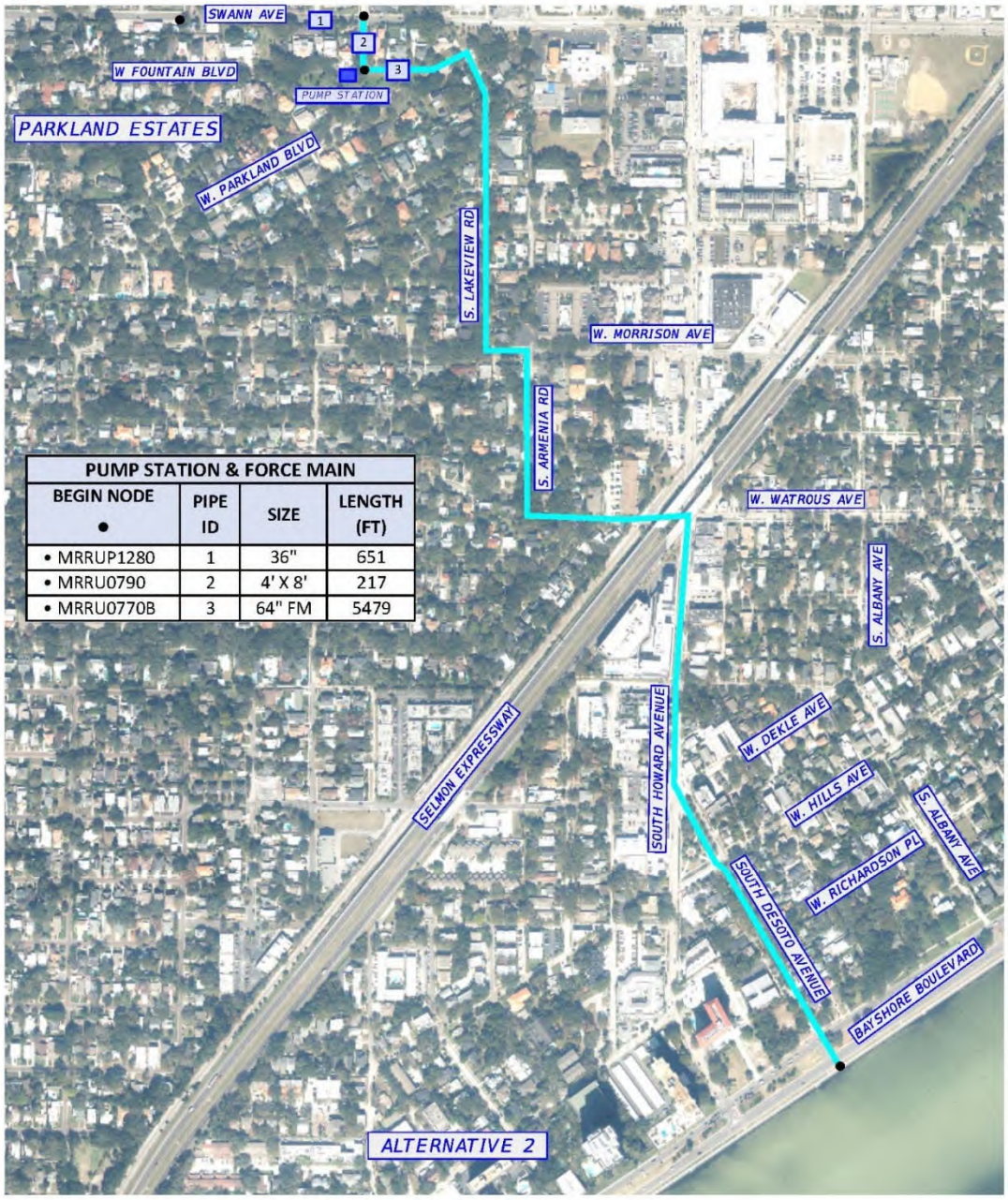
ALTERNATIVE 3			
BEGIN NODE •	PIPE ID	CULVERT SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 8'	217
• MRRU0770B	3	4' X 8'	281
• MRRUP1090B	4	4' X 8'	147
• MRRUP1110	5	4' X 8'	375
• MRRUP1150	6	4' X 8'	327
• MRRUP1170	7	4' X 9'	502
• MRRUP1190B	8	4' X 9'	161
• MRRUP1210	9	4' X 10'	658
• MRRUP1220	10	4' X 10'	643
• MRRUP1240A	11	4' X 10'	694
• MRRUP1240B	12	4' X 10'	605
• MRRUP1240C	13	4' X 10'	64
• MRRUP1250	14	4' X 10'	299
• MRRUP1270A	15	4' X 10'	88
• MRRUP1270B	16	4' X 10'	947

Figure 7 - Alternative 3 Route Diagram



ALTERNATIVE 3A			
BEGIN NODE •	PIPE ID	CULVERT SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 7'	217
• MRRU0770B	3	4' X 7'	281
• MRRUP1090B	4	4' X 8'	147
• MRRUP1110	5	4' X 8'	375
• MRRUP1150	6	4' X 8'	327
• MRRUP1170	7	4' X 8'	502
• MRRUP1190B	8	4' X 8'	161
• MRRUP1210	9	4' X 8'	658
• MRRUP1220	10	4' X 8'	643
• MRRUP1240A	11	4' X 8'	694
• MRRUP1240B	12	4' X 8'	605
• MRRUP1240C	13	4' X 8'	64
• MRRUP1250	14	4' X 8'	299
• MRRUP1270A	15	4' X 9'	88
• MRRUP1270B	16	4' X 9'	947

Figure 8 - Alternative 3A Route Diagram



PUMP STATION & FORCE MAIN			
BEGIN NODE •	PIPE ID	SIZE	LENGTH (FT)
• MRRUP1280	1	36"	651
• MRRU0790	2	4' X 8'	217
• MRRU0770B	3	64" FM	5479

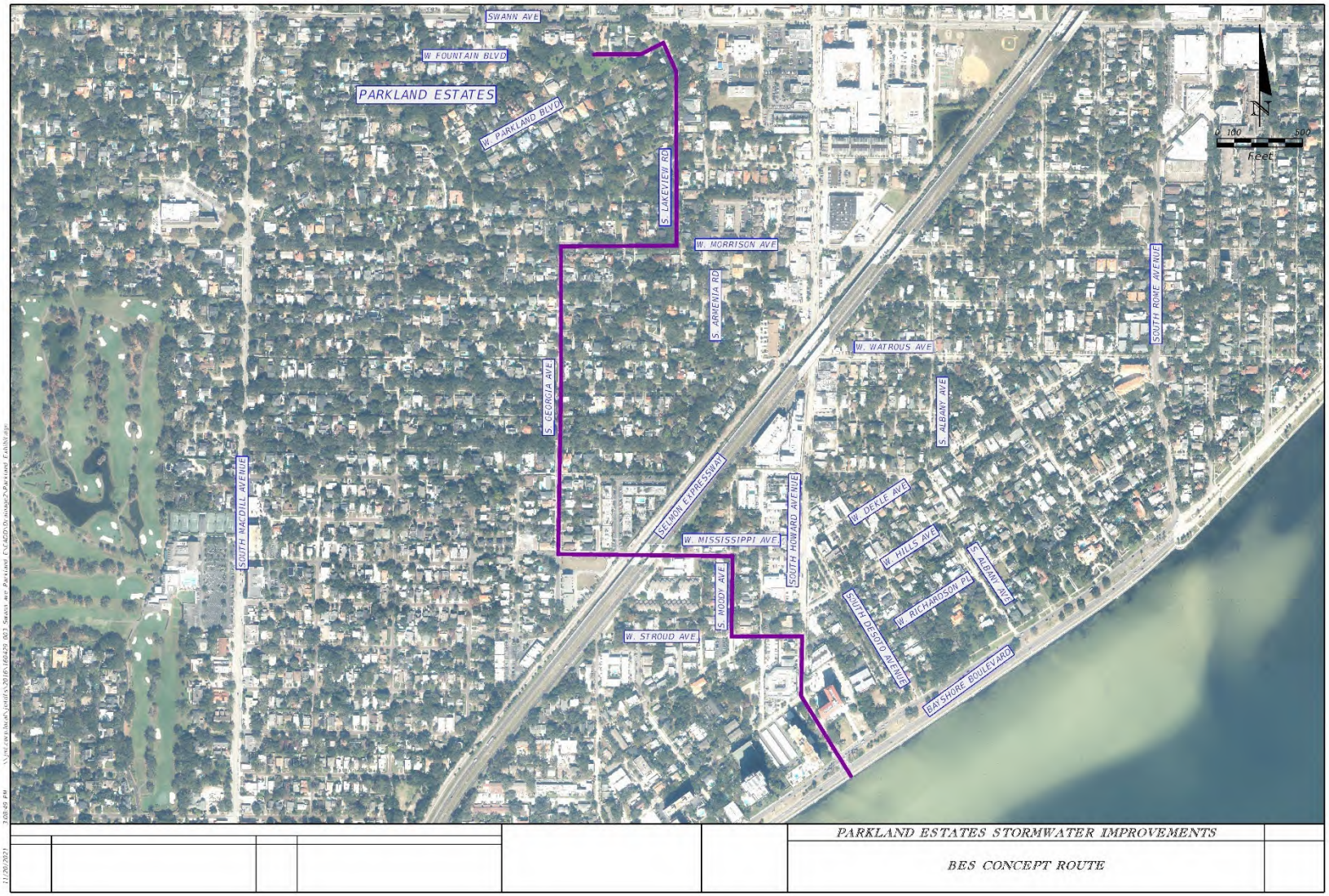
Figure 9 – Pump Station and Force Main Route Diagram



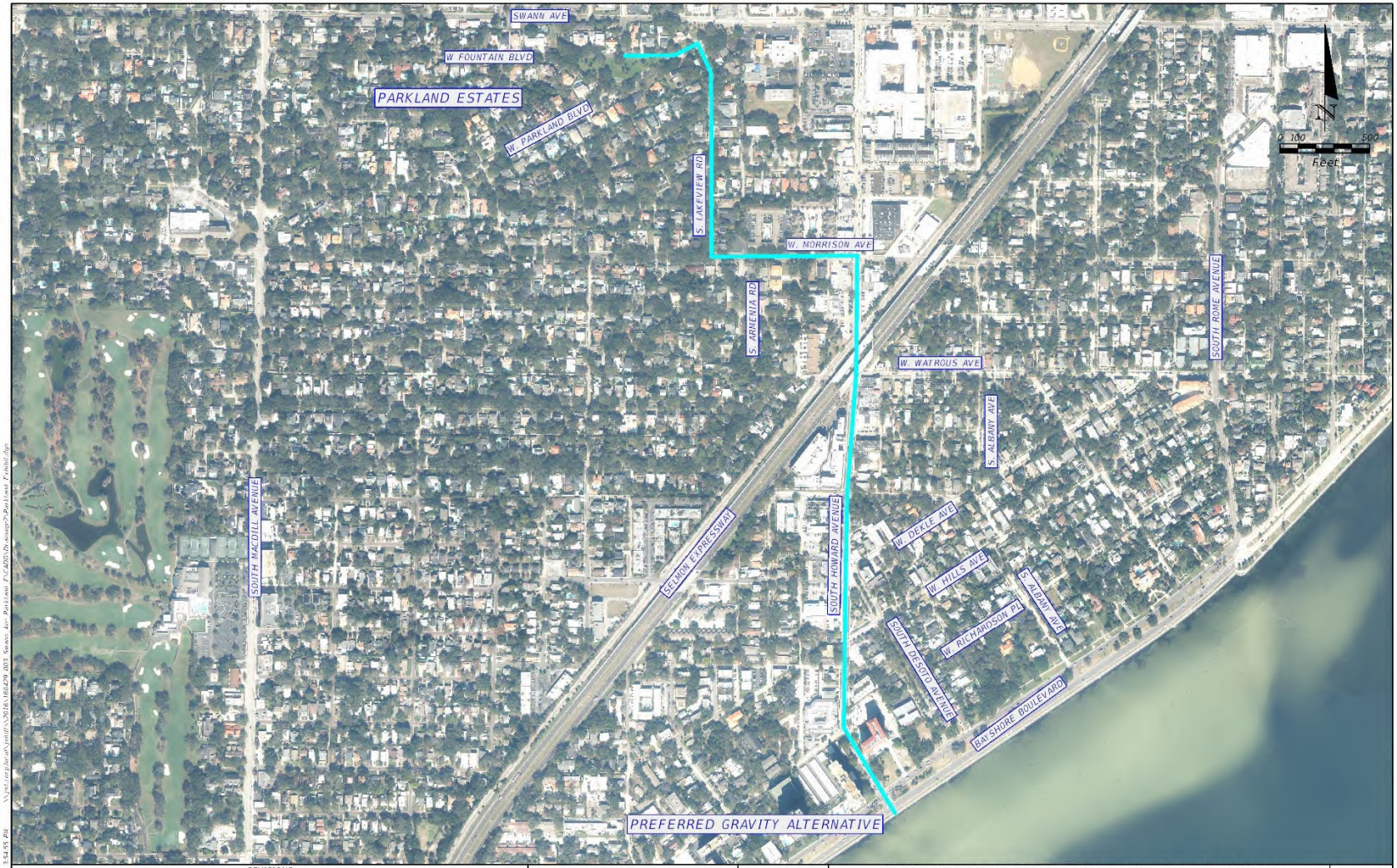
FIGURE 13. Alternative 2 Impacts to Access



FIGURE 14. Pump Alternative Impacts to Access


SWANN AVE
W FOUNTAIN BLVD
PARKLAND ESTATES
W. PARKLAND BLVD
S. LAKEVIEW RD
W. MORRISON AVE
S. ARMENIA RD
S. GEORGIA AVE
SOUTH MACDILL AVENUE
W. WATROUS AVE
SOUTH ROME AVENUE
S. ALBANY AVE
SELMON EXPRESSWAY
W. DEKLE AVE
W. MISSISSIPPI AVE
SOUTH HOWARD AVENUE
W. HILLS AVE
S. ALBANY AVE
W. RICHARDSON PL
S. HOODY AVE
W. STROUD AVE
SOUTH DESOTO AVENUE
BAYSHORE BOULEVARD
0 100 500
feet
PARKLAND ESTATES STORMWATER IMPROVEMENTS
BES CONCEPT ROUTE


Proposed Pump Station
Proposed Force Main
Tie Into Existing System
CITY OF TAMPA PUMP STATION
W Horatio St
W De Leon St
W Swann Ave
W Fountain Blvd
W Simms Blvd
W Morrison Ave
W Jetton Ave
W Watrous Ave
W Sunset Dr
W Marjory Ave
W Prospect Rd
W Neptune St
W Southview Ave
W Mississippi Ave
W Chicago Ave
W Stroud Ave
W Texas Ave
W Hills Ave
W Dekle Ave
W Richardson Pl
Bayshore Blvd
Nance Ave
Teresa Cir
Allen Pl
Victoria Gardens Ln
Kensington Gardens Ln
S Arrawana Ave
S Tampania Ave
S Audubon Ave
Tampania Ave
S Armenia Ave
S Moody Ave
S Westland Ave
S Albany Ave
S Melville Ave
S Fremont Ave
W De Leon St
S Rome Ave
S Georgia Ave
S Carolina Ave
S Howard Ave
S Alabama Ave
S De Soto Ave
S Gunby Ave
Selmon Expy W
Selmon Expy E
N
W
E
S


SWANN AVE
W FOUNTAIN BLVD
PARKLAND ESTATES
W. PARKLAND BLVD
S. LAKEVIEW RD
W. MORRISON AVE
S. ARMENIA RD
W. WATROUS AVE
SOUTH ROME AVENUE
S. ALBANY AVE
SOUTH MACDILL AVENUE
SELMON EXPRESSWAY
SOUTH HOWARD AVENUE
W. DEKLE AVE
W. HILLS AVE
S. ALBANY AVE
W. RICHARDSON PL
SOUTH DESOTO AVENUE
BAYSHORE BOULEVARD
PREFERRED GRAVITY ALTERNATIVE
N
0 100 500
Feet
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
1104 E. Twiggs Street, Suite 100
Tampa, FL 33602-3103
Certificate of Authorization No. 5917
CITY OF TAMPA
PARKLAND ESTATES STORMWATER IMPROVEMENTS
OUTFALL ALTERNATIVES
SHEET

APPENDIX B

TECHNICAL MEMORANDUM

TECHNICAL MEMORANDUM

To: City of Tampa

From: Aaron Mickiewicz, PE
Michael Luning, PE

Date: March 4, 2021

File: 19-03630-001

Subject: Proposed Stormwater Pumping Station – Parkland Estates
Preliminary Basis of Design and Opinion of Probable Cost

BACKGROUND

Flooding occurs near West Fountain Boulevard and Audubon Avenue in the Parkland Estates neighborhood extending up to Swann Avenue in the City of Tampa. Limited outfall capacity is the primary cause for this flooding. The existing drainage system does not have adequate capacity leading to long periods of time where stormwater runoff remains within roadways. Residents are unable to commute to and from their homes within these flood prone areas and in many cases will have to wait hours until the flood waters subside, even during lesser design storm events such as the mean annual or 5-year storms.

JMT reviewed the City's existing XPSWMM watershed model covering the area and updated it with collected survey data. The model was run to establish baseline conditions for the mean annual, 5- and 10-year/24-hour storm events. New outfall routes for the placement of a large box culvert were assessed, both with and without storage in the park, in order to determine the most cost-effective solution. The City subsequently made additional modifications to the XPSWMM modeling and requested JMT to review and calibrate the XPSWMM model to a shorter intense rainfall event such as an inch of rainfall in 20 minutes as those frequent events cause the repetitive flooding issues in the area. The use of the short term storm event revealed that a lack of inlet capacity was an additional concern for flooding in the area. The City then requested JMT to analyze options for a stormwater pumping station and forcemain utilizing the previously established gravity storm route. Multiple options were analyzed and presented to the City resulting in a selection of a preferred alternative. JMT was then requested to assist in providing an opinion of probable cost of a preliminary basis of design for a new stormwater pumping station which will substantially minimizes flooding within the Parkland Estates neighborhood.

2000 E. 11th Avenue, Suite 300 Tampa, FL 33605 (813) 314-0314 www.jmt.com

HYDRAULIC ANALYSIS

JMT was asked to prepare a budget level opinion of construction cost to build completely a new pumping station, discharge force main and separated collection wet well stormwater detention facility. This opinion is based on the following criteria.

CRITERIA

1. Predicted/Required maximum pumping capacity of 70 CFS (31,420 GPM).
2. 3-pump station with 2-pump FIRM rate in operation and 1-pump on standby. Pumps will alternate between cycles.
3. Velocity Range 2 – 8 FPS required for 36-inch diameter station piping and 42-inch diameter force main.
4. Assumed poor soils requiring a deep foundation design.
5. Permits are obtainable.
6. Land cost are not included.
7. High level of architectural detail.
8. Limited site layout area.
9. Discharge location established near the Bayshore Blvd. And S. Howard Ave. intersection into Hillsborough Bay.
10. Medium voltage power, step down transformer, and service conduit to meter by others and thereby excluded from this technical memorandum.
11. Previously determined force main corridor and pumping station location.

PUMP PERFORMANCE REQUIREMENTS

For estimating purposes JMT has selected a pump configuration meeting the criteria and is described as follows:

1. Total Dynamic Head (TDH)
    a. Hazen-Williams formula utilized for friction pipe losses. Coefficient, C = 140.
    b. Static heads using station's pump off elevations.
    c. Free outfall discharge, tailwater elevation = 3.0
    d. Force main system high point elevation = 19.0
    e. No Residual Pressures proposed within current system head characteristics.
2. Allowable Pumping Rates
    a. 70 CFS (31,420 GPM) maximum FIRM pumping rate for a 2-pump in parallel operation.

Pump size, speed, and impeller diameter influence the pump's operating range. Variable Frequency Drives (VFD) are proposed allowing Operations Personnel to adjust pump range as needed for efficient performance against the TDH characteristics resulting in the following.

REQUIRED PUMP PERFORMANCE		
	1-Pump Running	2-Pumps in Parallel Running Each Pump
Operating Points:		
Maximum System Head	19,750 gpm @ 21.5 ft.	15,900 gpm @ 34 ft.
Minimum System Head	20,400 gpm @ 19.1 ft.	16,500 gpm @ 32 ft.

PUMP SELECTION

The City desires Flygt pumps as another existing stormwater pumping station is in operation utilizing these non-clog submersible pumps with quick connect guide rail systems; therefore, the Flygt CP3501 20-inch non clog submersible pump is recommended. The recommended pump is similar to the Donut Pond stormwater pumping station allowing for more convenient maintenance and operation. The Flygt CP3501 20-inch pump is a centerline discharge submersible pump that can accommodate the above operating conditions. Pump information are as follows:

FLYGT CP3501 20-INCH		
	Total Dynamic Head Low Condition, 1-pump Running	Total Dynamic Head High Condition, 2-pumps Running
Operating Point:	20,400 gpm @ 19.1 ft.	15,900 gpm @ 34 ft.
Pump Characteristics:		
Pump Size (inches)	20	20
Impeller Size (inches)	23.03	23.03
Pump Speed (rpm)	595	595
Pump Efficiency (%)	62	83
Frequency (Hz)	60	60
Motor Size (hp)	215	215

Manufacturer's pump curves with high and low system head curves are shown in Appendix A.

POWER REQUIREMENTS

A 1,600-amp service is recommended to supply power to the proposed stormwater pumping station consisting of (3) 215HP pumps and miscellaneous building loads. The preferred design consists of two separate utility feeds through an automatic transfer switch. Variable Frequency Drives with soft start bypasses are recommended for pump control.

It is our understanding a permanent generator is not desired, and a dual feed service is recommended. However, a City standard "quick-connect" setup to allow for portable generator connection for use is anticipated and considered herein.

CONCLUSIONS & RECOMMENDATION

JMT concludes that based on the described criteria a station can be constructed on the chosen site in the estimated amount of $20,859,064.00. The station will be equipped with the following appurtenances which define the opinion of cost to construct.

- (3) 20-inch non clog solids handling submersible pumps with 215 HP motors at 15,900 GPM @ 34-feet TDH.
- Pumps powered by 3-phase 480-volt service.
- Station will have SCADA system for offsite monitoring and controls.
- Pumps will run on Variable Frequency Drives (VFD) with backup soft starters.
- Station will have a low-profile cast-in-place reinforced concrete pump sump with attached valve vault substructure (top slab elevation 6-inches above finished grade) and detached adjoining brick faced block and mortar superstructure building on a reinforced concrete foundation.
- Site layout to accommodate boom truck or crane access for pump removal or other appurtenance service needs requiring removal.
- New 10,000 sq-ft underground concrete stormwater detention and collection system with 4-foot operating range.
- Consideration will be given to designing the controls building to match local architectural theme.

See Appendices for detailed preliminary hydraulic calculations, proposed pump station site layout schematic and detailed opinion of probable cost estimate.

After your review, please advise if you would like to schedule a meeting to discuss this technical memorandum and any questions you may have.

JOHNSON, MIRMIRAN & THOMPSON, INC.

Derek L. Doughty, PE, CFM, ENV SP, D.WRE
Senior Associate

Aaron Mickiewicz, P.E.
Senior Associate

Attachments:
Appendix A: Preliminary Hydraulic Calculations
Appendix B: Site Layout Schematic
Appendix C: Opinion of Probable Cost



Proposed Stormwater Pumping Station – Parkland Estates
Preliminary Basis of Design and Opinion of Probable Cost

Appendix A

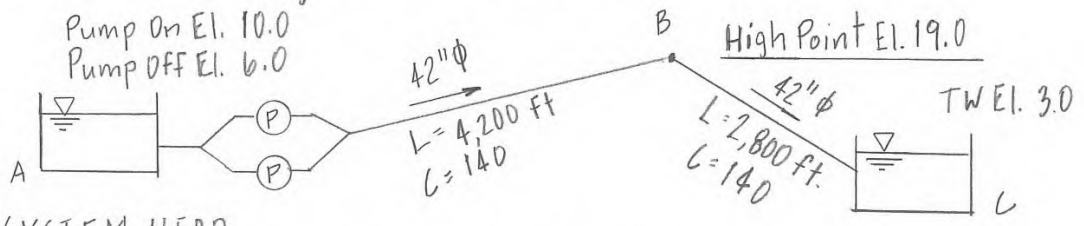
Preliminary Hydraulic Calculations

Project Parkland Estates
Subject Stormwater Pumping Station — Preliminary Hydraulic Calculation
Job No. 19-03630-001
Sheet No. 1 of 4
Computed By RAM Date 1/7/21 Checked By _____ Date _____

This calculation is to determine system head characteristics and a basis of design pump performance requirements.

Given Information:

Ground Elev. @ Proposed Pump Station: 16.0
Proposed Pump Station Pump On Elev.: 10.0
Proposed Pump Station Pump Off Elev.: 6.0
Wet Well Area: 10,000 ☐
Required Pump Rate = 70 cfs = 31,420 gpm, Say (2) pumps = 31,420 gpm
∴ (1) pump FIRM = 15,710 gpm
Force Main Diameter: 42-inch
Force Main Material: Plastic, PVC // HDPE
Force Main Length: 7,000 L.F.
Force Main High Point Ground Elev: 22.0, Assume 3' min cover
Force Main Discharge Invert: (-)3.0 ∴ HP = 22.0 - 3 = 19.0
Force Main Discharge Tailwater Elev: 3.0



SYSTEM HEAD

TDH = Static Head + Friction Loss + Residual Head, where Residual Head = 0.0

Friction Loss, $h_{f42"} = \frac{10.44 L_{ft} Q_{gpm}^{1.85}}{C^{1.85} d_{in}^{4.87}}$, Hazen-Williams Formula.

Static Head = $E_C - E_A$ = 3 - 6 = (-)3 & 3 - 10 = (-)7
$E_B - E_A$ = 19 - 6 = 13 & 19 - 10 = 9 ∴ Good $E_B - E_A$

→ Include 2,800 LF of Friction Loss thereby conservative. ←

Q (gpm)	$h_{f42"}$ (Ft)	High static (Ft)	Low Static (Ft)	High TDH (Ft)	Low TDH (Ft)
0	–	13	9	13	9
10,000	2.4			15.4	11.4
20,000	8.8			21.8	17.8
30,000	18.7			31.7	27.7
40,000	31.8			44.8	40.8

CP 3501/836 3~ 1230

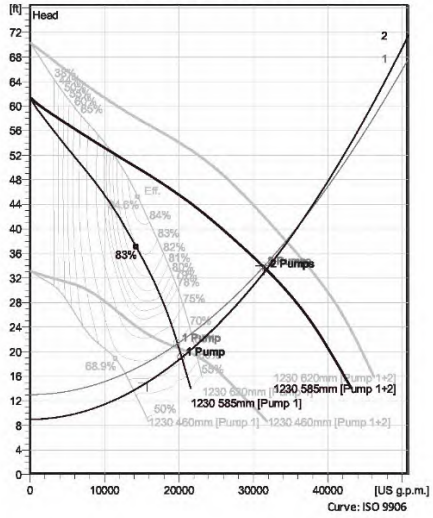
Shrouded single or multi-channel impeller pumps with large throughlets and single volute pump casing for liquids containing solids and fibres. Cast iron design with double sealing technology. Some models available as stainless steel versions.

FLYGT a xylem brand

Technical specification



Curves according to: Water, pure ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Curve: ISO 9906

Configuration

Motor number
C0836.000 54-52-12ID-W 215hp

Installation type
P - Semi permanent, Wet

Impeller diameter
585 mm

Discharge diameter
20 inch

Pump information

Impeller diameter
585 mm

Discharge diameter
20 inch

Inlet diameter
800 mm

Maximum operating speed
595 rpm

Number of blades
3

Throughlet diameter
4 5/16 inch

Max. fluid temperature
40 °C

Materials

Impeller
Grey cast iron

Project		**Created by**	Ethan Willats	**Last update**	2/3/2021
Block		**Created on**	2/3/2021		

CP 3501/836 3~ 1230

Technical specification

FLYGT a xylem brand

Motor - General

Motor number C0836.000 54-52-12ID-W 215hp	**Phases** 3~	**Rated speed** 595 rpm	**Rated power** 215 hp
ATEX approved No	**Number of poles** 12	**Rated current** 340 A	**Stator variant** 1
Frequency 60 Hz	**Rated voltage** 460 V	**Insulation class** H	**Type of Duty**
Version code 000			

Motor - Technical

Power factor - 1/1 Load 0.63	**Motor efficiency - 1/1 Load** 94.0 %	**Total moment of inertia** 332 lb ft²	**Starts per hour max.** 0
Power factor - 3/4 Load 0.55	**Motor efficiency - 3/4 Load** 93.9 %	**Starting current, direct starting** 1570 A	
Power factor - 1/2 Load 0.43	**Motor efficiency - 1/2 Load** 92.7 %	**Starting current, star-delta** 524 A	

Project		**Created by**	Ethan Willats	**Last update**	2/3/2021
Block		**Created on**	2/3/2021		

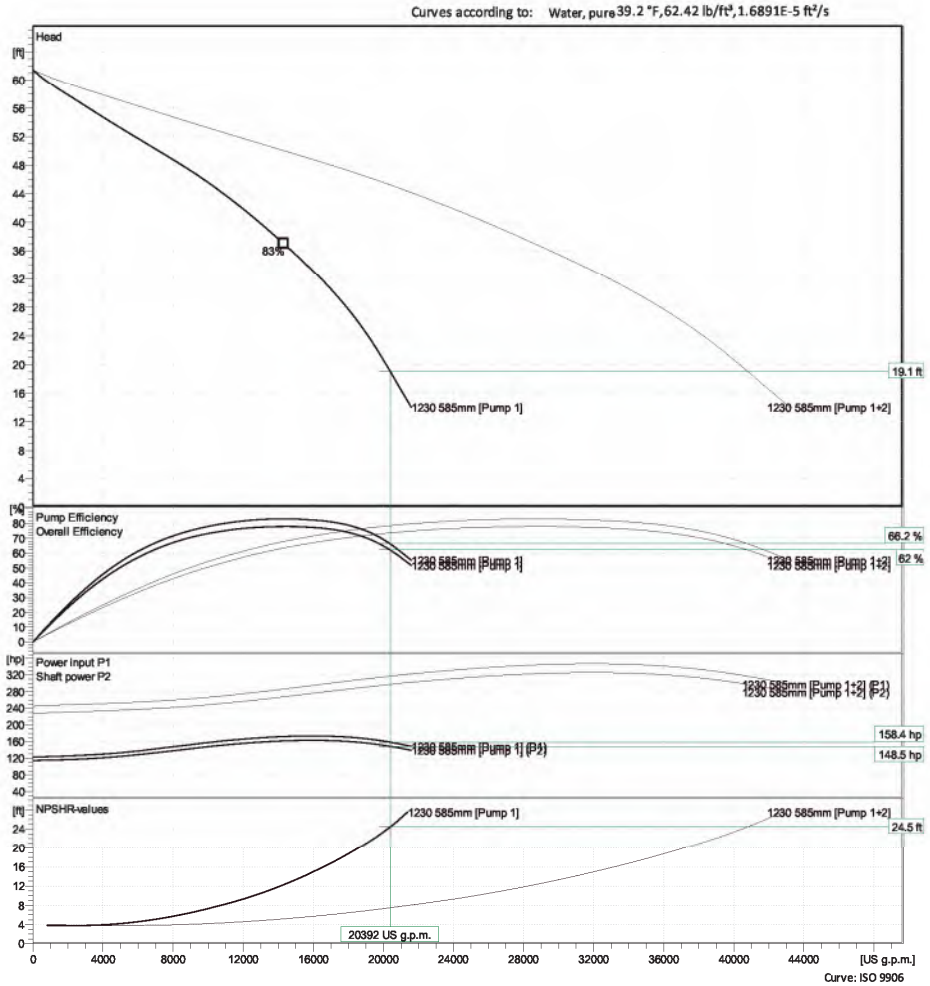
CP 3501/836 3~ 1230

Performance curve

FLYGT a xylem brand

Duty point

Flow	Head
10200 US g.p.m.	19.1 ft



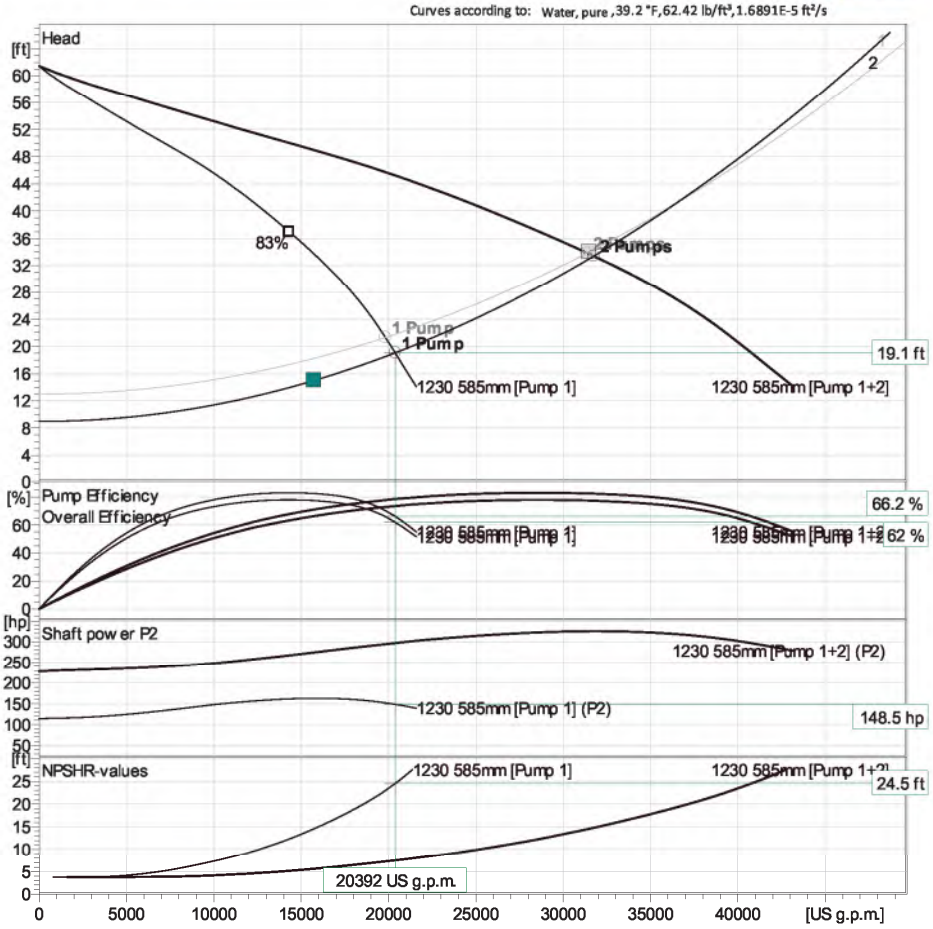
Project		**Created by**	Ethan Willats	**Last update**	2/3/2021
Block		**Created on**	2/3/2021		

CP 3501/836 3~ 1230

Duty Analysis

FLYGT a xylem brand

Curves according to: Water, pure ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Operating characteristics

Pumps / Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
2 / 2	15900 US g.p.m	33.4 ft	163 hp	31800 US g.p.m	33.4 ft	326 hp	82.4 %	136 kWh/US M	14.8 ft

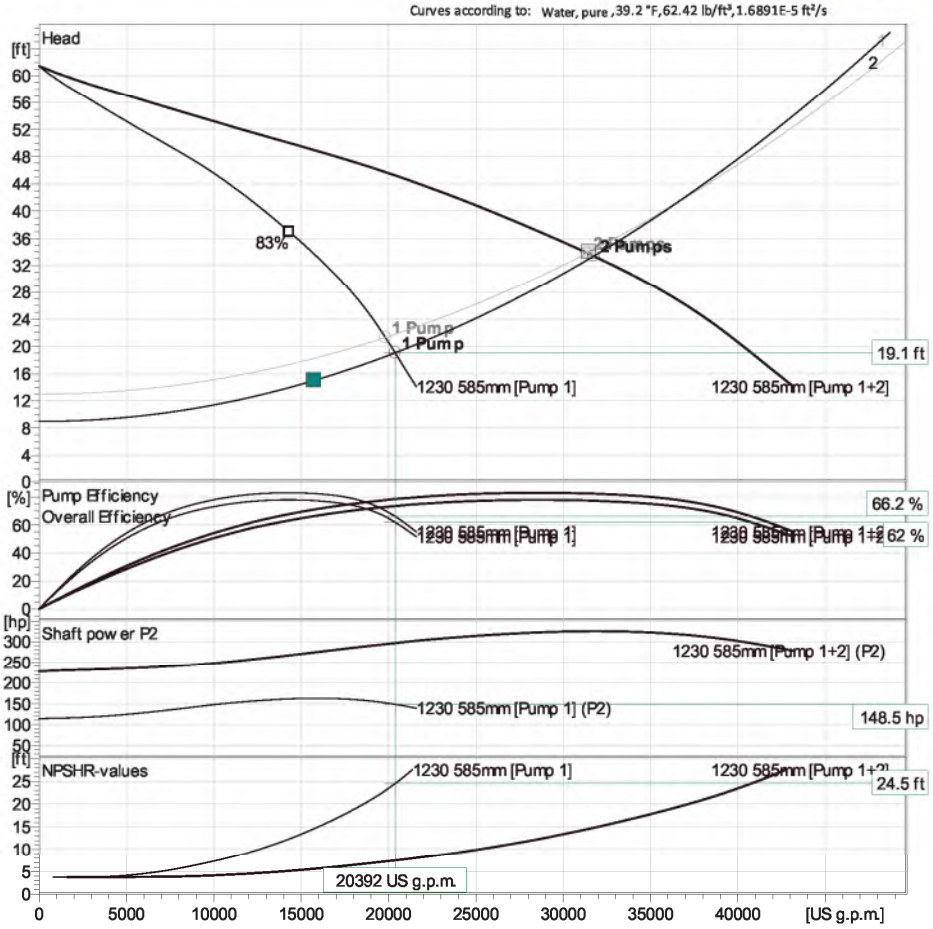
Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

CP 3501/836 3~ 1230

Duty Analysis

FLYGT
a xylem brand

Curves according to: Water, pure ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Operating characteristics

Pumps / Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1 / 2	20400 US g.p.m	19.1 ft	148 hp	20400 US g.p.m	19.1 ft	148 hp	66.2 %	96.6 kWh/US M	24.5 ft

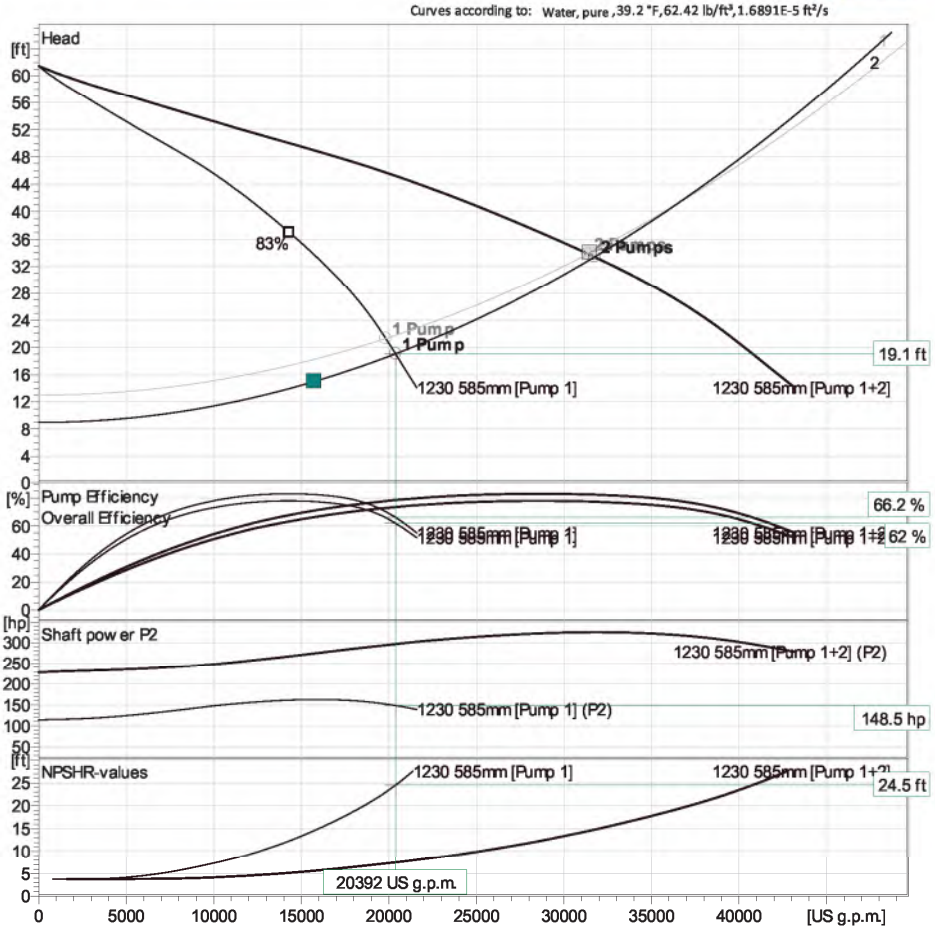
Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

CP 3501/836 3~ 1230

Duty Analysis

FLYGT
a xylem brand

Curves according to: Water, pure ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Operating characteristics

Pumps / Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
2 / 1	15700 US g.p.m	33.8 ft	163 hp	31400 US g.p.m	33.8 ft	325 hp	82.5 %	137 kWh/US M	14.5 ft

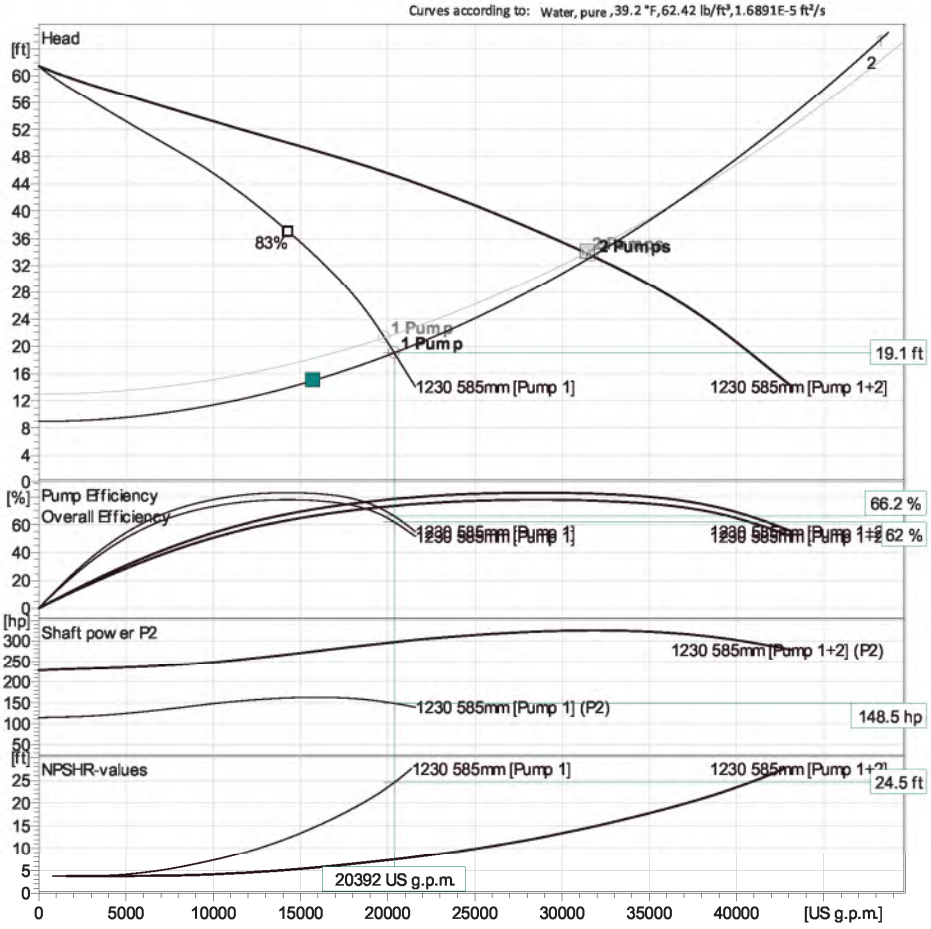
Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

CP 3501/836 3~ 1230

Duty Analysis

FLYGT a xylem brand

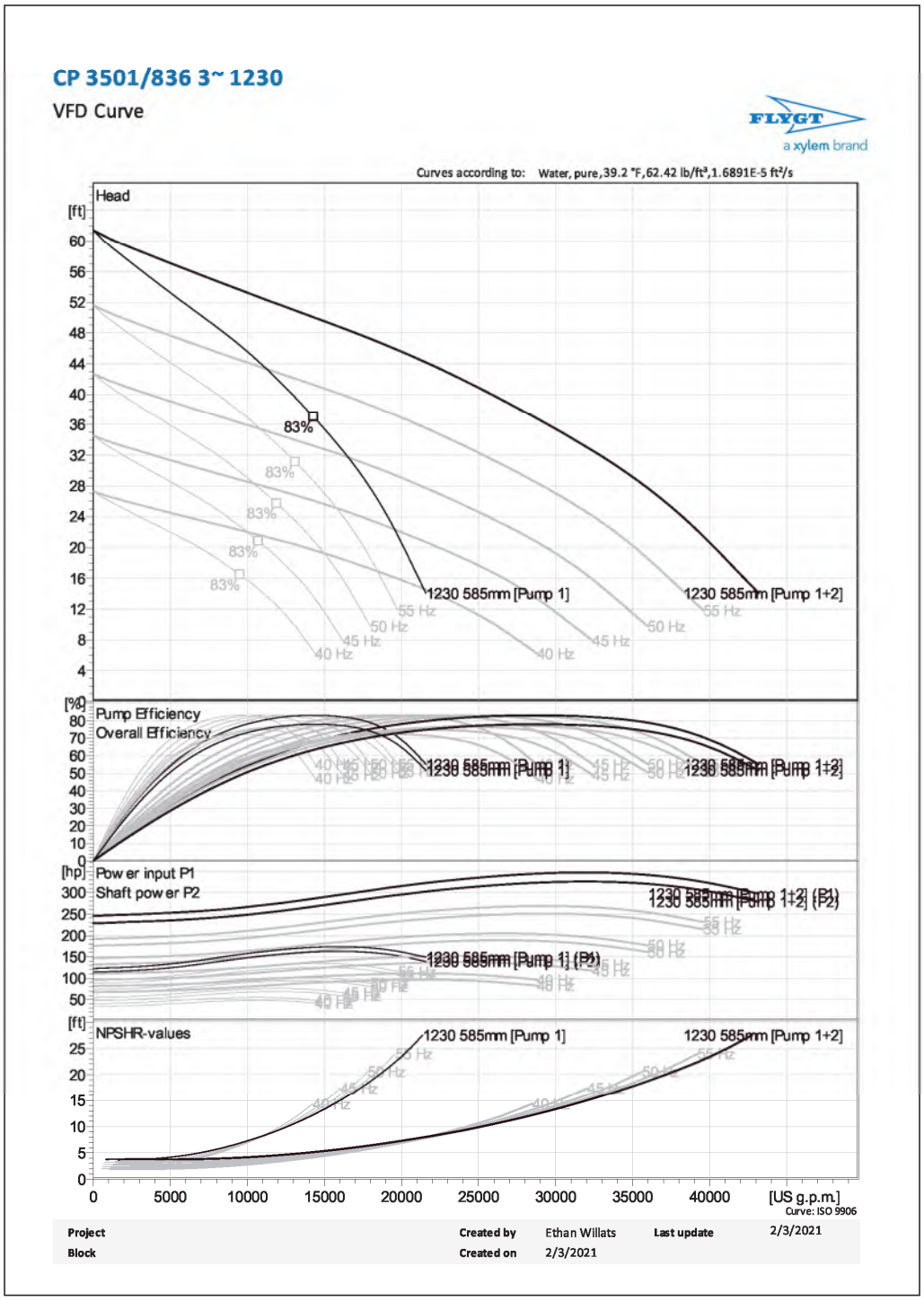
Curves according to: Water, pure ,39.2 °F,62.42 lb/ft³,1.6891E-5 ft²/s



Operating characteristics

Pumps / Systems	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1 / 1	19800 US g.p.m	21.3 ft	152 hp	19800 US g.p.m	21.3 ft	152 hp	70.3 %	102 kWh/US M	23 ft

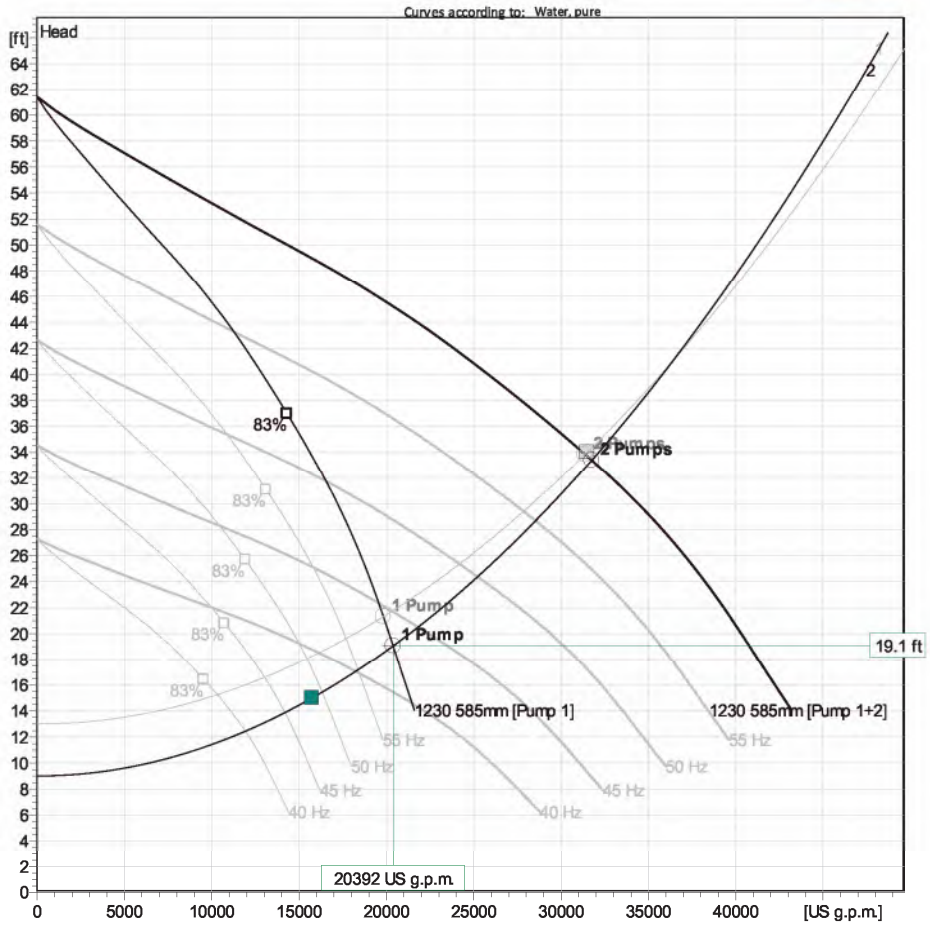
Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		


CP 3501/836 3~ 1230
VFD Curve
FLYGT
a xylem brand
Curves according to: Water, pure, 39.2 °F, 62.42 lb/ft³, 1.6891E-5 ft²/s
Head
[ft]
83%
1230 585mm [Pump 1]
1230 585mm [Pump 1+2]
55 Hz
50 Hz
45 Hz
40 Hz
[%]
Pump Efficiency
Overall Efficiency
[hp]
Power input P1
Shaft power P2
1230 585mm [Pump 1] (P1)
1230 585mm [Pump 1+2] (P1)
1230 585mm [Pump 1+2] (P2)
[ft]
NPSHR-values
0
5000
10000
15000
20000
25000
30000
35000
40000
[US g.p.m.]
Curve: ISO 9906
Project
Block
Created by
Ethan Willats
Created on
2/3/2021
Last update
2/3/2021

CP 3501/836 3~ 1230

VFD Analysis

FLYGT
a xylem brand



Operating characteristics

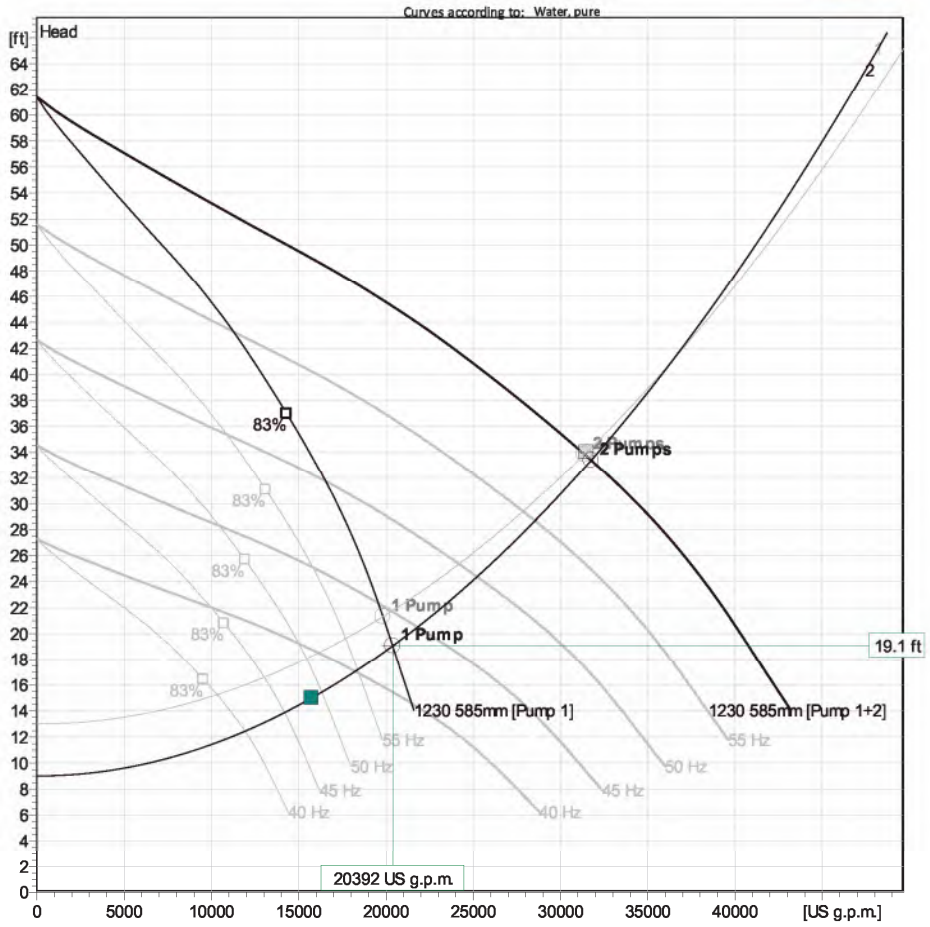
Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
2 / 2	60 Hz	15900 US g.p.n	33.4 ft	163 hp	31800 US g.p.n	33.4 ft	326 hp	82.4 %	136 kWh/US M	14.8 ft
2 / 2	55 Hz	14300 US g.p.n	28.7 ft	125 hp	28500 US g.p.n	28.7 ft	251 hp	82.6 %	117 kWh/US M	12.4 ft
2 / 2	50 Hz	12600 US g.p.n	24.4 ft	94 hp	25200 US g.p.n	24.4 ft	188 hp	82.8 %	100 kWh/US M	10.1 ft
2 / 2	45 Hz	10900 US g.p.n	20.5 ft	68.2 hp	21800 US g.p.n	20.5 ft	136 hp	83 %	86.2 kWh/US M	7.98 ft
2 / 2	40 Hz	9120 US g.p.m	17.1 ft	47.5 hp	18200 US g.p.n	17.1 ft	94.9 hp	82.9 %	74.3 kWh/US M	5.96 ft
1 / 2	60 Hz	20400 US g.p.n	19.1 ft	148 hp	20400 US g.p.n	19.1 ft	148 hp	66.2 %	96.6 kWh/US M	24.5 ft

Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

CP 3501/836 3~ 1230

VFD Analysis

FLYGT a xylem brand



Operating characteristics

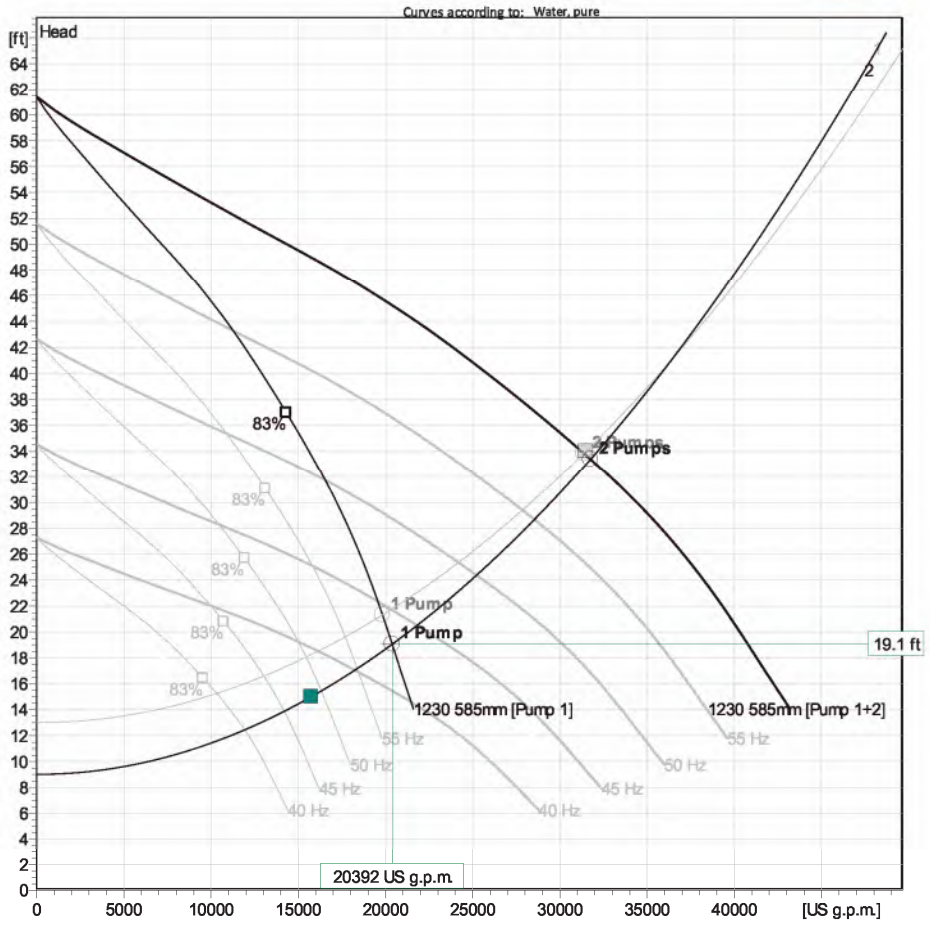
Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1 / 2	55 Hz	18400 US g.p.n	17.2 ft	116 hp	18400 US g.p.n	17.2 ft	116 hp	68.8 %	84.4 kWh/US M	20.5 ft
1 / 2	50 Hz	16300 US g.p.n	15.4 ft	88.9 hp	16300 US g.p.n	15.4 ft	88.9 hp	71.8 %	73.6 kWh/US M	16.7 ft
1 / 2	45 Hz	14200 US g.p.n	13.9 ft	66.2 hp	14200 US g.p.n	13.9 ft	66.2 hp	75.3 %	64.4 kWh/US M	13.1 ft
1 / 2	40 Hz	11900 US g.p.n	12.4 ft	47.6 hp	11900 US g.p.n	12.4 ft	47.6 hp	79 %	56.9 kWh/US M	9.71 ft
2 / 1	60 Hz	15700 US g.p.n	33.8 ft	163 hp	31400 US g.p.n	33.8 ft	325 hp	82.5 %	137 kWh/US M	14.5 ft
2 / 1	55 Hz	13900 US g.p.n	29.4 ft	125 hp	27800 US g.p.n	29.4 ft	250 hp	82.8 %	120 kWh/US M	11.9 ft

Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

CP 3501/836 3~ 1230

VFD Analysis

FLYGT a xylem brand



Operating characteristics

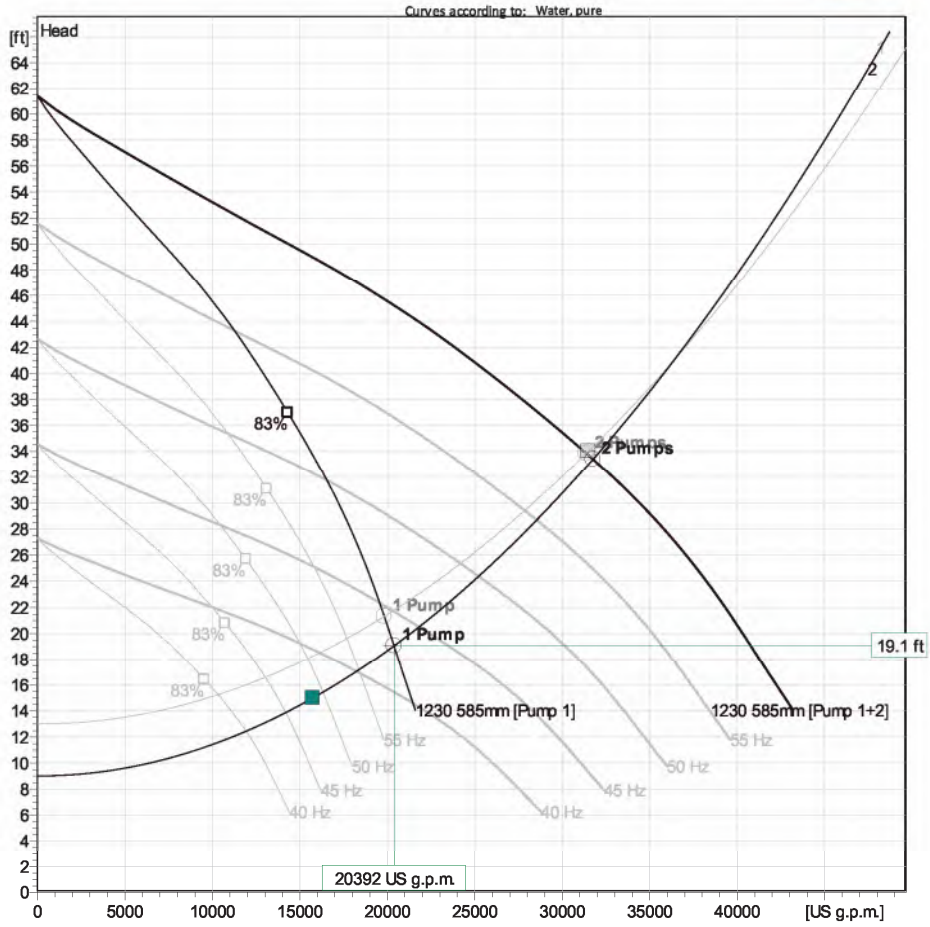
Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
2 / 1	50 Hz	12100 US g.p.n	25.4 ft	93.6 hp	24200 US g.p.n	25.4 ft	187 hp	83 %	104 kWh/US M	9.41 ft
2 / 1	45 Hz	10200 US g.p.n	21.7 ft	67.5 hp	20300 US g.p.n	21.7 ft	135 hp	82.9 %	91.6 kWh/US M	7.09 ft
2 / 1	40 Hz	8070 US g.p.m	18.5 ft	46.2 hp	16100 US g.p.n	18.5 ft	92.4 hp	81.8 %	82.1 kWh/US M	4.93 ft
1 / 1	60 Hz	19800 US g.p.n	21.3 ft	152 hp	19800 US g.p.n	21.3 ft	152 hp	70.3 %	102 kWh/US M	23 ft
1 / 1	55 Hz	17700 US g.p.n	19.6 ft	119 hp	17700 US g.p.n	19.6 ft	119 hp	73.5 %	90.1 kWh/US M	18.8 ft
1 / 1	50 Hz	15500 US g.p.n	18.1 ft	91.7 hp	15500 US g.p.n	18.1 ft	91.7 hp	76.9 %	80.2 kWh/US M	14.9 ft

Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

CP 3501/836 3~ 1230

VFD Analysis

FLYGT
a xylem brand



Operating characteristics

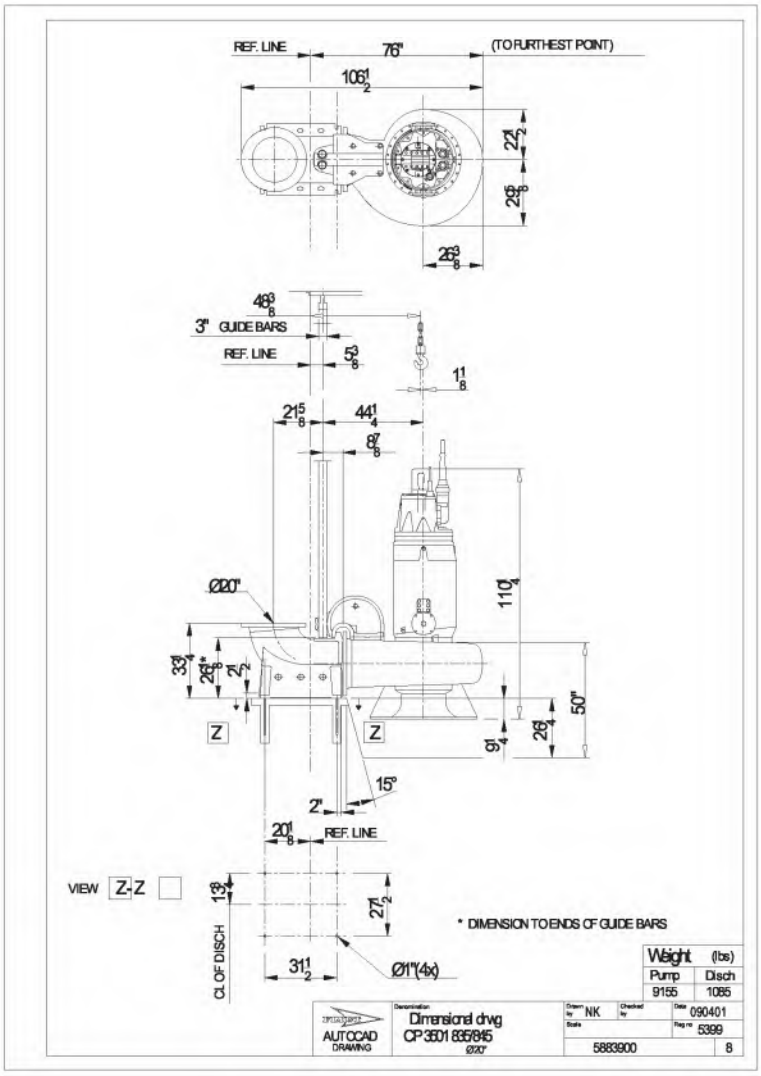
Pumps / Systems	Frequency	Flow	Head	Shaft power	Flow	Head	Shaft power	Hydr.eff.	Specific Energy	NPSHre
1 / 1	45 Hz	13000 US g.p.n	16.6 ft	68.2 hp	13000 US g.p.n	16.6 ft	68.2 hp	80.3 %	72.1 kWh/US M	11.1 ft
1 / 1	40 Hz	10300 US g.p.n	15.3 ft	48.2 hp	10300 US g.p.n	15.3 ft	48.2 hp	82.7 %	66.6 kWh/US M	7.38 ft

Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

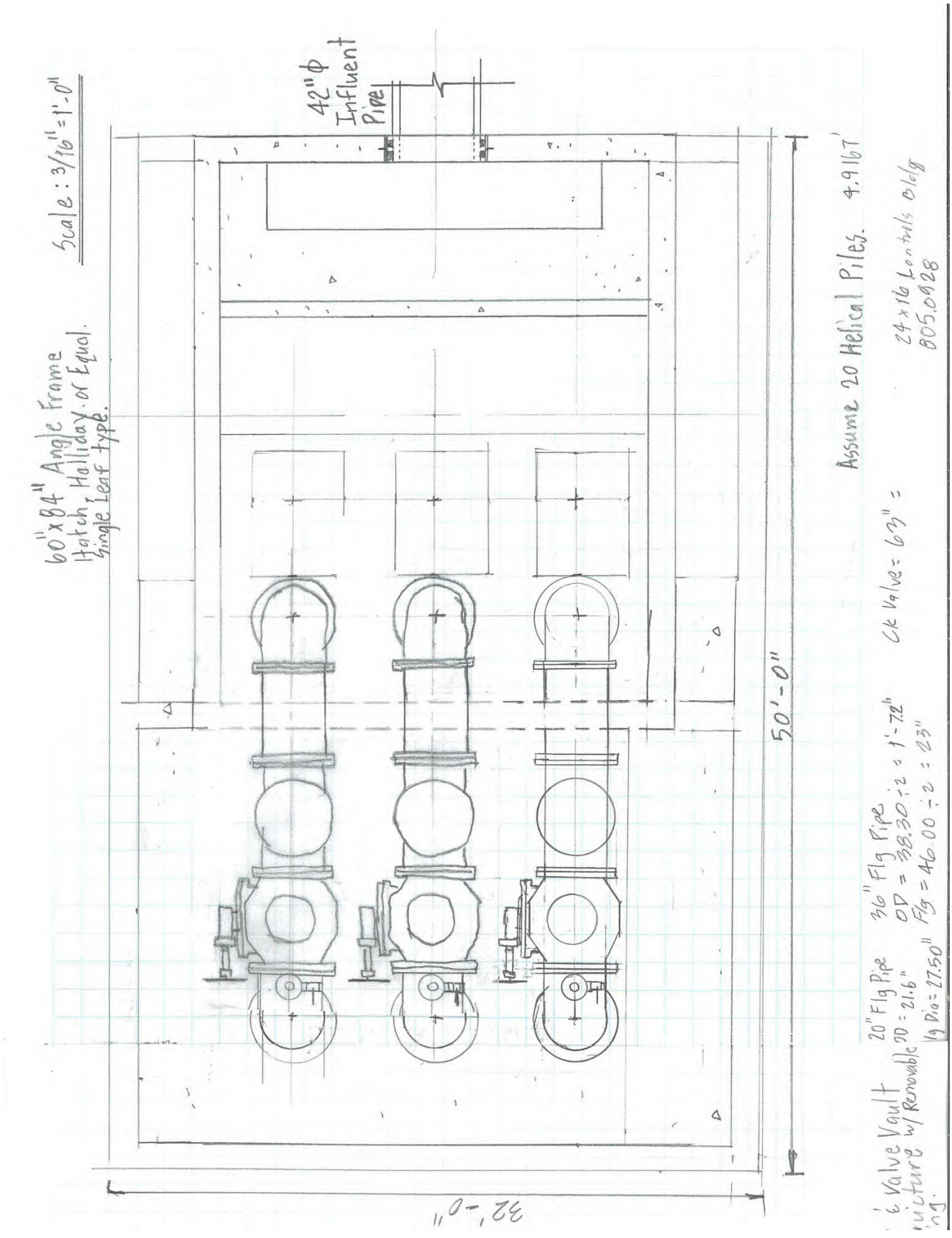
CP 3501/836 3~ 1230

Dimensional drawing

FLYGT
a xylem brand



Project		Created by	Ethan Willats	Last update	2/3/2021
Block		Created on	2/3/2021		

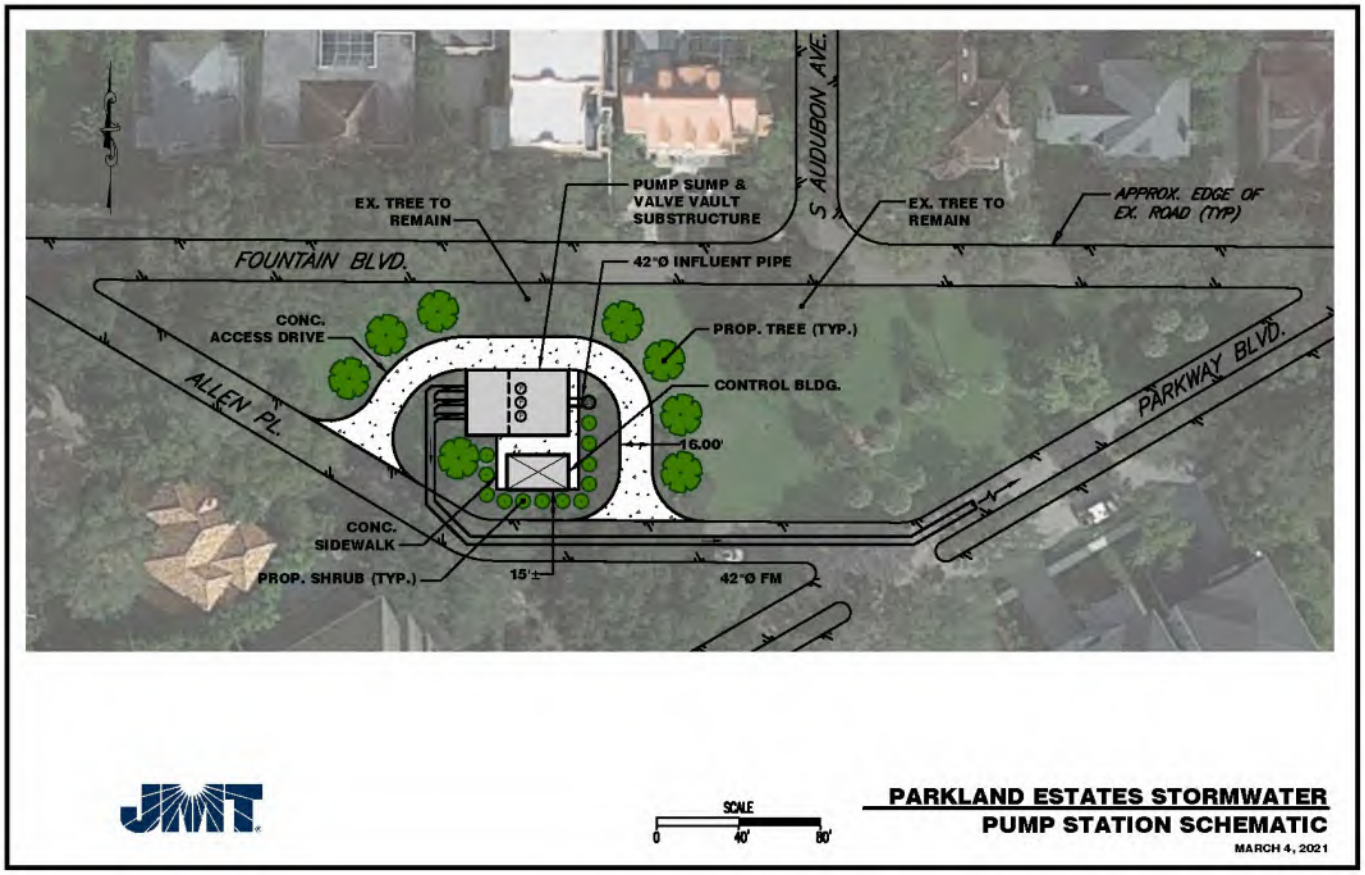

Scale: 3/16" = 1'-0"
42" ϕ Influent Pipe
60"x84" Angle Frame Hatch, Halliday or Equal. Single Leaf type.
Assume 20 Helical Piles. 4.9 KT
24"x16 Lontrols D1/S 805.0928
CK Valve = 63" =
50'-0"
32'-0"
36" Flg Pipe OD = 38.30 ÷ 2 = 1'-7½"
Flg = 46.00 ÷ 2 = 23"
20" Flg Pipe OD = 21.6"
Flg Dia = 27.50"
Valve Vault
w/ Removable
ing.



Proposed Stormwater Pumping Station – Parkland Estates
Preliminary Basis of Design and Opinion of Probable Cost

Appendix B

Proposed Pump Station Site Layout Schematic


S AUDUBON AVE.
EX. TREE TO REMAIN
PUMP SUMP & VALVE VAULT SUBSTRUCTURE
EX. TREE TO REMAIN
APPROX. EDGE OF EX. ROAD (TYP)
FOUNTAIN BLVD.
42"Ø INFLUENT PIPE
CONC. ACCESS DRIVE
PROP. TREE (TYP.)
CONTROL BLDG.
ALLEN PL.
PARKWAY BLVD.
16.00'
CONC. SIDEWALK
PROP. SHRUB (TYP.)
15'±
42"Ø FM
SCALE
0
40'
80'
PARKLAND ESTATES STORMWATER
PUMP STATION SCHEMATIC
MARCH 4, 2021



Proposed Stormwater Pumping Station – Parkland Estates
Preliminary Basis of Design and Opinion of Probable Cost

Appendix C

Opinion of Probable Cost

Project: Parkland Estates
Subject: Construction Cost Est.
Computed By: RAM Date: 3/03/20
Job No. 19-03630-001
Sheet No. 1 of 2
Checked By: MPL Date: 3/04/21

Parkland Estates Stormwater Pumping Station Opinion of Probable Cost

ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL ITEM PRICE
1	General Requirements (Management and Coordination, Documention, Third Party Testing and Inspection Services, Temporary Controls and Barriers, Storage and Staging, and Field Engineering.	1	LS	$ 386,750.00	$ 386,750.00
2	Mobilization, includes Insurance, Bond, and Erosion and Sediment Control	1	LS	$1,260,000.00	$ 1,260,000.00
3	Electrical Equipment; includes 2-enclosed Circuit breakers (one for each service), automatic transfer switch, Distribution Switchboard, VFDs with Soft Start Bypasses for each pump and miscellaneous Controls Building equipment (HVAC).	1	LS	$ 800,000.00	$ 800,000.00
4	20-inch Non-Clog Submersible Pumps with 215 HP Motor including 3-inch S.S. Guide Rail Quick Connect System, Base Elbow, and Pump Controls (HOA, Transducer, Stilling Wells, and Backup Floats and Telemetry)	3	LS	$ 475,000.00	$ 1,425,000.00
5	32' x 50' Pump Sump and Valve Vault Substructure Cast in Place Reinforced Concrete including Excavation, Dewatering, Structrual Shoring and Sheeting, Vibration Monitoring, Helical Piles, Special Inspections, Testing, Appurtenances, Startup and Commissioning, O&M Manuals, Demonstrations, and Warranties	1	LS	$3,750,000.00	$ 3,750,000.00
6	Brick Controls Building Superstructure and Foundation, 30' x 16'	1	LS	$ 85,000.00	$ 85,000.00
7	36" Diameter Flanged Ductile Iron Station Piping with Interior Cement Lining and Exterior Epoxy Coating.	90	LF	$ 850.00	$ 76,500.00
8	36" Diameter Flanged Ductile Iron Station Fittings with Interior Cement Lining and Exterior Fusion Bonded Epoxy Coating.	9	EA	$ 1,000.00	$ 9,000.00
9	42" Diameter Ductile Iron Header Mechanical Joint Piping with Interior Cement Lining and Exterior Fusion Bonded Epoxy Coating	40	LF	$ 1,500.00	$ 60,000.00

Parkland Estates_Construction Cost Estimate.xlsx

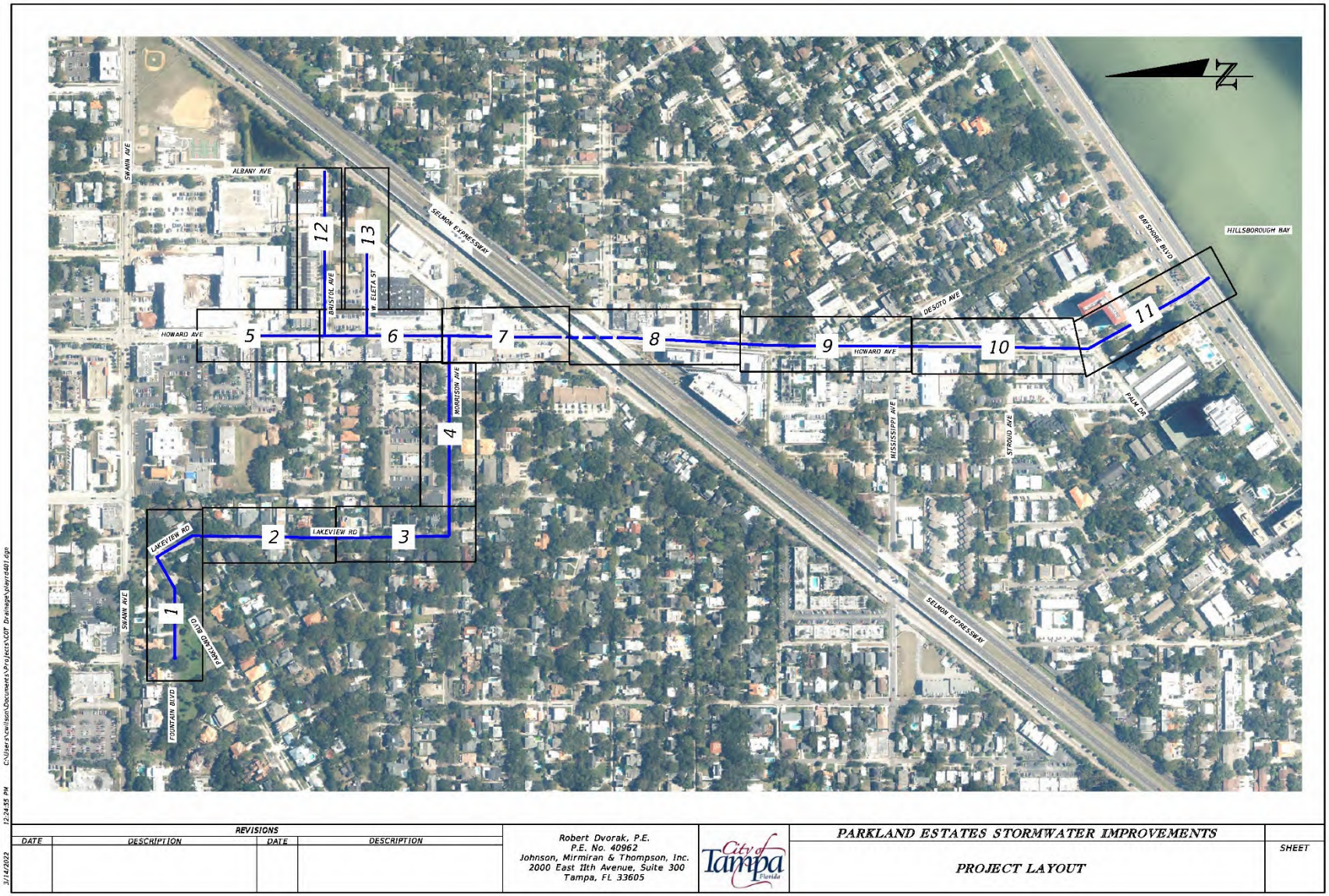
Project: Parkland Estates
Subject: Construction Cost Est.
Computed By: RAM Date: 3/03/20
Job No. 19-03630-001
Sheet No. 2 of 2
Checked By: MPL Date: 3/04/21

Parkland Estates Stormwater Pumping Station Opinion of Probable Cost					
ITEM NO.	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL ITEM PRICE
10	Station Automatic Combination Air Vents including S.S. Ball Valve and S.S. Piping	3	EA	$ 6,000.00	$ 18,000.00
11	36" Check Valve with Fusion Bonded Epoxy Coating	3	EA	$ 58,750.00	$ 176,250.00
12	36" 100% Port Plug Valve with Fusion Bonded Epoxy Coating, Worm Gear and Handwheel.	3	EA	$ 63,850.00	$ 191,550.00
13	Substructure Single Leaf Angle Frame Hatches, Access Ladders and Removeable Grating, Pipe Supports, and S.S. Hardware	1	LS	$ 80,000.00	$ 80,000.00
14	Pump Station Site Work; includes grading, concrete access drive, Stormwater BMP, and Landscaping.	1	LS	$ 70,000.00	$ 70,000.00
15	42" Diameter PVC C905 Force Main including pipe fittings (Zinc Coated D.I. with Restrained Followers) excavation, bedding, select backfill, compaction, pavement/Curb and Gutter/Conc.Walk/ Landscaping Restoration, dewatering, Inspection and Testing, and Test Holes	7,000	LF	$ 900.00	$ 6,300,000.00
16	3" Combination Air Vent Manhole including excavation, bedding, select backfill, compaction, dewatering, Inspection and Testing	6	EA	$ 12,000.00	$ 72,000.00
17	42" Diameter Force Main Discharge including Energy Dissipation, Coastline Restoration, Backflow Prevention	1	EA	$ 100,000.00	$ 100,000.00
18	Underground Reinforced Concrete Detention Facility (10,000 Sq.Ft x 4-ft Depth for Storage)	1	LS	$1,500,000.00	$ 1,500,000.00
				Subtotal	$ 16,360,050.00
				Engineering Design and Construction Phase Services @ 2.5%	$ 409,001.25
				Design Contingency @ 25%	$ 4,090,012.50
				TOTAL	**$20,859,063.75**

Parkland Estates_Construction Cost Estimate.xlsx

APPENDIX C

JMT CONCEPTUAL BOX CULVERT PLANS



REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605

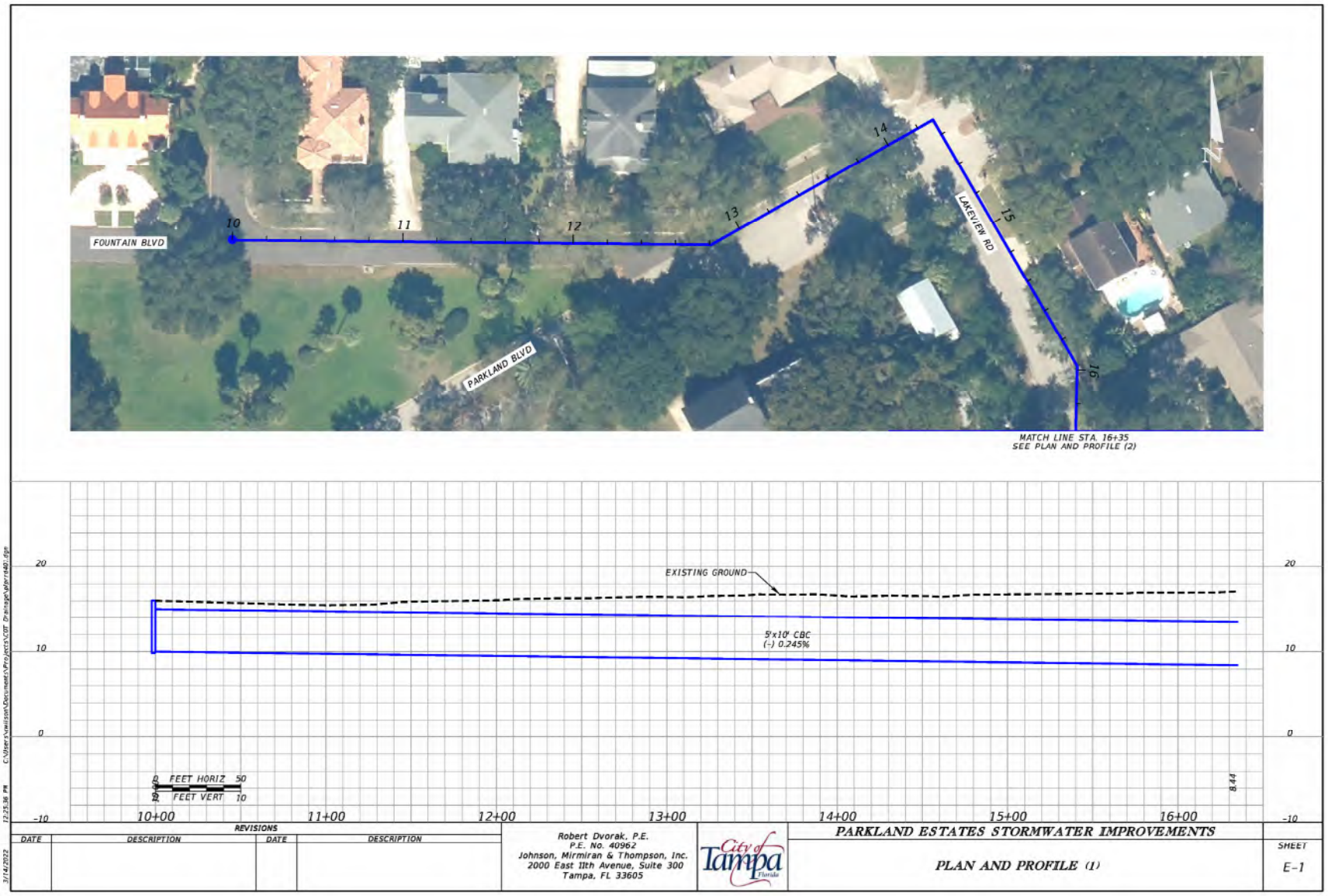
City of Tampa Florida

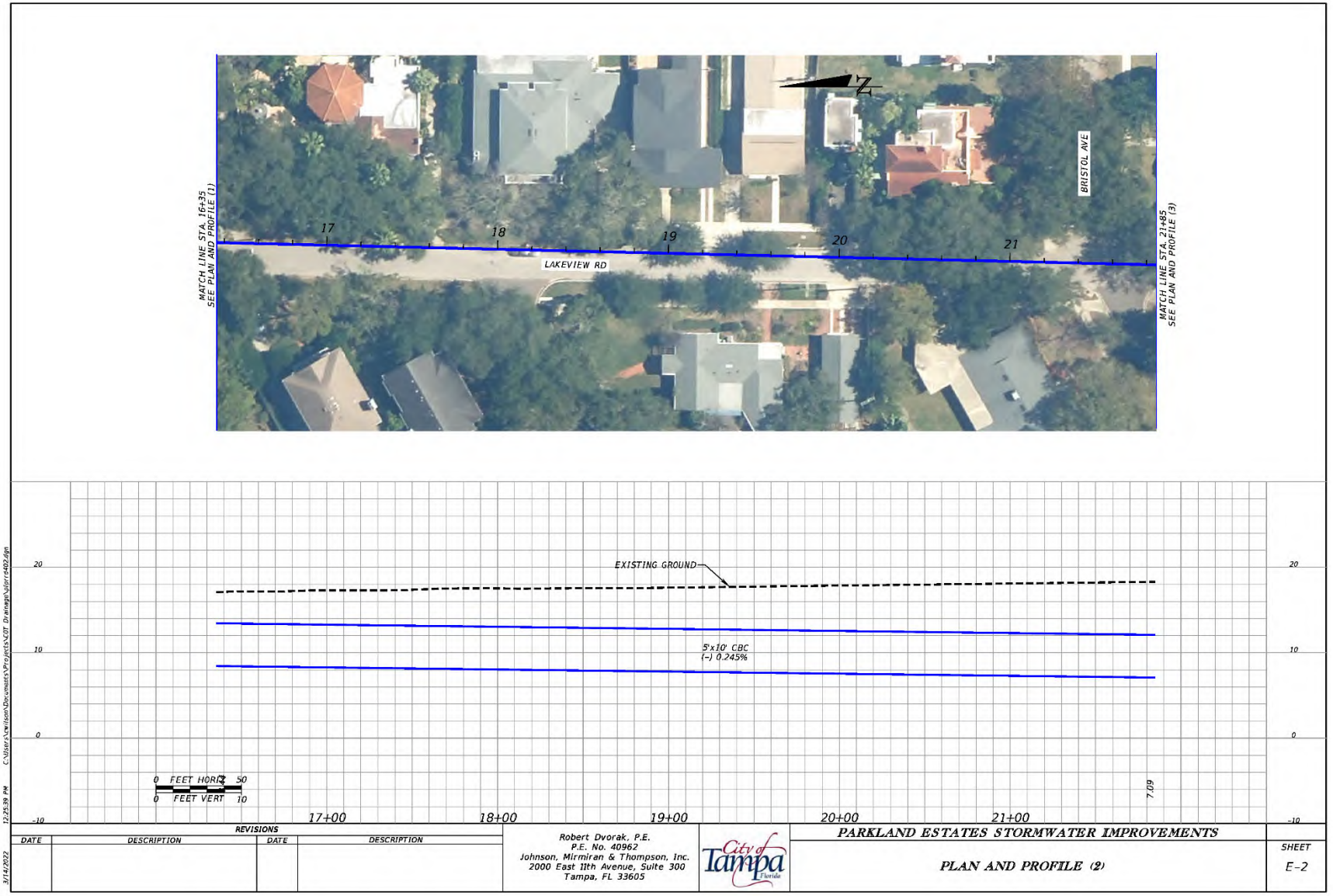
PARKLAND ESTATES STORMWATER IMPROVEMENTS

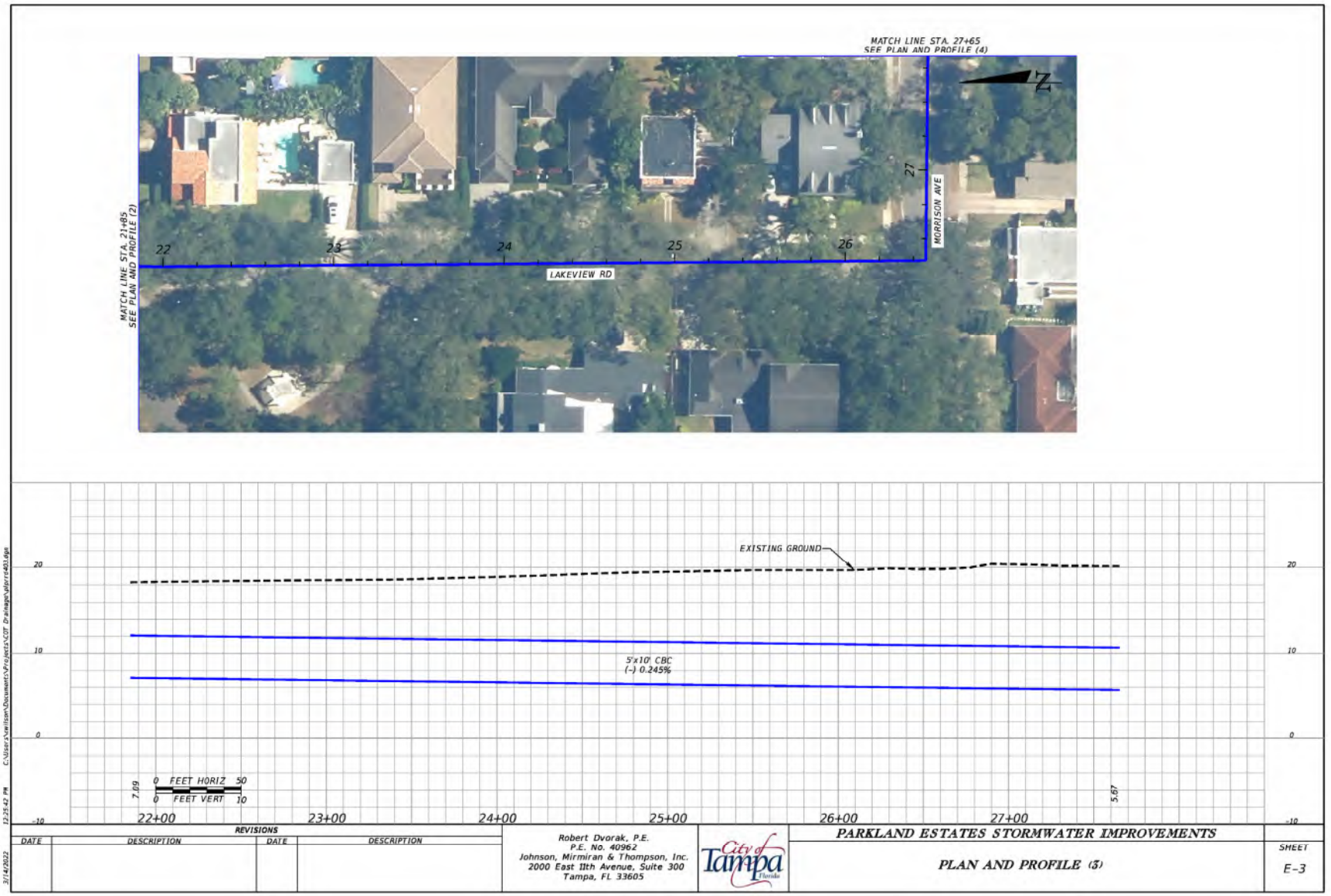
PROJECT LAYOUT

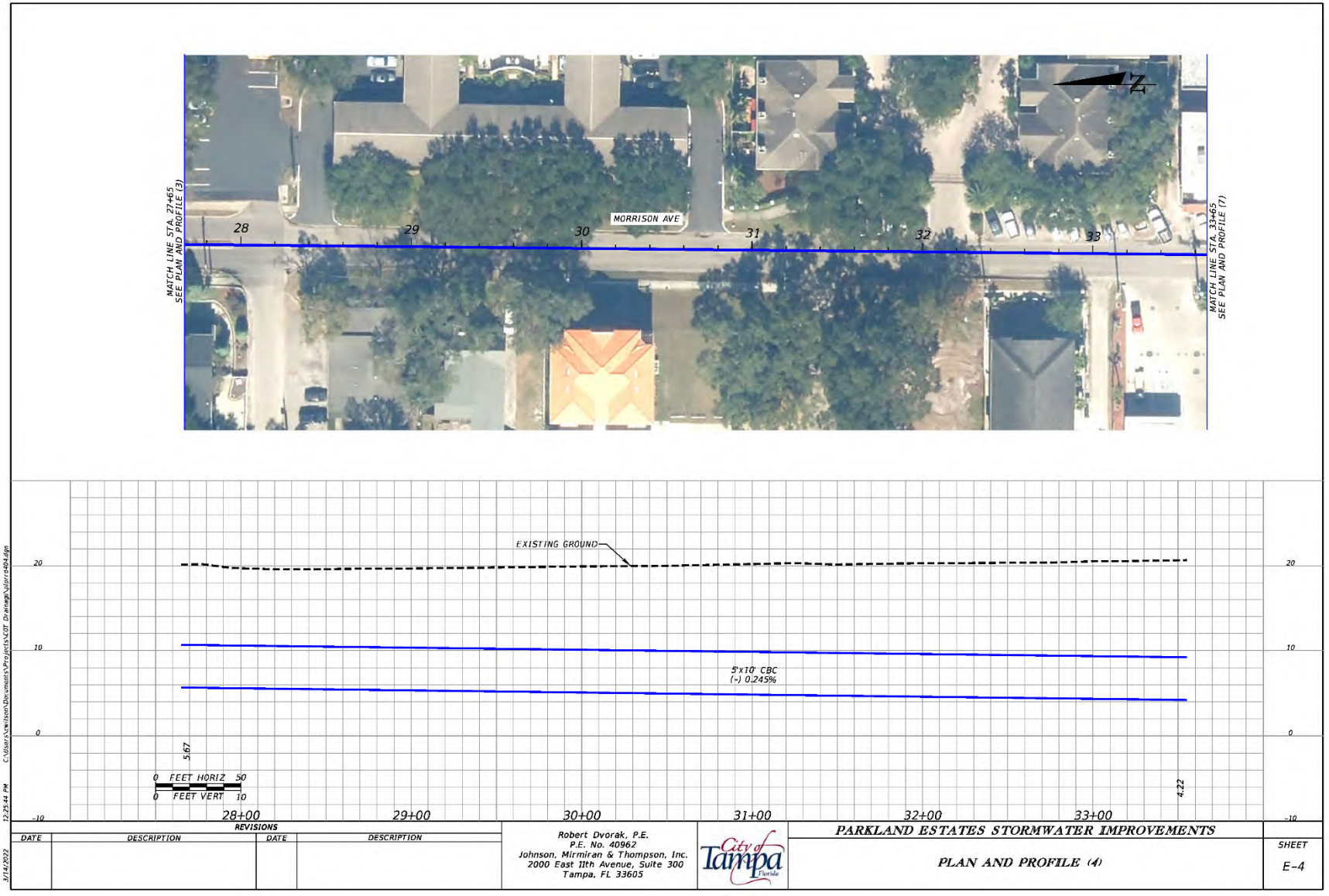
SHEET

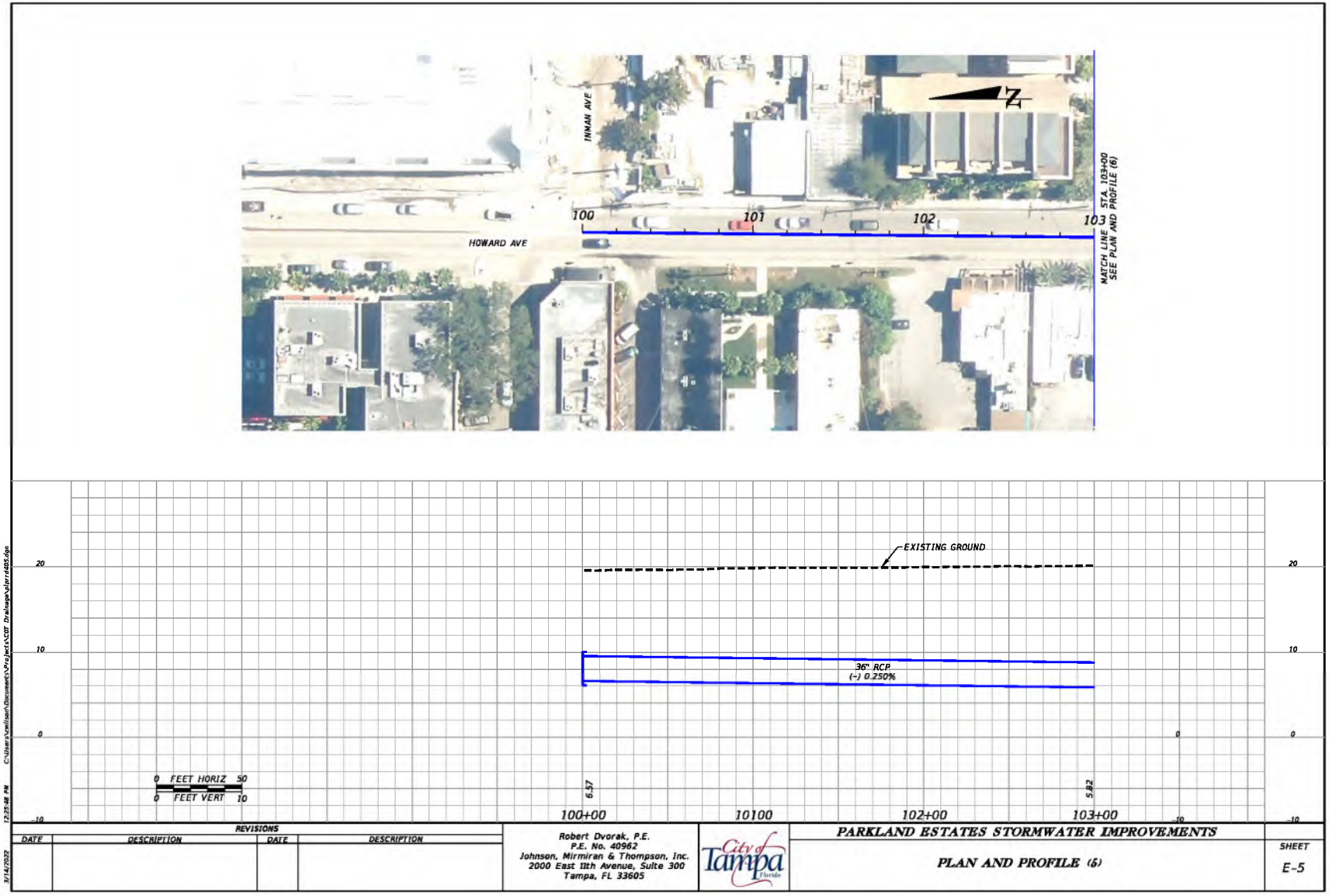
3/14/2022 12:24:55 PM C:\Users\cwilson\Documents\Projects\COT Drainage\plan\dr401.dgn

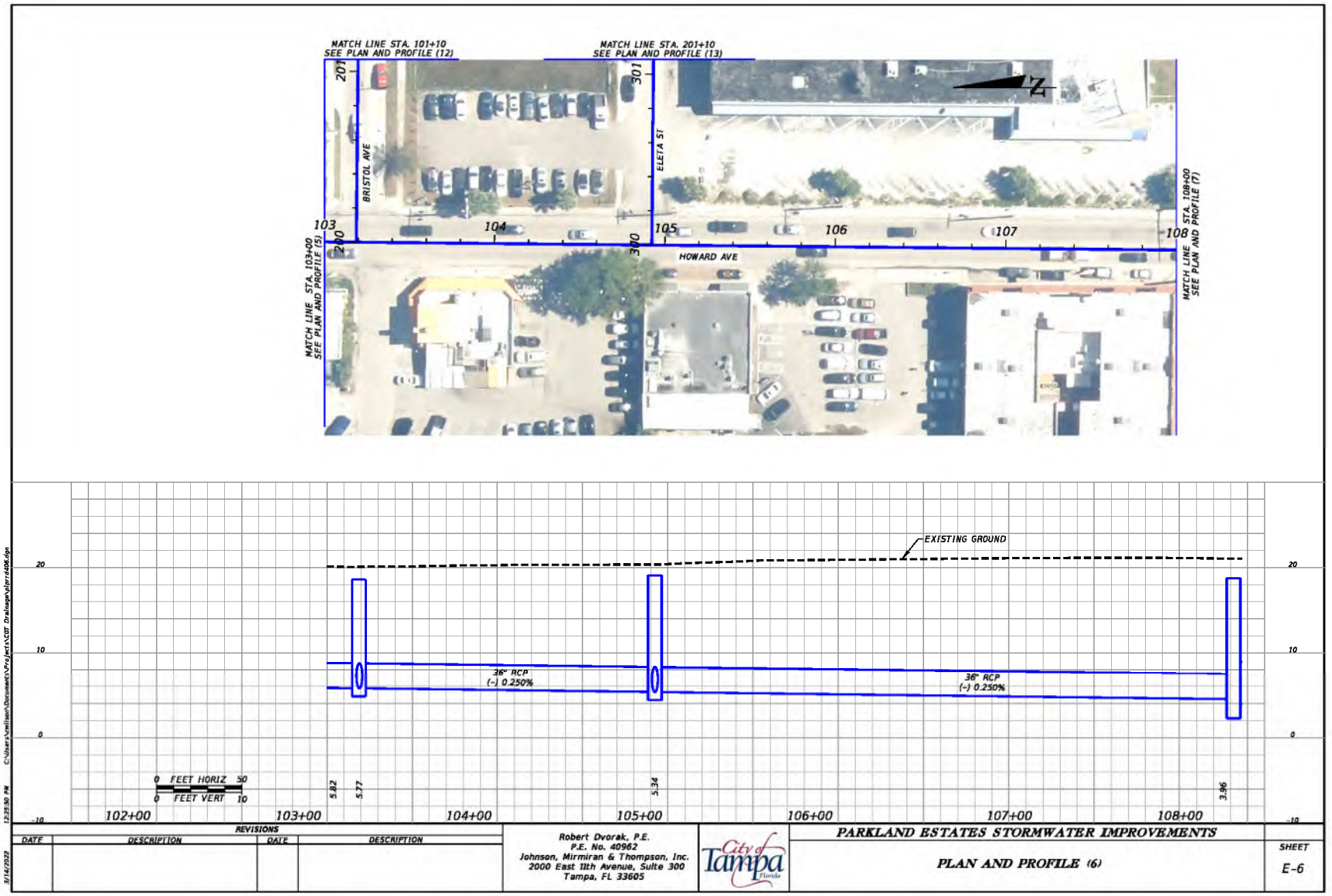

FOUNTAIN BLVD
PARKLAND BLVD
LAKEVIEW RD
10
11
12
13
14
15
16
N
MATCH LINE STA. 16+35
SEE PLAN AND PROFILE (2)
EXISTING GROUND
5'x10' CBC
(-) 0.245%
20
10
0
-10
10+00
11+00
12+00
13+00
14+00
15+00
16+00
0 FEET HORIZ 50
0 FEET VERT 10
8.44
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (1)
SHEET
E-1
3/14/2022

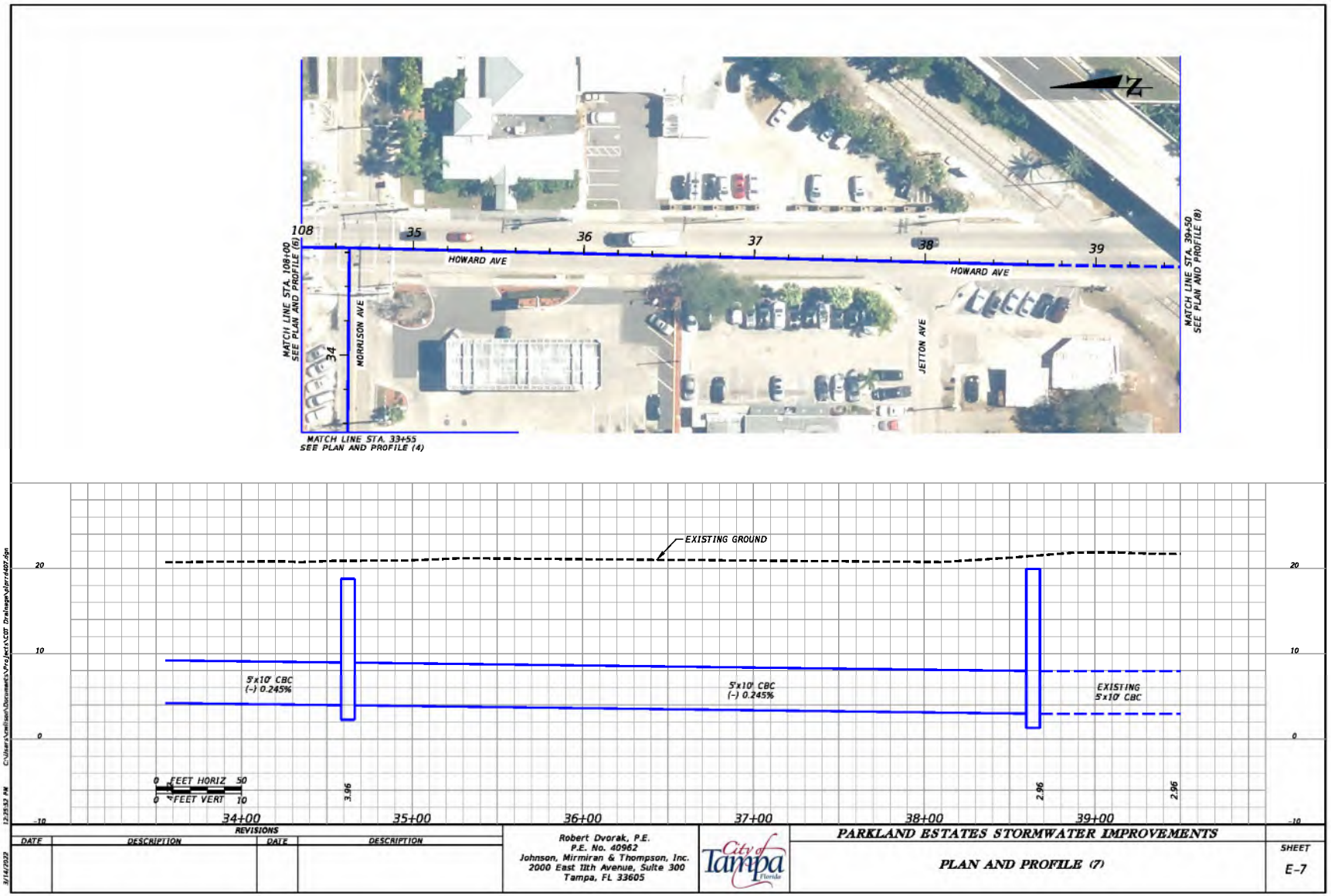

MATCH LINE STA. 16+35
SEE PLAN AND PROFILE (1)
17
18
19
20
21
LAKEVIEW RD
BRISTOL AVE
MATCH LINE STA. 21+85
SEE PLAN AND PROFILE (3)
EXISTING GROUND
5'x10' CBC
(-) 0.245%
0 FEET HORIZ 50
0 FEET VERT 10
17+00
18+00
19+00
20+00
21+00
7.09
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (2)
SHEET
E-2
3/14/2022

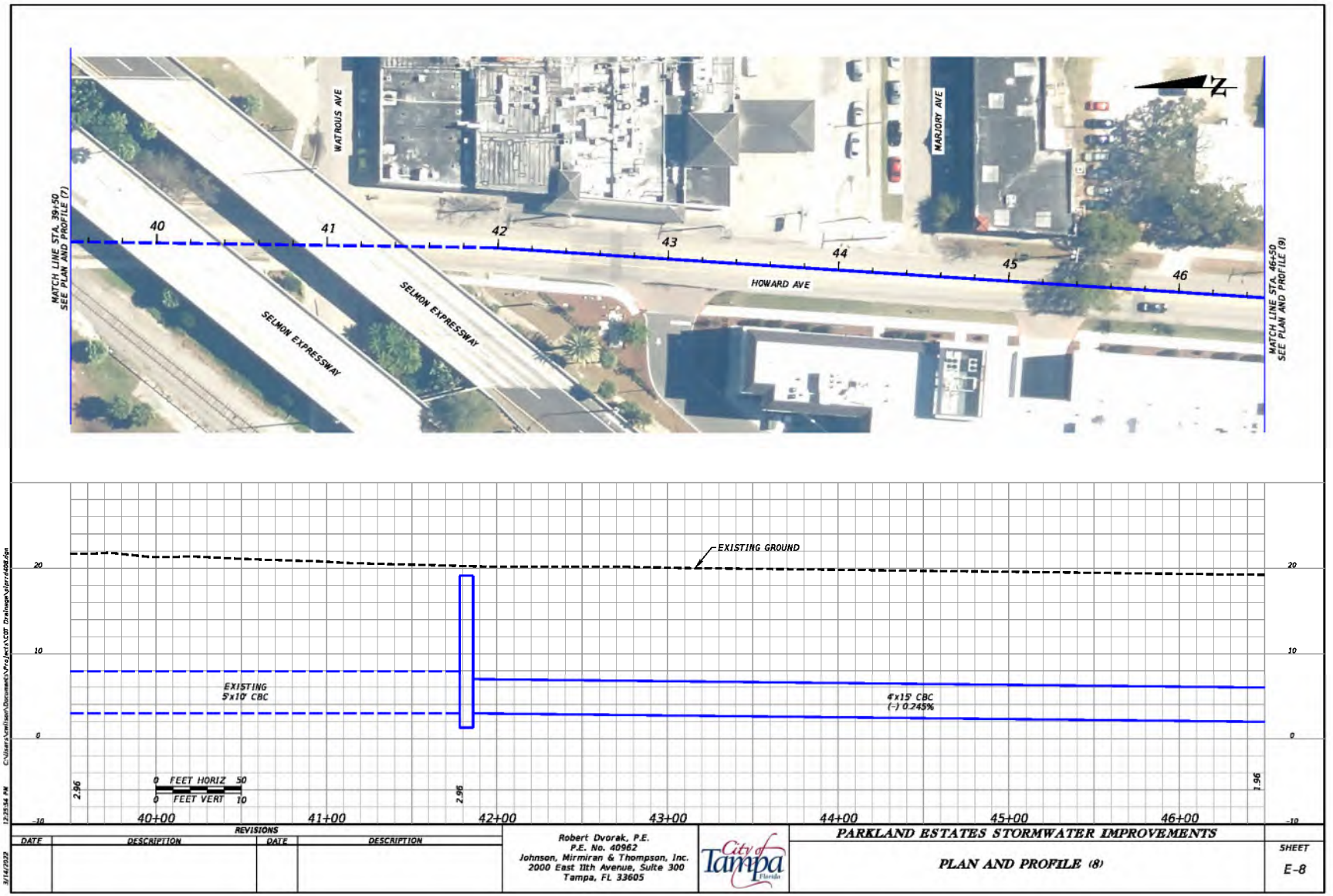

MATCH LINE STA. 27+65
SEE PLAN AND PROFILE (4)
MATCH LINE STA. 21+85
SEE PLAN AND PROFILE (2)
22
23
24
25
26
27
LAKEVIEW RD
MORRISON AVE
EXISTING GROUND
5'x10' CBC
(–) 0.245%
7.09
5.67
0 FEET HORIZ 50
0 FEET VERT 10
22+00
23+00
24+00
25+00
26+00
27+00
20
10
0
-10
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (3)
SHEET
E-3
3/14/2022
12:25:42 PM
C:\Users\vwilson\Documents\Projects\COT Drainage\plans403.dgn

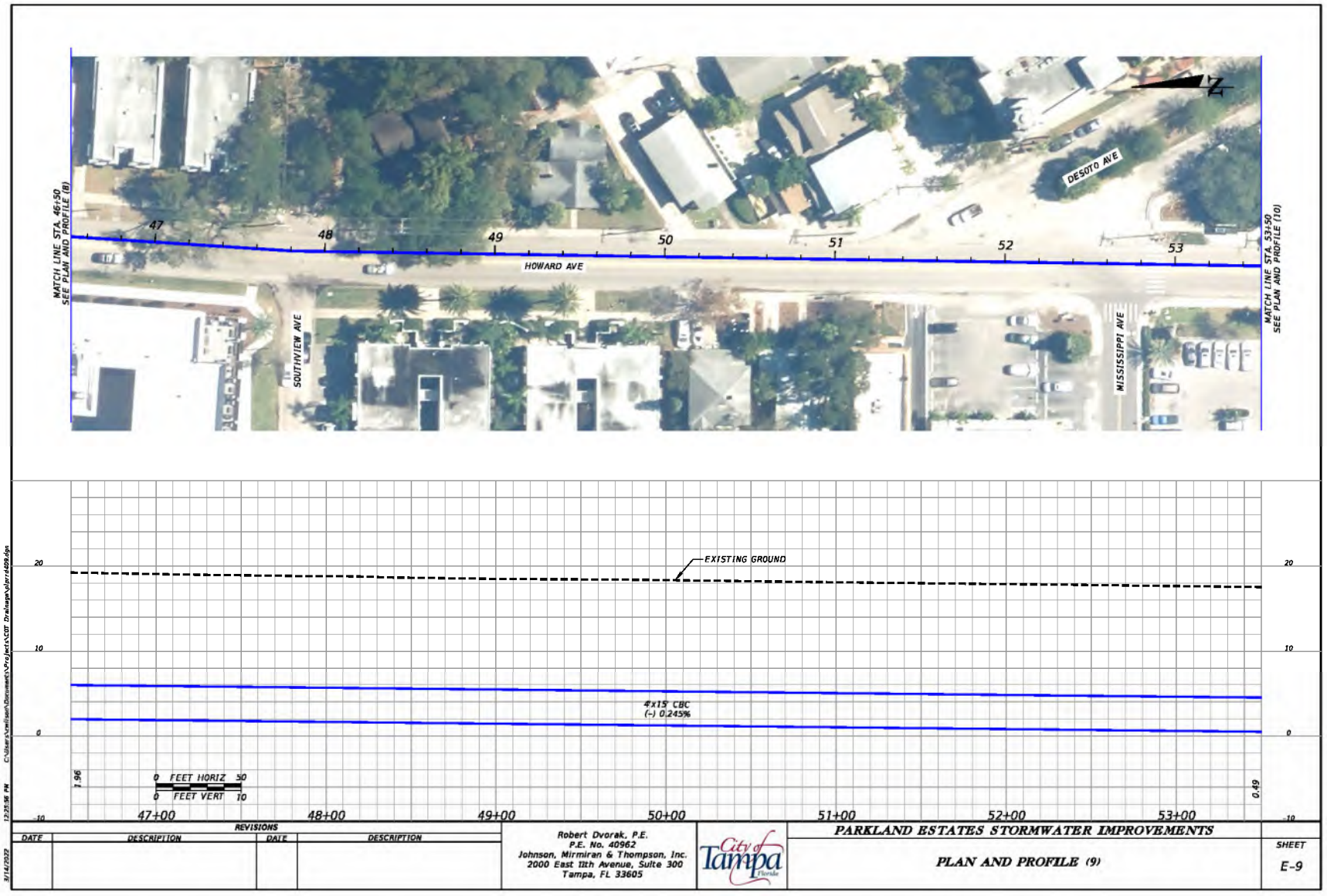

MATCH LINE STA. 27+65
SEE PLAN AND PROFILE (3)
28
29
30
MORRISON AVE
31
32
33
MATCH LINE STA. 33+65
SEE PLAN AND PROFILE (7)
N
EXISTING GROUND
5'x10' CBC
(-) 0.245%
20
10
0
-10
5.67
4.22
0 FEET HORIZ 50
0 FEET VERT 10
28+00
29+00
30+00
31+00
32+00
33+00
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
3/14/2022
12:25:44 PM
C:\Users\cwilson\Documents\Projects\CDT Drainage\plan1404.dgn
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (4)
SHEET
E-4

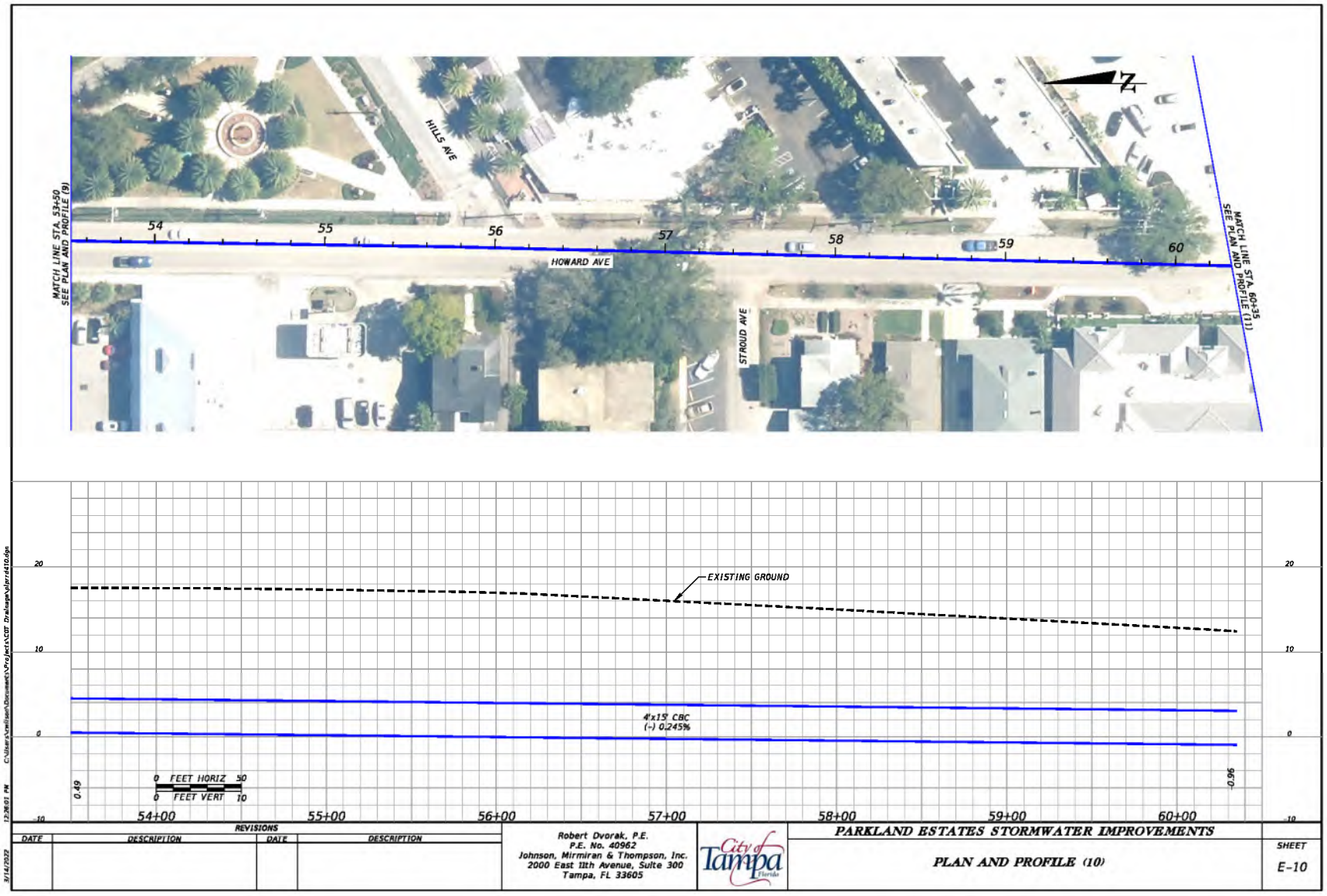

INMAN AVE
HOWARD AVE
100
101
102
103
MATCH LINE STA. 103+00
SEE PLAN AND PROFILE (6)
EXISTING GROUND
36" RCP
(-) 0.250%
0 FEET HORIZ 50
0 FEET VERT 10
6.57
5.82
100+00
10100
102+00
103+00
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (6)
SHEET
E-5

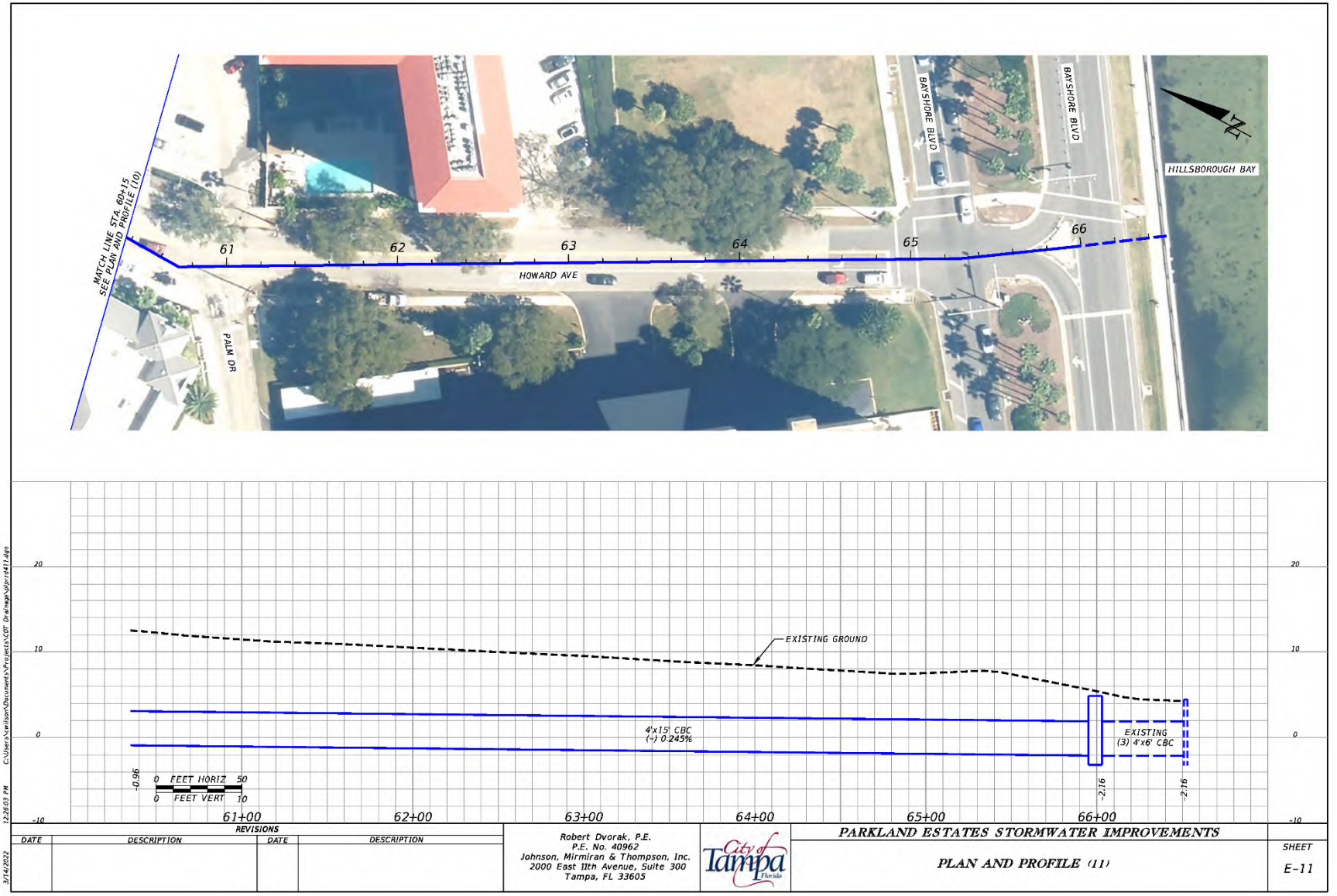

MATCH LINE STA. 101+10
SEE PLAN AND PROFILE (12)
MATCH LINE STA. 201+10
SEE PLAN AND PROFILE (13)
BRISTOL AVE
ELETA ST
HOWARD AVE
MATCH LINE STA. 103+00
SEE PLAN AND PROFILE (5)
MATCH LINE STA. 108+00
SEE PLAN AND PROFILE (7)
EXISTING GROUND
36" RCP
(-) 0.250%
36" RCP
(-) 0.250%
0 FEET HORIZ 50
0 FEET VERT 10
102+00
103+00
104+00
105+00
106+00
107+00
108+00
REVISIONS
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (6)
SHEET
E-6

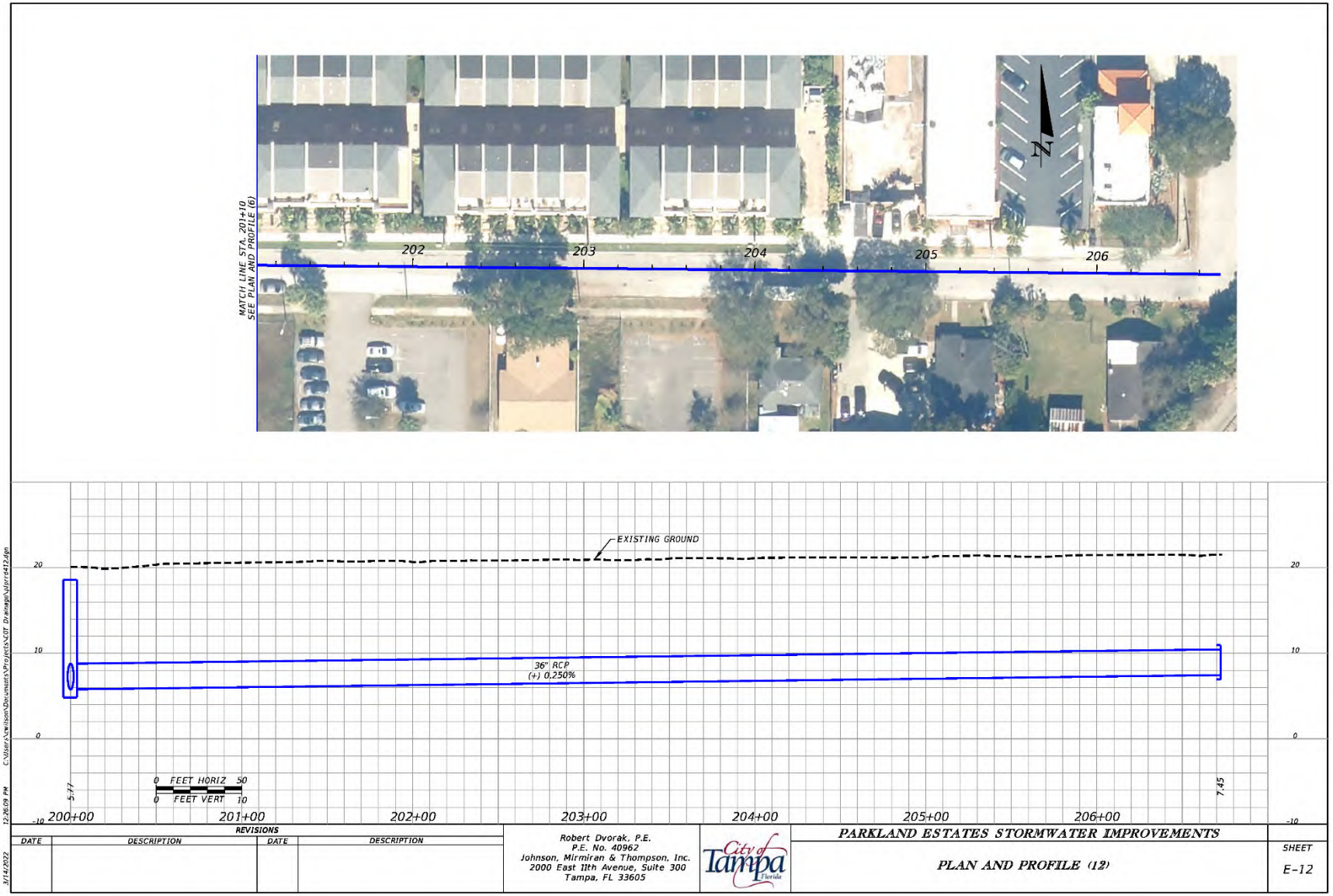

108
35
36
37
38
39
HOWARD AVE
HOWARD AVE
MORRISON AVE
34
JETTON AVE
MATCH LINE STA. 108+00
SEE PLAN AND PROFILE (6)
MATCH LINE STA. 39+50
SEE PLAN AND PROFILE (8)
MATCH LINE STA. 33+55
SEE PLAN AND PROFILE (4)
EXISTING GROUND
5'x10' CBC
(-) 0.245%
5'x10' CBC
(-) 0.245%
EXISTING
5'x10' CBC
3.96
2.96
2.96
0 FEET HORIZ 50
0 FEET VERT 10
34+00
35+00
36+00
37+00
38+00
39+00
20
10
0
-10
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (7)
SHEET
E-7

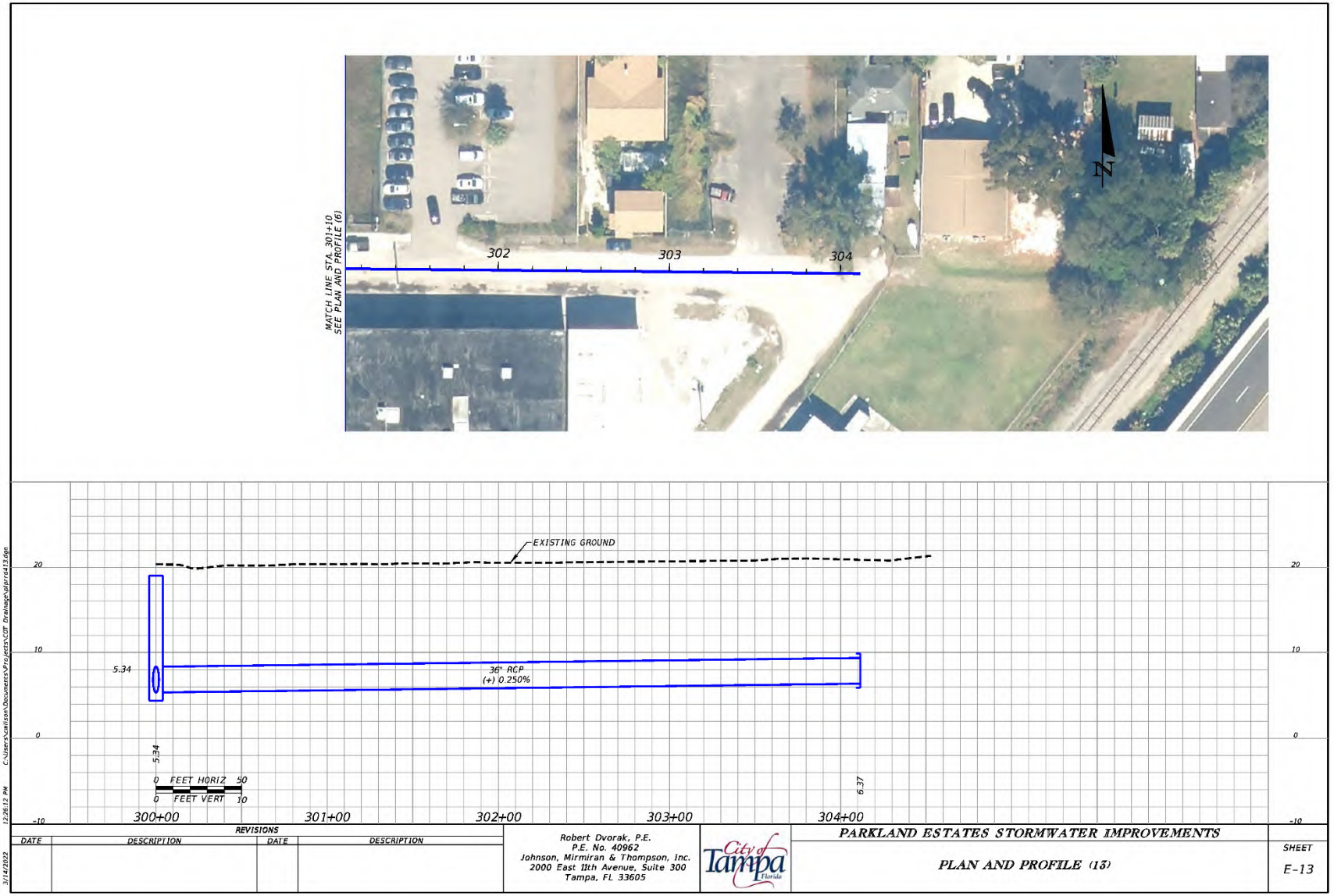

MATCH LINE STA. 39+50
SEE PLAN AND PROFILE (7)
WATROUS AVE
MARJORY AVE
HOWARD AVE
SELMON EXPRESSWAY
SELMON EXPRESSWAY
40
41
42
43
44
45
46
MATCH LINE STA. 46+50
SEE PLAN AND PROFILE (9)
EXISTING GROUND
EXISTING
5'x10' CBC
4'x15' CBC
(-) 0.245%
20
10
0
-10
2.96
2.96
2.96
0 FEET HORIZ 50
0 FEET VERT 10
40+00
41+00
42+00
43+00
44+00
45+00
46+00
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (8)
SHEET
E-8
3/14/2022
12:35:54 PM
C:\Users\cwilson\Documents\Projects\COT Drainage\plan1408.dgn


MATCH LINE STA. 46+50
SEE PLAN AND PROFILE (8)
47
48
49
50
51
52
53
HOWARD AVE
SOUTHVIEW AVE
DESOTO AVE
MISSISSIPPI AVE
MATCH LINE STA. 53+50
SEE PLAN AND PROFILE (10)
EXISTING GROUND
4'x15' CBC
(-) 0.245%
0 FEET HORIZ 50
0 FEET VERT 10
1.96
0.49
47+00
48+00
49+00
50+00
51+00
52+00
53+00
20
10
0
-10
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (9)
SHEET
E-9
3/14/2022


HILLS AVE
HOWARD AVE
STROUD AVE
MATCH LINE STA. 53+50
SEE PLAN AND PROFILE (9)
MATCH LINE STA. 60+35
SEE PLAN AND PROFILE (11)
54
55
56
57
58
59
60
EXISTING GROUND
4'x15' CBC
(-) 0.245%
0 FEET HORIZ 50
0 FEET VERT 10
54+00
55+00
56+00
57+00
58+00
59+00
60+00
REVISIONS
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa
Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (10)
SHEET
E-10


MATCH LINE STA 60+15
SEE PLAN AND PROFILE (10)
61
62
63
64
65
66
HOWARD AVE
PALM DR
BAYSHORE BLVD
BAYSHORE BLVD
HILLSBOROUGH BAY
EXISTING GROUND
4'x15' CBC
(+) 0.245%
EXISTING
(3) 4'x6' CBC
0 FEET HORIZ 50
0 FEET VERT 10
-0.96
-2.16
-2.16
61+00
62+00
63+00
64+00
65+00
66+00
20
10
0
-10
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (11)
SHEET
E-11
3/14/2022
12:26:03 PM
C:\Users\cwilson\Documents\Projects\COT Drainage\plprrt411.dgn


MATCH LINE STA. 201+10
SEE PLAN AND PROFILE (6)
202
203
204
205
206
N
EXISTING GROUND
36" RCP
(+) 0.250%
0 FEET HORIZ 50
0 FEET VERT 10
5.77
7.45
200+00
201+00
202+00
203+00
204+00
205+00
206+00
20
10
0
-10
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (12)
SHEET
E-12
3/14/2022
12:26:09 PM
C:\Users\cwilson\Documents\Projects\CDT Drainage\plan12412.dgn


MATCH LINE STA. 301+10
SEE PLAN AND PROFILE (6)
302
303
304
N
EXISTING GROUND
36" RCP
(+) 0.250%
5.34
5.34
6.37
0 FEET HORIZ 50
0 FEET VERT 10
300+00
301+00
302+00
303+00
304+00
20
10
0
-10
REVISIONS
DATE
DESCRIPTION
DATE
DESCRIPTION
3/14/2022
12:26:12 PM
C:\Users\vallison\Documents\Projects\CDT Drainage\plprod13.dgn
Robert Dvorak, P.E.
P.E. No. 40962
Johnson, Mirmiran & Thompson, Inc.
2000 East 11th Avenue, Suite 300
Tampa, FL 33605
City of Tampa Florida
PARKLAND ESTATES STORMWATER IMPROVEMENTS
PLAN AND PROFILE (13)
SHEET
E-13

APPENDIX D

COST ESTIMATE

Upper Peninsula - East -- Flood Relief Project

Preliminary Opinion of Probable Construction & Total Project Costs

9/23/2021

Item #	Item Description	Quantity / Units	Unit Price	Amount
1	Mobilization/Demobilization	1 LS	$ 200,000	$ 200,000
2	Performance and Payment Bond/Insurance	1 LS	$ 600,000	$ 600,000
3	General Conditions	1 LS	$ 4,200,000	$ 4,200,000
4	Construction Stakeout/As-builts	1 LS	$ 500,000	$ 500,000
5	Construction Engineering and Inspection	1 LS	$ 1,600,000	$ 1,600,000
6	Maintenance of Traffic	1 LS	$ 800,000	$ 800,000
7	Materials Testing	1 LS	$ 400,000	$ 400,000
8	Permitting	1 LS	$ 40,000	$ 40,000
9	Utility Coordination	1 LS	$ 280,000	$ 280,000
10	Public Outreach	1 LS	$ 200,000	$ 200,000
11	Temporary driveway and road repairs	1 LS	$ 760,000	$ 760,000
12	Citizen Accommodations	1 LS	$ 200,000	$ 200,000
13	Sedimentation and Erosion Control	1 LS	$ 200,000	$ 200,000
14	Demolish & Remove Existing Infrastructure	1 LS	$ 200,000	$ 200,000
15	Concrete Box Culvert, 5x12	2450 LF	$ 1,950	$ 4,777,500
16	Concrete Box Culvert, 5x10	2950 LF	$ 1,850	$ 5,457,500
17	Reinforced Concrete Pipe, 54"	500 LF	$ 450	$ 225,000
18	Reinforced Concrete Pipe, 48"	650 LF	$ 360	$ 234,000
19	Reinforced Concrete Pipe, 36"	425 LF	$ 260	$ 110,500
20	Reinforced Concrete Pipe, 15"-30""	4500 LF	$ 180	$ 810,000
21	Cast-in-place RC Junction Box	4 EA	$ 200,000	$ 800,000
22	Pre-cast Storm Sewer Structures	125 EA	$ 6,500	$ 812,500
23	Access Manholes	12 EA	$ 3,800	$ 45,600
24	Sanitary sewer relocation	1 LS	$ 3,800,000	$ 3,800,000
25	Potable water relocation	1 LS	$ 2,400,000	$ 2,400,000
26	Right-of-way Restoration	1 LS	$ 5,200,000	$ 5,200,000
Subtotal				**$ 34,852,600**
	Contingency @ 15%		$ 5,230,000	$ 5,230,000
	Design Build fee @ 8%		$ 2,790,000	$ 2,790,000
	Total Preliminary Construction Cost			**$ 42,872,600**
	Engineering Design & Pre-Design Services @ 7%		$ 2,440,000	$ 2,440,000
	Third Party Review Fee @ 0.15%		$ 50,000	$ 50,000
	Total Preliminary Project Cost			**$ 45,362,600**

APPENDIX E

BENEFIT/COST ANALYSIS WITH BMPTRAINS REPORT AND EXHIBIT

DRAFT

Project Useful Life: 30 Years (SWFWMD standard value)

Discount Rate: 7 percent (SWFWMD standard Value)

Maximum Driveable Depth: 6" (SWFWMD standard value) Roadway lines were sampled from DEM to produce Crown elevation utilized in Peak Stage graph tabs and Roadway Innundation Tab for each roadway segment. The lowest elevation sampled from the DEM was utilized. In areas with less detailed hydraulics, and/or no underground closed conduit system, these roadway crowns produced results significantly lower than the selected nodes predicted stages. In these cases, the invert of the overland weir modeled was utilized as the roadway crown as a compromise for pre/post comparisons for all segments applied to the same node.

Vehicles per Household: 1.6 (SWFWMD standard value)

Estimated Values for Vehicles: No change (SWFWMD standard values)

Estimated Road Repair Cost: (SWFWMD standard values). It appears "Unknown/Other" road repair cost was inadvertently changed to 150, but no roads were categorized as such.

# of Lanes: 2 lanes used for all roadways

Est # of Daily Vehicles Affected: Published Hillsborough County Traffic Counts were utilized for Swann Avenue. Local Roadways were calculated utilizing the ITE Trip Generation Manual and conservatively assuming a limit of 40 homes accessing each road, i.e. no significant through traffic.

Detour Time per Vehicle: 0.25 hr used for local roads, 0.5 hr used for collectors

Finished Floor Elevation (FFE): The highest adjacent grade (HAG) at each structure was estimated by utilizing an automated process requiring LiDAR and building footprint data. Elevations within the building footprints were sampled from the LiDAR and the highest value was applied to assign a minimum value to each structure. Considering most structures in the evaluation area are slab-on-grade, an additional 6 inches was added to each HAG elevation to simulate the thickness of a standard slab.

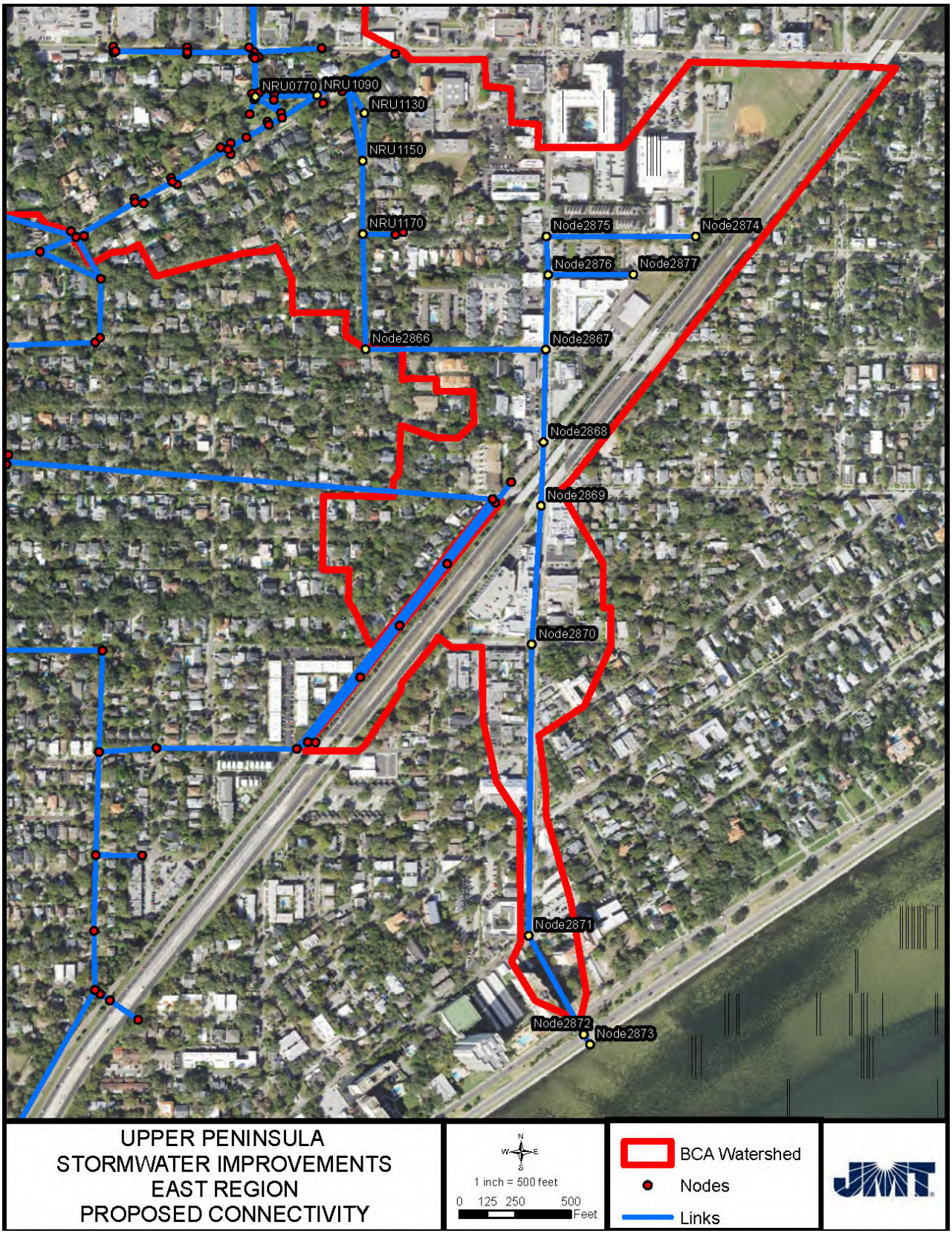
Driveway Elevation: The lowest adjacent grade (LAG) at each structure was estimated by utilizing an automated process requiring LiDAR and building footprint data. Elevations within the building footprints were sampled from the LiDAR and the lowest value was applied to assign a value to each structure. Considering structures are elevated above the adjacent roadways, an additional 6 inches was deducted from each LAG elevation for the Driveway Minimum Elevation.

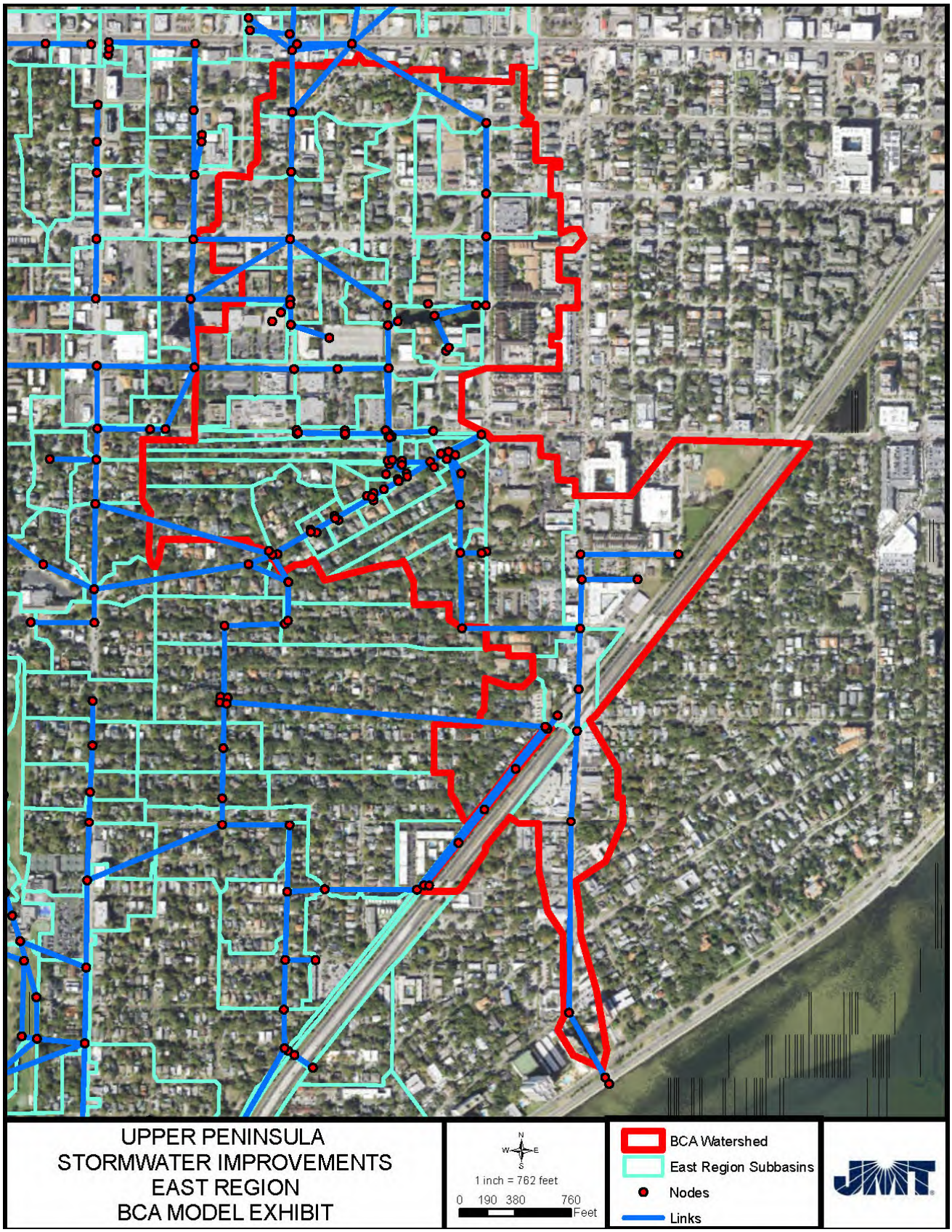
Building Type: Only residential structures were included. All building types set to One Story, No Basement to be conservative.

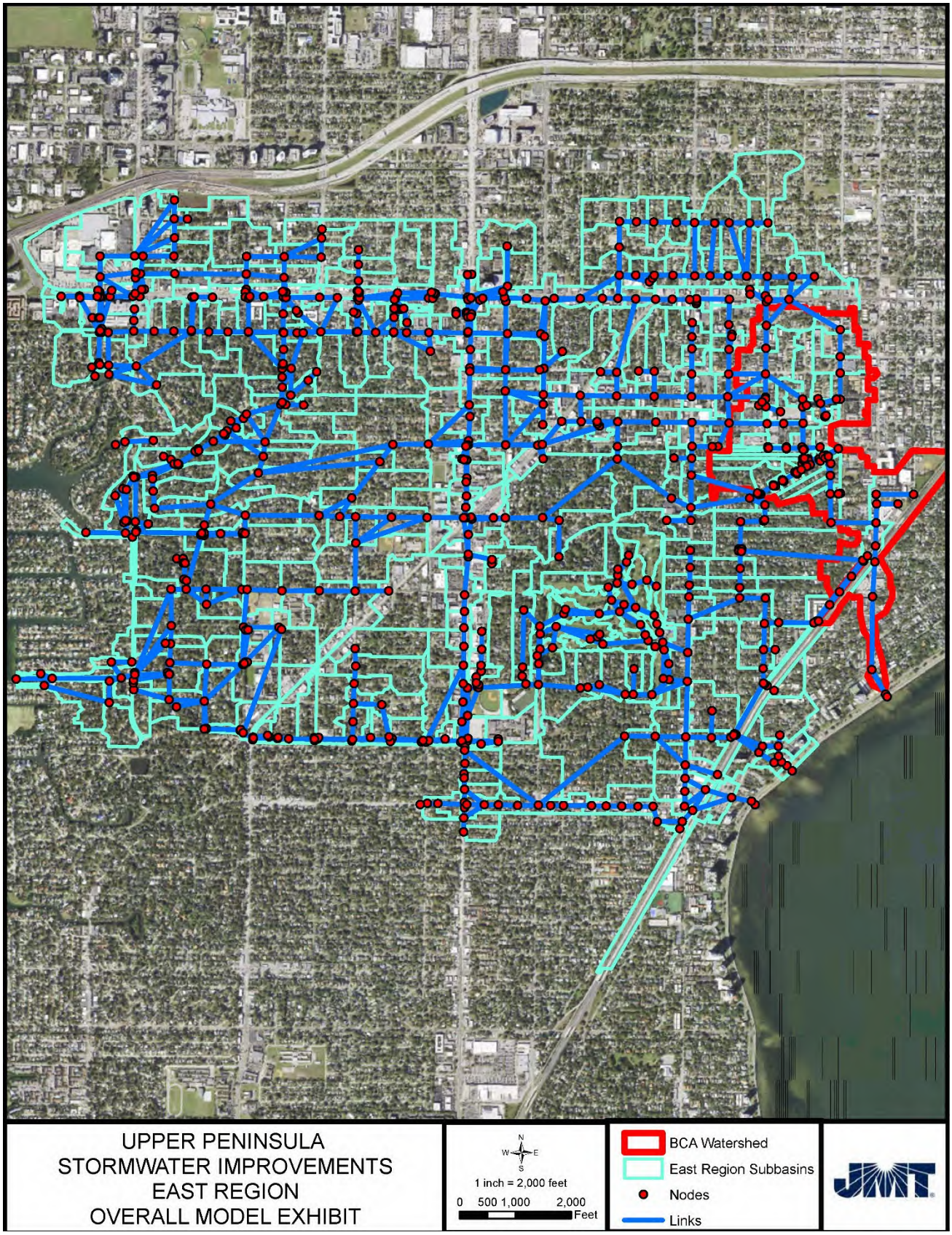
Building Square Footage: Obtained from City of Tampa

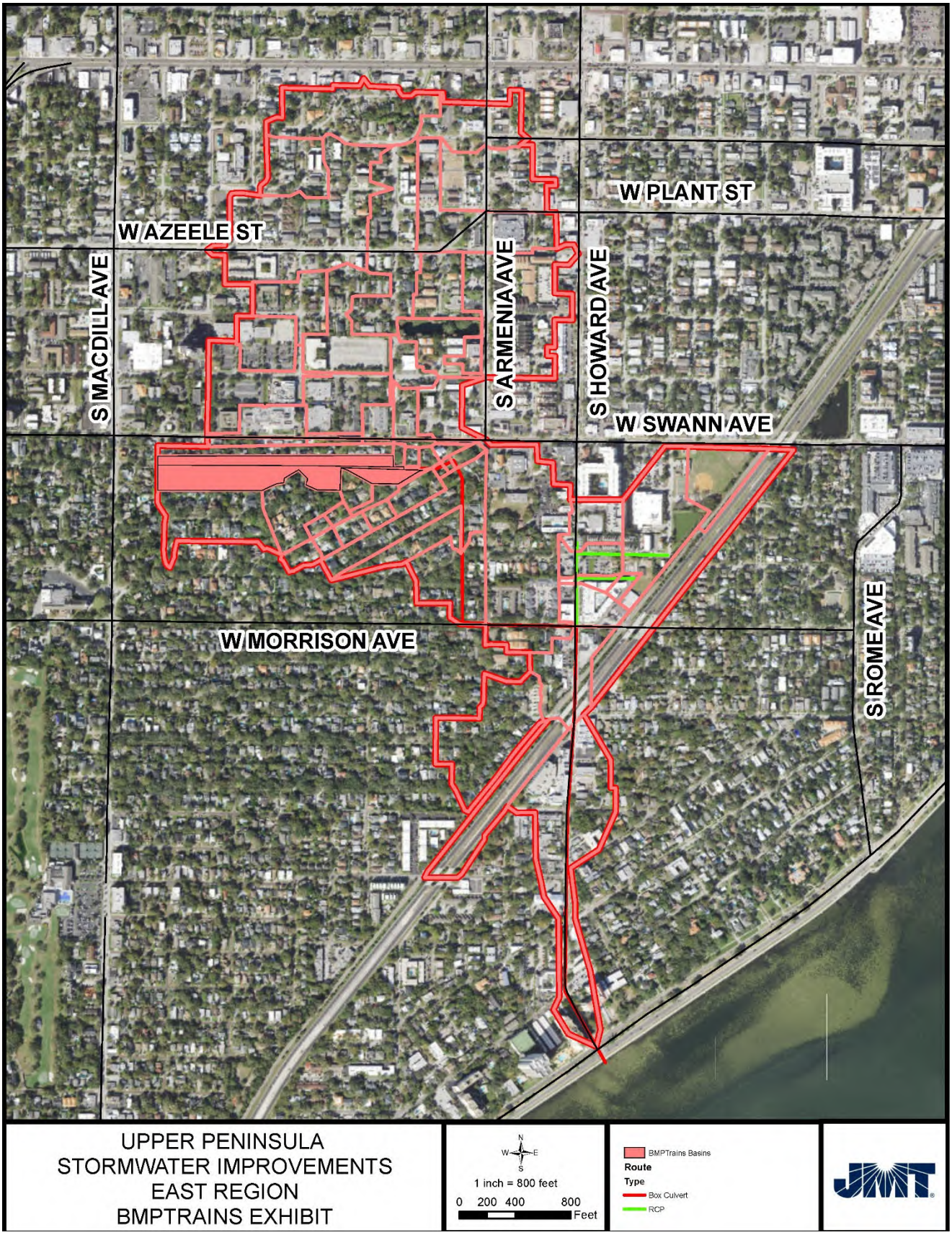
Building Value: Obtained from City of Tampa. "Just Value" for each evaluated structure utilized as a proxy for building replacement value.

Design Storms: The mean annual, 5-year, 10-year, 25-year, 50-year and 100-year; 24-hour storm events as defined by the SWFWMD were utilized for this BCA.


NRU0770
NRU1090
NRU1130
NRU1150
NRU1170
Node2875
Node2874
Node2876
Node2877
Node2866
Node2867
Node2868
Node2869
Node2870
Node2871
Node2872
Node2873
UPPER PENINSULA
STORMWATER IMPROVEMENTS
EAST REGION
PROPOSED CONNECTIVITY
1 inch = 500 feet
0 125 250 500
Feet
BCA Watershed
Nodes
Links


UPPER PENINSULA
STORMWATER IMPROVEMENTS
EAST REGION
BCA MODEL EXHIBIT
N
W
E
S
1 inch = 762 feet
0 190 380 760
Feet
BCA Watershed
East Region Subbasins
Nodes
Links


UPPER PENINSULA
STORMWATER IMPROVEMENTS
EAST REGION
OVERALL MODEL EXHIBIT
N
W
E
S
1 inch = 2,000 feet
0 500 1,000 2,000
Feet
BCA Watershed
East Region Subbasins
Nodes
Links


W PLANT ST
W AZEELE ST
S MACDILL AVE
S ARMENIA AVE
S HOWARD AVE
W SWANN AVE
W MORRISON AVE
S ROME AVE
UPPER PENINSULA
STORMWATER IMPROVEMENTS
EAST REGION
BMPTRAINS EXHIBIT
N
W
E
S
1 inch = 800 feet
0 200 400 800
Feet
BMPTrains Basins
Route
Type
Box Culvert
RCP

Complete Report (not including cost) Ver 4.3.3

Project: Upper Peninsula East/Parkland
Date: 9/30/2021 1:51:36 PM

Site and Catchment Information

Analysis: BMP Analysis

Catchment Name	Basin 643	Node 646	Node 647
Rainfall Zone	Florida Zone 4	Florida Zone 4	Florida Zone 4
Annual Mean Rainfall	51.00	51.00	51.00

Post-Condition Landuse Information

Landuse	Rangeland/Parkland: TN=1.150 TP=0.055	Single-Family: TN=2.070 TP=0.327	Single-Family: TN=2.070 TP=0.327
Area (acres)	0.90	4.91	5.68
Rational Coefficient (0-1)	0.01	0.39	0.35
Non DCIA Curve Number	39.00	39.00	39.00
DCIA Percent (0-100)	0.00	47.10	41.60
Wet Pond Area (ac)	0.00	0.00	0.00
Nitrogen EMC (mg/l)	1.150	2.070	2.070
Phosphorus EMC (mg/l)	0.055	0.327	0.327
Runoff Volume (ac-ft/yr)	0.039	8.197	8.407
Groundwater N (kg/yr)	0.000	0.000	0.000
Groundwater P (kg/yr)	0.000	0.000	0.000
Nitrogen Loading (kg/yr)	0.055	20.922	21.458

Phosphorus Loading (kg/yr)	0.003	3.305	3.390

Catchment Number: 1 Name: Basin 643

Project: Upper Peninsula East/Parkland
Date: 9/30/2021

User Defined BMP Design

Contributing Catchment Area (acres)	0.900
Provided Nitrogen Treatment Efficiency (%)	10
Provided Phosphorus Treatment Efficiency (%)	10

Watershed Characteristics

Catchment Area (acres)	0.90
Contributing Area (acres)	0.900
Non-DCIA Curve Number	39.00
DCIA Percent	0.00
Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	
Provided TN Treatment Efficiency (%)	10
Required TP Treatment Efficiency (%)	
Provided TP Treatment Efficiency (%)	10

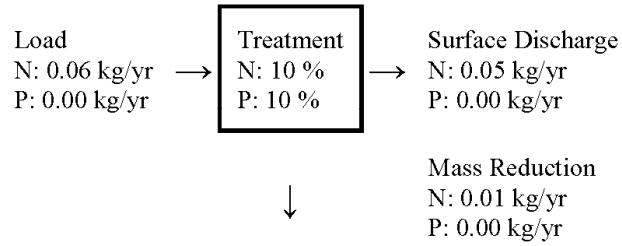
Media Mix Information

Type of Media Mix	Not Specified
Media N Reduction (%)	
Media P Reduction (%)	

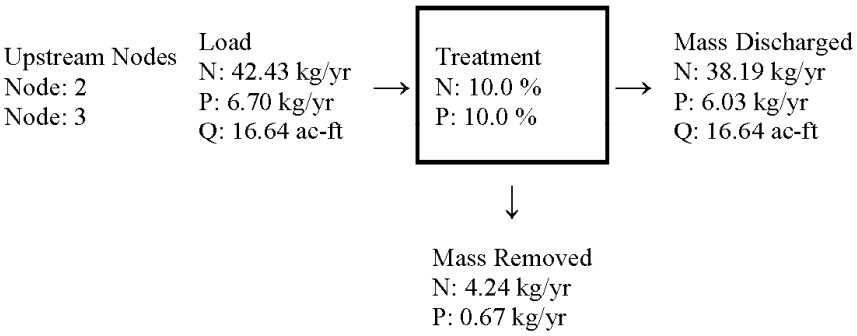
Groundwater Discharge (Stand-Alone)

Treatment Rate (MG/yr)	0.000
TN Mass Load (kg/yr)	0.000
TN Concentration (mg/L)	0.000
TP Mass Load (kg/yr)	0.000
TP Concentration (mg/L)	0.000

Load Diagram for User Defined BMP (stand-alone)



Load Diagram for User Defined BMP (As Used In Routing)



Catchment Number: 2 Name: Node 646

Project: Upper Peninsula East/Parkland
Date: 9/30/2021

None Design

Watershed Characteristics

Catchment Area (acres)	4.91
Contributing Area (acres)	4.910
Non-DCIA Curve Number	39.00
DCIA Percent	47.10

Rainfall Zone	Florida Zone 4
Rainfall (in)	51.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	
Provided TN Treatment Efficiency (%)	
Required TP Treatment Efficiency (%)	
Provided TP Treatment Efficiency (%)	

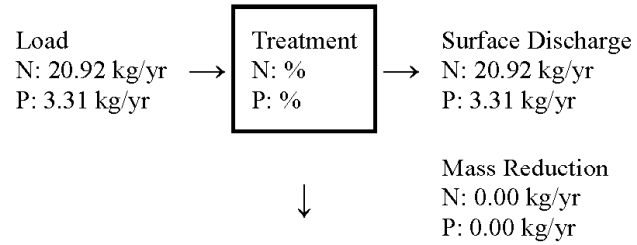
Media Mix Information

Type of Media Mix	Not Specified
Media N Reduction (%)	0.000
Media P Reduction (%)	0.000

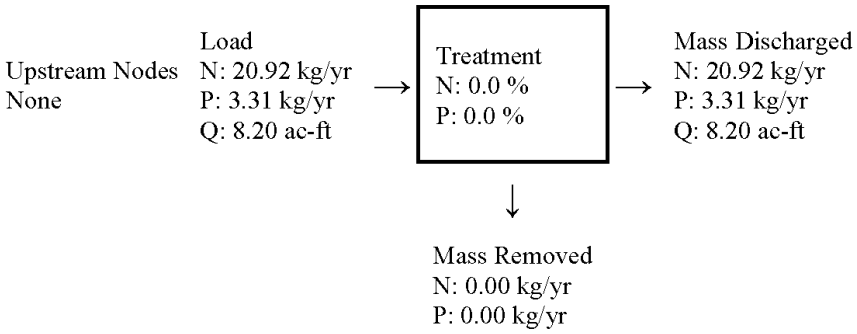
Groundwater Discharge (Stand-Alone)

Treatment Rate (MG/yr)	0.000
TN Mass Load (kg/yr)	0.000
TN Concentration (mg/L)	0.000
TP Mass Load (kg/yr)	0.000
TP Concentration (mg/L)	0.000

Load Diagram for None (stand-alone)



Load Diagram for None (As Used In Routing)



Catchment Number: 3 Name: Node 647

Project: Upper Peninsula East/Parkland
Date: 9/30/2021

None Design

Watershed Characteristics

Catchment Area (acres)	5.68
Contributing Area (acres)	5.680
Non-DCIA Curve Number	39.00
DCIA Percent	41.60
Rainfall Zone	Florida Zone 4

Rainfall (in)	51.00

Surface Water Discharge

Required TN Treatment Efficiency (%)	
Provided TN Treatment Efficiency (%)	
Required TP Treatment Efficiency (%)	
Provided TP Treatment Efficiency (%)	

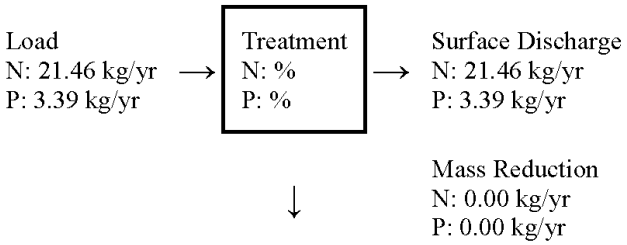
Media Mix Information

Type of Media Mix	Not Specified
Media N Reduction (%)	0.000
Media P Reduction (%)	0.000

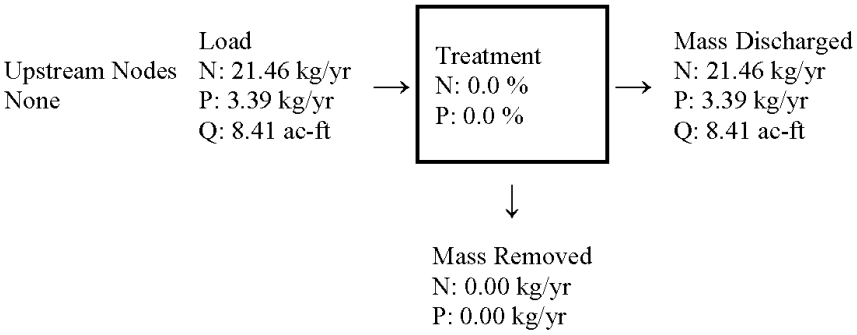
Groundwater Discharge (Stand-Alone)

Treatment Rate (MG/yr)	0.000
TN Mass Load (kg/yr)	0.000
TN Concentration (mg/L)	0.000
TP Mass Load (kg/yr)	0.000
TP Concentration (mg/L)	0.000

Load Diagram for None (stand-alone)



Load Diagram for None (As Used In Routing)



Summary Treatment Report Version: 4.3.3

Project: Upper Peninsula
East/Parkland

Analysis Type: BMP Analysis
BMP Types:
Catchment 1 - (Basin 643)
User Defined BMP
Catchment 2 - (Node 646)
None
Catchment 3 - (Node 647)
None
Based on % removal values to the nearest percent

Date:9/30/2021

Routing Summary
Catchment 1 Routed to Outlet
Catchment 2 Routed to Catchment 1
Catchment 3 Routed to Catchment 1

Summary Report

Nitrogen

Surface Water Discharge

Total N post load	42.43 kg/yr	
Percent N load reduction	10 %	
Provided N discharge load	38.19 kg/yr	84.21 lb/yr
Provided N load removed	4.24 kg/yr	9.36 lb/yr

Phosphorus

Surface Water Discharge		
Total P post load	6.697 kg/yr	
Percent P load reduction	10 %	
Provided P discharge load	6.028 kg/yr	13.29 lb/yr
Provided P load removed	.67 kg/yr	1.477 lb/yr

FY23 Cooperative Funding Initiative Application
Stormwater Improvement Flood Protection (SIFP) Benefit Cost Analysis Tool
Version 1.1, July 2021

Southwest Florida Water Management District
WaterMatters.org · 1-800-423-1476

Cooperator/Applicant: City of Tampa

Project Number/Name: (????) Upper Peninsula Stormwater Improvements - East Region

Cooperator/Applicant to insert a short narrative about the project including anticipated benefit(s): *Flooding problem near West Fountain Boulevard and Audubon Avenue extending up to Swann Avenue is severe with respect to both frequency of occurence and depth of inundation. This proposed project is to construct a new gravity outfall from the natural low point in the basin to ultimate discharge to Tampa Bay at the intersection of Howard Avenue and Bayshore Boulevard. It is anticipated that street flooding for the 5-year/8-hr storm event will be elimated within Parkland Estates once this project is implemented. In addition, localized flooding problems along the route will be addressed as the system is being proposed in an area with no defined conveyance system. Capacity is being considered for anticipated Selmon Expressway improvements. Water quality treatment BMP's are likely where no water quality treatment exists and several planned Vision Zero traffic/transportation impovement projects along the route will be included. The proposed route reduces overall construction costs by taking advantage of existing dry box culvert crossings of the railroad tracks and the large sanitary force main in Bayshore Boulevard.*

Table A - Benefit Cost Information

Benefit Category	Is this benefit addressed by the proposed project? (Yes/No or N/A)	Can you provide B:C information for the CFI application? (Yes and B:C ratio, No, or N/A)	If you answered "No" in column "C", do you need assistance to be able to provide B:C information? (Yes or N/A)	Additional Comments
Flood Protection	Yes	Yes, 1.0	N/A	
Water Quality Improvement	N/A	N/A	N/A	
Additional Benefit 1	N/A	N/A	N/A	
Additional Benefit 2	N/A	N/A	N/A	
Additional Benefit 3	N/A	N/A	N/A	

Table B - Project Cost

		(a)	(c)	(d)	(e)	(f)
	Cost Category	Cooperator Share	District Share	Other Funding Sources	Total	% District Funding Match
(a)	Direct Project Administration Costs				$0	#DIV/0!
(b)	Land Purchase/Easement				$0	#DIV/0!
(c)	Planning/Design/Engineering/Environmental Documentation				$0	#DIV/0!
(d)	Construction/Implementation				$0	#DIV/0!
(e)	Construction/Implementation Contingency				$0	#DIV/0!
(f)	Environmental Compliance/Mitigation/Enhancement				$0	#DIV/0!
(g)	Construction Administration				$0	#DIV/0!
(h)	Other Costs (e.g. O&M)				$0	#DIV/0!
(i)	**Grand Total (Sum rows (a) through (h) for each column)**	$0	$0	$0	$0	#DIV/0!

Notes:

Table C - Project Benefit Summary

Check all project benefits that are applicable. If you choose to enter a benefit not listed below, please provide a detailed description.

Benefit Considered	Benefit Detail
[x]	Reduced physical damage (buildings, contents, infrastructure, landscaping, vehicles, equipment, crops, ecosystems)
[x]	Reduced loss of functions (net loss of business income, net loss of rental income, net loss of wages, net loss of public services, net loss of utility services, displacement costs of temporary quarters, transportation system disruptions)
[x]	Reduced emergency response costs (evacuation and rescue costs, security costs, dewatering flood management system repairs, humanitarian assistance)
[x]	Reduced public safety and health impacts (population at risk, casualties, displacement/shelter needs, critical facilities)

For benefits that could not be quantified in physical terms, please provide a description below. The description should include a description of economic factors that may affect or qualify the amount of economic benefits to be realized. The description should also include any uncertainty (such as model parameterization) that might affect the level of benefits received.

Description of Qualitative Benefits :

Table D - Benefit Cost Analysis

(a)	Expected Annual Damage Without Project [1]	$4,327,908
(b)	Expected Annual Damage With Project [1]	$780,097
(c)	Expected Annual Damage Benefit (a) – (b)	$3,547,811
(d)	Discount Rate	7.0%
(e)	Project Useful Life (# years)	30
(f)	Total Present Value of Future Benefits	$44,024,933
(g)	Total Project Cost	$45,362,600
(h)	Benefit/Cost Ratio	0.97

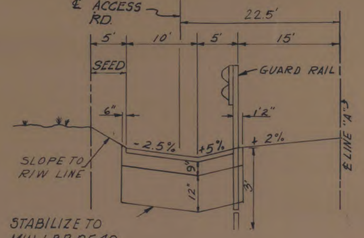
[1] *This tool assumes no population growth thus EAD will be constant over analysis period.*

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		40
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3012 HORATIO STREET
TAMPA FLORIDA

S. MOODY AVE.
STA. 1+80.00 BEGIN CONST.
Asph. Pav't.
CONNECT TO EXIST. PAVT.
5' CURB TRANS.
S-44 STA. 2+00 CONST. INLET TYPE P-6
CONST. 52' OF 15" PIPE
S-43 STA. 2+00 CONST. INLET, TYPE P-6
CONST. 6" CURB, 1.5' GUTTER (BOTH SIDES)
8" G.M.
4" W.M.
INLET TO BE REMOVED
PC STA. 2+16.85
CURVE NO. 1 DATA
PI STA. 2+98.02
Δ = 10°06'04"
D = 14°00'00"
R = 409.26'
T = 36.17'
L = 72.15'
CURVE NO. 2 DATA
PI STA. 3+84.17
Δ = 12°30'04"
D = 14°00'00"
R = 409.26'
T = 44.83'
L = 89.29'
SCALE 1" = 20'
3' CURB TRANS. TO DROP CURB
CONST. DROP CURB
S-45 STA. 214+00 (20' LT.) CONST. VALLEY INLET, TYPE VA
CONST. 118' OF 18" PIPE
ACCESS RD. N 38° 42' 27" E
8' G.M.
CONST. 204' OF 18" PIPE
DROP CURB (TYP.) 18"
CONST. 150' GUARD RAIL INDEX NO. 2300
STA. 215+15 END CONST.
CONST. 12.5' GUARD RAIL, INDEX NO. 2300 Q MOD
S-46 STA. 24+45 (20' LT.) HOWARD AVE. CONST. M.H. TYPE P-7
STA. 216+16.55 ℄ LINE "A"
STA. 24+37.22 ℄ HOWARD AVE.
CONST. R.R. CROSSING TYPE "L". FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
RETURN NO. 4
S-49 STA. 25+22.58 CONST. INLET, TYPE P-6
CONST. DROP CURB
CONST. 38' OF 15" PIPE
3-47 STA. 25+45 CONST. INLET, TYPE P-5
CONST. 6" CURB, 1.5' GUTTER
STA. 25+77.34 END CONST.
CONNECT TO EXIST. PAVT.
5' TRANSITION TO EXIST. CURB
JETTON AVE.
CONNECT TO EXIST. PAVT.
RETURN NO. 5
S-48 STA. 25+59.37 CONST. INLET TYPE P-6 4" Granite Curb
8' G.M.
12" W.M.
4" Granite Curb
R/W LINE
2" W.M.
BT. (600 PR.) R/W LINE
(TO REMAIN) 18" RCP
MH TO REMAIN S-41-D
CONST. 24" PIPE
REMOVE INLET
RCP TO BE REMOVED
STA. 2+91.18 WATROUS
CURB TRANS. NO. 4
213
214
215
216
217
26
25
24
℄ LINE "A"
STA. 217+00
DROP CURB (TYP.)
3' CURB TRANS. (TYP.)
CONST. 38' OF 18" PIPE (CLASS III) WITH STD. ENDWALLS & "U" TYPE WINGS INDEX NO. 200.
CONST. 6" CURB, 1.5' GUTTER
8.0' (TYP.)
5.0' (TYP.)
35.0'
65.0'
200.0'
100.0'
STA. 213+27 (20' RT.) LINE A CONST. STD. HEADWALL WITH "U" TYPE WINGS INDEX NO. 200
STA. 213+44.53 ℄ LINE "A"
STA. 3+24.46 ℄ WATROUS AVE.
CONST. R.R. CROSSING TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
PT STA. 3+34.01
PC STA. 3+39.34
CONST. 84' 24" PIPE
CONST. 6" CURB 1.5' GUTTER BOTH SIDES
STA. 214+11 (20' RT.) LINE A CONST. STD. HEADWALL WITH "U" TYPE WINGS, INDEX NO. 200
NOTE: 10'X 5' BOX EXTENDER 280'
N 38° 42' 27" E
STA. 214+58 (63' RT.) CONST. STD. HEADWALL "U" TYPE WINGS, INDEX NO. 200
CONST. 24' OF 15" PIPE
PT STA. 4+28.63
RETURN NO. 2
S-50 9' G.M. & 12" W.M. CONST. INLET, TYPE P-6
CONST. 10'x 5' CONC. BOX CULVERT SEE DETAIL SHEET NO. 170
CONNECT TO EXIST. 8' G.M. & 12" W.M.
FUTURE PIER LOCATION (TYP.)
HOWARD AVENUE
CONST. 6" CURB, 1.5' GUTTER (BOTH SIDES)
NEW 4" WATER MAIN
4" W.M.
STA. 22+37.45 ℄ HOWARD AVE.
STA. 4+91.23 ℄ WATROUS AVE.
2 B.T. (100 & 200 PR.)
RETURN NO. 1
STA. 21+57 BEGIN CONST.
5' TRANSITION TO EXIST. CURB
B.T. (600 PR.)
P.I. STA. 22+76.01
RETURN NO. 3
5' TRANSITION TO EXIST. CURB
R/W Line
STA. 23+32.03 ℄ HOWARD AVE.
STA. 215+21.60 ℄ SURVEY
4-6" ELECTRIC DUCTS FOR FUTURE USE
1 CONST. 230' OF 10'x 5' CONC. BOX CULVERT FLA. D.O.T. STANDARD INDEX NO. 8013 MOD.
℄ SURVEY
CONNECT TO EXIST. PAVT.
STA. 5+50 END CONST.
WATROUS AVE.
Asph. Pav't.
4" Granite Curb
8" W.M.
SIDEWALK
N 4° 30' E
12" W.M.
S 89° 55' 53" E
20
21
22
6

NOTE; FOR SPECIAL PROFILES SEE SHEETS 41, 70, & 71



STABILIZE TO MIN. LBR. OF 40

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED WITH TYPE S-1 ASPHALTIC CONCRETE SURFACE COURSE (3" THICK) BOTTOM LAYER (1½" THICK) TOP LAYER (1½" THICK)
SCALE 1"= 2' VERT. 1"= 10' HORIZ.

SECTION A-A

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE
1	ADDED 230' of 10'x 5' CONC. BOX CULVERT	JNC	4-25-74

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PLAN
HOWARD AVE. & WATROUS AVE.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE S.P. DATE 4/72 TRACED S.P. DATE 4/72
CHECKED D.M. DATE 4/72 SCALE 1"= 20'

AS BUILT DRAWINGS
Contract Nos. 9A & 9B

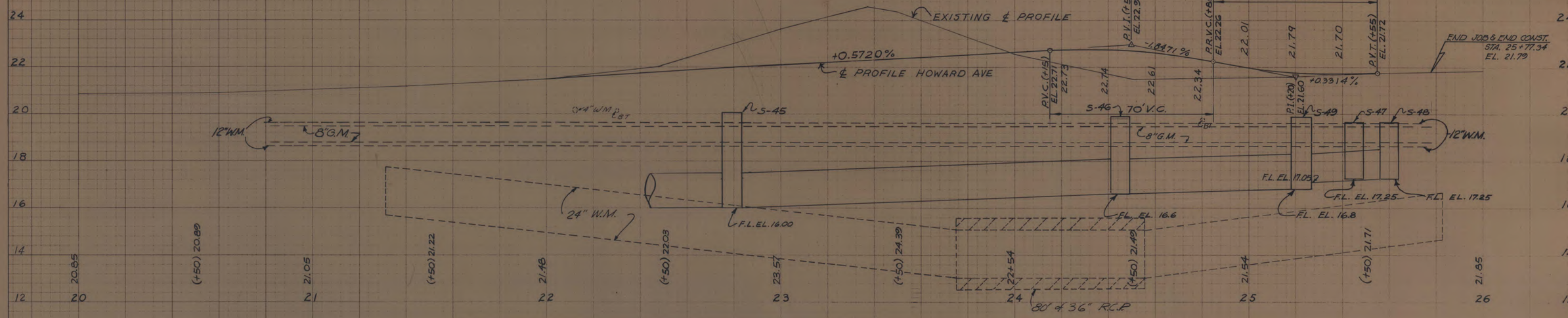
84
1

NO.	REVISION	BY	DATE
1	Added 230'of 10'x 5'CONC. BOX CULVERT	JNC	9-25-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		41
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

NOTE:
FOR SPECIAL PROFILES ON EDGES OF PAV'T
SEE SHEET NO 71



① NOTE:
1. STA 21+62.22
FL. 3.82

2. SEAL END OF CULVERT WITH 12" THICK BRICK WALL. COST OF BRICK WALL TO BE INCLUDED IN CONTRACT UNIT PRICE FOR CLASS "A" CONCRETE

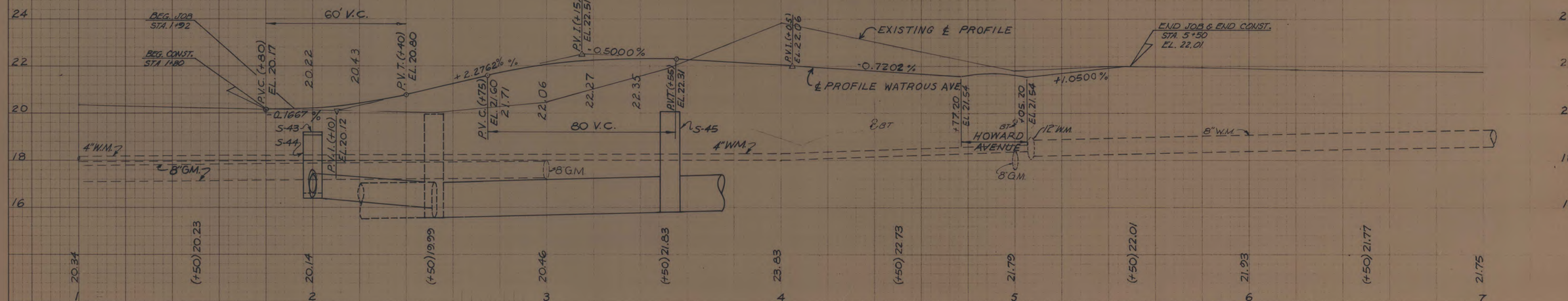
① CONST. 230' of 10'x 5' CONC. BOX CULVERT FLA. D.O.T. STANDARD INDEX NO. 8013 MOD.

① CONNET TO EXIST CULVERT.

5 CONST. 10'x5' CONC. BOX CULVERT SEE SHEET NO. 170.

PROFILE ALONG HOWARD AVE.

NOTE:
FOR SPECIAL PROFILES ON EDGES OF PAVT.
SEE SHEET NO. 70



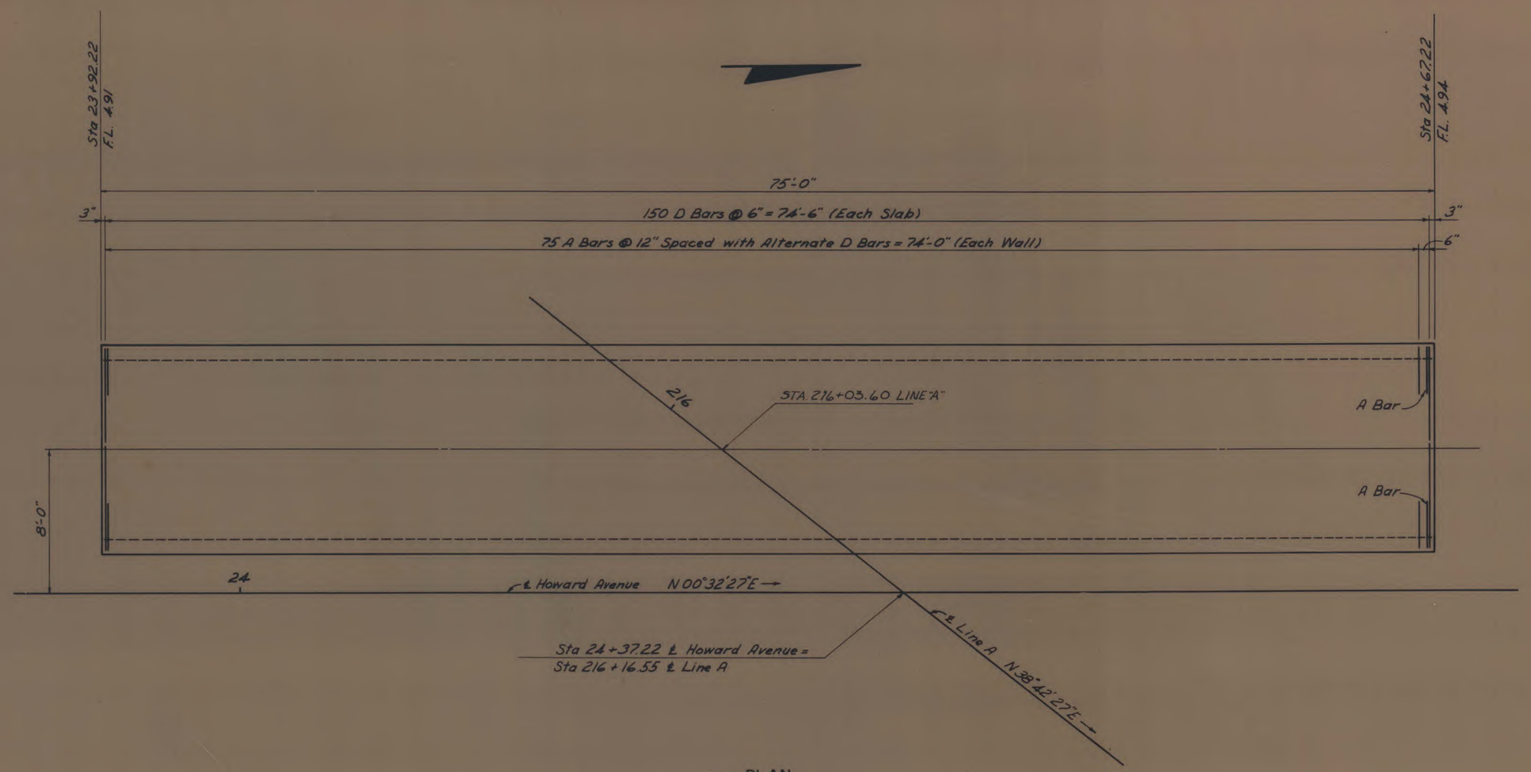
PROFILE ALONG WATROUS AVE.

AS BUILT DRAWINGS
APR 21 1976
Contract Nos. 9A & 9B

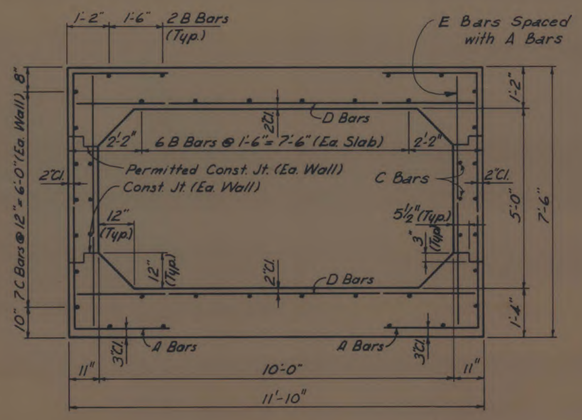
WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		170
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

STATE JOB No. 10002-[illegible]



PLAN



SECTION

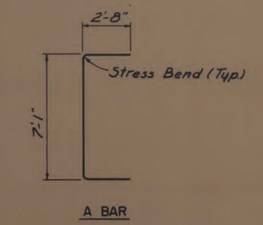
Notes:

1. *Design is in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, 1969 Edition, and A.R.E.A. Manual of Recommended Practice, Chapter 8, 1968 Edition.*
2. *Loadings are HS20-44 and Cooper E 72.*
3. *Maximum Foundation Pressure is 3330 psf.*
4. *Construction shall be in accordance with Florida State Road Department Standard Specifications for Road and Bridge Construction, 1966 Edition.*
5. *Seal Ends of Culvert with 12" thick Brick Walls. Cost of Brick Walls to be included in Contract Unit Price for Class A Concrete.*

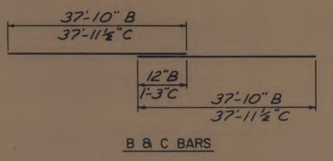
BILL OF REINFORCING

MARK	SIZE	NO. REQ'D	LENGTH	BENDING
A	9	152	12'-5"	Bent
B	4	20	75'-8"	See Diag.
C	5	20	75'-11"	"
D	8	300	11'-4"	Straight
E	4	152	7'-0"	"

BENDING DIAGRAMS



A BAR



B & C BARS

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Class A Concrete	C.Y.	113.2
Grade 40 Rein. Steel	Lb.	18,800

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

BOX CULVERT AT HOWARD AVE.

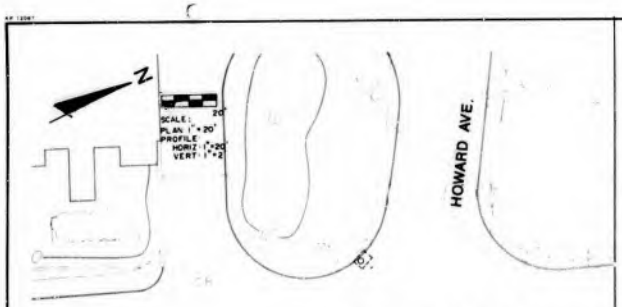
J. E. GREINER COMPANY — CONSULTING ENGINEERS
WATSON & COMPANY — TAMPA, FLORIDA

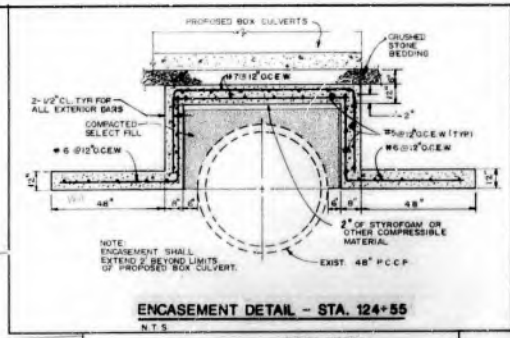
MADE	T.D.	DATE	1/73	TRACED	T.D.	DATE	1/73
CHECKED	E.A.M.	DATE	1/73	SCALE			

AS BUILT DRAWINGS APR 21 1976

Contract Nos. 9A & 9B

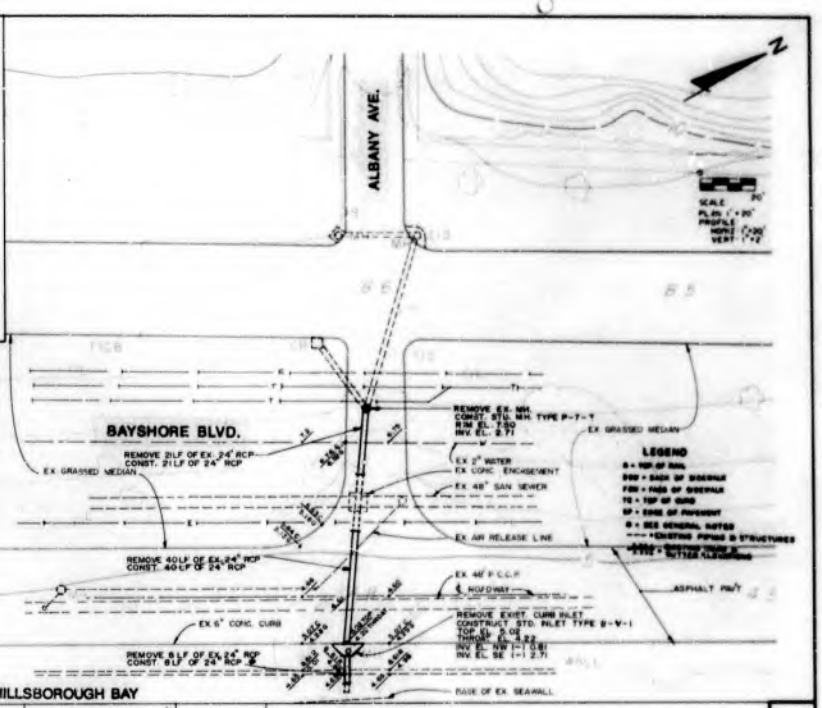
84
1

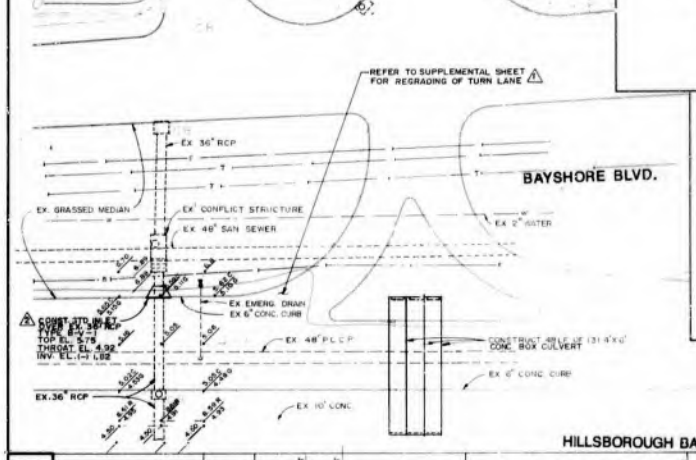


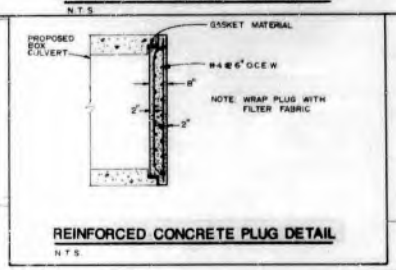


ENCASEMENT DETAIL – STA. 124+55

N.T.S.

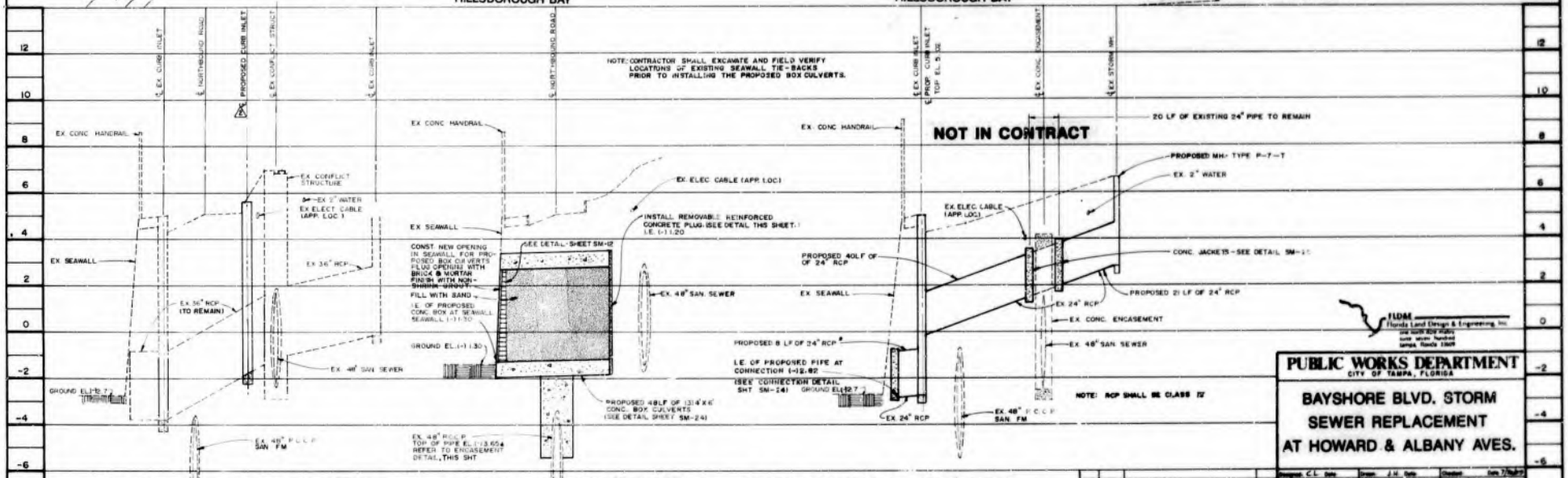






REINFORCED CONCRETE PLUG DETAIL

N.T.S.



D.P.W. #34 PROFILE – STA. 123+61.5

PROPOSED BOX CULVERT PROFILE STA. 124+55.00

D.P.W. #31 PROFILE – STA. 137+14

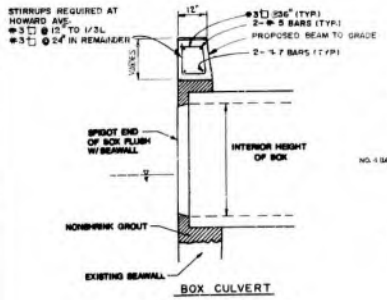
FLDAE
Florida Land Design & Engineering, Inc.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

BAYSHORE BLVD. STORM SEWER REPLACEMENT AT HOWARD & ALBANY AVES.

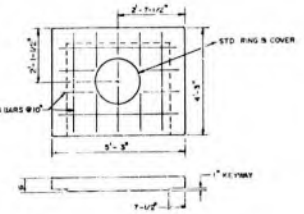
No.	Date	Revision	By
1	6-1-87	ADD INSET TO EXIST. SUMMER AIR OUTFALL	
2	6-1-87	ADD NOTE TO REGRADE TURN LANE	

Designed C.L. Date
Drawn J.H. Date
Checked Date 7/16/87
Reviewed D.W. Date
Approved G.V. Date
Scale 1"=10'
FIELD BOOK
FILE No.
JOB No.
SHEET SM-15



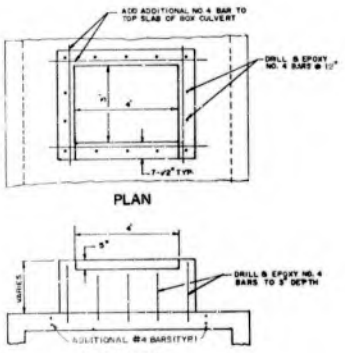
BOX CULVERT

SEAWALL DETAIL



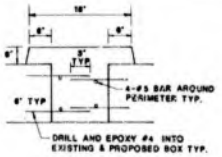
TOP SLAB

NOTE: CONTRACTOR SHALL ALIGN INLET TO AVOID INTERFERENCE WITH BOX JOINT.

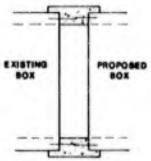


PLAN

ELEVATION



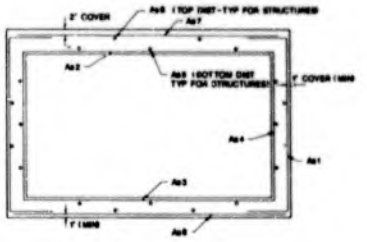
JOINT DETAIL



CLOSURE PIECE DETAIL

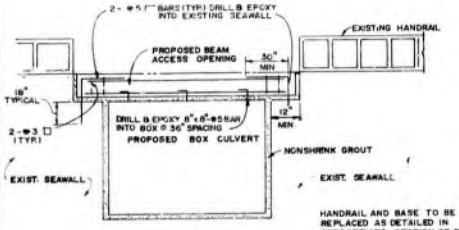
CONTRACTOR SHALL NOT BACKFILL UNTIL CONCRETE IN CLOSURE PIECE HAS REACHED 75% OF DESIGN STRENGTH.

CLOSURE DETAILS



LOCATION	SIZE (Interior) (ft)	THICKNESS Top Slab (in)	THICKNESS Bottom Slab (in)	THICKNESS Wall (in)	REINFORCING STL. @ 75.0 As1	As2	As3	As4	As5	As6	As7	As8
RUSKIN AVE.	8X4 (2)	8	8	8	0.37	0.51	0.27	0.18	0.18	0.18	0.18	0.18
N. OF BAY VILLA	8X4	8	8	8	0.37	0.51	0.27	0.18	0.18	0.18	0.18	0.18
ALLINE	8X4 (2)	8	8	8	0.37	0.51	0.27	0.18	0.18	0.18	0.18	0.18
HOWARD	8X4 (2)	8	7	7	0.26	0.45	0.24	0.17	0.20	0.18	0.18	0.17

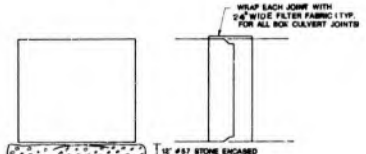
TYPICAL BOX CULVERTS

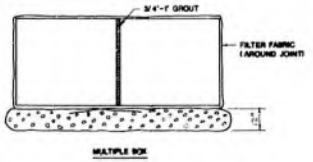


HANDRAIL AND BASE TO BE REPLACED AS DETAILED IN APPROPRIATE SECTION OF PLANS.

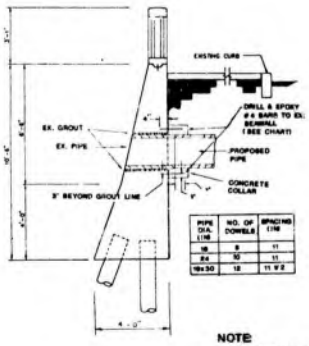
SEAWALL DETAIL

INLET DETAIL FOR BOX CULVERT

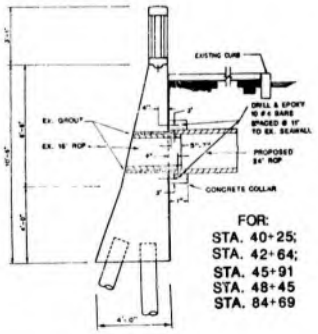




BEDDING DETAILS



PIPE DIA. (IN)	NO. OF DOWELS	SPACING (IN)
15	9	11
24	10	11
18x30	12	11 1/2



FOR:
STA. 40+25;
STA. 42+64;
STA. 45+91
STA. 48+45
STA. 84+69

NOTE:
IF FIBERGLASS OR PVC IS USED, CONTRACTOR SHALL ROUGH UP O.D. OF PIPE AND INSTALL AN O-RING GASKET PRIOR TO POURING CONCRETE.

SOUTH OF STATION 121+90

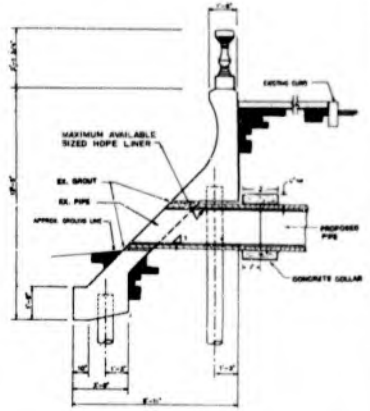
SEAWALL CONNECTION DETAIL-A

SEAWALL CONNECTION DETAIL-B

REFER TO DETAIL 'B' FOR EXCEPTIONS

NOTES
1) ALL CONCRETE COLLAR INSTALLATIONS SHALL BE WRAPPED WITH FILTER FABRIC AND BANDED TO THE PROPOSED PIPE WITH STAINLESS STEEL BANDS. REFER TO SHEET SM-25 FOR DETAILS.

SEAWALL CONNECTION DETAILS



NORTH OF STATION 121+90

SEAWALL CONNECTION DETAIL C

FLD&E
Florida Land Design & Engineering, Inc.
one north date metro
suite seven hundred
tampa, florida 33609

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

BAYSHORE BLVD. STORM SEWER REPLACEMENT

MISCELLANEOUS DETAILS

Designed C.L.	Date	Drawn J.V.	Date	Checked	Date
Reviewed D.W.	Date	Approved G.V.	Date	Scale	
Field Book					
FILE No.		JOB No.		SHEET SM-24	

No.	Date	REVISION	By


Proposed 5'x10' Box Culvert
Proposed 36" RCP
THEA Point of Connection
Proposed 5'x10' Box Culvert
Proposed 24" RCP
Utilize Existing Dry Box Culvert under Railroad & Expressway
Existing 5'x10' Box Culvert
THEA Point of Connection
Proposed 6'x10' Box Culvert
Connect to Existing Outfall
Existing (3)-4'x6' Box Culverts
W Swann Ave
W Inman Ave
W Bristol Ave
W Morrison Ave
W Watrous Ave
W Sunset Dr
W Prospect Rd
W Marjory Ave
W Southview Ave
W Dekle Ave
W Hills Ave
W Richardson Pl
W Neptune St
W Mississippi Ave
W Chicago Ave
W Stroud Ave
W Texas Ave
W Kansas Ave
W Tennessee Ave
Soho Bay Ct
W Parkland
W Edgewood
W Simms Blvd
W Jetton Ave
S Audubon Ave
S Lakeview Rd
S Moody Ave
S Albany Ave
S Bungalow Ter
S Forest Dr
S Eleta St
Selmon Expy W
Selmon Expy E
S Georgia Ave
S Howard Ave
S Alabama Ave
S Carolina Ave
S Arrawana Ave
Teresa Cir
S Gunby Ave
S Fremont Ave
S Rome Ave
Bayshore Blvd
Villa Palm Dr
S Clewis Ct
Project Map
South Howard Flood Relief and Streetscape Project
City of Tampa
Mobility - Stormwater Engineering
Legend
Potential Surface Amenities
Proposed Stormwater Pipes & Box Culvert
Existing Box Culvert

SW 2022-XX

CITY of TAMPA

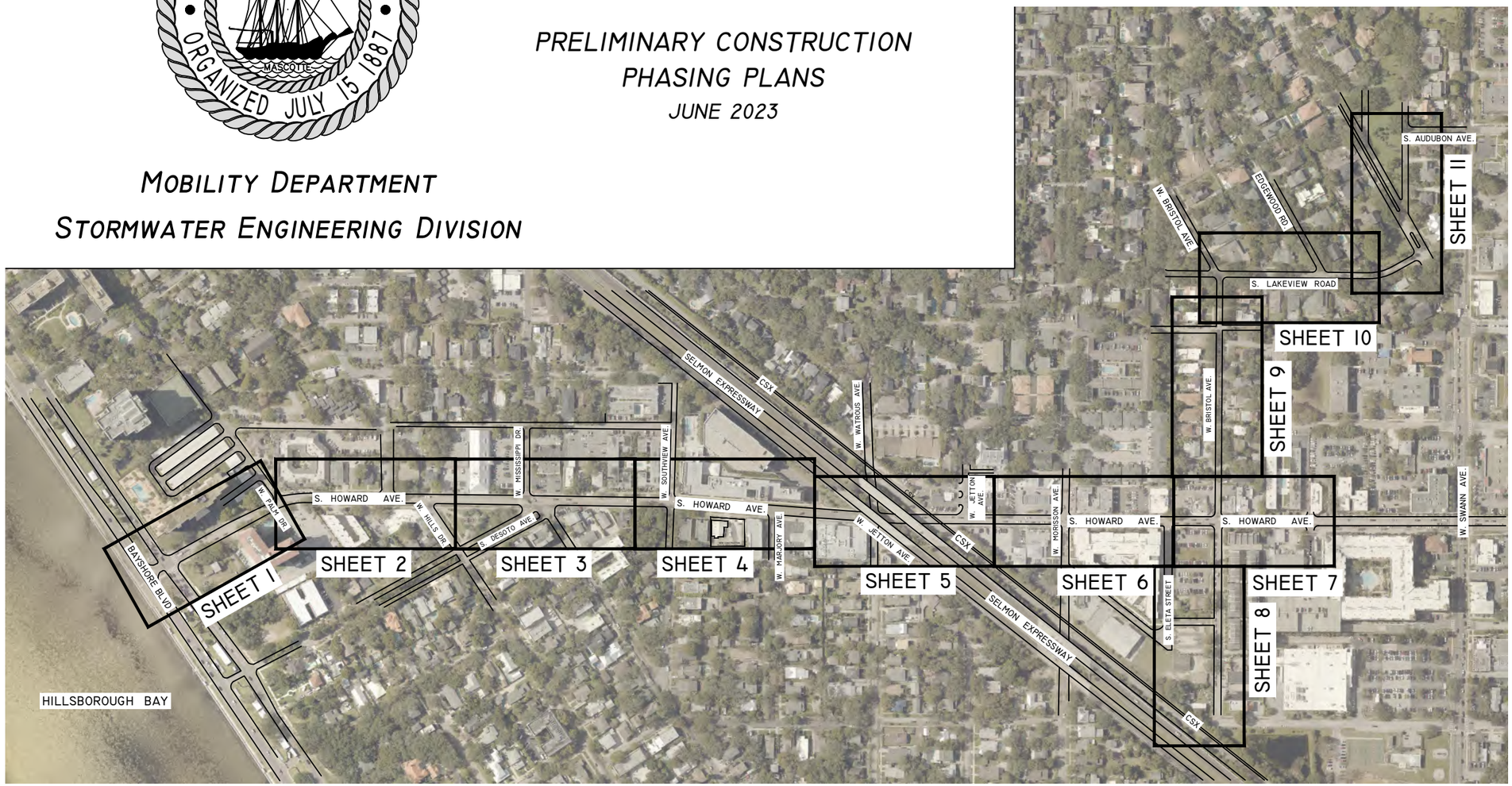
SOUTH HOWARD FLOOD RELIEF STREETSCAPE PROJECT

PRELIMINARY CONSTRUCTION PHASING PLANS

JUNE 2023

MOBILITY DEPARTMENT

STORMWATER ENGINEERING DIVISION



INDEX MAP

NOT TO SCALE

LEGEND

- EXISTING WASTEWATER
- EXISTING STORMWATER
- EXISTING WATER
- EXISTING RECLAIMED WATER
- WASTEWATER LINES TO BE REMOVED
- PROPOSED STORMWATER PIPE / BOX
- PROPOSED WASTEWATER
- PARTIAL ROAD OPENING PHASE
- ROAD SEGMENT CLOSURE PHASE
- ROAD ACCESS LOCATIONS AND DIRECTION

DRAFT

6/20/2023

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

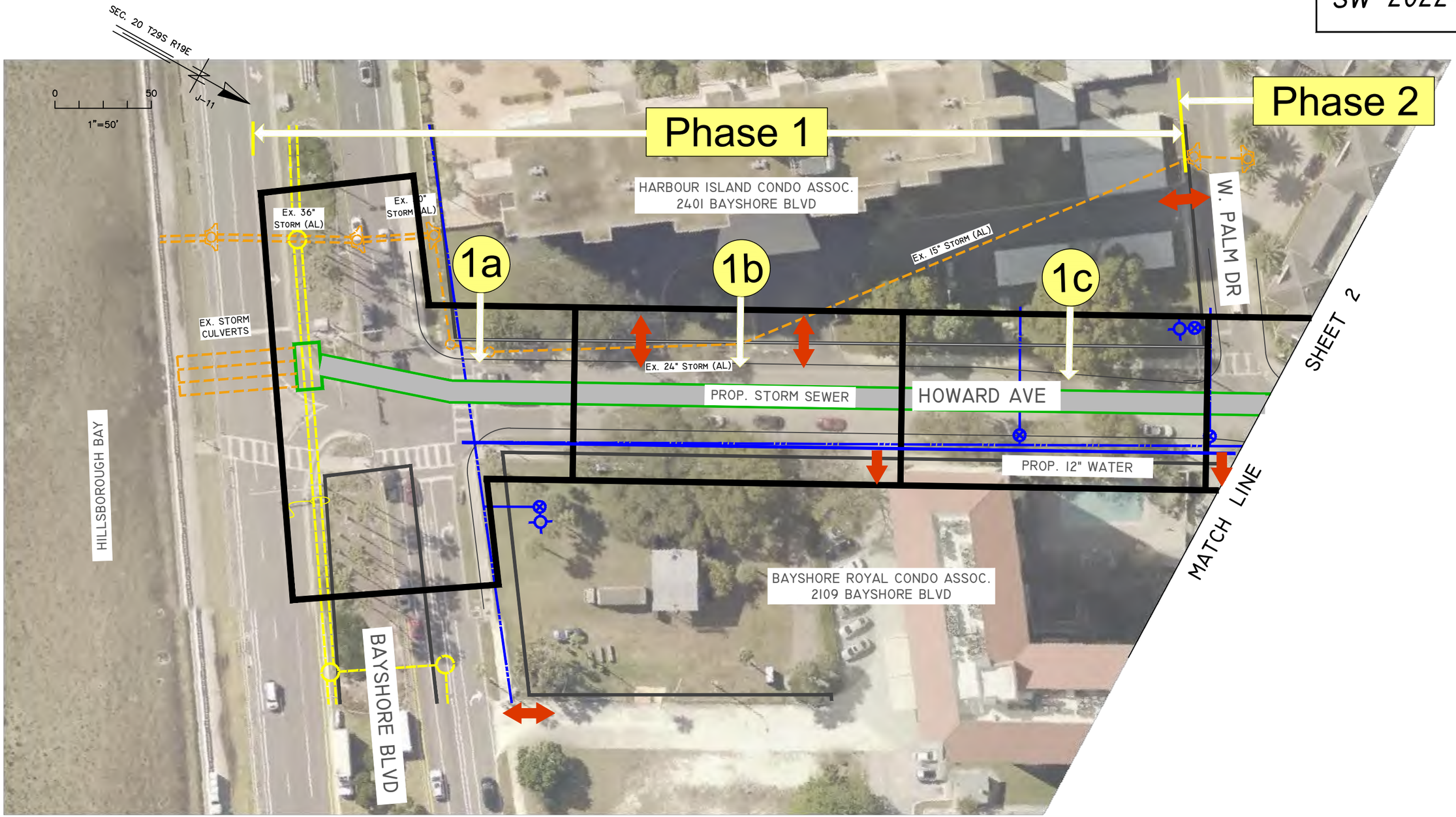
No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE: MAR. 2023

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SW 2022-XX



NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 1 OF 11

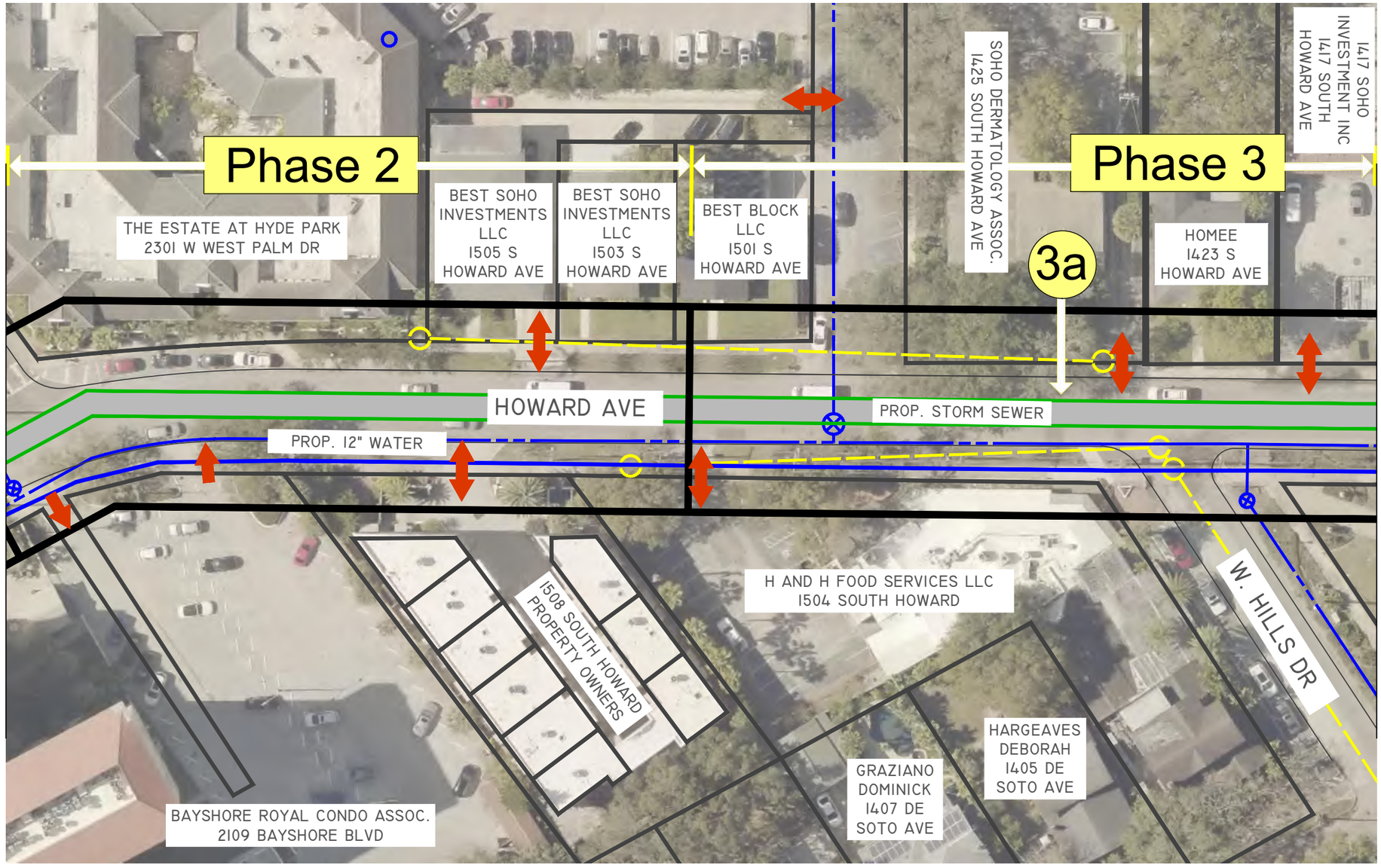
SW 2022-XX

SEC. 20 T29S R19E

J-11

0 50

1"=50'



NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 2 OF 11

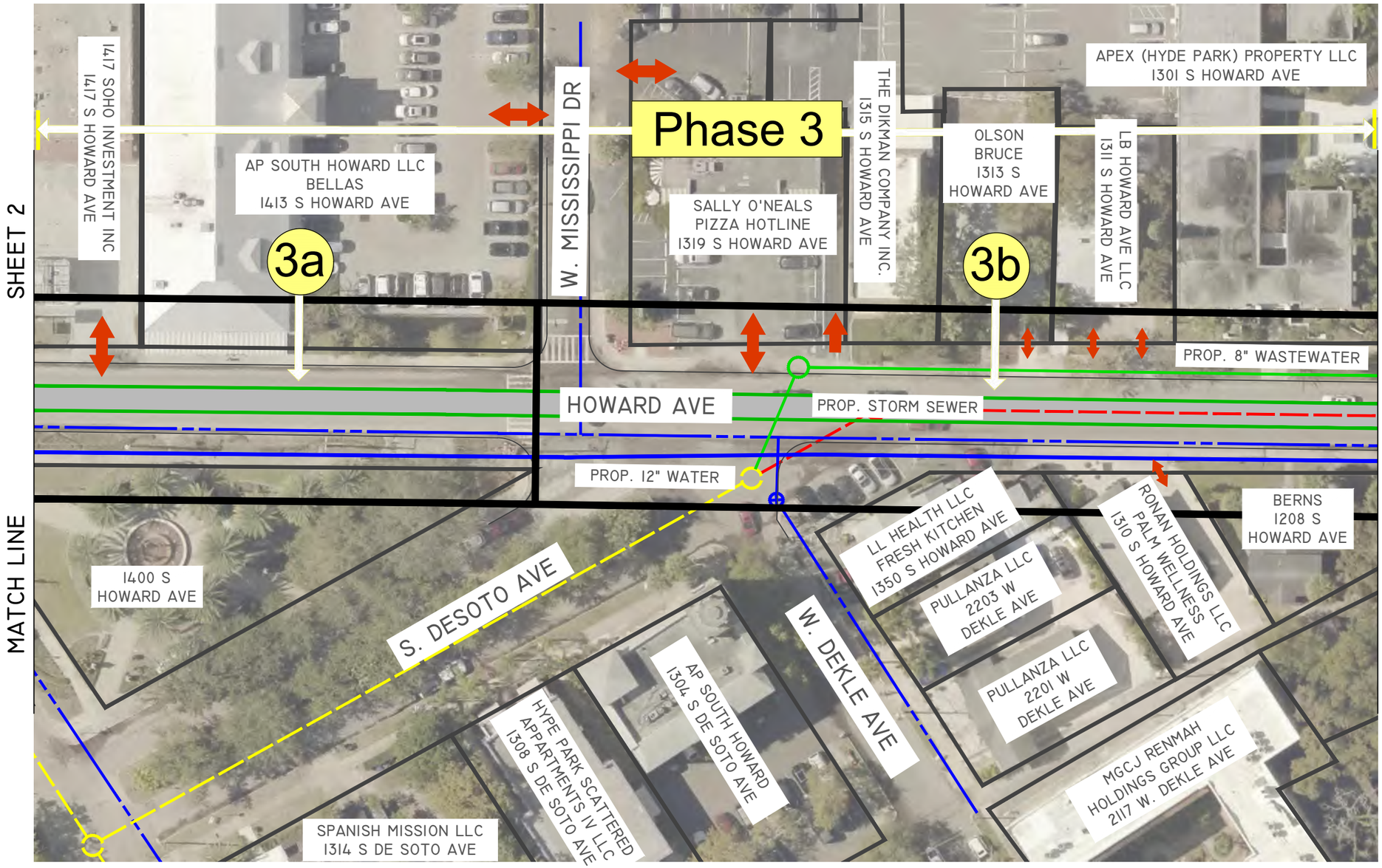
SW 2022-XX

SEC. 20 T29S R19E

J-11

0 50

1"=50'



NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 3 OF 11

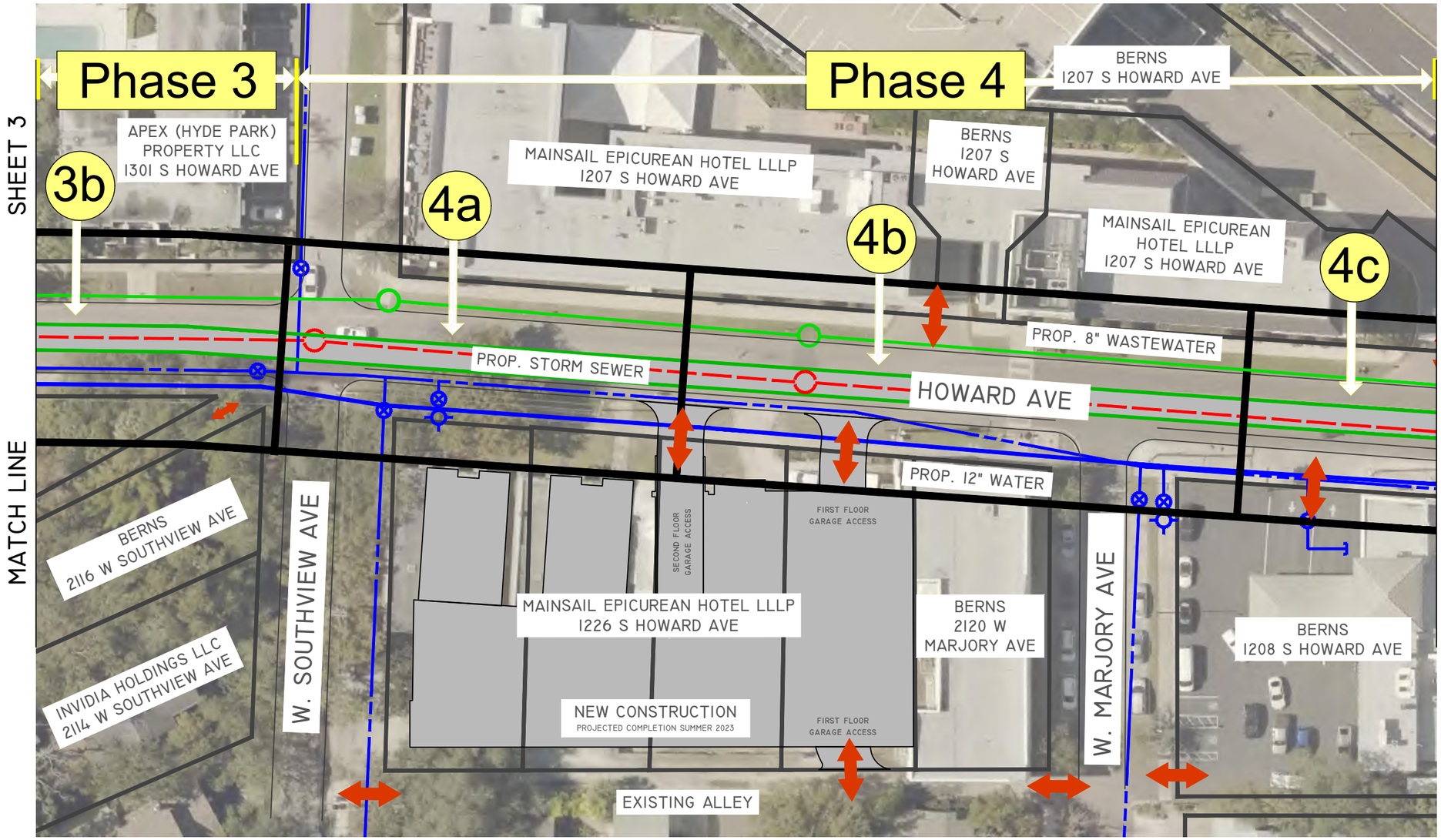
SW 2022-XX

SEC. 20 T29S R19E

J–11

0 50

1"=50'



AP SOUTH
BE
1413 S HO

NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 4 OF 11

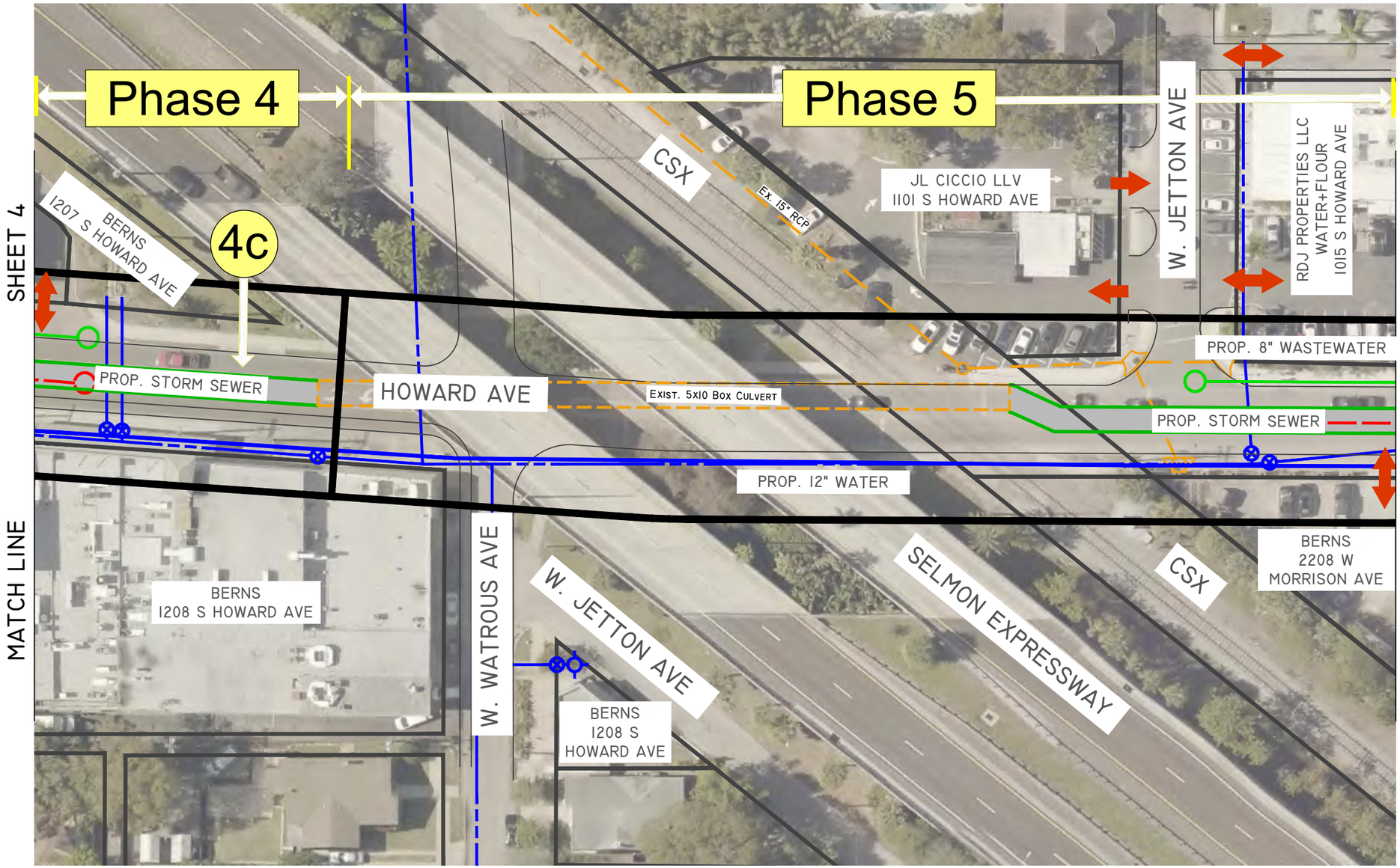
SW 2022-XX

SEC. 20 T29S R19E

J-11

0 50

1"=50'



NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 5 OF 11

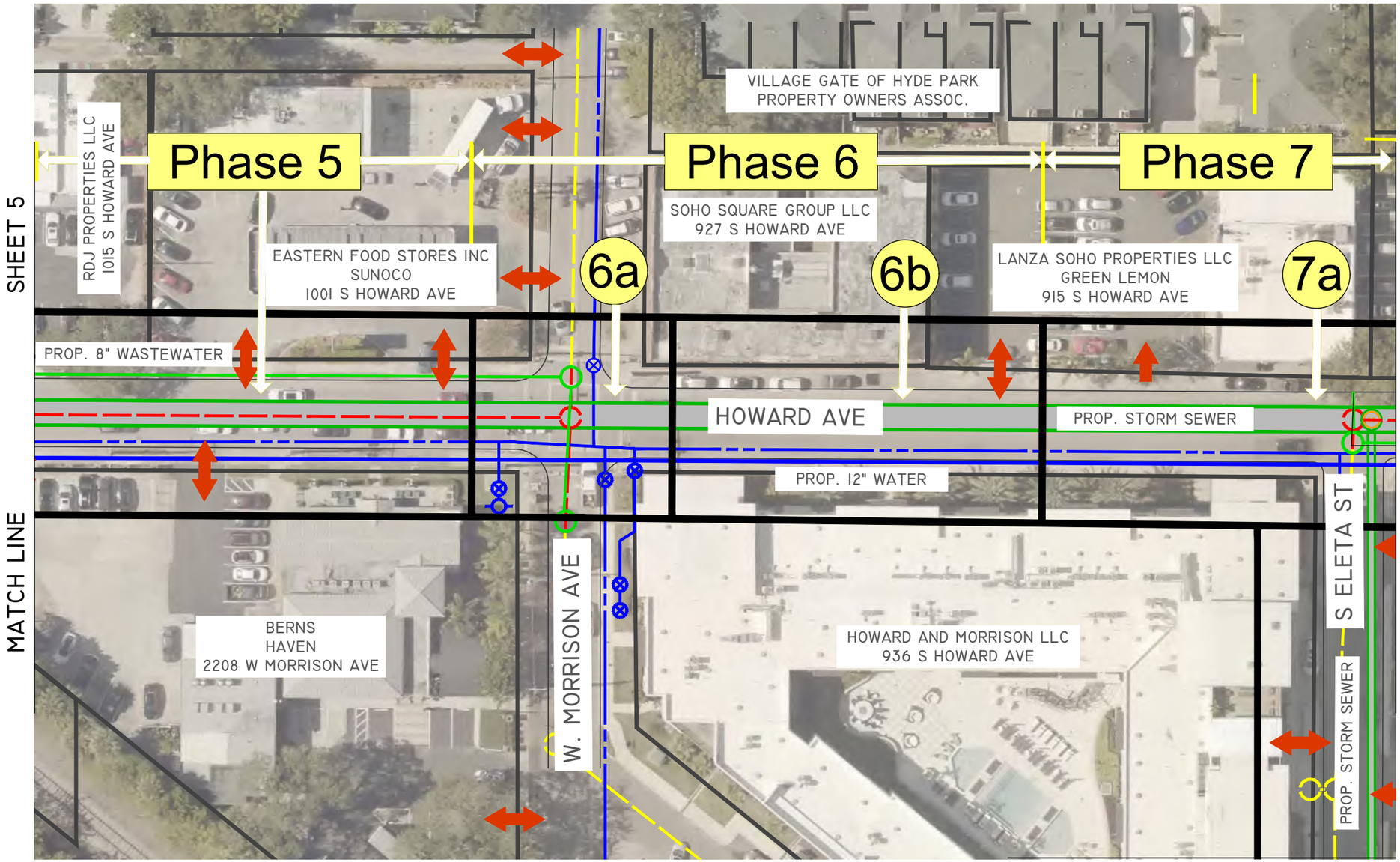
SW 2022-XX

SEC. 20 T29S R19E

J-11

0 50

1"=50'



NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 6 OF 11

SEC. 20 T29S R19E

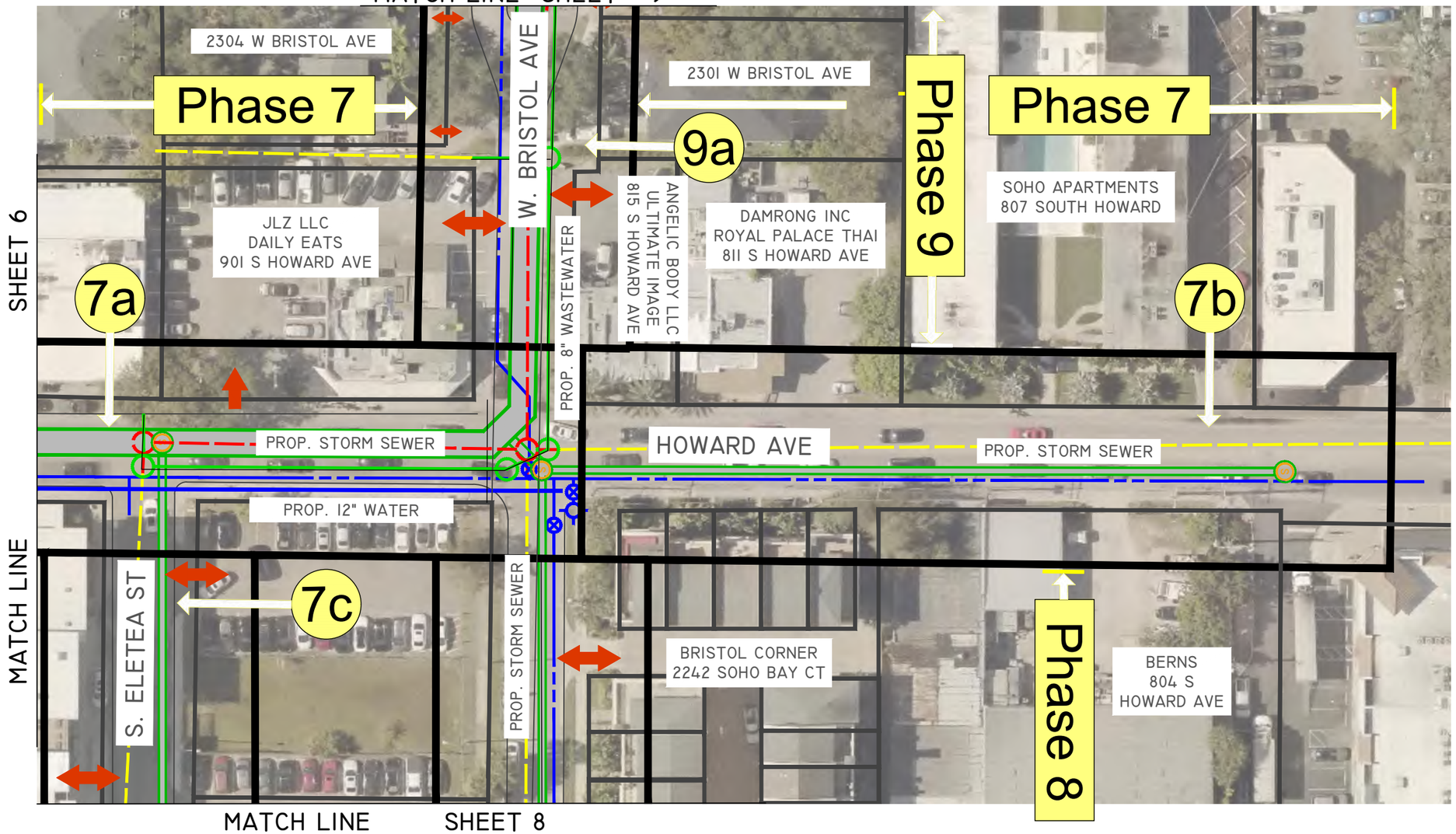
J-11

0 50

1"=50'

SW 2022-XX

MATCH LINE SHEET 9



SHEET 6

MATCH LINE

MATCH LINE SHEET 8

NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

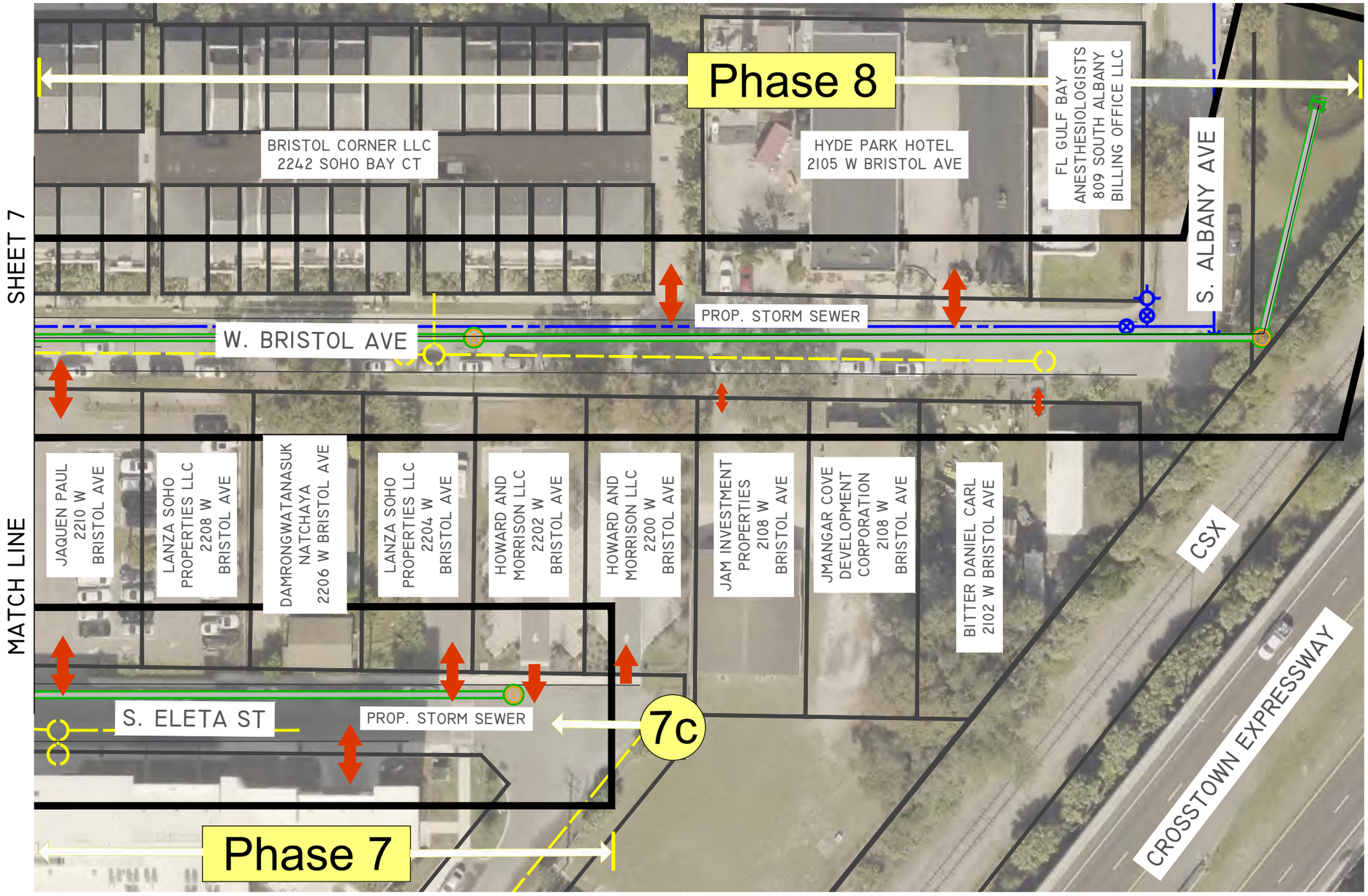
CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 7 OF 11

SW 2022-XX





NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 8 OF 11

SW 2022-XX

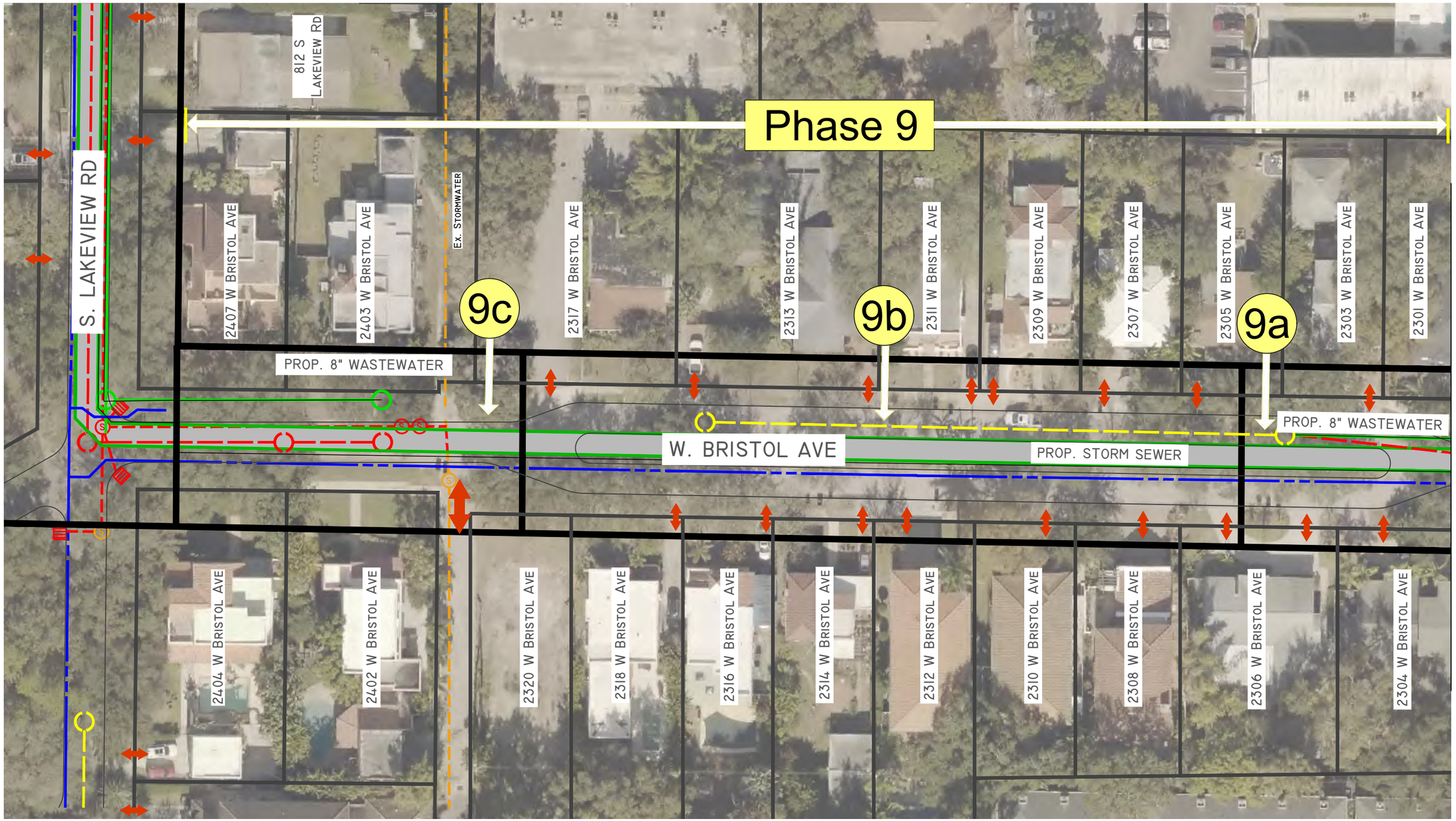
SEE SHEET 10

SEC. 20 T29S R19E

J-11

0 50

1"=50'



SHEET 7

MATCH LINE

NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 9 OF 11

SW 2022-XX

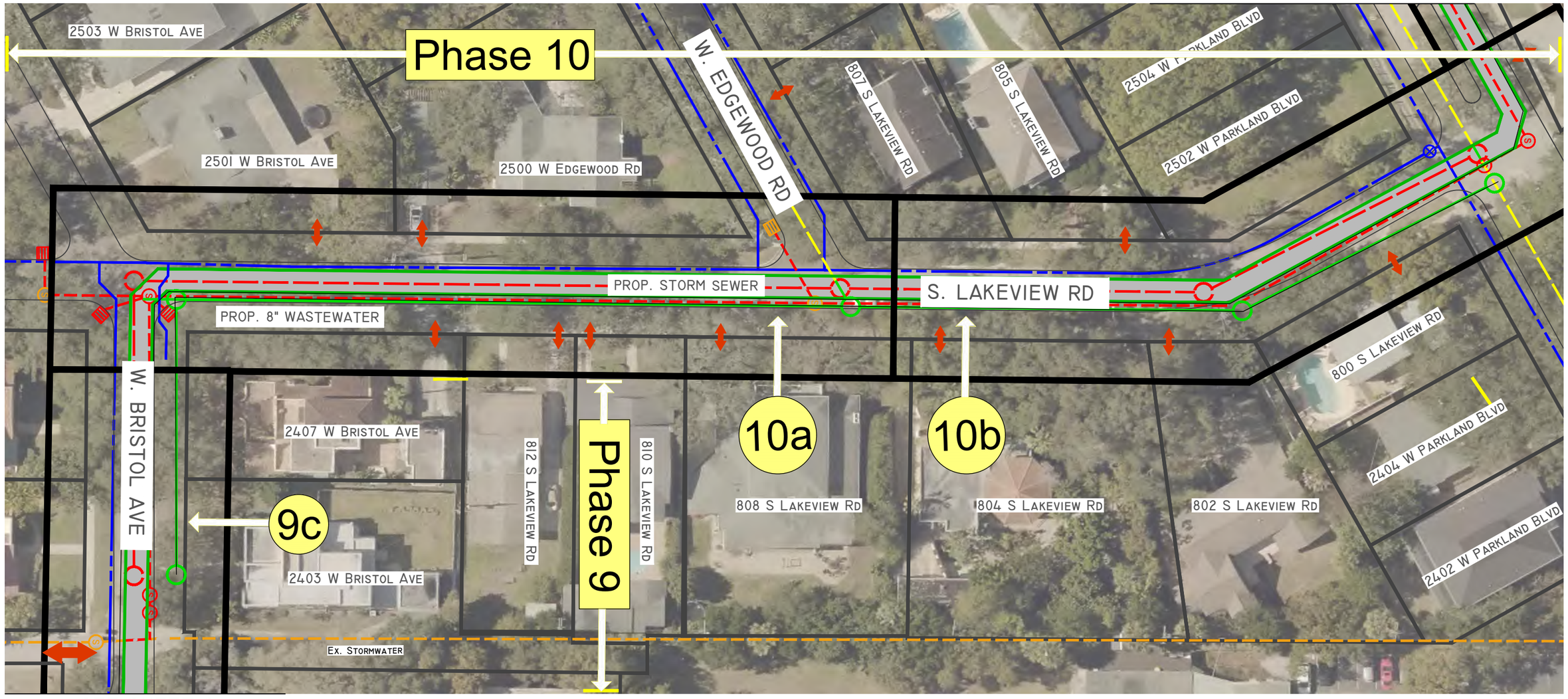
SEC. 20 T29S R19E

J–11

0 50

1"=50'

SEE SHEET II



SEE SHEET 9

NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

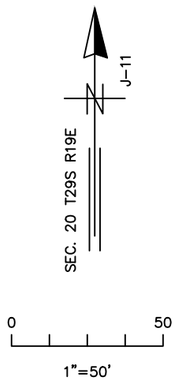
DES:
DRN: BB
CKD:
DATE:

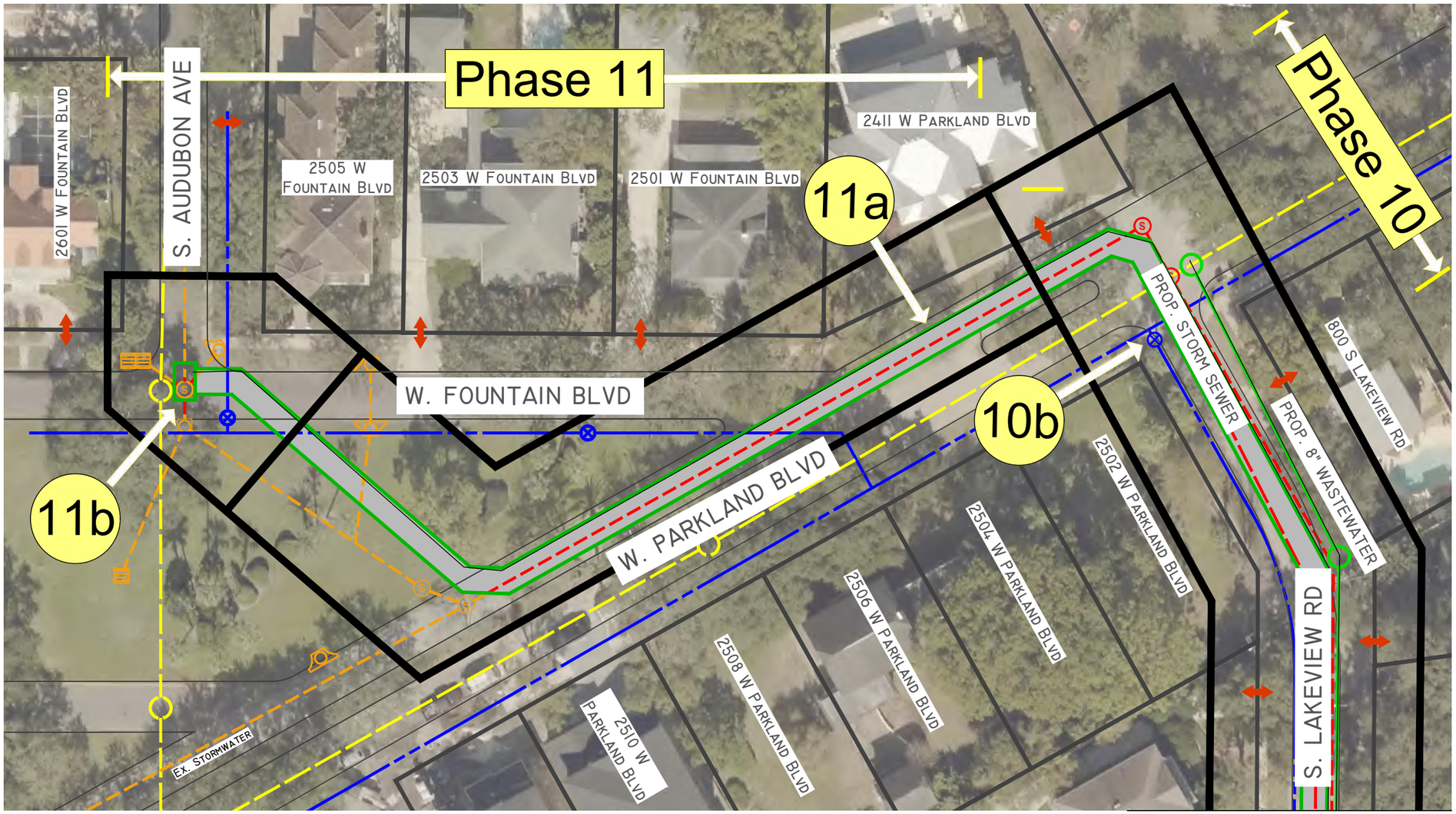
CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

SHEET 10 OF 11

SW 2022-XX





SEE SHEET 10

NOTE:

ALL UTILITIES ARE SHOWN IN APPROXIMATE LOCATIONS. ACTUAL LOCATIONS WILL BE VERIFIED BEFORE BEGINNING CONSTRUCTION.

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

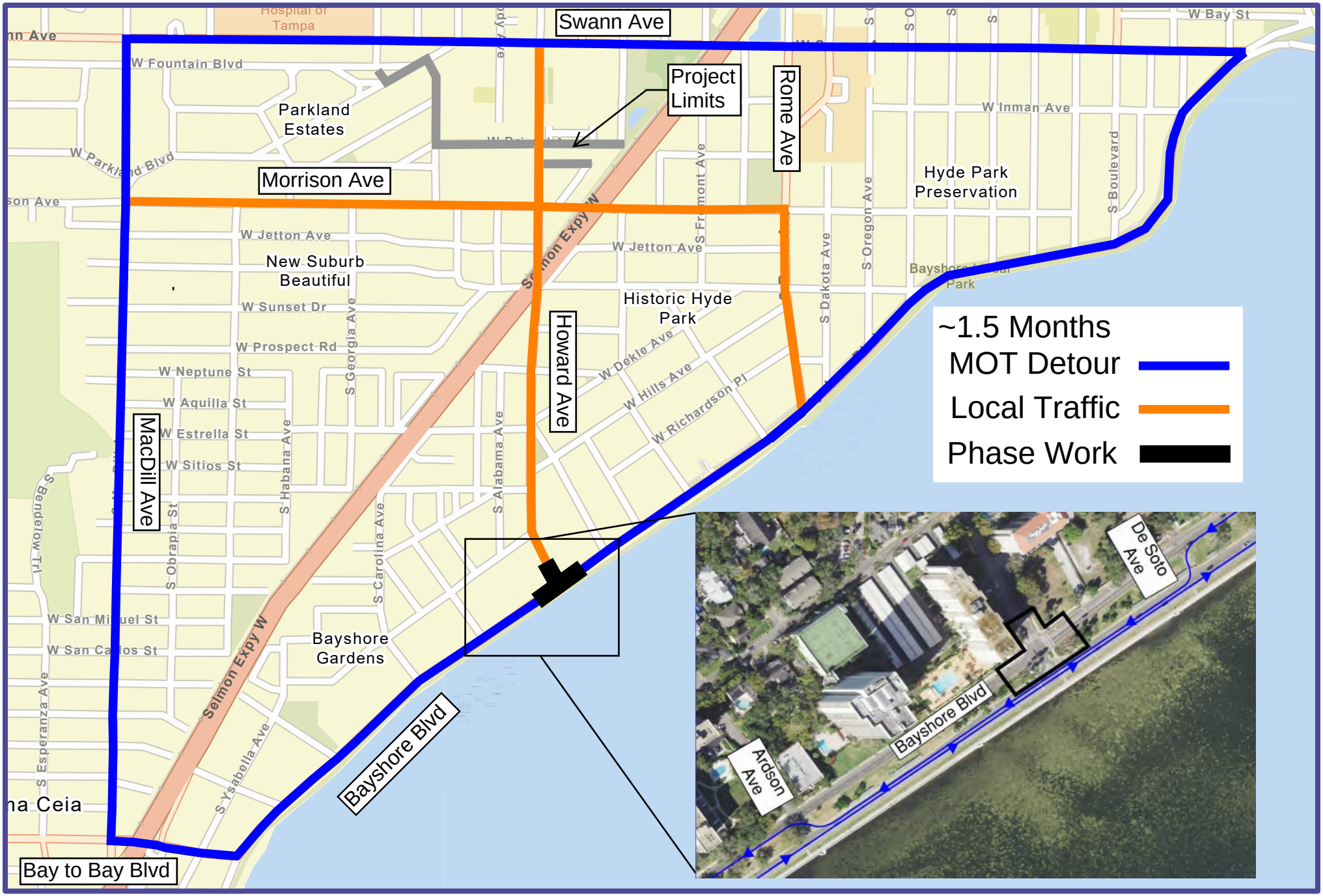
No.	DATE	REVISIONS
3		
2		
1		

DES:
DRN: BB
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

SOUTH HOWARD FLOOD RELIEF AND STREETSCAPE
PRELIMINARY CONSTRUCTION PHASING PLAN

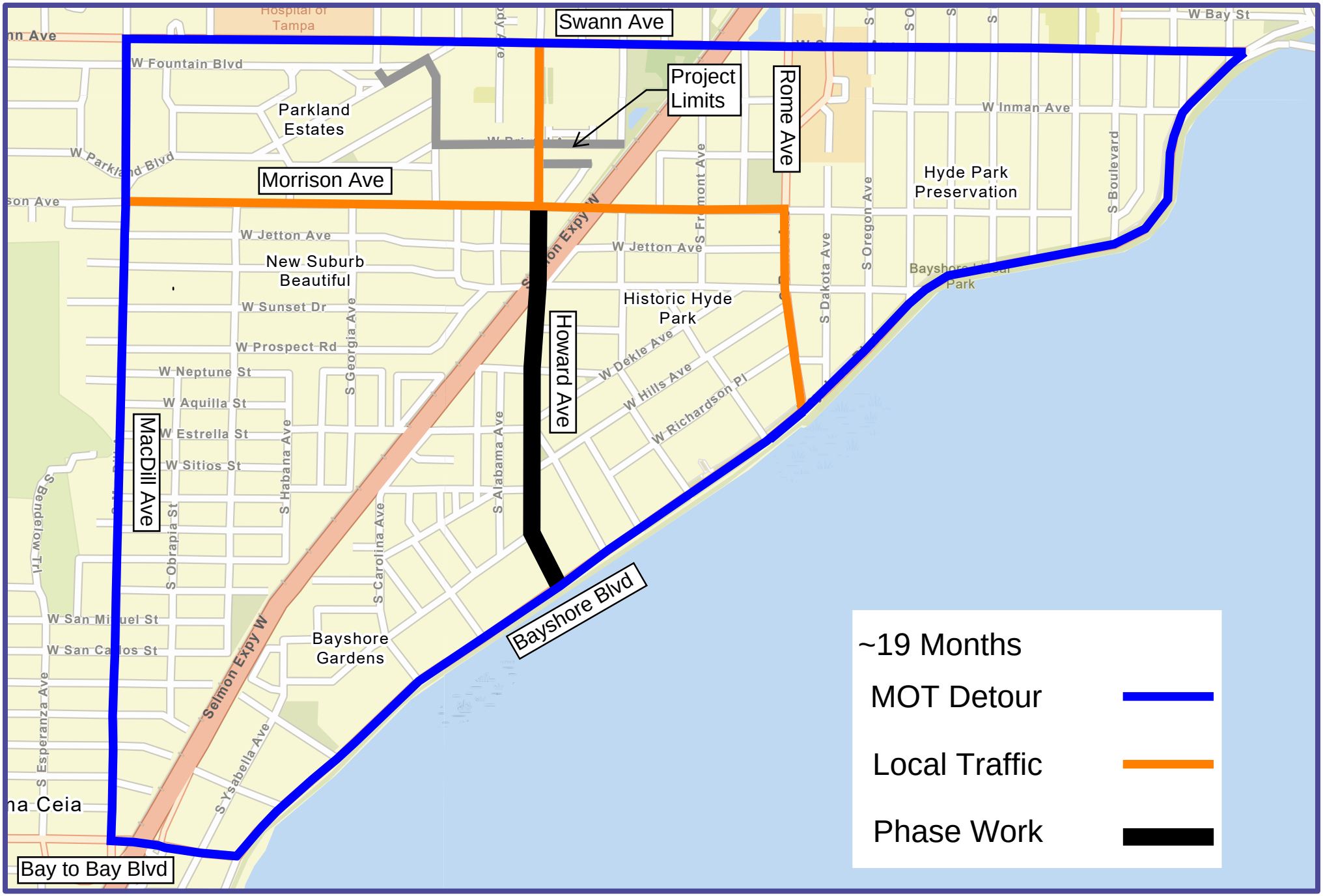
SHEET 11 OF 11



South Howard Flood Relief and Streetscape Project

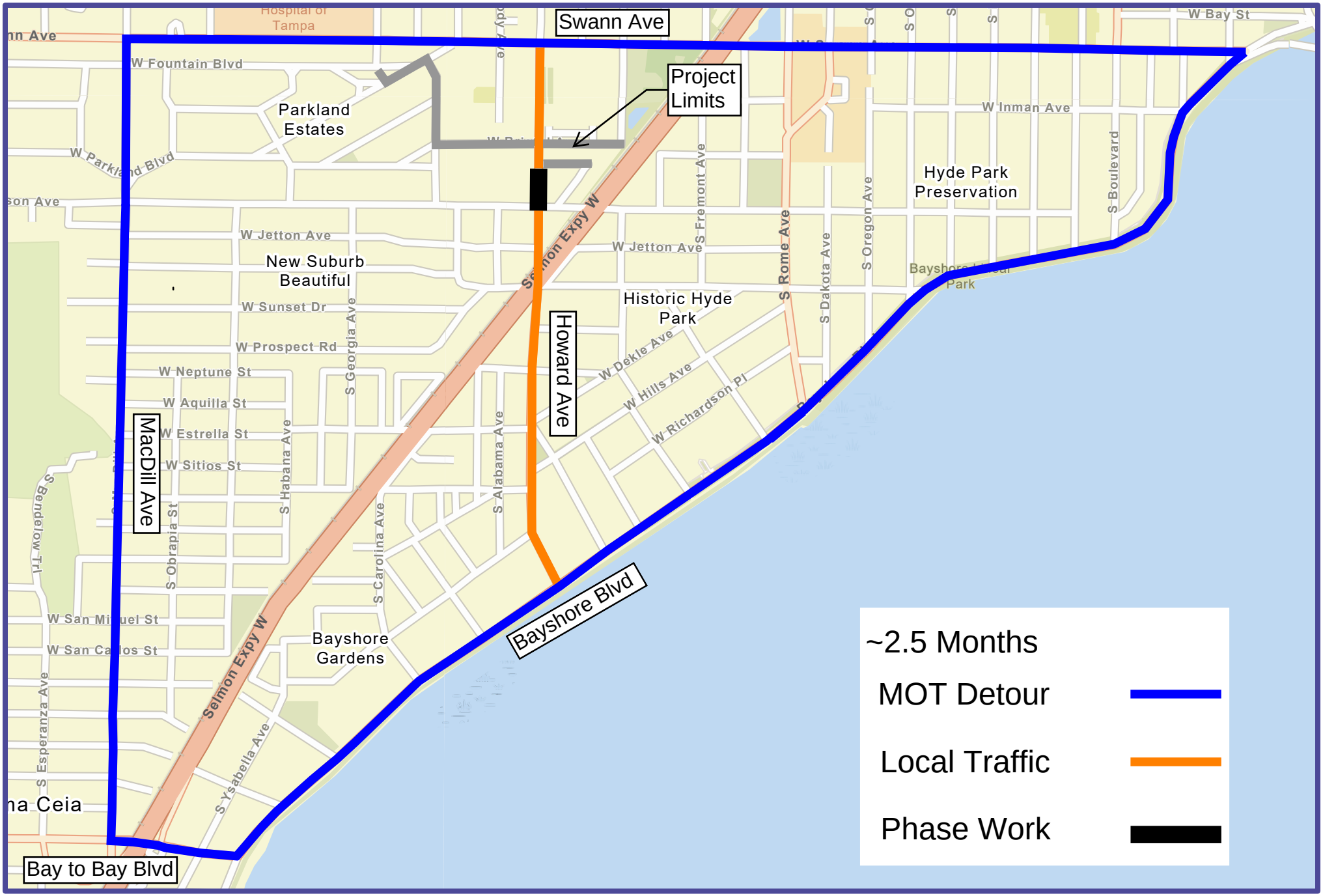
Preliminary Detour Route Exhibit

Phase 1a



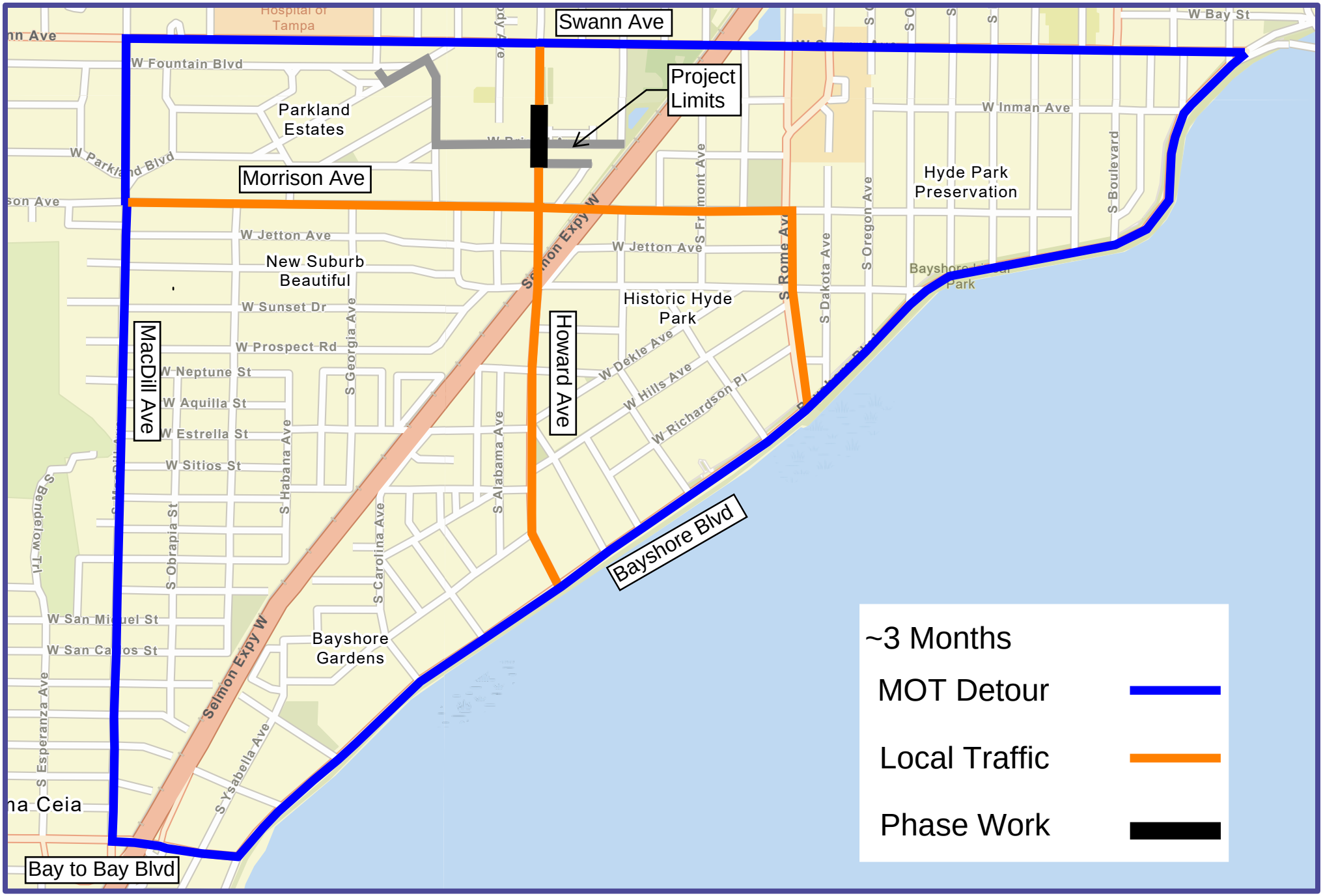
South Howard Flood Relief and Streetscape Project

Preliminary Detour Route Exhibit
Phase 1b - 5



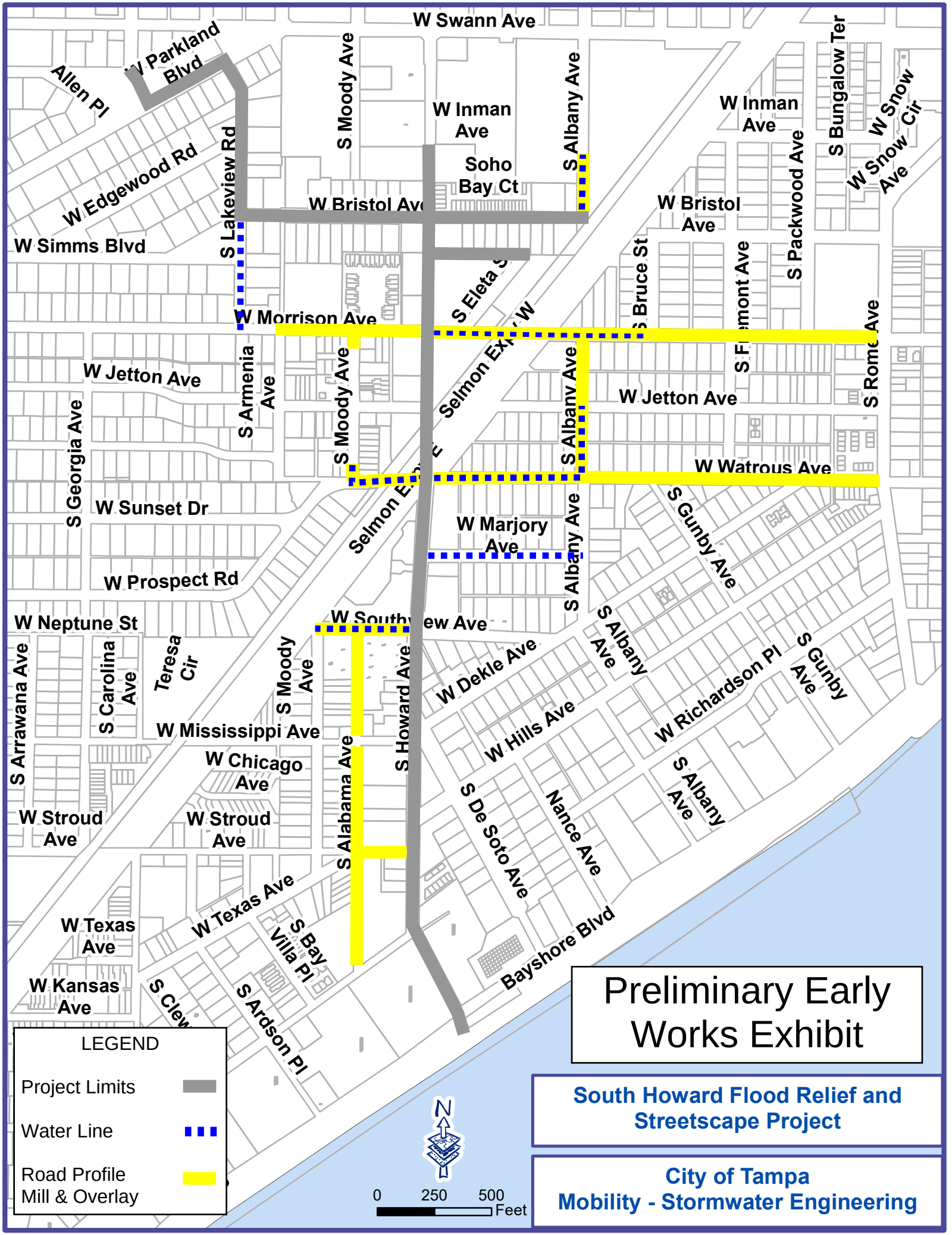
South Howard Flood Relief and Streetscape Project

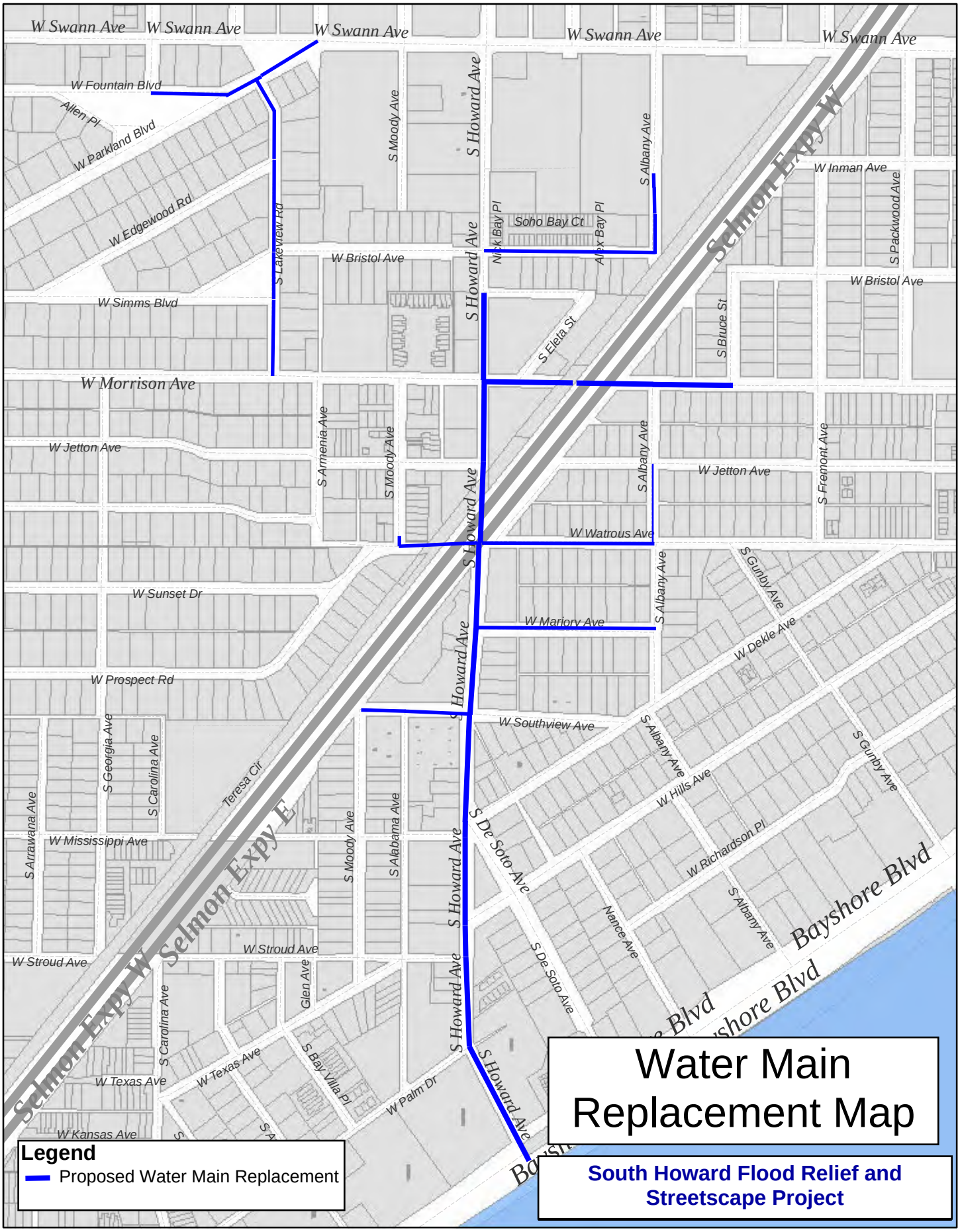
Preliminary Detour Route Exhibit
Phase 6



South Howard Flood Relief and Streetscape Project

Preliminary Detour Route Exhibit
Phase 7


W Swann Ave
W Parkland Blvd
Allen Pl
W Edgewood Rd
W Simms Blvd
S Lakeview Rd
S Moody Ave
W Inman Ave
Soho Bay Ct
W Bristol Ave
S Albany Ave
W Inman Ave
S Bungalow Ter
W Snow Cir
W Snow Ave
S Packwood Ave
W Bristol Ave
S Bruce St
W Morrison Ave
S Eleta St
Selmon Expy W
W Jetton Ave
S Armenia Ave
S Moody Ave
S Albany Ave
W Jetton Ave
S Georgia Ave
W Watrous Ave
W Sunset Dr
W Marjory Ave
S Gunby Ave
W Prospect Rd
W Neptune St
S Arrawana Ave
S Carolina Ave
Teresa Cir
S Moody Ave
S Howard Ave
W Dekle Ave
S Albany Ave
W Richardson Pl
S Gunby Ave
W Mississippi Ave
W Hills Ave
W Chicago Ave
S Alabama Ave
S De Soto Ave
Nance Ave
S Albany Ave
W Stroud Ave
W Stroud Ave
W Texas Ave
W Texas Ave
S Bay Villa Pl
Bayshore Blvd
W Kansas Ave
S Ardson Pl
LEGEND
Project Limits
Water Line
Road Profile Mill & Overlay
N
0
250
500
Feet
Preliminary Early Works Exhibit
South Howard Flood Relief and Streetscape Project
City of Tampa
Mobility - Stormwater Engineering



Water Main Replacement Map

South Howard Flood Relief and Streetscape Project

Legend

- Proposed Water Main Replacement

1 inch = 500 feet

0 250 500 1,000 Feet

City of Tampa Florida

Water Department

Submittal Schedule
for
Design-Build Stormwater Projects

Deliverables		Submittals				
		Prel. Design	30% Design	60% Design	90% Design	100% Design
Preliminary Design						
	Tree Audit/Survey & Arborist Report					
	Route Analysis and Recommendation					
	Survey (R/W, Topo, Tree, Wetland)					
	Geotechnical Report					
	H&H Analysis and Presentation					
	Feasibility Assessment					
	Green Infrastructure Recommendations					
	Preliminary Design Report					
	SUE & Exist. Utilities Assessment					
	Storm Sewer Design Calculations					
GMP						
	Preliminary Construction Cost Estimate					
	Draft GMP					
	Final GMP			60%+30 days		
Roadway and Stormwater Design						
	Title Page		Sufficient for Preliminary Cost Estimate and Attaining Project Feasibility		All components, notes, labeling, quantities, etc.	All components, QC'd and all review and permiitng comments addressed
	Index					
	Key Plan					
	Legend, Summary of Quantities and General Notes			Legend & GNs		
	Drainage Map			Basin IDs		
	Typical Roadway Sections			1		
	Existing Conditions, Erosion Control, Demo Limits and Tree protection/removal Plans					
	Plan/Profile Sheets			2		
	Intersection Plan Sheets			3		
	Stormwater Pipe Profiles			2		
	Civil Details			Standards		
	Structural Drawings - Junction Boxes			5		
	Cross Sections			4		
	Driveway Cross Sections			4		
	Signing and Pavement Marking Plans			4		
	MOT plans - Segment I					
	Bid/Contract Documents [8]					
	Technical Specifications [9]					
City Utility (W/WW) Relocation						
	Title Page					
	Index					
	Key Plan					
	Legend and General Notes					
	Plan/Profile Sheets			2		
	Details					
Permitting & Public/Private Utility Coordination						
	Permit applications					
	Permit RFI's, resubmittals & Approvals					
	Public/Private Utility Notification Matrix					

At a minimum, the following items should be included:

1 Slopes, dimensions & pavement sections
2 Existing profile with utilities and proposed profile with pipe/structures size/type labeling
3 Existing and Proposed linework
4 Existing section and template linework
5 Dimensioned and general steel layout
6 Sign size/location, markings linework and general callouts
7 Indicate trees to be removed/preserved, erosion control, demo limits
8 As appropriate for procurement method, including City standard contract language, proposal form, special provisions, etc.
9 Utilizing City standard specifications, modified or supplemented as deemed appropriate by the EOR and approved by the City

May 5, 2023 (Revised June 23, 2023)

City of Tampa
306 E Jackson St
Tampa, FL 33602

Attn: Jeff DeBosier

RE: City of Tampa Stormwater Geotechnical Engineering Services Report
Culvert Identification
S Howard Ave near W Watrous Ave
Hillsborough County, Florida
Tierra Project No. 6511-21-258-004

Mr. Jeff Debosier:

Tierra, Inc. (Tierra) has completed services for the above-referenced project. Our services consisted of drilling boreholes in order to locate a suspected culvert beneath S. Howard Avenue in Tampa, Florida. The services were completed in accordance with permit no. CWS-23-0000526. The results of our field exploration program are presented below.

As part of the primary study, Tierra initially started services for the S. Howard Culvert Identification project on the night of May 1, 2023, beginning at 10 PM, and completed services on May 2, 2023, at 4 AM. Tierra completed eleven (11) boreholes. The boreholes ranged in depth from 2 feet below existing asphalt to 20 feet below existing asphalt.

As part of the initial services, Tierra completed borings on S. Howard Avenue, north of the Selmon Expressway (see Photos 1 and 2). Tierra completed six (6) boreholes on the north side of the project. The boreholes were completed at approximately 5-feet on-center across the roadway. The boreholes completed nearest the sidewalk on either side of the street encountered refusal limestone material at depths of 18 to 20 feet below pavement. Samples of the weathered limestone material were collected and identified by Tierra engineers to confirm Tierra had not encountered the study culvert (see Photo 6). Within Borehole 5, Tierra encountered rebar approximately 2 feet below the existing pavement surface (see Photo 3). Borings were offset 5 feet north and 5 feet west of the struck rebar, but both offset borings continued to a depth of 20 feet without encountering rebar or concrete. Tierra completed a second set of borings (Boreholes 7 thru 11) on S. Howard Avenue, south of the Selmon Expressway during the initial May 1-2 exploration (see Photos 4 and 5). The boreholes were completed at approximately 5-feet on-center, across the roadway. The boreholes did not encounter the suspected culvert to a depth of 20 feet.

Subsequent to the initial study, Tierra performed another exploration for the S. Howard Culvert Identification project on the night of May 21, 2023, beginning at 10 PM, and completed services on May 22, 2023, at 1 AM. Tierra completed seven (7) boreholes. The boreholes ranged in depth from 10 feet below existing asphalt to 20 feet below existing asphalt.

As part of the second exploration, Tierra performed 5 borings in between the bridges of the Selmon Expressway over S. Howard Avenue, one boring on the north side of the bridges, and one boring on the south side of the bridges. Within the southbound travel lane of S. Howard Avenue, hard, concrete-like material was encountered at depths of 10 to 11 feet below existing

pavement. The approximate boring locations and the depths the suspected culvert structure was encountered can be found on the attached **Boring Location Plan.**

A photo document and **Boring Location Plan** with the approximate borehole locations and other pertinent photos are attached to the back of this report.

Tierra appreciates the opportunity to be of service to the City of Tampa on this project. If you have any questions or comments regarding this report, please contact Tierra at your earliest convenience at (813) 989-1354.

Respectfully Submitted,

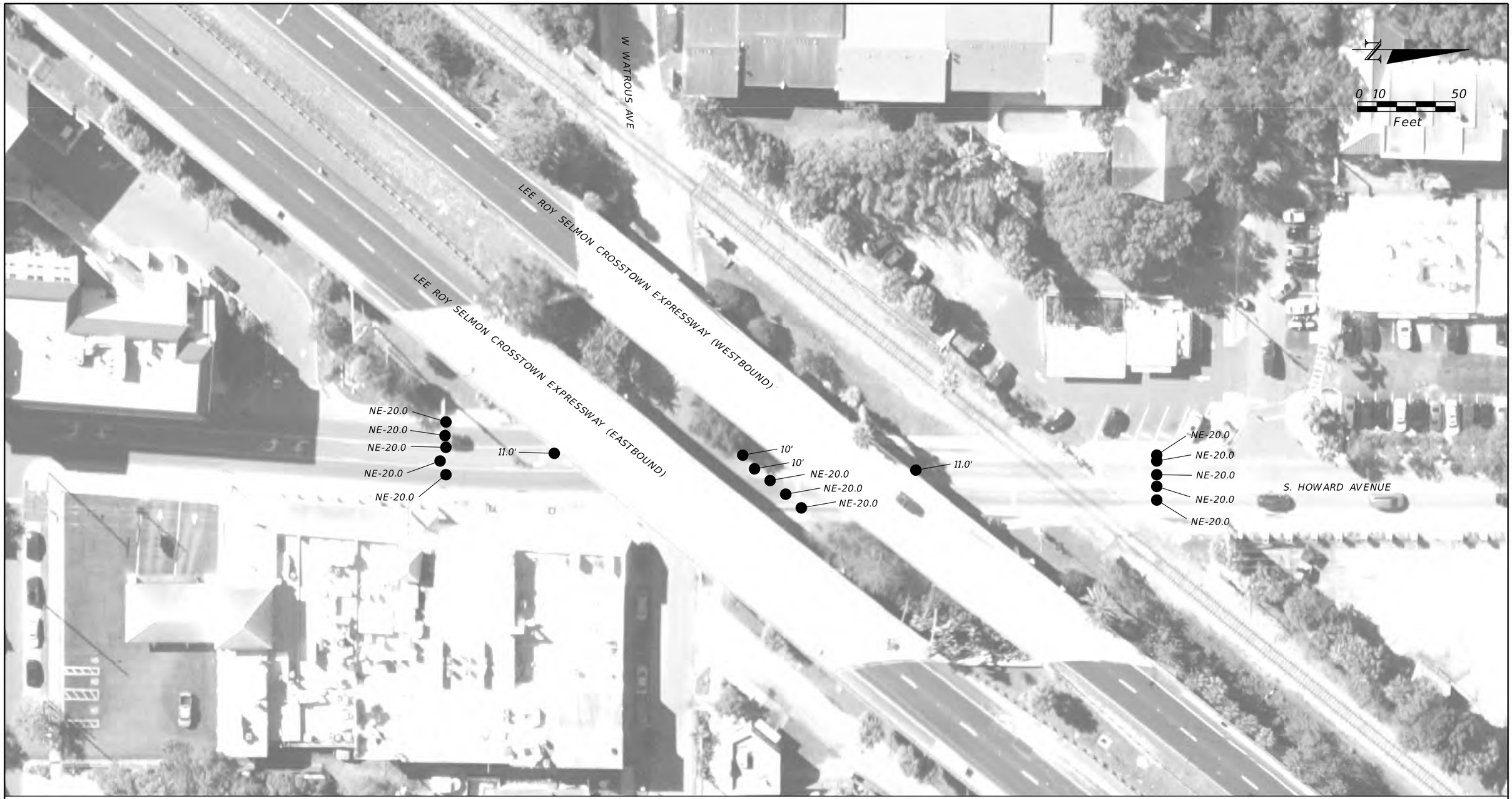
TIERRA, INC.



Tyler R. Jean, E.I.
Geotechnical Engineer Intern



Kevin H. Scott, P.E.
Senior Geotechnical Engineer
Florida License No. 65514



LEGEND

11.0' / NE-20.0

HARD, CONCRETE-LIKE MATERIAL ENCOUNTERED AT A DEPTH OF APPROXIMATELY 11.0' BELOW EXISTING GRADE

HARD, CONCRETE-LIKE MATERIAL NOT ENCOUNTERED TO 20.0' BELOW EXISTING GRADE

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

KEVIN H. SCOTT, P.E.
P.E. LICENSE NUMBER 65514
TIERRA, INC.
7351 TEMPLE TERRACE HIGHWAY
TAMPA, FLORIDA 33637

CITY OF TAMPA

S. HOWARD AVENUE CULVERT
HILLSBOROUGH COUNTY, FL

SHEET NO.

Culvert Exploration Sample Photographs



Photograph 1. S. Howard Borehole Locations N of Selmon Expwy, taken from Sweet Soul parking lot



Photograph 2. S. Howard Borehole Locations N of Selmon Expwy, note train tracks on right hand side

Culvert Exploration Sample Photographs



Photograph 3. Rebar within the Borehole #5 on north side (2 feet below asphalt surface)



Photograph 4. S. Howard General Borehole Locations S of Selmon Expwy, Berns on the right hand side

Culvert Exploration Sample Photographs



Photograph 5. S. Howard Example Borehole Locations S of Selmon Expwy



Photograph 6. S. Howard Weathered Limestone encountered in Boreholes 1 and 6

Appendix B. Field Investigation Photos



Albany Pond Pump Station (not operational)





Open-topped structure near W Swann Ave's crossing with the Selmon Expressway





42”x48” Box Culvert bend at the intersection of W De Leon St and S Oregon Ave.



Triple 4’x6’ box culvert outfall into Hillsborough Bay at Bayshore Blvd and S Howard Ave



Verified change in size from 48” RCP to 60” RCP at the intersection of W Estrella St and S Habana Ave



Storm pipe in inventory is not found in field behind BridgePrep at St. John's School



Intersection of W Morrison Ave and S Marti St where the 48”x76” ERCP constricts to a 48” RCP





Opened manhole on S Rome Ave to confirm drainage into Swann Pond



Ditch that carries stormwater south to W Cypress St at S Gomez Ave



CSX Railroad, looking north toward W Swann Ave





Opened manhole confirms that pipe from W Palm Drive bypasses the stormwater pond adjacent to The Atrium on Bayshore





Manhole near the intersection of W Estrella St and S Habana Ave investigated to confirm 60” RCP along S Habana Ave





Verified drainage connectivity at W Swann Ave and S Armenia Ave







Manhole at the intersection of W Parkland Blvd and S Lakeview Rd. Confirmed a 36” RCP along W Parkland Blvd and a 19”x30” ERCP connecting from S Lakeview Rd



East side of AMI pond. Measured to verify information in reference plans. Standing water observed.



Pump station at AMI pond





Grate with the 4’x8’ box culvert connecting to AMI pond





Manhole at the intersection of W De Leon St and S Tampania Ave. Confirmed 18” pipe to the west along W De Leon with a 15”pipe coming in from the north





Confirmed inlet on S Moody Ave has an 18” RCP that runs to the west through the school parking lot for St. John the Baptist Greek Orthodox Church





Manhole near the southwest corner of St. John the Baptist Greek Orthodox Church building that connects the 18” RCP from Moody Ave S to the 24” RCP that conveys water north to W Swann Ave



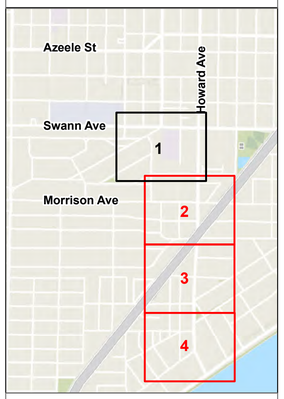


Manhole at the intersection of W Parkland Blvd and S Forest Dr confirms the 90-degree turn of the 48”x76” ERCP

Appendix C. Tree Survey

Note: Maps and tables below include preliminary field data and are not considered final

AtkinsRéalis

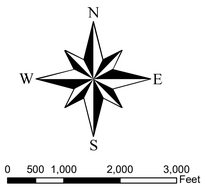


Legend

- South Howard ROW

Tree Survey

- Non-Oak Species
- Oak
- Oak (Grand)



Notet:
This figure depicts the trees that were surveyed as part of the data collection process to understand the potential impacts along the alternative routes analyzed.

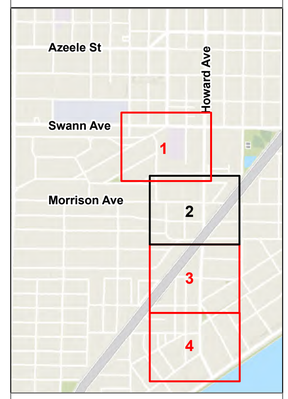
Project:
South Howard
Flood Relief & Streetscape

Map Title:
Tree Survey - Map 1

Date: January 30th, 2026



AtkinsRéalis



Legend

- South Howard ROW

Tree Survey

- Non-Oak Species
- Oak
- Oak (Grand)

N
W E
S

0 500 1,000 2,000 3,000 Feet

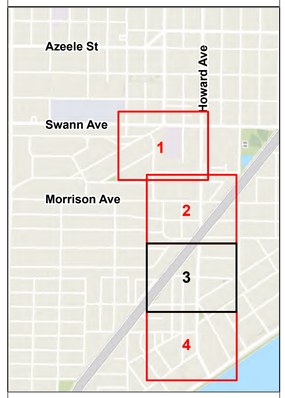
Notet:
This figure depicts the trees that were surveyed as part of the data collection process to understand the potential impacts along the alternative routes analyzed.

Project:
South Howard
Flood Relief & Streetscape

Map Title:
Tree Survey - Map 2

Date: January 30th, 2026

AtkinsRéalis



Legend

- South Howard ROW

Tree Survey

- Non-Oak Species
- Oak
- Oak (Grand)

N
W E
S

0 500 1,000 2,000 3,000 Feet

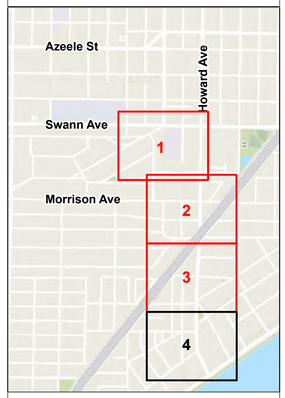
Notet:
This figure depicts the trees that were surveyed as part of the data collection process to understand the potential impacts along the alternative routes analyzed.

Project:
South Howard Flood Relief & Streetscape

Map Title:
Tree Survey - Map 3

Date: January 30th, 2026

AtkinsRéalis



Legend

- South Howard ROW

Tree Survey

- Non-Oak Species
- Oak
- Oak (Grand)

N
W E
S

0 500 1,000 2,000 3,000 Feet

Notet:
This figure depicts the trees that were surveyed as part of the data collection process to understand the potential impacts along the alternative routes analyzed.

Project:
South Howard
Flood Relief & Streetscape

Map Title:
Tree Survey - Map 4

Date: January 30th, 2026

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
1	OakLive	16	16	3	
2	OakLive	18	16	3	
3	OakLive	999	12	2	
4	PalmExotic	0	0	N/A	
5	OakLive	13	14	2	
6	OakLive	12	13	2	
7	PalmExotic	0	0	N/A	
8	Surinam cherry	7	0	N/A	
9	Surinam cherry	7	0	N/A	
10	OakLive	19	13	2	
11	Surinam cherry	11	16	3	
12	Royal palm	0	0	N/A	
13	OakLive	25	11	1	
14	Crepe Myrtle	11	12	2	
15	Crepe Myrtle	8	12	2	
16	OakLive	18	13	2	
17	OakLive	14	12	2	
18	OakLaurel	7	0	N/A	
19	Crepe Myrtle	4	0	N/A	
19	Water oak	10	14	2	
20	Royal palm	0	0	N/A	
21	Lagustrum	8	13	2	
22	MapleRed	4	0	N/A	
23	PalmCabbage	0	0	N/A	
24	OakLive	20	12	2	
25	TallowChinese	11	14	2	
26	OakLive	22	14	2	
27	Camphor	7	0	N/A	
28	Camphor	7	0	N/A	
29	ElmChinese	7	0	N/A	
30	OakLive	17	15	3	
31	OakLaurel	13	15	3	
32	OakLaurel	7	0	N/A	
33	PalmCabbage	0	0	N/A	
34	OakLive	24	13	2	
35	OakLaurel	17	14	2	
36	PalmCabbage	0	0	N/A	
37	OakLaurel	20	15	3	
38	OakLive	38	15	3	YES
38	OakLive	23	14	2	
39	Exotic	7	14	2	
40	PalmCabbage	0	0	N/A	
41	OakLaurel	27	11	1	
42	PalmCabbage	0	0	N/A	
43	OakLive	32	10	1	
44	PalmCabbage	0	0	N/A	
45	OakLaurel	10	14	2	
46	OakLaurel	15	14	2	
47	Crepe Myrtle	9	14	2	
48	Crepe Myrtle	10	14	2	
49	Exotic	4	0	N/A	
50	Crepe myrtle	8	13	2	
51	PalmCabbage	0	0	N/A	
52	PalmCabbage	0	0	N/A	
53	OakLive	18	14	2	
54	OakLaurel	25	10	1	
55	PalmCabbage	0	0	N/A	
56	Queen palm	0	0	N/A	
57	Crepe Myrtle	10	15	3	
58	Crepe Myrtle	9	15	3	
59	Crepe Myrtle	10	15	3	
60	Crepe Myrtle	9	15	3	
61	Queen palm	1	0	N/A	
62	OakLive	22	11	1	
63	Crepe Myrtle	9	16	3	
64	Crepe Myrtle	9	16	3	
65	Crepe Myrtle	12	16	3	
66	Crepe myrtle	10	16	3	
67	Crepe Myrtle	5	0	N/A	
68	Bottlebrush	7	0	N/A	
69	Bottlebrush	6	0	N/A	
70	OakLive	13	13	2	
71	OakLive	31	14	2	
72	OakLive	31	13	2	
73	Magnolia	8	15	3	
75	PalmDate	1	0	N/A	
76	PalmDate	1	0	N/A	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
77	OakLive	25	14	2	
78	Crepe Myrtle	6	0	N/A	
79	OakLive	20	14	2	
80	OakLive	23	14	2	
81	OakLaurel	29	15	3	
82	OakLaurel	26	13	2	
83	OakLaurel	27	13	2	
84	PalmCabbage	0	0	N/A	
85	Pine sp.	10	15	3	
86	Pine sp.	12	15	3	
87	Pine sp.	9	16	3	
88	Pine sp.	16	15	3	
89	OakLive	24	15	3	
90	OakLive	14	15	3	
91	Crepe Myrtle	3	0	N/A	
92	Crepe Myrtle	3	0	N/A	
93	OakLive	25	14	2	
94	OakLive	9	15	3	
95	OakLive	41	13	2	
95	Crepe Myrtle	1	0	N/A	
96	OakLive	26	12	2	
97	OakLaurel	16	14	2	
98	Queen palm	1	0	N/A	
99	Queen palm	1	0	N/A	
100	MapleRed	3	0	N/A	
101	ElmChinese	11	15	3	
102	ElmChinese	10	15	3	
103	ElmChinese	9	15	3	
104	ElmChinese	9	13	2	
105	OakLive	15	14	2	
106	OakLive	15	13	2	
107	OakLive	18	14	2	
108	Loblolly bay	4	0	N/A	
109	Loblolly bay	5	0	N/A	
110	Loblolly bay	4	0	N/A	
111	OakLive	28	14	2	
112	OakLive	27	14	2	
113	Loblolly bay	5	0	N/A	
114	Loblolly bay	4	0	N/A	
115	Loblolly bay	4	0	N/A	
116	Loblolly bay	5	0	N/A	
117	Loblolly bay	5	0	N/A	
118	Loblolly bay	5	0	N/A	
119	Loblolly bay	5	0	N/A	
120	Crepe Myrtle	11	14	2	
121	OakLive	29	14	2	
122	OakLive	36	14	2	
123	Crepe Myrtle	9	12	2	
124	OakLive	15	14	2	
125	OakLive	26	13	2	
126	Crepe Myrtle	8	13	2	
127	OakLive	32	14	2	
128	Crepe Myrtle	10	15	3	
129	Camphor	24	12	2	
130	PalmCabbage	0	0	N/A	
131	OakLive	32	12	2	
132	Camphor	23	11	1	
133	ElmChinese	9	15	3	
134	ElmChinese	16	14	2	
135	PalmDate	1	0	N/A	
136	OakLive	18	14	2	
137	OakLive	18	14	2	
138	OakLive	16	14	2	
139	OakLive	26	13	2	
140	American elm	6	0	N/A	
141	Crepe Myrtle	6	0	N/A	
142	Crepe Myrtle	6	0	N/A	
143	American elm	6	0	N/A	
144	Crepe Myrtle	7	0	N/A	
145	Crepe Myrtle	5	0	N/A	
146	Crepe Myrtle	6	0	N/A	
147	ElmChinese	6	0	N/A	
148	ElmChinese	5	0	N/A	
148	OakLive	10	15	3	
149	PalmCabbage	0	0	N/A	
150	OakLaurel	21	15	3	
151	OakLaurel	22	14	2	
152	OakLaurel	16	13	2	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
153	OakLive	23	13	2	
154	OakLive	15	14	2	
155	OakLive	17	15	3	
156	OakLive	15	15	3	
157	OakLive	14	15	3	
159	OakLive	22	15	3	
160	OakLive	18	13	2	
161	OakLive	14	15	3	
162	OakLaurel	16	11	1	
163	OakLive	24	14	2	
164	OakLive	23	13	2	
165	OakLive	23	14	2	
166	OakLive	26	14	2	
167	OakLive	14	11	1	
168	OakLive	12	14	2	
170	OakLive	11	13	2	
171	Camphor	16	13	2	
172	Magnolia	3	0	N/A	
175	OakLive	32	15	3	YES
176	OakLive	33	16	3	YES
177	Manila palm	1	0	N/A	
178	Manila palm	1	0	N/A	
179	OakLive	35	16	3	YES
180	OakLive	29	16	3	
181	Exotic	4	0	N/A	
183	PalmDate	1	0	N/A	
184	PalmRobellini	1	0	N/A	
185	PalmDate	1	0	N/A	
186	OakLive	26	14	2	
187	Exotic	15	14	2	
188	OakLive	25	12	2	
189	OakLive	30	13	2	
191	Manila palm	1	0	N/A	
191	Manila	1	0	N/A	
192	Crepe Myrtle	5	0	N/A	
194	OakLive	20	15	3	
195	Crepe Myrtle	7	0	N/A	
196	OakLive	28	15	3	
197	OakLive	20	14	2	
200	OakLive	14	14	2	
204	OakLaurel	5	0	N/A	
205	OakLive	35	13	2	
206	OakLive	16	14	2	
207	OakLive	20	15	3	
208	OakLive	26	14	2	
209	OakLaurel	17	11	1	
210	OakLaurel	23	11	1	
211	OakLive	21	13	2	
212	American elm	6	0	N/A	
213	American elm	8	16	3	
214	American elm	7	0	N/A	
215	OakLaurel	31	14	2	
216	PalmCabbage	0	0	N/A	
217	PalmCabbage	0	0	N/A	
218	PalmCabbage	0	0	N/A	
219	PalmCabbage	0	0	N/A	
220	PalmCabbage	0	0	N/A	
221	Crepe Myrtle	12	14	2	
223	PalmCabbage	0	0	N/A	
224	PalmCabbage	0	0	N/A	
225	PalmCabbage	0	0	N/A	
226	American elm	8	15	3	
227	American elm	10	14	2	
228	ElmChinese	10	14	2	
229	PalmCabbage	0	0	N/A	
230	American elm	16	15	3	
231	American elm	13	15	3	
232	PalmCabbage	0	0	N/A	
233	Crepe Myrtle	4	0	N/A	
234	OakLive	22	13	2	
234	OakLive	19	13	2	
237	PalmCabbage	0	0	N/A	
238	PalmCabbage	0	0	N/A	
239	PalmCabbage	0	0	N/A	
240	OakLive	9999	13	2	
241	OakLive	10	14	2	
242	OakLive	8	13	2	
243	OakLive	4	0	N/A	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
244	OakLive	28	10	1	
245	OakLaurel	17	12	2	
246	OakLaurel	17	12	2	
247	PalmCabbage	0	0	N/A	
248	PalmCabbage	0	0	N/A	
249	Crepe Myrtle	4	0	N/A	
250	Crepe Myrtle	4	0	N/A	
251	Crepe Myrtle	4	0	N/A	
607	OakLaurel	13	17	3	
608	PalmCabbage	0	0	N/A	
609	PalmCabbage	0	0	N/A	
610	PalmCabbage	0	0	N/A	
611	PalmCabbage	0	0	N/A	
612	PalmCabbage	0	0	N/A	
613	PalmCabbage	0	0	N/A	
614	PalmCabbage	0	0	N/A	
615	PalmCabbage	0	0	N/A	
616	OakLive	17	15	3	
617	OakLive	17	17	3	
618	OakLive	19	14	2	
619	OakLive	14	16	3	
620	OakLive	12	12	2	
621	OakLive	17	17	3	
622	Dahoon	7	0	N/A	
623	Dahoon	6	0	N/A	
624	OakLive	19	17	3	
625	PalmUnspecified	1	0	N/A	
626	PalmExotic	1	0	N/A	
628	PalmRobellini	1	0	N/A	
629	PalmRobellini	1	0	N/A	
630	OakLive	44	14	2	
631	PalmCabbage	0	0	N/A	
632	PalmCabbage	0	0	N/A	
633	PalmCabbage	0	0	N/A	
634	OakLive	22	11	1	
635	OakLive	27	14	2	
636	PalmCabbage	0	0	N/A	
637	OakLive	33	12	2	
638	OakLive	28	13	2	
639	OakLive	23	16	3	
640	PalmCabbage	0	0	N/A	
641	PalmCabbage	0	0	N/A	
642	OakLive	9	16	3	
642	OakLive	9	16	3	
643	OakLive	10	17	3	
644	PalmCabbage	0	0	N/A	
645	PalmCabbage	0	0	N/A	
646	PalmCabbage	0	0	N/A	
646	PalmCabbage	0	0	N/A	
647	PalmCabbage	0	0	N/A	
648	Exotic	2	0	N/A	
649	PalmCabbage	0	0	N/A	
650	PalmCabbage	0	0	N/A	
650	PalmCabbage	<Null>	<Null>	N/A	
651	PalmRobellini	1	0	N/A	
653	PalmRobellini	1	0	N/A	
654	PalmCabbage	0	0	N/A	
655	PalmCabbage	0	0	N/A	
656	PalmCabbage	0	0	N/A	
657	PalmCabbage	0	0	N/A	
658	OakLive	31	15	3	
659	OakLive	11	17	3	
660	OakLive	10	16	3	
661	Exotic	9	17	3	
662	Exotic	10	17	3	
663	OakLive	25	14	2	
663	OakLive	1	0	N/A	
664	OakLive	15	12	2	
665	OakLive	26	14	2	
666	OakLive	25	13	2	
667	OakLive	15	14	2	
668	OakLive	24	14	2	
669	OakLive	23	14	2	
670	Exotic	3	0	N/A	
671	OakLive	29	13	2	
672	OakLive	28	13	2	
673	OakLive	15	15	3	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
674	OakLive	9	16	3	
675	OakLive	23	11	1	
676	OakLive	24	14	2	
677	OakLive	37	10	1	
678	OakLive	25	13	2	
679	OakLive	1	0	N/A	
680	OakLive	39	15	3	YES
681	OakLive	17	13	2	
682	PalmExotic	1	0	N/A	
683	OakLive	17	15	3	
684	OakLaurel	19	14	2	
685	OakLive	13	14	2	
686	OakLive	20	16	3	
688	OakLive	16	16	3	
689	OakLive	31	16	3	
690	OakLive	24	15	3	
691	OakLive	39	15	3	YES
692	OakLive	31	15	3	
693	OakLaurel	15	16	3	
694	OakLaurel	16	16	3	
695	OakLive	33	15	3	YES
696	OakLaurel	21	15	3	
697	OakLive	15	16	3	
698	OakLive	15	16	3	
699	PalmCabbage	0	0	N/A	
700	PalmCabbage	0	0	N/A	
702	OakLive	40	15	3	YES
703	Exotic	5	0	N/A	
704	PalmCabbage	0	0	N/A	
705	PalmCabbage	0	0	N/A	
706	Exotic	1	0	N/A	
707	PalmCabbage	0	0	N/A	
708	Exotic	1	0	N/A	
709	PalmCabbage	0	0	N/A	
710	PalmCabbage	0	0	N/A	
711	PalmDate	1	0	N/A	
712	PalmCabbage	0	0	N/A	
713	PalmCabbage	0	0	N/A	
714	PalmCabbage	0	0	N/A	
715	PalmCabbage	0	0	N/A	
717	PalmCabbage	0	0	N/A	
718	Camphor	21	16	3	
718	PalmCabbage	0	0	N/A	
719	PalmCabbage	0	0	N/A	
720	PalmCabbage	0	0	N/A	
721	PalmCabbage	0	0	N/A	
722	PalmCabbage	0	0	N/A	
723	Exotic	1	0	N/A	
724	OakLive	19	15	3	
725	OakLive	23	14	2	
726	OakLive	13	15	3	
727	OakLive	1	0	N/A	
727	OakLive	28	15	3	
728	OakLive	14	16	3	
729	Bismarck palm	1	0	N/A	
730	OakLive	51	15	3	YES
732	OakLive	36	16	3	YES
733	OakLive	29	16	3	
734	OakLive	26	16	3	
735	Cassia	25	16	3	
736	OakLive	36	16	3	YES
737	OakLive	21	16	3	
738	OakLive	24	15	3	
739	OakLive	15	14	2	
740	OakLive	20	14	2	
740	OakLive	25	15	3	
741	OakLive	31	16	3	
742	OakLive	15	14	2	
743	OakLive	22	14	2	
745	OakLive	20	15	3	
746	OakLive	17	15	3	
747	OakLive	18	14	2	
748	Cedar	21	12	2	
749	OakLive	26	16	3	
750	OakLive	16	15	3	
751	OakLive	25	15	3	
751	PineSlash	9	15	3	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
752	PineSlash	14	16	3	
753	OakLive	22	15	3	
754	PineSlash	10	15	3	
756	OakLive	28	15	3	
757	PineSlash	15	15	3	
758	OakLive	42	12	2	
759	OakLive	20	13	2	
760	OakLive	20	15	3	
761	OakLive	23	14	2	
762	Bottlebrush	5	0	N/A	
763	OakLive	30	14	2	
764	OakLive	31	15	3	
765	OakLive	26	16	3	
766	OakLive	26	15	3	
767	OakLive	28	13	2	
768	OakLive	14	13	2	
769	OakLive	29	14	2	
771	OakLive	28	14	2	
772	OakLive	19	15	3	
773	OakLive	24	15	3	
774	PalmDate	1	0	N/A	
775	OakLive	22	14	2	
776	OakLive	26	14	2	
777	OakLive	27	14	2	
778	OakLive	23	15	3	
779	OakLive	28	14	2	
780	OakLive	22	15	3	
781	OakLive	28	15	3	
782	Exotic	17	12	2	
783	OakLive	18	14	2	
784	OakLive	20	15	3	
785	Carolina laurel cherry	5	0	N/A	
786	OakLive	18	14	2	
787	OakLive	11	14	2	
788	Pignut hickory	10	15	3	
789	OakLive	15	15	3	
790	Pignut hickory	10	15	3	
791	Olive	6	0	N/A	
792	Olive	5	0	N/A	
793	Triangle palm	1	0	N/A	
794	OakLive	13	14	2	
795	PalmExotic	1	0	N/A	
796	Triangle palm	1	0	N/A	
797	OakLive	20	14	2	
797	Tuckeroo	7	0	N/A	
798	PalmCabbage	0	0	N/A	
799	OakLive	29	16	3	
800	OakLive	32	14	2	
801	PalmCabbage	0	0	N/A	
802	PalmCabbage	0	0	N/A	
803	PalmCabbage	0	0	N/A	
804	PalmCabbage	0	0	N/A	
806	PalmCabbage	0	0	N/A	
807	PalmCabbage	0	0	N/A	
808	PalmCabbage	0	0	N/A	
809	PalmCabbage	0	0	N/A	
810	PalmCabbage	0	0	N/A	
811	PalmExotic	1	0	N/A	
812	PalmExotic	1	0	N/A	
813	PalmExotic	1	0	N/A	
814	PalmExotic	1	0	N/A	
815	PalmExotic	1	0	N/A	
816	PalmExotic	1	0	N/A	
817	PalmExotic	1	0	N/A	
818	PalmExotic	1	0	N/A	
819	Exotic	23	13	2	
820	Exotic	14	11	1	
821	PalmDate	1	0	N/A	
822	PalmDate	1	0	N/A	
823	OakLive	19	14	2	
824	OakLive	29	14	2	
825	OakLive	16	17	3	
826	PalmExotic	1	0	N/A	
827	PalmExotic	1	0	N/A	
828	PalmExotic	1	0	N/A	
829	OakLive	9	16	3	
830	PalmRobellini	1	0	N/A	
831	PalmDate	1	0	N/A	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
832	PalmDate	1	0	N/A	
833	PalmDate	1	0	N/A	
834	PalmDate	1	0	N/A	
835	PalmDate	1	0	N/A	
836	PalmCabbage	0	0	N/A	
837	PalmCabbage	0	0	N/A	
839	PalmCabbage	0	0	N/A	
840	Magnolia	4	0	N/A	
841	Magnolia	4	0	N/A	
842	Magnolia	3	0	N/A	
843	Magnolia	3	0	N/A	
843	PalmCabbage	0	0	N/A	
844	PalmCabbage	0	0	N/A	
845	OakLive	28	14	2	
846	OakLive	14	17	3	
848	OakLive	8	15	3	
849	OakLive	9	16	3	
850	OakLive	7	0	N/A	
850	OakLive	18	15	3	
851	OakLive	5	0	N/A	
852	OakLive	9	16	3	
853	PalmCabbage	0	0	N/A	
854	OakLive	16	15	3	
855	OakLive	20	14	2	
856	OakLive	13	16	3	
857	PalmRobellini	1	0	N/A	
858	OakLive	7	0	N/A	
859	PalmRobellini	1	0	N/A	
860	OakLive	7	0	N/A	
862	PalmRobellini	1	0	N/A	
864	OakLive	7	0	N/A	
865	PalmExotic	1	0	N/A	
866	PalmCabbage	0	0	N/A	
867	PalmRobellini	1	0	N/A	
869	OakLaurel	13	16	3	
870	PalmExotic	1	0	N/A	
871	Water oak	4	0	N/A	
872	PalmCabbage	0	0	N/A	
874	PalmCabbage	0	0	N/A	
875	Schefflera	13	15	3	
876	OakLive	9	17	3	
877	OakLive	10	17	3	
878	OakLive	10	16	3	
879	Magnolia	5	0	N/A	
880	Magnolia	4	0	N/A	
881	Magnolia	5	0	N/A	
882	Magnolia	7	0	N/A	
884	Loblolly bay	8	18	4	
885	Loblolly bay	8	17	3	
886	OakLive	23	15	3	
887	OakLive	42	13	2	
888	OakLive	14	15	3	
889	PalmDate	1	0	N/A	
890	PalmExotic	1	0	N/A	
891	PalmRobellini	1	0	N/A	
892	PalmRobellini	1	0	N/A	
894	PalmRobellini	1	0	N/A	
895	PalmRobellini	1	0	N/A	
896	PalmExotic	1	0	N/A	
897	PalmExotic	1	0	N/A	
897	Sycamore	16	13	2	
898	Crepe myrtle	13	16	3	
899	Birch	7	0	N/A	
900	Birch	8	14	2	
901	PalmCabbage	0	0	N/A	
902	Birch	9	14	2	
903	PalmCabbage	0	0	N/A	
904	Birch	6	0	N/A	
905	Birch	11	14	2	
906	Jacaranda	10	8	1	
907	OakLive	25	14	2	
908	Kusamaki	30	15	3	
909	Kusamaki	38	14	2	
910	OakLive	35	15	3	YES
911	OakLive	26	14	2	
912	Crepe Myrtle	9	16	3	
913	Crepe Myrtle	10	16	3	
914	Crepe myrtle	12	15	3	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
915	PalmExotic	1	0	N/A	
916	PalmCabbage	0	0	N/A	
917	OakLive	12	15	3	
918	PalmCabbage	0	0	N/A	
919	OakLive	9	16	3	
920	OakLive	9	16	3	
921	PalmCabbage	0	0	N/A	
923	PalmCabbage	0	0	N/A	
923	OakLive	9	15	3	
924	PalmCabbage	0	0	N/A	
925	PalmCabbage	0	0	N/A	
926	PalmWash	1	0	N/A	
927	PalmWash	1	0	N/A	
928	PalmWash	1	0	N/A	
929	OakLive	44	15	3	YES
930	Crepe Myrtle	12	16	3	
931	PineNorfolk	21	17	3	
932	PalmCabbage	0	0	N/A	
933	PalmCabbage	0	0	N/A	
934	PalmExotic	1	0	N/A	
935	PalmCabbage	0	0	N/A	
936	Crepe Myrtle	13	15	3	
937	Crepe Myrtle	12	14	2	
938	Crepe Myrtle	11	16	3	
939	PalmCabbage	0	0	N/A	
940	PalmCabbage	0	0	N/A	
941	PalmCabbage	0	0	N/A	
942	OakLive	40	15	3	YES
943	OakLive	49	15	3	YES
944	OakLive	34	12	2	
945	PalmRobellini	1	0	N/A	
946	Manila palm	1	0	N/A	
947	OakLive	34	13	2	
948	OakLive	20	14	2	
949	Crepe Myrtle	9	16	3	
951	OakLive	22	15	3	
954	Crepe Myrtle	1	0	N/A	
955	Crepe Myrtle	7	0	N/A	
956	Crepe myrtle	7	0	N/A	
957	ElmChinese	6	0	N/A	
958	OakLive	34	15	3	YES
959	OakLive	18	14	2	
960	Schefflera	15	15	3	
961	OakLaurel	17	14	2	
962	Triangle palm	1	0	N/A	
963	Crepe Myrtle	7	0	N/A	
964	Crepe Myrtle	8	16	3	
965	OakLive	23	12	2	
966	Crepe Myrtle	1	0	N/A	
966	Crepe Myrtle	8	16	3	
967	Loblolly bay	3	0	N/A	
968	Loblolly bay	3	0	N/A	
969	Loblolly bay	3	0	N/A	
970	Loblolly bay	3	0	N/A	
971	Eleocarpus	1	0	N/A	
972	OakLive	31	12	2	
973	OakLive	43	13	2	
974	OakLive	37	15	3	YES
975	PalmExotic	1	0	N/A	
976	Crepe Myrtle	5	0	N/A	
977	Tuckeroo	4	0	N/A	
978	OakLive	7	0	N/A	
980	OakLive	22	16	3	
981	OakLive	3	0	N/A	
982	OakLive	17	16	3	
983	OakLive	18	15	3	
984	OakLive	20	14	2	
985	OakLive	16	13	2	
986	Sweetgum	12	16	3	
987	OakLive	23	13	2	
988	OakLive	10	14	2	
989	OakLive	12	14	2	
990	Sweetgum	12	14	2	
991	Mango	3	0	N/A	
992	OakLive	17	15	3	
993	Sweetgum	7	0	N/A	
994	OakLive	26	14	2	
995	OakLive	23	14	2	

Tree Tag	Species	DBH (inches)	Overall Tree Score:	Tree Condition Ranking:	GrandTree
996	Magnolia	24	13	2	
997	OakLive	15	14	2	
998	OakLive	21	14	2	
999	OakLive	24	14	2	
1000	OakLive	21	15	3	
9999	OakLive	1	0	N/A	
9999	OakLaurel	1	0	N/A	
9999	PalmCabbage	0	0	N/A	
9999	OakLive	1	0	N/A	
9999	OakLive	1	0	N/A	
9999	PalmCabbage	0	0	N/A	
9999	OakLive	1	0	N/A	
9999	OakLive	1	0	N/A	
9999	OakLive	1	0	N/A	
9999	Magnolia	1	0	N/A	
9999	OakLive	1	0	N/A	
<Null>	PalmExotic	1	0	N/A	
<Null>	OakLive	1	0	N/A	
<Null>	PalmRobellini	1	0	N/A	
<Null>	PalmRobellini	1	0	N/A	
<Null>	PalmDate	1	0	N/A	
<Null>	OakLaurel	1	0	N/A	
<Null>	OakLive	1	0	N/A	
<Null>	OakLive	1	0	N/A	
<Null>	OakLive	1	0	N/A	
<Null>	PalmRobellini	1	0	N/A	

Appendix D. Finished Floor Elevations



SURVEYOR'S REPORT:

1. *THE PURPOSE OF THIS SURVEY IS TO DETERMINE FINISHED FLOOR ELEVATIONS FOR BUILDINGS SPECIFIED BY THE CLIENT.*
2. *THIS SURVEY DOES NOT DETERMINE OWNERSHIP OF THE LANDS SHOWN HEREON.*
3. *MEASUREMENT METHODS USED FOR THIS SURVEY MEET STANDARDS OF PRACTICE FOR LAND SURVEYING CHAPTER 5J-17 REQUIREMENTS. DIMENSIONS ARE SHOWN IN UNITED STATES STANDARD SURVEY FEET AND DECIMALS THEREOF UNLESS OTHERWISE NOTED.*
4. *FEATURES SHOWN BY SYMBOL AS INDICATED IN THE LEGEND ARE NOT TO SCALE.*
5. *VERTICAL INFORMATION SHOWN HEREON REFERS TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). ALL SET CONTROL WAS ELEVATED BY COMPLETING A CLOSED LOOP BENCH RUN FROM THE ABOVEMENTIONED PRIMARY VERTICAL CONTROL POINTS. SAID BENCH RUN CLOSURE IS ACCURATE TO A STANDARD OF 0.05' TIMES THE SQUARE ROOT OF THE BENCHRUN DISTANCE IN MILES.*
   -HV-09 0455 HAVING AN ELEVATION OF 17.828' (CITY OF TAMPA)
   -SWANN CONTROL POINT 36 HAVING AN ELEVATION OF 18.920' (CITY OF TAMPA)
6. *FINISHED FLOOR ELEVATIONS WERE COLLECTED AT THE DOORWAY LANDING, UNLESS OTHERWISE NOTED. BUILDING INTERIORS WERE NOT ACCESSIBLE.*
7. *ALL DUPLEXES HAVE THE SAME FINISHED FLOOR, UNLESS OTHERWISE NOTED.*
8. *HORIZONTAL LEADER LOCATIONS ARE GENERALIZED FOR EACH BUILDING, NOT WHERE THE FINISHED FLOOR ELEVATION WAS COLLECTED.*
9. *THE SURVEY MAP AND REPORT OR THE COPIES THEREOF ARE NOT VALID WITHOUT THE SIGNATURE AND SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.*
10. *ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.*
11. *THE LAST DATE OF FIELD EFFORT WAS XX/XX/2025.*

LEGEND & ABBREVIATIONS

ELEV = ELEVATION
FFE = FINISHED FLOOR ELEVATION
LB = LICENSED BUSINESS
LS = LICENSED SURVEYOR

PREPARED FOR:
ATKINSRÉALIS

SURVEYOR'S CERTIFICATION

I HEREBY CERTIFY THAT A SURVEY OF THE PROPERTY SHOWN HEREON WAS MADE UNDER MY SUPERVISION AND THAT THE SURVEY MEETS THE STANDARDS OF PRACTICE AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO CHAPTER 472.027 OF THE FLORIDA STATUTES AND THAT THE SKETCH HEREON IS A TRUE AND ACCURATE REPRESENTATION THEREOF TO THE BEST OF MY KNOWLEDGE AND BELIEF, SUBJECT TO NOTES AND NOTATIONS SHOWN.

THOMAS P. YOUNG, JR. License Number 7044 STATE OF FLORIDA Professional Surveyor and Mapper

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

THOMAS P YOUNG JR
FLORIDA PROFESSIONAL SURVEYOR & MAPPER LS 7044

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENT.

ATKINSRÉALIS	*PALMA CEIA* *FINISHED FLOOR ELEVATIONS* *SPECIFIC PURPOSE SURVEY*							DATE: 4/10/2025 PROJECT NUMBER: 25-096 OFFICE: CHECKED: TPY	DRAWING: 25-096_FFEs SCALE: NTS SHEET: 1 OF 1
		REVISION COMMENTS	BY	DATE	REVISION COMMENTS	BY	DATE		

ECHO UTILITY ENGINEERING & SURVEY

ECHO UES, INC.
CERTIFICATION OF AUTHORIZATION 8184
4803 GEORGE ROAD, SUITE 350
TAMPA, FLORIDA 33634
888.778.ECHO | www.echoues.com

Appendix E. Traffic Data Collection

Vehicle Speed Report - Hourly

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Total Study Speed Summary		
	Eastbound	**Westbound**
Average Speed	21.0 mph	23.3 mph
50th Percentile	20.9 mph	22.4 mph
85th Percentile	26.8 mph	31.8 mph
95th Percentile	31.4 mph	35.3 mph

	Speed Range (MPH) - Total Study																				
	Total	**0-10**	**10-15**	**15-20**	**20-25**	**25-30**	**30-35**	**35-40**	**40-45**	**45-50**	**50-55**	**55-60**	**60-65**	**65-70**	**70-75**	**75-80**	**80-85**	**85-90**	**90-95**	**95-100**	**100+**
Eastbound	21374	537	2745	5831	7435	3252	1216	310	43	5	0	0	0	0	0	0	0	0	0	0	0
Percent	*100.0%*	*2.5%*	*12.8%*	*27.3%*	*34.8%*	*15.2%*	*5.7%*	*1.5%*	*0.2%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Westbound	13742	190	1502	3614	2913	2440	2297	668	96	13	4	2	0	1	0	0	2	0	0	0	0
Percent	*100.0%*	*1.4%*	*10.9%*	*26.3%*	*21.2%*	*17.8%*	*16.7%*	*4.9%*	*0.7%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	35116	727	4247	9445	10348	5692	3513	978	139	18	4	2	0	1	0	0	2	0	0	0	0
Percent	*100.0%*	*2.1%*	*12.1%*	*26.9%*	*29.5%*	*16.2%*	*10.0%*	*2.8%*	*0.4%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Eastbound - 04/01/2025)

Tuesday	Eastbound																					
4/1/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	31	0	0	2	16	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	20	0	0	6	9	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	9	0	0	0	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	8	0	0	1	2	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	34	0	0	3	16	9	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	91	0	2	10	45	21	8	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	171	0	1	28	74	42	19	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	340	5	29	101	119	55	23	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	453	6	35	127	169	77	32	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	460	9	73	137	153	70	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	418	7	42	126	168	55	15	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	466	20	98	101	143	67	30	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	449	8	49	107	187	71	23	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	447	18	53	144	158	57	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	436	18	116	141	112	41	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	484	17	55	174	134	49	38	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	596	31	145	225	146	26	14	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	552	42	147	169	121	41	18	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	502	35	103	148	141	55	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	439	11	47	123	184	55	15	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	327	0	5	68	179	54	18	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	260	1	4	30	129	66	27	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	156	0	1	9	72	52	15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	77	0	0	6	38	20	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**964**	**11**	**65**	**256**	**362**	**174**	**74**	**19**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1632**	**90**	**347**	**568**	**401**	**116**	**70**	**34**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**5774**	**216**	**946**	**1728**	**1825**	**706**	**268**	**73**	**11**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**7226**	**228**	**1005**	**1986**	**2520**	**997**	**372**	**101**	**15**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***3.2%***	***13.9%***	***27.5%***	***34.9%***	***13.8%***	***5.1%***	***1.4%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**20.7 mph**																					
85th Percentile	**26.4 mph**																					
95th Percentile	**31.2 mph**																					

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Westbound - 04/01/2025)

Tuesday	Westbound																				
4/1/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	18	0	0	6	3	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	10	0	0	1	5	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	3	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	5	0	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	5	0	0	1	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	26	1	1	6	4	6	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	65	2	5	10	13	8	17	9	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	245	4	30	37	30	52	54	33	5	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	352	4	25	69	68	103	68	14	0	1	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	296	4	41	64	75	42	55	12	3	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	258	5	37	99	69	31	10	4	3	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	276	10	46	117	56	21	19	5	2	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	356	8	78	170	71	12	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	330	13	70	172	59	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	329	6	57	145	96	18	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	382	1	27	33	70	98	113	36	4	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	320	2	19	29	45	100	104	15	5	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	312	1	10	30	45	78	105	38	4	1	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	238	2	18	32	36	64	67	16	3	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	179	2	16	38	51	35	29	8	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	184	1	11	37	51	45	34	5	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	126	1	11	28	19	33	22	11	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	79	0	11	28	22	8	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	46	1	3	11	16	7	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**662**	**10**	**60**	**116**	**111**	**163**	**139**	**56**	**6**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1014**	**4**	**56**	**92**	**160**	**276**	**322**	**89**	**13**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3759**	**62**	**463**	**1007**	**733**	**635**	**637**	**189**	**30**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4440**	**68**	**516**	**1164**	**911**	**777**	**739**	**226**	**36**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***1.5%***	***11.6%***	***26.2%***	***20.5%***	***17.5%***	***16.6%***	***5.1%***	***0.8%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**22.3 mph**																				
85th Percentile	**32.0 mph**																				
95th Percentile	**35.4 mph**																				

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Eastbound - 04/02/2025)

Wednesday	Eastbound																				
4/2/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	45	0	0	7	14	15	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	18	0	0	3	7	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	10	0	1	2	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	17	0	0	2	9	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	29	0	2	5	14	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	85	0	1	9	46	18	5	4	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	161	0	3	24	68	31	28	6	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	349	5	71	110	83	51	22	6	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	444	11	57	136	133	70	34	3	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	408	6	45	110	150	71	22	4	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	407	16	28	80	162	93	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	444	2	21	131	172	80	35	3	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	487	10	35	131	201	88	18	3	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	439	8	45	103	159	90	24	10	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	429	8	75	132	153	52	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	575	22	112	174	159	64	35	9	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	576	52	173	258	67	8	14	3	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	591	41	182	245	94	19	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	520	24	141	139	140	47	22	7	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	419	2	31	129	185	55	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	338	0	7	83	163	71	10	2	2	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	205	0	2	22	105	57	13	5	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	131	0	0	11	61	41	14	3	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	88	0	0	8	51	18	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**954**	**16**	**131**	**270**	**284**	**152**	**84**	**15**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1742**	**115**	**467**	**677**	**320**	**91**	**56**	**14**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**5830**	**205**	**988**	**1773**	**1741**	**764**	**294**	**59**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**7215**	**207**	**1032**	**2054**	**2399**	**1054**	**374**	**83**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***2.9%***	***14.3%***	***28.5%***	***33.3%***	***14.6%***	***5.2%***	***1.2%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**20.5 mph**																				
85th Percentile	**26.5 mph**																				
95th Percentile	**30.9 mph**																				

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Westbound - 04/02/2025)

Wednesday	Westbound																				
4/2/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	28	0	3	6	7	3	2	5	1	0	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	6	0	0	1	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	13	0	2	5	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	5	0	0	1	1	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	6	0	0	2	0	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
5:00 AM	23	0	1	5	7	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	65	0	2	13	10	16	18	4	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	242	1	17	31	51	58	60	21	3	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	305	8	26	64	63	70	57	16	0	1	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	304	4	36	87	71	43	47	13	3	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	272	3	42	103	69	34	17	3	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	391	8	79	180	100	12	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	348	5	69	147	82	20	18	6	0	0	0	0	0	0	0	0	1	0	0	0	0
1:00 PM	284	5	47	138	61	18	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	370	5	69	149	100	31	8	5	2	0	0	0	0	1	0	0	0	0	0	0	0
3:00 PM	328	3	20	38	41	88	103	30	4	1	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	315	0	10	26	51	119	93	16	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	326	2	10	17	46	112	116	20	2	1	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	226	2	15	30	47	48	69	14	0	1	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	245	2	22	47	75	63	29	6	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	232	1	18	52	57	46	37	21	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	139	1	9	33	35	27	25	7	0	1	1	0	0	0	0	0	0	0	0	0	0
10:00 PM	80	1	10	18	24	9	11	3	3	1	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	55	0	2	11	14	9	9	10	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**612**	**9**	**45**	**108**	**124**	**144**	**135**	**41**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**969**	**5**	**40**	**81**	**138**	**319**	**312**	**66**	**6**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3776**	**46**	**442**	**1023**	**792**	**669**	**629**	**152**	**17**	**4**	**0**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4608**	**51**	**509**	**1204**	**1019**	**835**	**747**	**209**	**23**	**6**	**2**	**1**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
Percent	***100%***	***1.1%***	***11.0%***	***26.1%***	***22.1%***	***18.1%***	***16.2%***	***4.5%***	***0.5%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**22.4 mph**																				
85th Percentile	**31.5 mph**																				
95th Percentile	**35.1 mph**																				

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Eastbound - 04/03/2025)

Thursday	Eastbound																					
4/3/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	43	0	0	7	13	18	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	28	0	0	2	15	9	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	21	0	0	2	13	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	15	0	0	1	7	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	26	0	0	0	17	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	80	0	1	15	40	11	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	152	0	6	23	67	26	22	6	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	382	1	21	91	128	92	39	10	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	449	6	58	150	146	65	20	4	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	431	19	69	120	118	81	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	402	6	73	93	134	73	20	2	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	463	0	27	141	174	90	26	5	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	455	9	55	131	162	68	24	6	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	408	9	36	89	151	82	32	8	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	432	6	28	103	136	114	38	7	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	566	12	89	173	194	48	34	14	1	1	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	595	21	127	202	161	55	20	8	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	540	7	65	162	167	80	41	15	3	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	473	6	49	122	177	67	38	12	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	378	0	3	72	195	80	19	7	0	2	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	293	0	0	53	170	51	16	2	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	159	0	0	24	67	37	24	5	2	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	98	0	1	7	47	26	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	44	0	0	8	17	11	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**983**	**7**	**85**	**264**	**341**	**183**	**81**	**20**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1701**	**40**	**281**	**537**	**522**	**183**	**95**	**37**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**5748**	**102**	**703**	**1600**	**1915**	**941**	**376**	**99**	**11**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**6933**	**102**	**708**	**1791**	**2516**	**1201**	**470**	**126**	**16**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***1.5%***	***10.2%***	***25.8%***	***36.3%***	***17.3%***	***6.8%***	***1.8%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**21.5 mph**																				
85th Percentile	**27.6 mph**																				
95th Percentile	**32.2 mph**																				

Site Description: W SWANN AVENUE Between ARMEN
Site Number: 5
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Westbound - 04/03/2025)

Thursday	Westbound																				
4/3/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	28	0	3	10	4	3	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	15	0	2	3	3	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	3	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	5	0	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	12	0	0	2	5	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	27	0	1	9	7	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	78	0	0	8	16	23	17	11	3	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	266	1	19	42	55	56	74	16	2	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	361	3	30	80	80	75	71	19	3	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	333	8	62	102	69	37	43	12	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	277	6	37	113	83	25	8	1	3	0	0	0	0	0	0	0	1	0	0	0	0
11:00 AM	330	1	46	123	94	31	26	6	2	0	0	1	0	0	0	0	0	0	0	0	0
12:00 PM	346	9	61	160	70	31	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	324	11	52	137	74	37	9	3	0	0	1	0	0	0	0	0	0	0	0	0	0
2:00 PM	343	9	63	167	76	7	14	7	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	413	4	22	50	47	105	142	39	4	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	341	0	15	34	64	108	93	22	5	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	368	2	6	24	43	129	126	34	3	1	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	279	8	19	48	44	57	83	19	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	173	3	10	48	46	35	19	7	3	1	1	0	0	0	0	0	0	0	0	0	0
8:00 PM	164	2	11	38	44	25	25	17	1	1	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	96	1	5	15	31	21	15	7	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	68	3	8	17	12	9	14	4	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	44	0	4	15	13	5	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**705**	**4**	**49**	**130**	**151**	**154**	**162**	**46**	**8**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1122**	**6**	**43**	**108**	**154**	**342**	**361**	**95**	**12**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**4059**	**62**	**432**	**1088**	**815**	**721**	**720**	**190**	**26**	**2**	**1**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4694**	**71**	**477**	**1246**	**983**	**828**	**811**	**233**	**37**	**4**	**2**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**
Percent	***100%***	***1.5%***	***10.2%***	***26.5%***	***20.9%***	***17.6%***	***17.3%***	***5.0%***	***0.8%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**22.5 mph**																				
85th Percentile	**31.9 mph**																				
95th Percentile	**35.3 mph**																				

Vehicle Speed Report - Hourly

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Total Study Speed Summary		
	Northbound	Southbound
Average Speed	24.7 mph	25.0 mph
50th Percentile	24.9 mph	25.1 mph
85th Percentile	29.5 mph	29.6 mph
95th Percentile	32.4 mph	32.5 mph

Speed Range (MPH) - Total Study																					
	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
Northbound	18891	113	614	2125	6656	6964	2114	275	26	3	1	0	0	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.6%*	*3.3%*	*11.2%*	*35.2%*	*36.9%*	*11.2%*	*1.5%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Southbound	17607	56	408	1804	6200	6776	2045	285	25	5	1	0	0	0	0	0	0	0	1	1	0
Percent	*100.0%*	*0.3%*	*2.3%*	*10.2%*	*35.2%*	*38.5%*	*11.6%*	*1.6%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	36498	169	1022	3929	12856	13740	4159	560	51	8	2	0	0	0	0	0	0	0	1	1	0
Percent	*100.0%*	*0.5%*	*2.8%*	*10.8%*	*35.2%*	*37.6%*	*11.4%*	*1.5%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Northbound - 04/01/2025)

Tuesday	Northbound																				
4/1/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	24	0	0	2	4	9	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	15	0	0	0	2	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	14	0	0	0	2	4	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	9	0	0	0	2	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	15	0	0	0	2	3	6	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	55	0	0	2	6	17	21	9	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	168	0	1	5	30	63	55	14	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	372	0	1	18	87	184	75	7	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	487	2	22	45	168	201	45	4	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	332	0	1	35	78	162	49	7	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	315	1	6	36	109	125	28	10	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	397	7	37	72	149	115	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	371	4	17	52	149	127	21	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	396	11	44	89	131	98	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	429	1	16	53	138	163	53	3	2	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	409	2	8	39	171	149	39	0	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	389	3	4	34	132	157	51	8	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	431	4	23	45	198	129	30	2	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	356	0	4	35	148	139	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	358	1	7	72	158	98	20	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	374	0	8	61	187	99	15	3	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	277	0	7	21	115	116	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	197	0	4	10	79	84	19	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	151	0	1	6	30	72	32	9	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**1027**	**2**	**24**	**68**	**285**	**448**	**175**	**25**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1229**	**9**	**35**	**118**	**501**	**435**	**120**	**10**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**4852**	**35**	**184**	**558**	**1688**	**1812**	**512**	**60**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**6341**	**36**	**211**	**732**	**2275**	**2325**	**661**	**94**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.6%***	***3.3%***	***11.5%***	***35.9%***	***36.7%***	***10.4%***	***1.5%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**24.8 mph**																				
85th Percentile	**29.3 mph**																				
95th Percentile	**32.3 mph**																				

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Southbound - 04/01/2025)

Tuesday	Southbound																				
4/1/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	20	0	0	1	1	6	10	1	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	13	0	0	0	3	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	8	0	0	0	1	3	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	5	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	10	0	0	1	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	76	0	0	0	8	26	30	8	4	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	123	0	1	5	15	56	39	7	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	258	0	0	5	58	154	33	8	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	329	0	4	19	86	169	46	4	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	329	0	3	26	94	145	58	3	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	345	1	10	42	109	137	41	5	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	384	1	16	50	151	131	33	2	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	442	2	27	75	183	140	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	398	2	26	49	165	126	24	6	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	382	0	3	32	135	153	52	7	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	380	0	5	41	101	150	78	5	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	433	0	4	39	150	189	45	6	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	439	4	28	57	167	140	38	4	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	423	5	25	49	192	114	34	3	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	420	3	26	109	169	95	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	302	0	11	36	124	113	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	217	0	3	15	72	90	31	5	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	141	0	0	6	41	67	22	4	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	63	0	0	1	4	33	18	6	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**710**	**0**	**5**	**29**	**159**	**379**	**118**	**19**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1252**	**4**	**37**	**137**	**418**	**479**	**161**	**15**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**4665**	**15**	**152**	**489**	**1606**	**1804**	**533**	**63**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**5940**	**18**	**192**	**658**	**2031**	**2246**	**689**	**95**	**11**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.3%***	***3.2%***	***11.1%***	***34.2%***	***37.8%***	***11.6%***	***1.6%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**25.1 mph**																				
85th Percentile	**29.6 mph**																				
95th Percentile	**32.5 mph**																				

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Northbound - 04/02/2025)

Wednesday	Northbound																				
4/2/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	69	0	0	2	6	28	25	5	3	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	33	0	0	2	3	9	14	2	2	1	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	14	0	0	0	0	6	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	9	0	0	0	1	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	19	0	0	0	0	10	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	65	0	0	0	14	23	25	3	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	163	0	0	8	32	67	50	4	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	418	0	3	38	123	191	53	6	3	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	462	1	11	29	170	178	69	4	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	366	5	17	38	106	147	50	2	0	0	1	0	0	0	0	0	0	0	0	0	0
10:00 AM	344	0	9	33	134	123	41	4	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	386	0	2	39	139	159	43	4	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	392	1	5	42	164	151	23	5	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	443	12	46	89	173	109	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	418	0	10	23	163	165	51	6	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	382	1	26	45	119	151	36	4	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	388	0	11	35	109	153	67	13	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	378	6	28	43	118	153	25	5	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	398	1	14	73	154	125	28	2	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	373	0	5	70	165	117	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	411	3	19	90	193	96	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	304	4	9	61	123	84	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	181	1	2	13	67	75	19	4	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	148	0	0	3	30	62	42	9	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**1043**	**1**	**14**	**75**	**325**	**436**	**172**	**14**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1148**	**7**	**65**	**123**	**346**	**457**	**128**	**22**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**4938**	**27**	**182**	**535**	**1704**	**1872**	**550**	**59**	**7**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**6564**	**35**	**217**	**776**	**2306**	**2386**	**739**	**88**	**14**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.5%***	***3.3%***	***11.8%***	***35.1%***	***36.3%***	***11.3%***	***1.3%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**24.8 mph**																				
85th Percentile	**29.5 mph**																				
95th Percentile	**32.3 mph**																				

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Southbound - 04/02/2025)

Wednesday	Southbound																				
4/2/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	34	0	1	0	4	14	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	23	0	0	0	1	15	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	10	0	0	0	2	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	9	0	0	0	1	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	19	0	1	1	6	5	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	66	0	0	3	10	27	22	2	1	1	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	143	0	1	1	32	67	36	6	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	264	1	3	11	72	108	59	9	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	368	0	1	34	127	154	50	2	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	330	1	6	42	108	119	52	1	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	338	1	8	27	128	129	40	5	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	392	1	18	43	157	128	38	7	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	419	0	4	53	171	146	39	4	0	1	0	0	0	0	0	0	0	0	1	0	0
1:00 PM	351	0	6	53	143	116	30	3	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	395	1	3	44	141	157	44	5	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	402	2	21	48	114	151	62	3	0	0	0	0	0	0	0	0	0	0	0	1	0
4:00 PM	416	1	3	32	108	193	69	8	1	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	454	1	11	77	151	159	48	7	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	423	14	9	49	173	151	25	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	392	1	8	50	185	122	18	8	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	354	0	8	28	175	123	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	188	0	3	20	64	77	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	108	0	2	1	27	43	30	5	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	76	0	1	6	15	37	13	4	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**775**	**1**	**5**	**46**	**231**	**329**	**145**	**17**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1272**	**4**	**35**	**157**	**373**	**503**	**179**	**18**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
6:00 AM - 7:00 PM	**4695**	**23**	**94**	**514**	**1625**	**1778**	**592**	**61**	**4**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**
12:00 AM - 12:00 AM	**5974**	**24**	**118**	**623**	**2115**	**2247**	**745**	**92**	**5**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**
Percent	***100%***	***0.4%***	***2.0%***	***10.4%***	***35.4%***	***37.6%***	***12.5%***	***1.5%***	***0.1%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**25.1 mph**																				
85th Percentile	**29.7 mph**																				
95th Percentile	**32.5 mph**																				

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Northbound - 04/03/2025)

Thursday	Northbound																				
4/3/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	67	0	0	0	8	28	24	6	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	26	0	0	0	5	7	9	4	0	1	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	12	0	0	1	2	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	12	0	0	0	0	3	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	20	0	0	0	1	4	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	59	0	0	0	7	18	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	142	0	0	1	25	62	48	6	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	380	1	6	25	94	187	62	5	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	503	5	17	65	210	159	45	2	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	321	1	2	19	112	132	51	4	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	379	0	3	39	129	168	37	2	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	375	2	12	47	141	134	35	4	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	406	24	49	74	131	102	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	419	2	16	65	152	150	32	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	413	0	10	41	135	168	54	5	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	401	0	11	51	114	171	48	5	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	380	1	19	36	146	140	34	4	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	366	5	21	50	144	114	28	4	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	347	1	2	30	137	139	35	3	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	303	0	2	32	125	110	30	4	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	294	0	12	25	135	103	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	207	0	2	6	79	87	29	4	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	101	0	1	9	30	46	9	5	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	53	0	1	1	13	16	14	8	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**1025**	**6**	**23**	**91**	**329**	**408**	**155**	**13**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1147**	**6**	**51**	**137**	**404**	**425**	**110**	**13**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**4832**	**42**	**168**	**543**	**1670**	**1826**	**535**	**46**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**5986**	**42**	**186**	**617**	**2075**	**2253**	**714**	**93**	**5**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.7%***	***3.1%***	***10.3%***	***34.7%***	***37.6%***	***11.9%***	***1.6%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**25.1 mph**																				
85th Percentile	**29.7 mph**																				
95th Percentile	**32.5 mph**																				

Site Description: S Howard Avenue Between Inman Av
Site Number: 6
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Southbound - 04/03/2025)

Thursday	Southbound																				
4/3/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	33	0	0	1	4	13	10	3	1	0	1	0	0	0	0	0	0	0	0	0	0
1:00 AM	18	0	0	0	2	11	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	15	0	0	0	2	3	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	14	0	0	0	1	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	24	0	1	1	1	6	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	65	0	0	1	12	28	18	5	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	137	0	0	2	34	61	32	7	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	276	0	0	15	94	122	40	3	2	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	366	1	4	22	121	180	34	4	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	326	0	8	35	121	133	24	5	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	373	1	6	37	159	128	37	4	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	374	0	9	31	145	160	24	4	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	410	12	21	57	162	135	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	375	0	27	64	146	107	27	4	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	336	0	1	29	105	141	52	8	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	368	0	2	45	114	154	48	5	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	389	0	0	22	145	167	49	6	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	465	0	10	42	177	183	47	6	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	421	0	0	48	192	158	22	1	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	330	0	1	35	136	133	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	291	0	6	25	109	121	28	2	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	168	0	2	6	46	83	21	8	1	1	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	74	0	0	4	14	30	19	6	0	1	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	45	0	0	1	12	19	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**779**	**1**	**4**	**39**	**249**	**363**	**106**	**14**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1222**	**0**	**12**	**109**	**436**	**504**	**144**	**17**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**4616**	**14**	**88**	**449**	**1715**	**1829**	**458**	**58**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**5693**	**14**	**98**	**523**	**2054**	**2283**	**611**	**98**	**9**	**2**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.2%***	***1.7%***	***9.2%***	***36.1%***	***40.1%***	***10.7%***	***1.7%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**25.2 mph**																				
85th Percentile	**29.5 mph**																				
95th Percentile	**32.3 mph**																				

Vehicle Speed Report - Hourly

Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Total Study Speed Summary		
	Northbound	Southbound
Average Speed	28.0 mph	27.0 mph
50th Percentile	27.9 mph	27.3 mph
85th Percentile	32.6 mph	32.0 mph
95th Percentile	35.3 mph	34.8 mph

	Speed Range (MPH) - Total Study																				
	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
Northbound	13046	13	74	460	2548	5731	3477	662	71	9	0	1	0	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.1%*	*0.6%*	*3.5%*	*19.5%*	*43.9%*	*26.7%*	*5.1%*	*0.5%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Southbound	13872	23	187	907	3287	5573	3273	564	53	5	0	0	0	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.2%*	*1.3%*	*6.5%*	*23.7%*	*40.2%*	*23.6%*	*4.1%*	*0.4%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*
Total	26918	36	261	1367	5835	11304	6750	1226	124	14	0	1	0	0	0	0	0	0	0	0	0
Percent	*100.0%*	*0.1%*	*1.0%*	*5.1%*	*21.7%*	*42.0%*	*25.1%*	*4.6%*	*0.5%*	*0.1%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*

Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Northbound - 04/01/2025)

Tuesday	Northbound																					
4/1/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	12	0	0	0	1	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	12	0	0	0	2	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	8	0	0	0	1	2	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	9	0	0	0	0	3	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	8	0	0	0	1	0	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	35	0	0	1	5	13	11	4	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	93	0	0	3	8	33	35	13	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	267	0	0	20	41	112	79	15	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	350	0	0	6	65	148	107	23	0	1	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	268	0	1	5	55	128	69	9	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	231	0	2	9	57	92	61	8	2	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	319	0	4	8	79	157	66	5	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	289	2	2	18	70	105	83	8	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	278	3	10	34	99	102	27	3	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	277	2	9	21	71	95	70	8	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	314	0	1	10	71	130	83	15	3	0	0	1	0	0	0	0	0	0	0	0	0
4:00 PM	358	0	1	5	54	179	96	21	2	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	391	0	0	1	74	206	94	13	3	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	292	0	1	21	73	130	62	4	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	268	0	2	20	84	121	33	8	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	186	0	4	17	43	87	29	5	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	101	0	0	6	20	41	26	8	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	63	0	3	7	8	28	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	37	0	0	3	6	14	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**710**	**0**	**0**	**29**	**114**	**293**	**221**	**51**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1063**	**0**	**2**	**16**	**199**	**515**	**273**	**49**	**8**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3727**	**7**	**31**	**161**	**817**	**1617**	**932**	**145**	**15**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4466**	**7**	**40**	**215**	**988**	**1936**	**1073**	**184**	**21**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.2%***	***0.9%***	***4.8%***	***22.1%***	***43.3%***	***24.0%***	***4.1%***	***0.5%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**27.5 mph**																					
85th Percentile	**32.2 mph**																					
95th Percentile	**34.8 mph**																					

Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Southbound - 04/01/2025)

Tuesday	Southbound																				
4/1/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	18	0	0	0	3	7	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	11	0	0	0	3	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	5	0	0	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	7	1	0	0	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	6	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	40	0	0	2	7	10	12	7	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	83	0	0	2	5	28	38	8	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	235	1	8	12	35	96	72	10	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	291	0	0	13	49	116	99	12	2	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	281	0	0	12	41	146	72	10	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	253	0	1	19	80	85	62	5	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	288	3	5	30	79	110	58	3	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	255	0	4	9	55	129	54	4	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	276	0	3	24	110	102	32	4	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	292	0	14	27	68	129	45	7	2	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	305	0	9	18	62	121	81	13	1	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	363	1	4	19	79	158	92	10	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	383	4	9	25	104	148	80	13	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	337	0	1	13	87	172	62	2	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	287	0	2	31	82	121	49	2	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	243	0	3	20	78	98	41	3	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	158	0	1	8	50	53	38	7	0	1	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	110	0	2	11	25	36	28	6	2	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	85	0	1	4	9	31	30	8	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**609**	**1**	**8**	**27**	**89**	**240**	**209**	**30**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1051**	**5**	**22**	**62**	**245**	**427**	**253**	**36**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3642**	**9**	**58**	**223**	**854**	**1540**	**847**	**101**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4612**	**10**	**67**	**299**	**1114**	**1903**	**1060**	**141**	**17**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.2%***	***1.5%***	***6.5%***	***24.2%***	***41.3%***	***23.0%***	***3.1%***	***0.4%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**27.1 mph**																				
85th Percentile	**31.8 mph**																				
95th Percentile	**34.2 mph**																				

Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Northbound - 04/02/2025)

Wednesday	Northbound																				
4/2/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	30	0	0	5	3	11	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	5	0	0	0	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	5	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	4	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	14	0	0	0	4	3	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	40	0	0	1	4	15	12	7	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	94	0	1	6	12	34	29	10	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	259	1	4	11	35	98	98	12	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	331	0	1	10	59	133	105	21	1	1	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	271	0	2	2	44	137	72	11	3	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	251	1	1	6	52	109	66	16	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	287	1	0	14	53	124	74	19	2	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	272	0	1	4	46	132	78	11	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	290	0	0	9	55	146	65	14	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	288	2	0	6	48	118	99	13	2	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	304	0	1	5	50	116	101	28	3	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	317	0	0	8	64	126	90	28	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	393	0	2	14	88	177	98	12	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	350	0	2	11	72	180	78	7	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	253	0	4	14	76	122	32	5	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	202	0	2	7	55	92	42	3	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	110	0	0	4	27	54	22	2	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	57	0	3	0	8	23	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	41	0	0	0	7	17	11	6	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**684**	**1**	**6**	**27**	**106**	**265**	**232**	**43**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1014**	**0**	**3**	**27**	**202**	**419**	**289**	**68**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3707**	**5**	**15**	**106**	**678**	**1630**	**1053**	**202**	**17**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4468**	**5**	**24**	**137**	**865**	**1974**	**1209**	**231**	**22**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.1%***	***0.5%***	***3.1%***	***19.4%***	***44.2%***	***27.1%***	***5.2%***	***0.5%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**28.0 mph**																				
85th Percentile	**32.4 mph**																				
95th Percentile	**35.3 mph**																				

Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Southbound - 04/02/2025)

Wednesday	Southbound																				
4/2/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	37	0	0	3	8	6	17	2	0	1	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	15	0	0	0	3	2	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	7	0	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	8	0	0	0	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	11	0	0	2	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	40	0	0	1	5	14	14	6	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	104	0	0	12	12	34	25	19	2	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	236	0	0	9	55	65	89	17	1	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	320	1	7	27	67	114	87	15	2	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	264	0	0	15	73	91	75	9	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	247	0	1	7	60	104	61	14	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	259	0	4	17	65	106	60	7	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	299	0	3	23	73	135	54	10	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	272	1	2	9	67	124	59	10	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	296	1	7	17	56	133	72	9	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	316	0	1	11	80	119	89	16	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	371	1	14	20	74	153	88	20	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	430	2	17	62	133	145	59	11	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	351	1	2	31	94	152	67	4	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	322	0	0	20	95	159	42	6	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	271	0	8	33	88	100	39	3	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	146	0	0	11	55	51	23	5	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	91	0	0	1	12	34	34	10	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	79	0	0	0	18	31	25	5	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**660**	**1**	**7**	**48**	**134**	**213**	**201**	**51**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1117**	**3**	**32**	**93**	**287**	**417**	**236**	**47**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3765**	**7**	**58**	**260**	**909**	**1475**	**885**	**161**	**10**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4792**	**7**	**66**	**331**	**1197**	**1882**	**1091**	**206**	**11**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.1%***	***1.4%***	***6.9%***	***25.0%***	***39.3%***	***22.8%***	***4.3%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**27.0 mph**																				
85th Percentile	**31.9 mph**																				
95th Percentile	**34.8 mph**																				

Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Northbound - 04/03/2025)

Thursday	Northbound																				
4/3/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	24	0	0	1	5	7	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	12	0	0	1	3	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	5	0	0	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	10	0	0	0	2	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	12	0	0	0	1	7	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	29	0	1	0	3	11	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	99	0	0	5	13	35	37	9	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	269	0	1	3	39	127	83	14	2	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	363	0	0	7	52	159	128	15	1	1	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	226	0	0	5	33	95	79	12	2	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	277	0	1	8	48	130	78	10	1	1	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	265	0	0	9	54	130	59	12	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	259	0	0	3	33	133	78	8	2	2	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	253	0	1	3	57	110	65	16	1	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	271	0	0	6	37	114	88	23	3	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	308	0	0	8	27	117	110	41	5	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	301	0	0	6	46	131	101	16	0	1	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	309	0	0	2	51	149	87	17	2	1	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	272	0	2	8	64	131	56	10	1	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	216	0	1	15	65	109	21	5	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	160	0	1	7	39	65	41	6	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	92	0	0	5	12	30	35	10	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	49	1	0	4	6	14	16	5	3	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	31	0	2	2	4	10	4	8	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**731**	**0**	**1**	**15**	**104**	**321**	**248**	**38**	**3**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**918**	**0**	**0**	**16**	**124**	**397**	**298**	**74**	**7**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3472**	**0**	**5**	**73**	**554**	**1561**	**1049**	**203**	**21**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4112**	**1**	**10**	**108**	**695**	**1821**	**1195**	**247**	**28**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.0%***	***0.2%***	***2.6%***	***16.9%***	***44.3%***	***29.1%***	***6.0%***	***0.7%***	***0.2%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**28.4 mph**																				
85th Percentile	**33.0 mph**																				
95th Percentile	**35.8 mph**																				

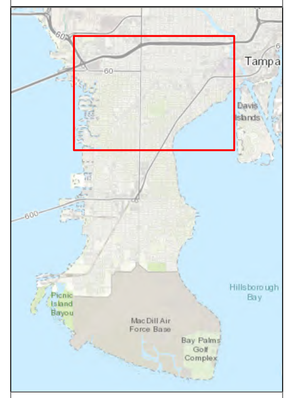
Site Description: S HOWARD AVENUE Between SOUT
Site Number: 7
Start Date: 4/1/2025
End Date: 4/3/2025

Vehicle Speed Report (Southbound - 04/03/2025)

Thursday	Southbound																				
4/3/25	Total	0-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	80-85	85-90	90-95	95-100	100+
12:00 AM	32	0	0	1	5	4	13	7	1	1	0	0	0	0	0	0	0	0	0	0	0
1:00 AM	17	0	0	0	1	8	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 AM	11	0	0	0	1	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 AM	11	0	0	0	1	2	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 AM	4	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 AM	24	0	0	0	3	5	10	5	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	107	0	0	13	10	39	37	8	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	223	0	2	6	39	93	70	12	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	320	0	7	18	78	130	72	14	1	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	265	2	2	13	62	104	73	7	2	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	281	0	4	15	65	133	57	6	1	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	272	0	1	17	58	109	79	8	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	305	0	1	13	78	131	69	13	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	301	0	5	26	47	137	75	9	2	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	259	0	0	14	50	125	56	13	1	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	276	0	3	17	51	94	84	23	4	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	333	3	14	26	72	117	83	15	3	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	394	1	5	27	71	159	110	19	2	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	348	0	5	27	116	133	52	12	3	0	0	0	0	0	0	0	0	0	0	0	0
7:00 PM	259	0	2	21	70	108	51	7	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 PM	214	0	3	17	55	86	46	6	0	1	0	0	0	0	0	0	0	0	0	0	0
9:00 PM	120	0	0	4	25	37	37	16	1	0	0	0	0	0	0	0	0	0	0	0	0
10:00 PM	62	0	0	1	12	21	19	7	2	0	0	0	0	0	0	0	0	0	0	0	0
11:00 PM	30	0	0	0	5	9	12	3	1	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM - 9:00 AM	**650**	**0**	**9**	**37**	**127**	**262**	**179**	**34**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
3:00 PM - 6:00 PM	**1003**	**4**	**22**	**70**	**194**	**370**	**277**	**57**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
6:00 AM - 7:00 PM	**3684**	**6**	**49**	**232**	**797**	**1504**	**917**	**159**	**19**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
12:00 AM - 12:00 AM	**4468**	**6**	**54**	**277**	**976**	**1788**	**1122**	**217**	**25**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Percent	***100%***	***0.1%***	***1.2%***	***6.2%***	***21.8%***	***40.0%***	***25.1%***	***4.9%***	***0.6%***	***0.1%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***0.0%***
50th Percentile	**27.7 mph**																				
85th Percentile	**32.3 mph**																				
95th Percentile	**35.2 mph**																				

Appendix F. Existing Drainage Basins

AtkinsRéalis



West Shore Blvd
Dale Mabry Hwy
MacDill Ave
Armenia Ave
Howard Ave
West River
Lemon Street
Cypress Street Outfall
Cleveland Street Outfall
Kennedy Blvd
Coastal
Spanish Town
Azeele St
Swann Ave
Old Tampa Bay
Swann Pond
Upper Peninsula (West)
Henderson Blvd
Morrison Ave
Coastal
Coastal (Rome Outfall)
Upper Peninsula (East)
Estrella St
Coastal
Selmon Expy
Bayshore Blvd
Hillsborough Bay
Lamb Ave
Bay to Bay Blvd
Coastal
El Prado Outfall
Spring Lake Basin
Coastal

Legend

Drainage Basins

- Cleveland Street
- Upper Peninsula (East)
- Upper Peninsula (West)
- Albany Pond
- Coastal
- Coastal (Rome Outfall)
- Cypress Street Outfall
- El Prado Outfall
- Lamb Ave
- Lemon Street
- Spanish Town
- Spring Lake Basin
- Swann Pond
- West River

N
W E
S

0 1 2 4 6 Miles

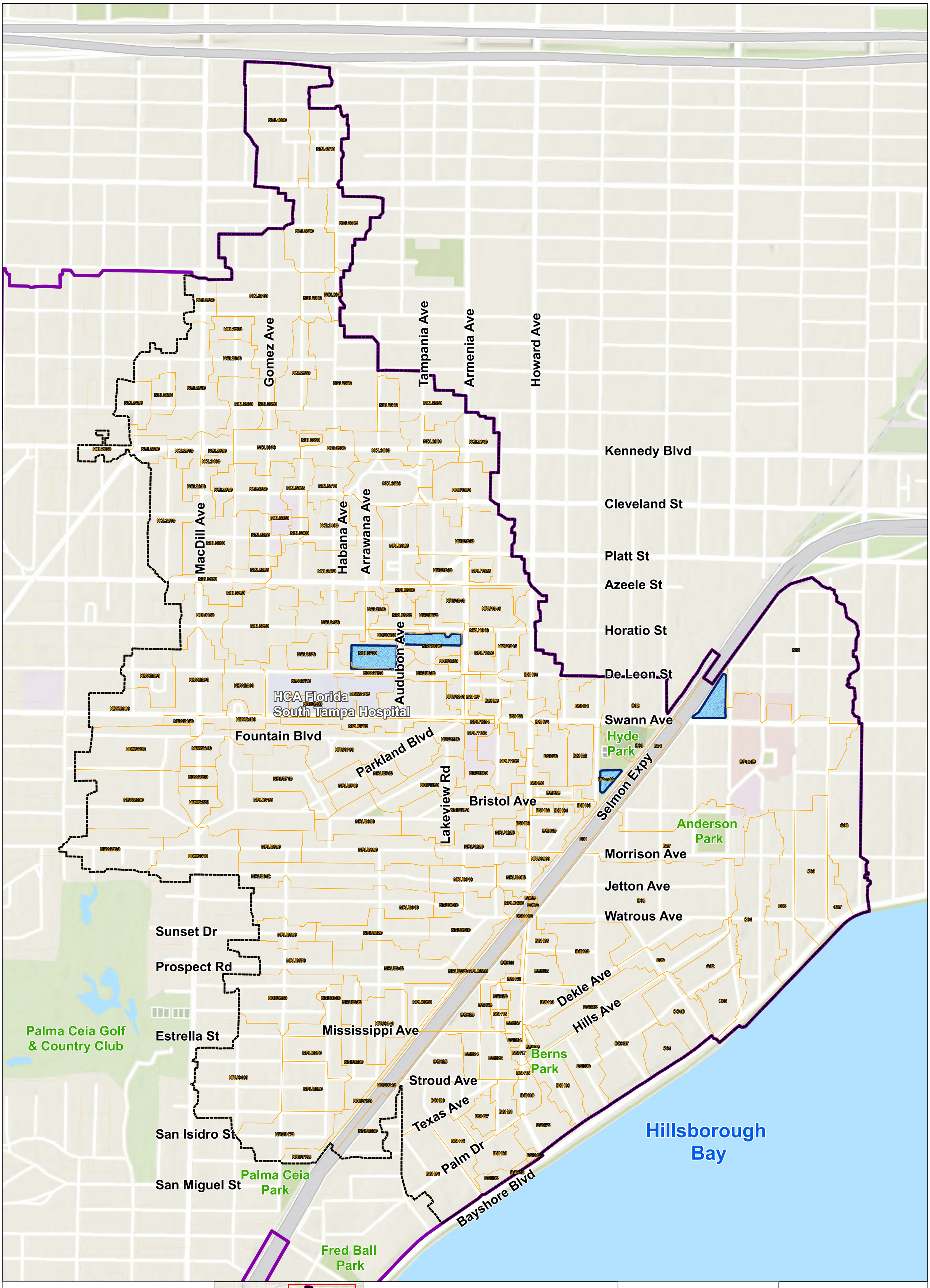
Project:
South Howard
Flood Relief & Streetscape

Map Title:
Existing Drainage Basins

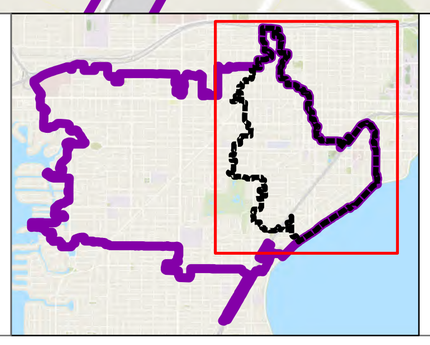
Date: January 30th, 2026

Appendix G. Model Subbasin Maps

G.1 RECM Subbasin Map



AtkinsRéalis



Legend

- SHFR Model Update Area
- SHFR RECM Extents
- RECM Subbasins in SHFR Model Update Area
- RECM Subbasins outside SHFR Model Update Area
- Existing Pond

N
W E
S

0 0.5 1 2 3 Miles

Project:
South Howard
Flood Relief & Streetscape

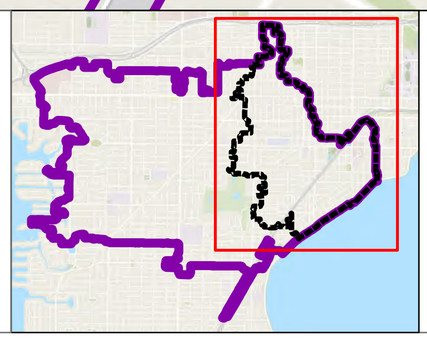
Map Title:
Revised Existing Conditions
Model Subbasins

Date: January 30th, 2026

G.2 PCM Subbasin Map

Kennedy Blvd
Cleveland St
Platt St
Azeele St
Horatio St
De Leon St
Swann Ave
Morrison Ave
Jetton Ave
Watrous Ave
Dekle Ave
Hills Ave
Howard Ave
Armenia Ave
Tampania Ave
Gomez Ave
MacDill Ave
Habana Ave
Arrawana Ave
Audubon Ave
Lakeview Rd
Selmon Expy
Fountain Blvd
Parkland Blvd
Bristol Ave
Sunset Dr
Prospect Rd
Estrella St
Mississippi Ave
Stroud Ave
Texas Ave
Palm Dr
Bayshore Blvd
San Isidro St
San Miguel St
HCA Florida South Tampa Hospital
Hyde Park
Anderson Park
Berns Park
Palma Ceia Park
Fred Ball Park
Palma Ceia Golf & Country Club
Hillsborough Bay

NCL4000 NCL4010 NCL2845 NCL2840 NCL2750 NCL2730 NCL2810 NCL2830 NCL2780 NCL2540 NCL2530 NCL2550 NCL2590 NCL2610 NCL2630 NCL2691 NCL3640 NCL2510 NCL2490 NCL2890 NCL2899 NCL2910 NCL3390 NCL3430 NCL3530 NCL3570 NCL3580 NCL3630 NCL3230 NCL3360 NCL3350 NCL3365 NCL3510 NCL3520 NCL3210 NCL3190 NCL3300 NCL3330 NCL3490 NCL3280 NCL3470 NCL3170 NCL3270 NCL3150 NCL3250 NCL3450 NCL3740 NCL3730 NCL3670 NCL2130 NRU1070 NRU1050 NRU0965 NRU1030 NRU1035 NRU0960 NRU1040 NRU1045 NRU0955 NRU0970 NRU0990 NRU0890 NRU1010 NRU1015 NRU1020 NRU0930 NRU0830 BSH51 BSH57 BSH55B BSH53 BSH54 BSH55 BSH52 BSH04 B02 N11 NBW2050 NBW2070 NBW2030 NBW2110 NBW2145 NBW2060 NBW2150 NBW2190 NRU0795 NRU1234 NRU1132 NRU1110 NBW2230 NBW2210 NRU0750 NRU1135 BSH60 BSH02 BPondB C08 NBW2250 NRU0710 NRU0745 NRU0740 NRU1150 NRU1198 BPondA NBW2290 NBW2270 NRU0730 BSH50 BSH65 NRU1170 BSH32 BSH31 BSH33 NRU0690 BSH30 NRU1225 BSH49 NBW2330 NBW2310 NRU0630 NRU0650 NRU1220 NRU0500 B07 C06 NRU0612 NRU0618 NRU0495 NRU0610 NRU0430 B03B B03 C05 C07 C04 NRU0620 NRU0590 BSH05 BSH10 BSH11 BSH12 B09 C02 NRU0570 NRU0345 NRU0370 NRU0390 BSH41 NRU0550 NRU0310 NRU0335 NRU0350 NSH20 BSH43 BSH13 BSH45 C03 C01B BSH23 BSH18 BSH37 NRU0340 BSH14 BSH33 BSH07 C01 NRU0270 NRU0290 BSH24 BSH22 BSH17 BSH09 NRU0130 BSH25 BSH18 NRU0250 NRU0210 BSH08 NRU0190 BSH26 BSH19 BSH21 BSH27 BSH75 NRU0170 NRU0230 BSH44 BSH28 BSH36 NRU0165 BSH34 BSH42 BSH35



AtkinsRéalis

Legend

- SHFR Model Update Area
- Proposed Conditions Model Subbasins in Model Update Area
- Proposed Conditions Model Subbasins outside Model Update Area
- Existing Pond

N
W E
S

0 0.5 1 2 3 Miles

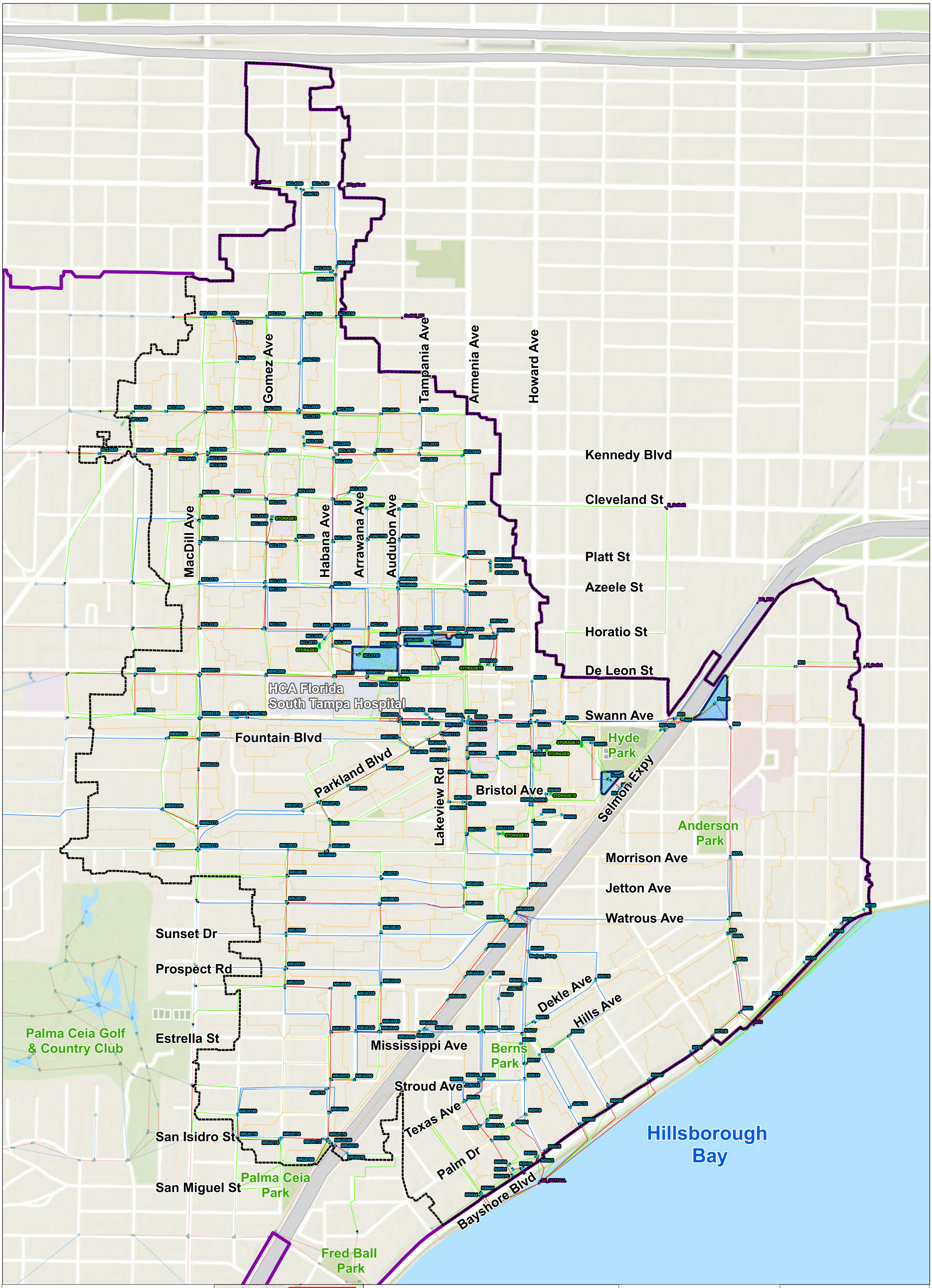
Project:
South Howard
Flood Relief & Streetscape

Map Title:
Proposed Conditions
Model Subbasins

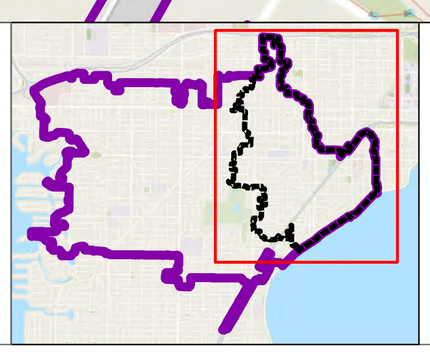
Date: January 30th, 2026

Appendix H. Model Hydraulic Connectivity Maps

H.1 RECM Hydraulic Connectivity Map



AtkinsRéalis



Legend

RECM - Nodes

- STAGE/AREA
- STAGE/VOLUME
- TIME/STAGE

RECM - Links

- CHANNEL
- DROP STRUCTURE
- PIPE
- WEIR

- SHFR RECM Extents
- SHFR Model Update Area
- RECM - Subbasins
- Existing Pond

N

W E

S

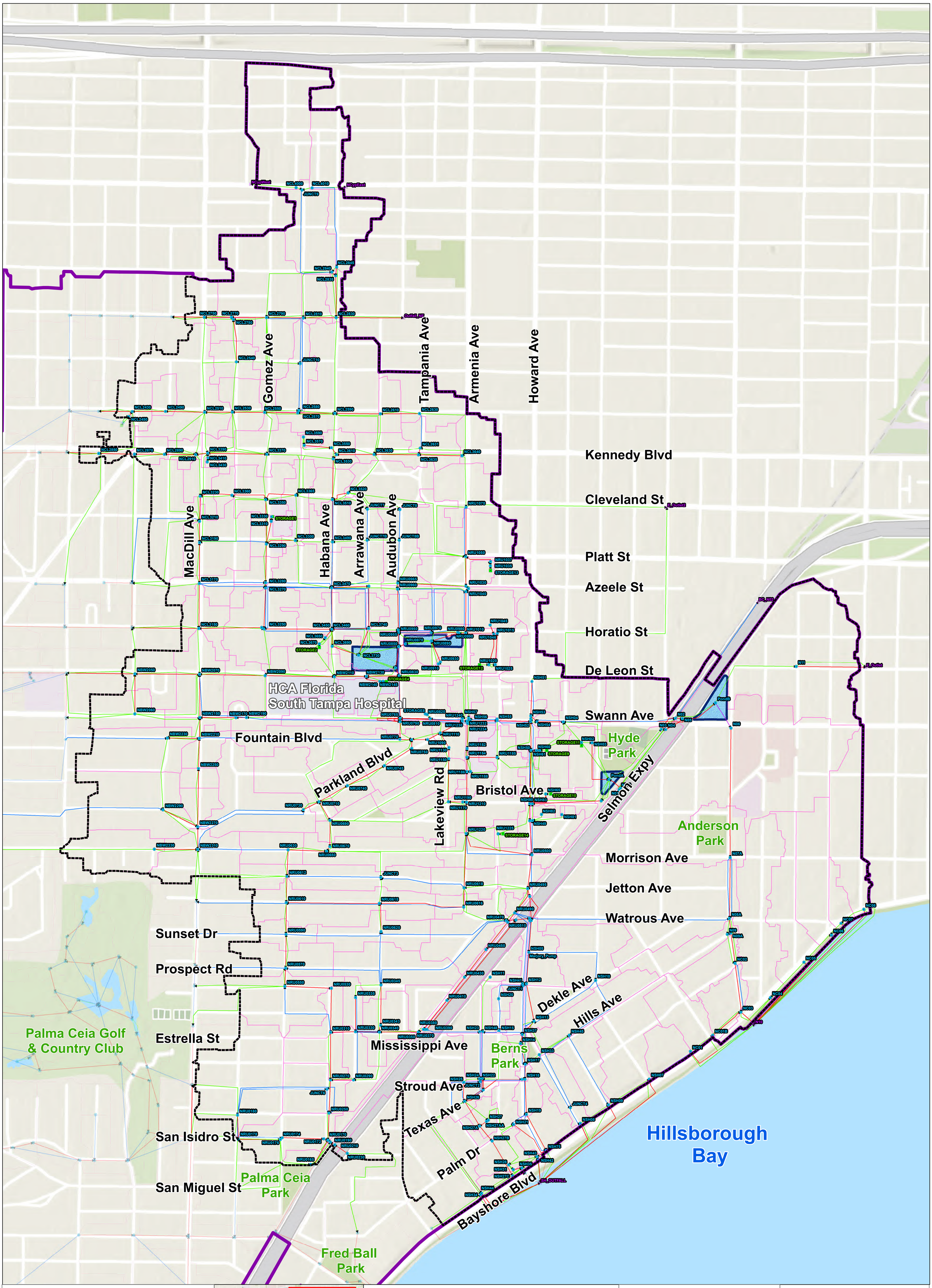
0 0.5 1 2 3 Miles

Project:
South Howard
Flood Relief & Streetscape

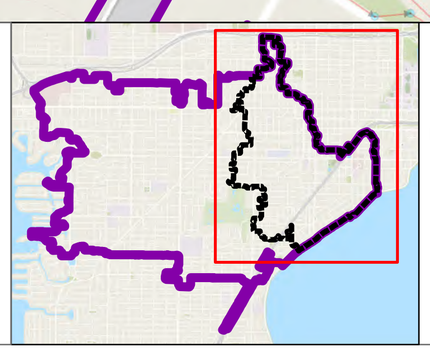
Map Title:
RECM Hydraulic
Connectivity Map

Date: January 30th, 2026

H.2 PCM Hydraulic Connectivity Map



AtkinsRéalis



Legend

PCM - Nodes
- STAGE/AREA
- STAGE/VOLUME
- TIME/STAGE

PCM - Links
- CHANNEL
- DROP STRUCTURE
- PIPE
- WEIR

- SHFR RECM Extents
- SHFR Model Update Area
- PCM Subbasins in Model Update Area
- Existing Pond

N

W E

S

0 0.5 1 2 3 Miles

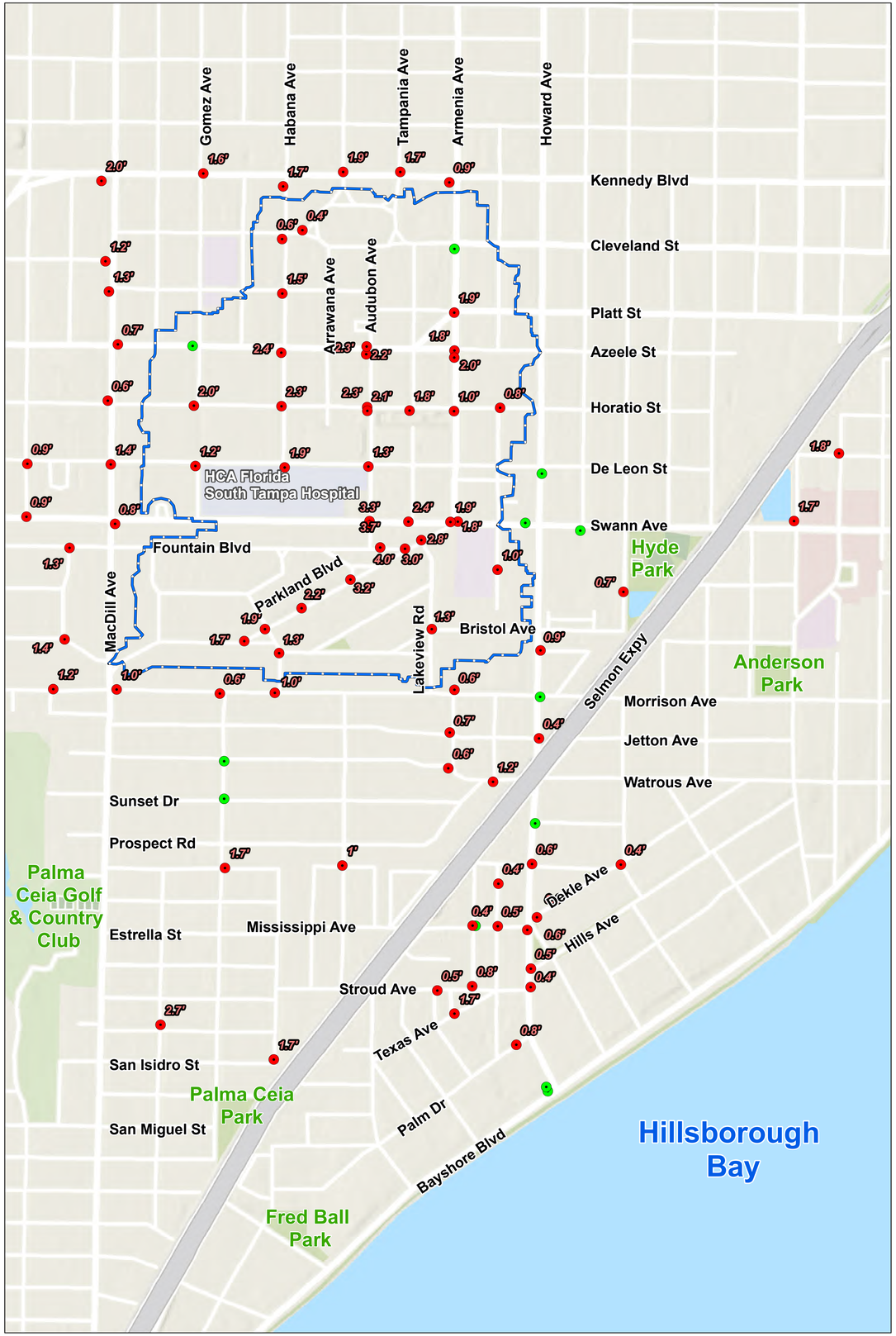
Project:
South Howard
Flood Relief & Streetscape

Map Title:
RECM Hydraulic
Connectivity Map

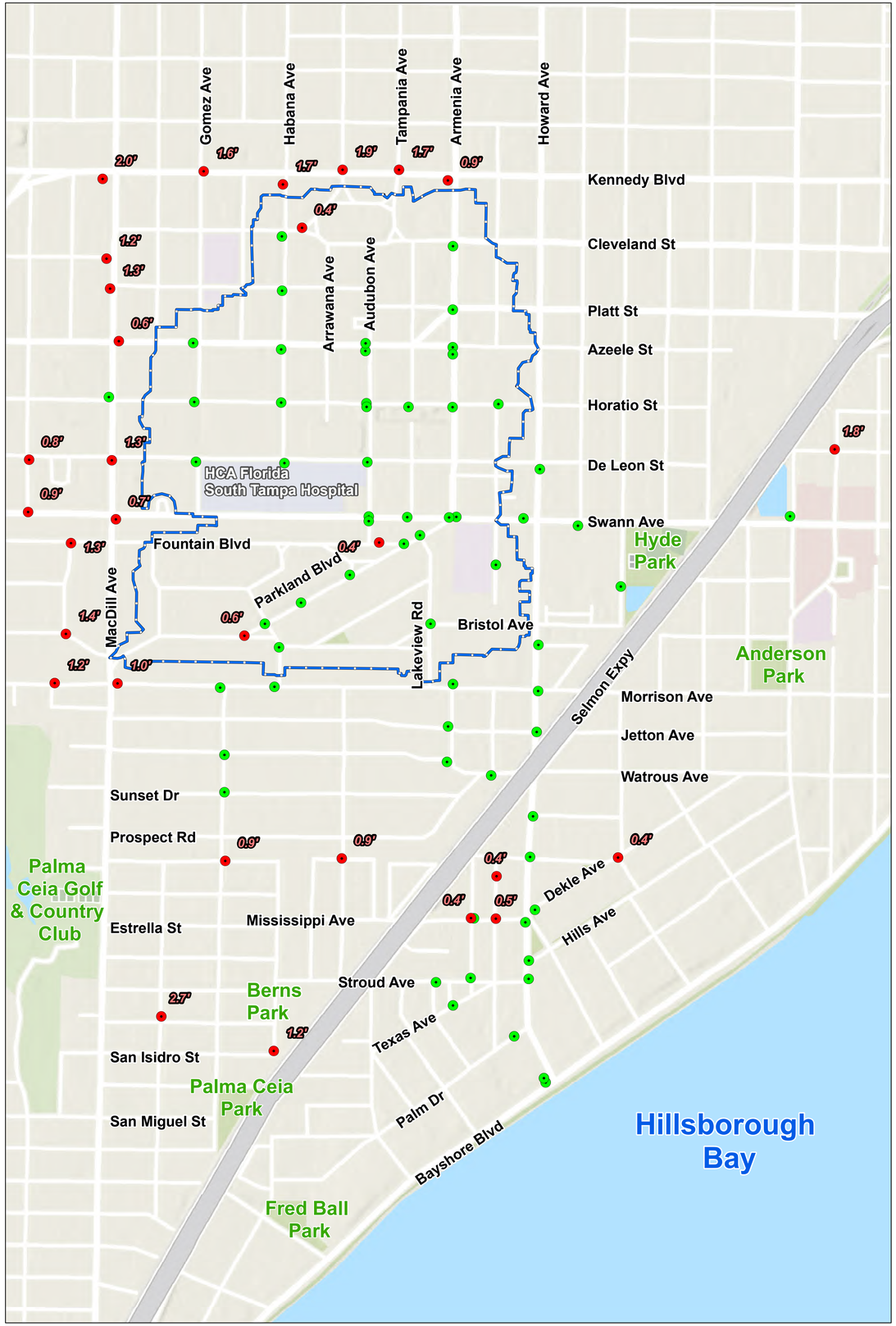
Date: January 30th, 2026

Appendix I. Roadway FPLOS Comparison of Existing versus Proposed Map

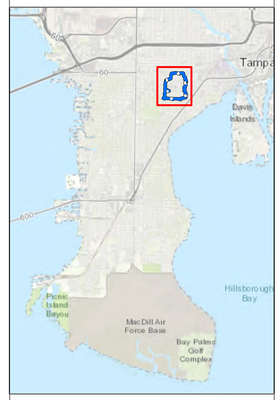
5yr / 8-hour Peak Roadway Flood Depth (ft) - EXISTING



5yr / 8-hour Peak Roadway Flood Depth (ft) - PROPOSED (ALL PHASES)



AtkinsRéalis



Legend

- 5-year/8-hour Peak Roadway Flood Depth (ft) - FPLOS Fail
- 5-year/8-hour Peak Roadway Flood Depth (ft) - FPLOS Pass
- SHFR Flood Reduction Focus Area

N
W
E
S

0 1 2 4 6 Miles

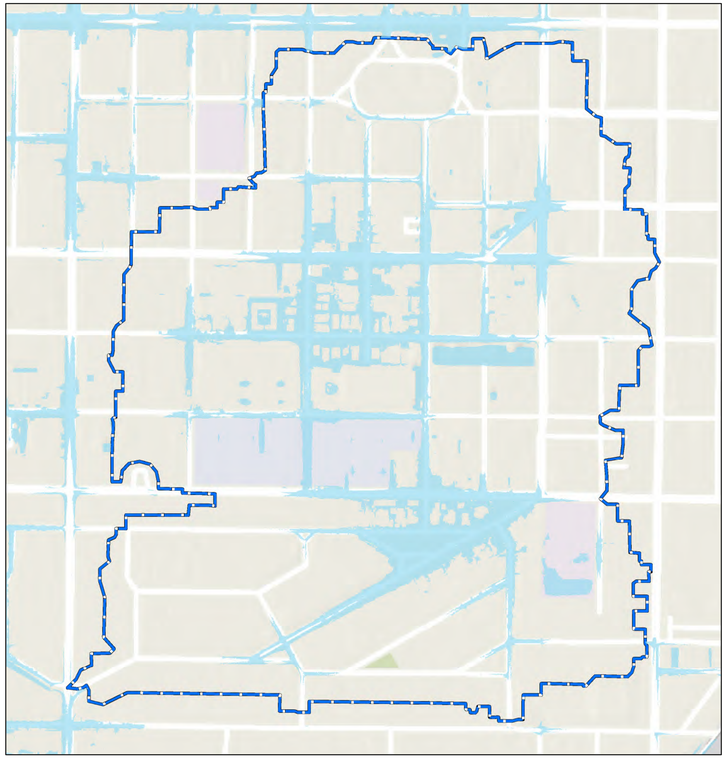
Project:
South Howard
Flood Relief & Streetscape

Map Title:
5yr / 8 hour Flood Depth
Comparison Existing vs. Proposed

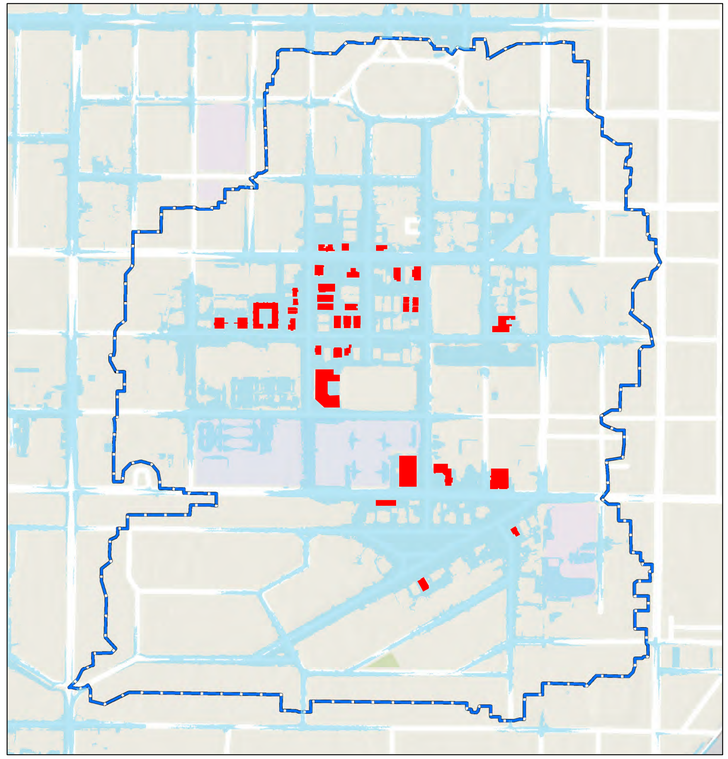
Date: January 30th, 2026

Appendix J. RECM Predicted Structure Flooding Maps

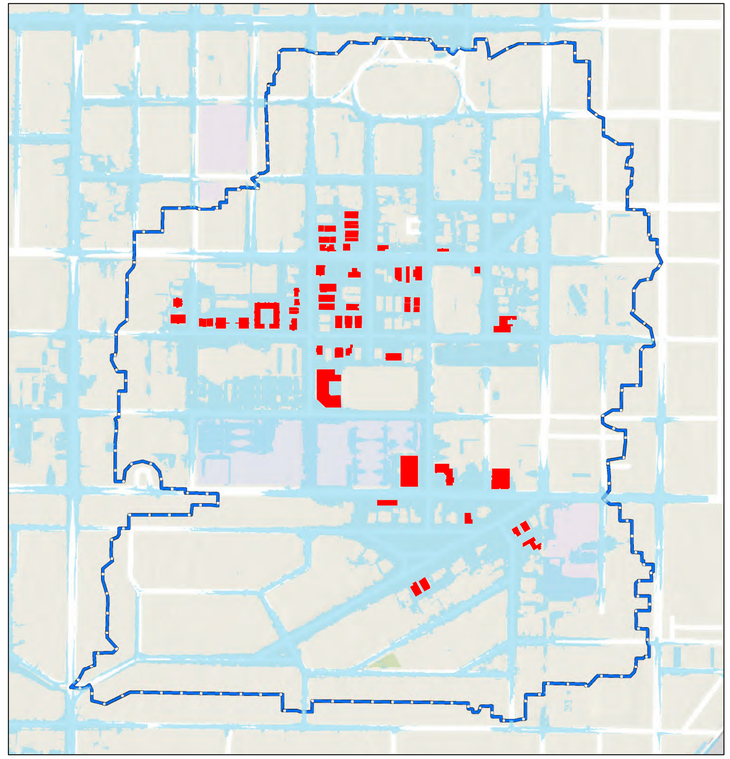
Mean Annual Flood Extents - EXISTING



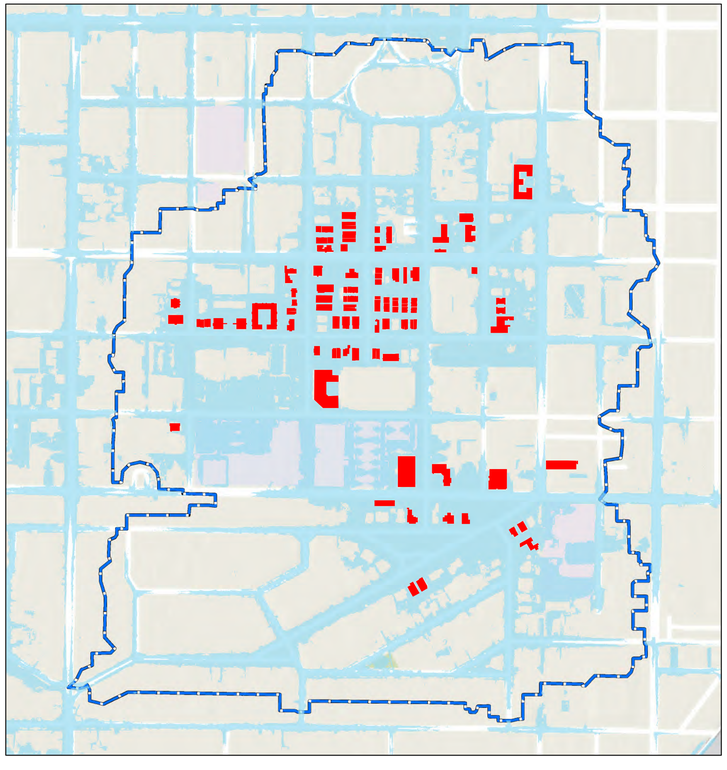
5-year/8-hour Flood Extents - EXISTING



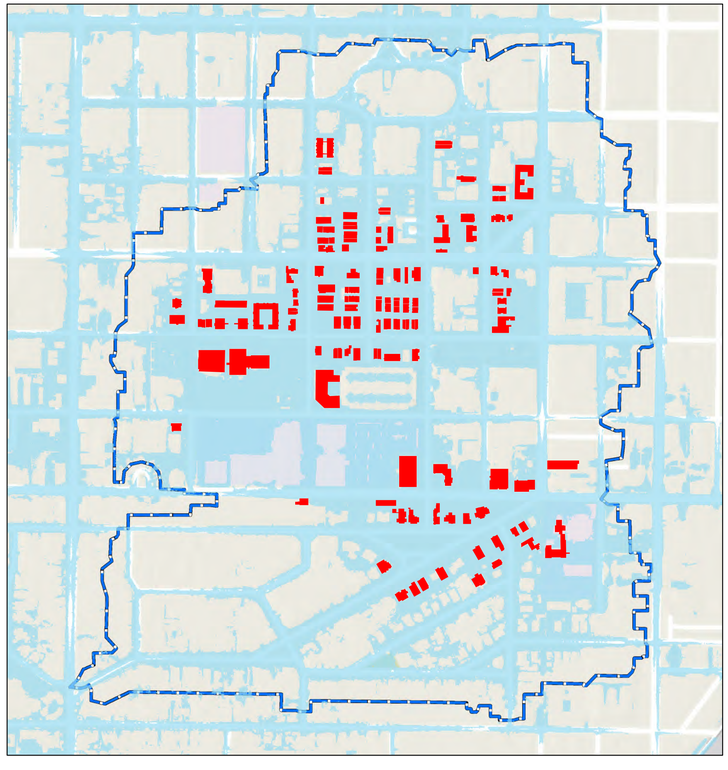
10-year/24-hour Flood Extents - EXISTING



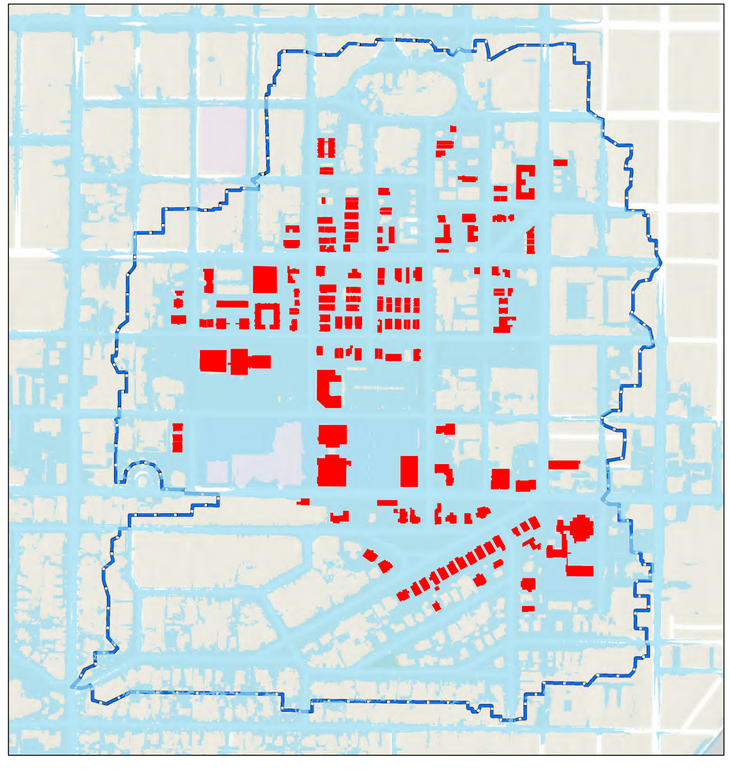
25-year/24-hour Flood Extents - EXISTING



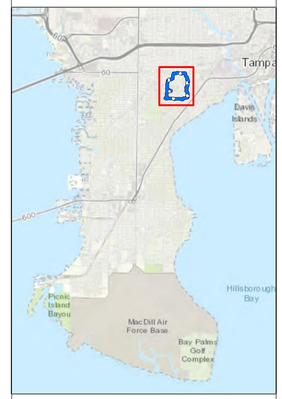
100-year/24-hour Flood Extents - EXISTING



Hurricane Milton Flood Extents - EXISTING



AtkinsRéalis



Legend

- Structures Inundated
- Flood Extents
- SHFR Flood Reduction Focus Area

N
W E
S

0 1 2 4 6 Miles

Notes:
The existing flood extents and structures inundated are represented for the mean annual, 5-year/8-hour, 10-year/24-hour, 25-year/24-hour, 100-year/24-hour, and Hurricane Milton storm events.

Project:
South Howard
Flood Relief & Streetscape

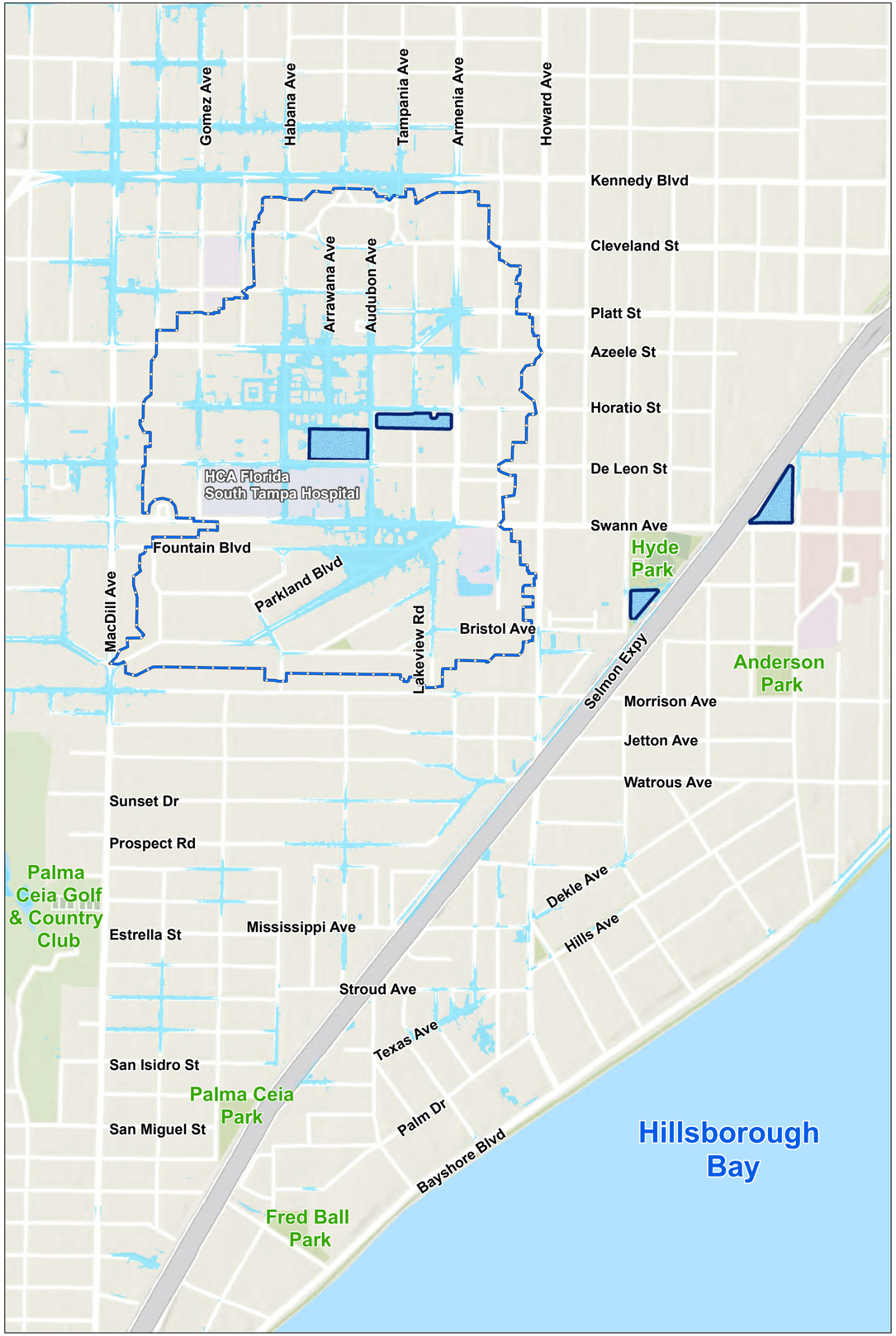
Map Title:
Revised Existing Conditions Model Predicted Structure Inundation Map

Date: January 30th, 2026

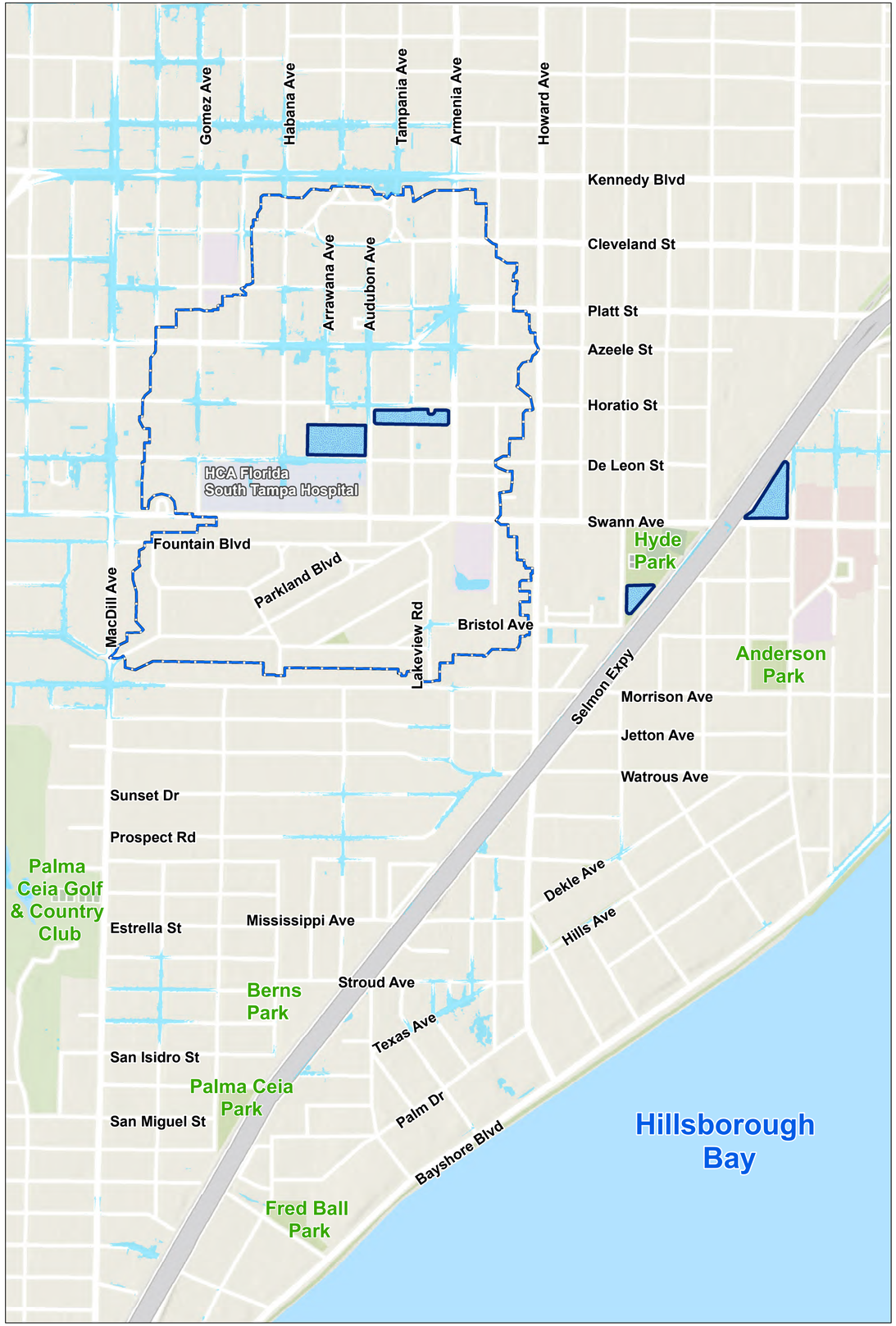
Appendix K. Flood Extents Comparison Existing versus Proposed

K.1 Flood Extent Comparison Mean Annual

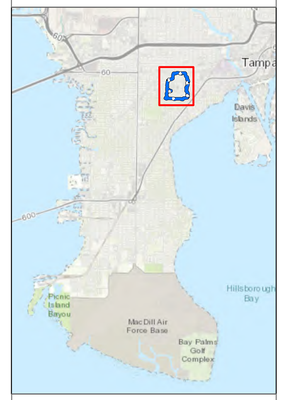
Mean Annual Flood Extents - EXISTING



Mean Annual Flood Extents - PROPOSED (PHASE I)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W E
S

0 1 2 4 6 Miles

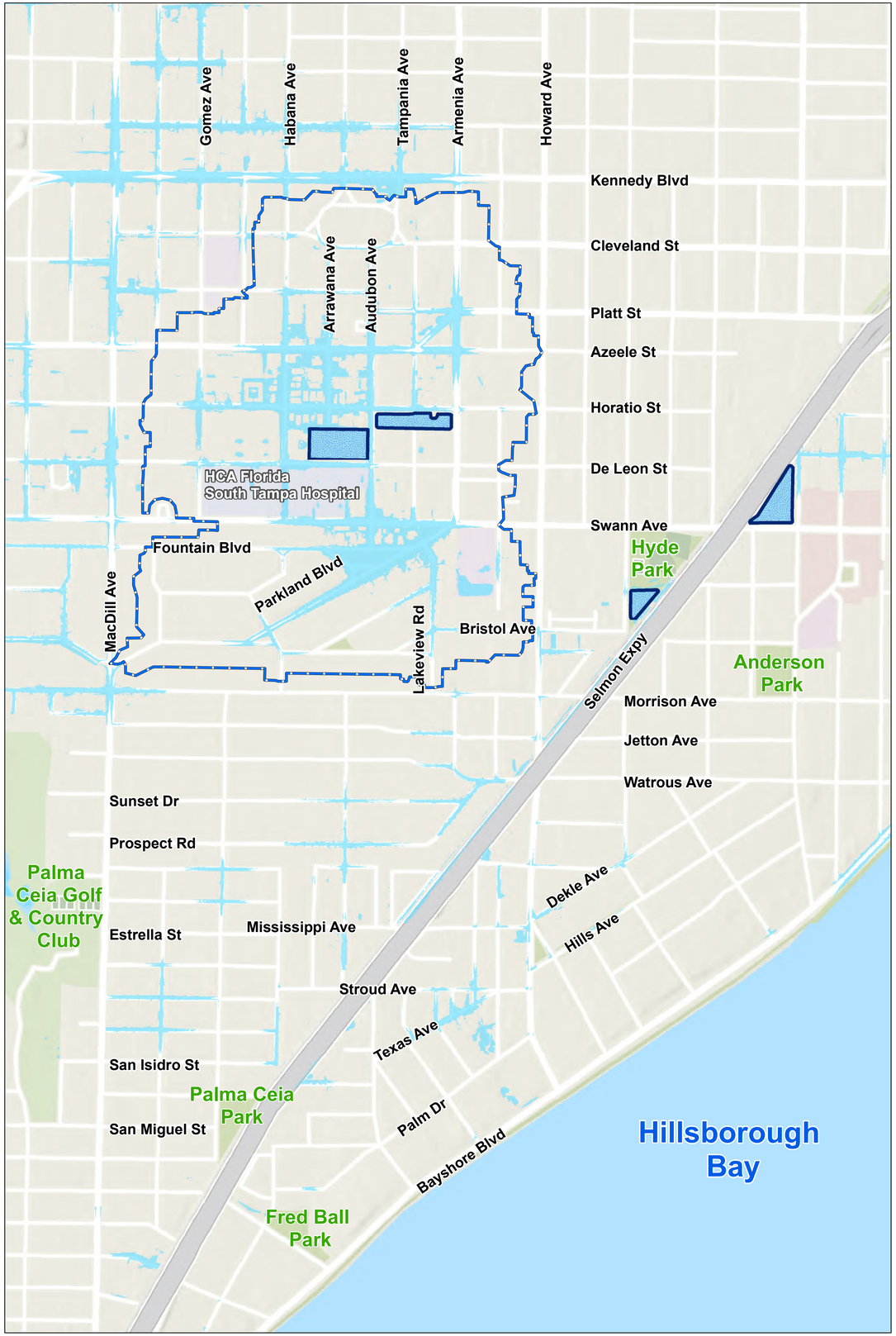
Notes:
The existing versus proposed flood extents are represented for the mean annual storm event.

Project:
South Howard
Flood Relief & Streetscape

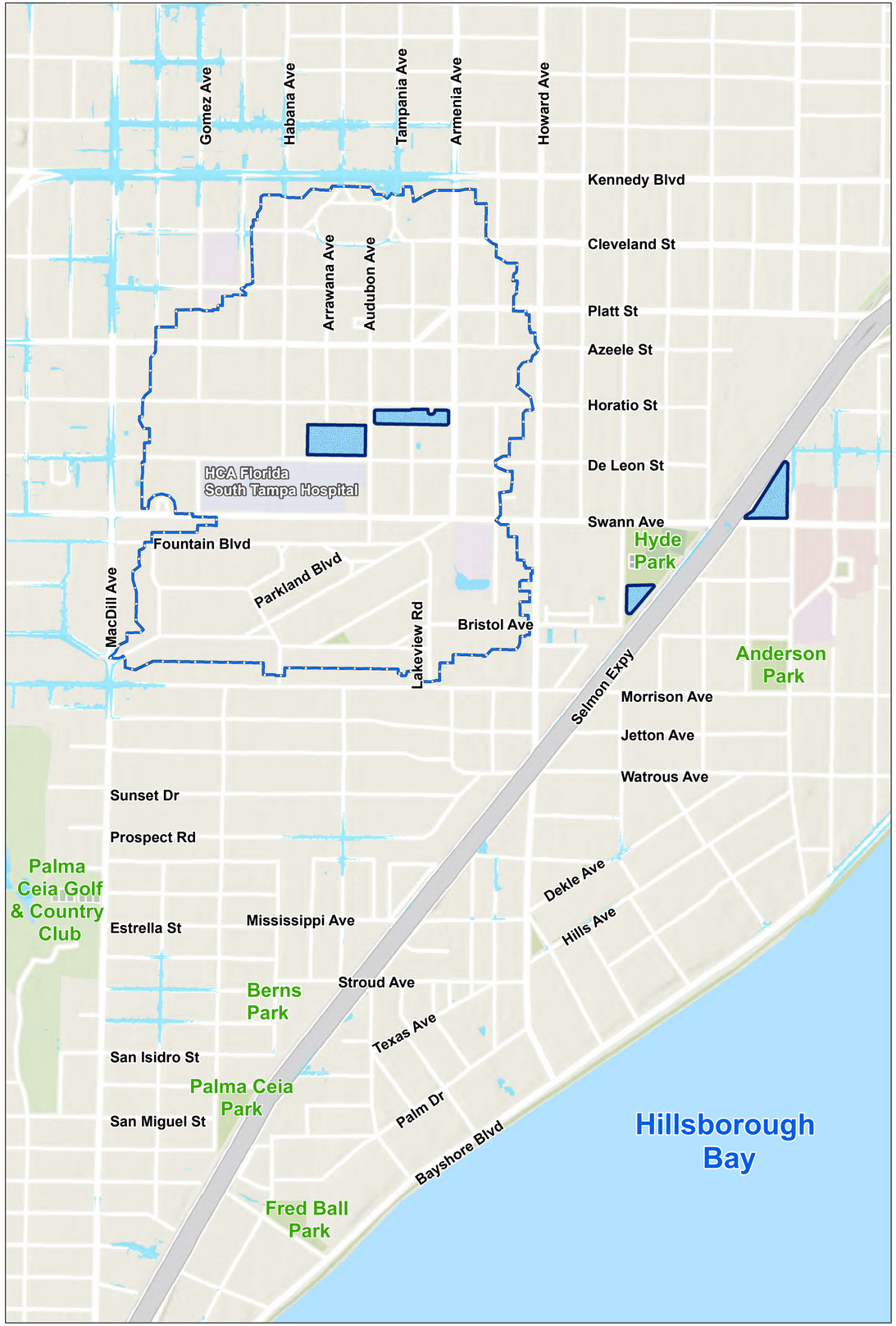
Map Title:
Mean Annual Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

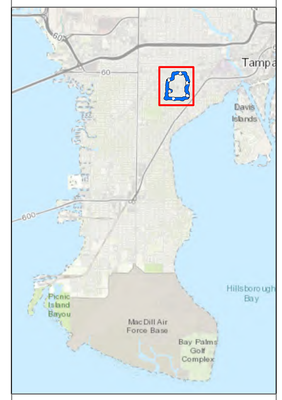
Mean Annual Flood Extents - EXISTING



Mean Annual Flood Extents - PROPOSED (ALL PHASES)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W E
S

0 1 2 4 6 Miles

Notes:
The existing versus proposed flood extents are represented for the mean annual storm event.

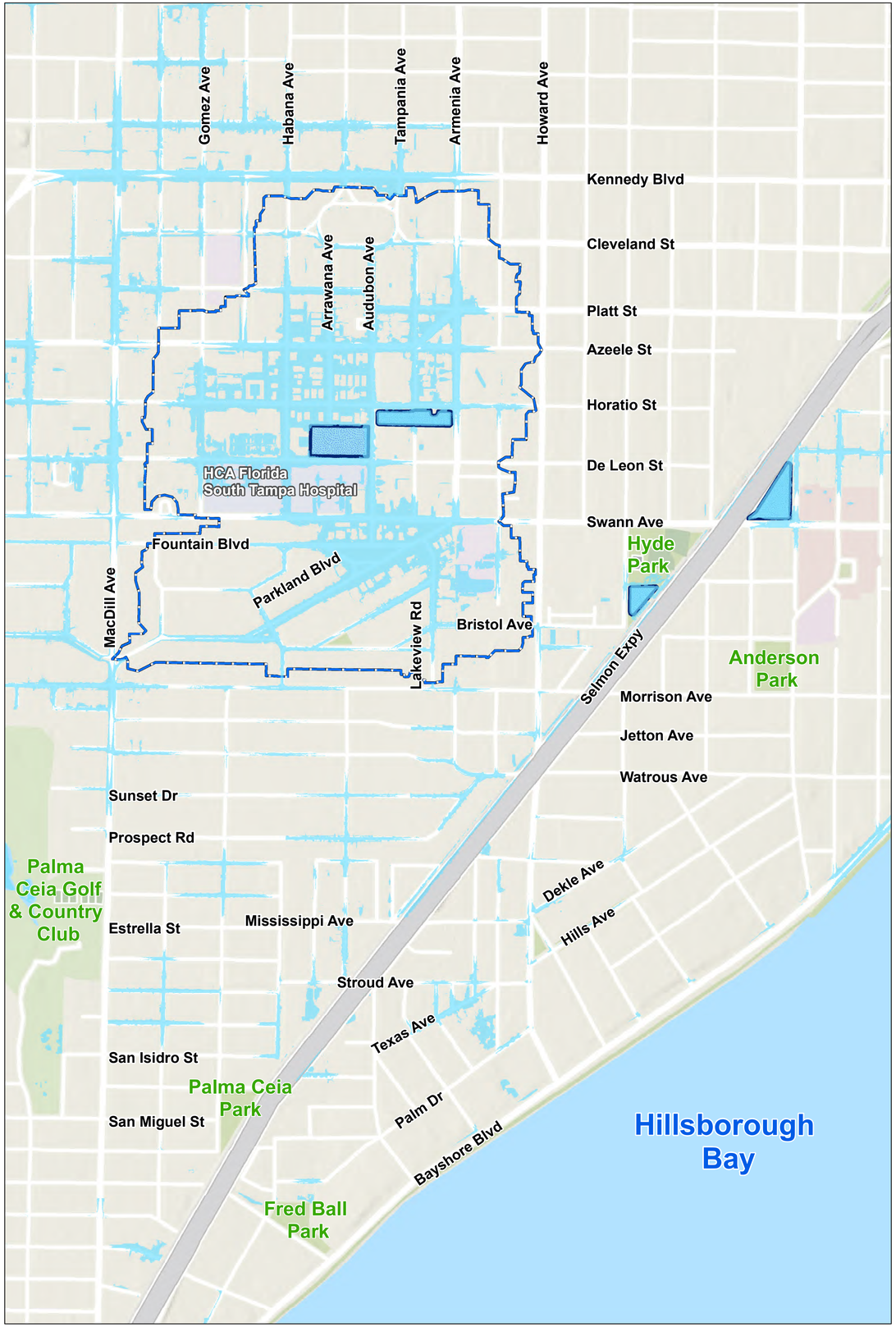
Project:
South Howard
Flood Relief & Streetscape

Map Title:
Mean Annual Flood Extents
Comparison Existing vs. Proposed

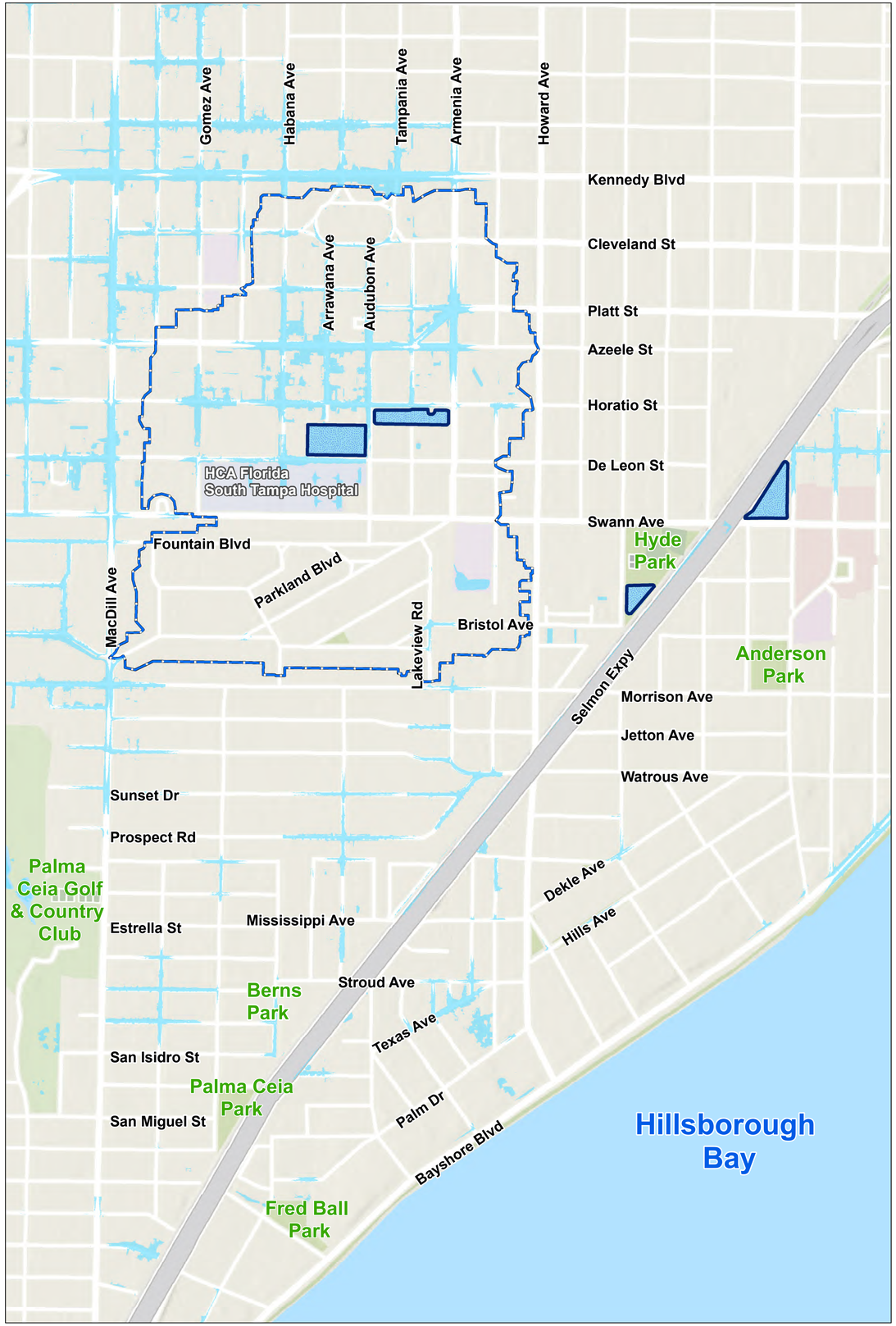
Date: January 30th, 2026

K.2 Flood Extent Comparison 5-year/8-hour

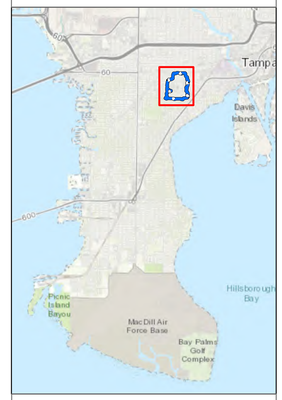
5-year/8-hour Flood Extents - EXISTING



5-year/8-hour Flood Extents - PROPOSED (PHASE I)



AtkinsRéalis



Legend

- Flood Extents
- SHFR Flood Reduction Focus Area
- Existing Pond

N
W
E
S

0 1 2 4 6 Miles

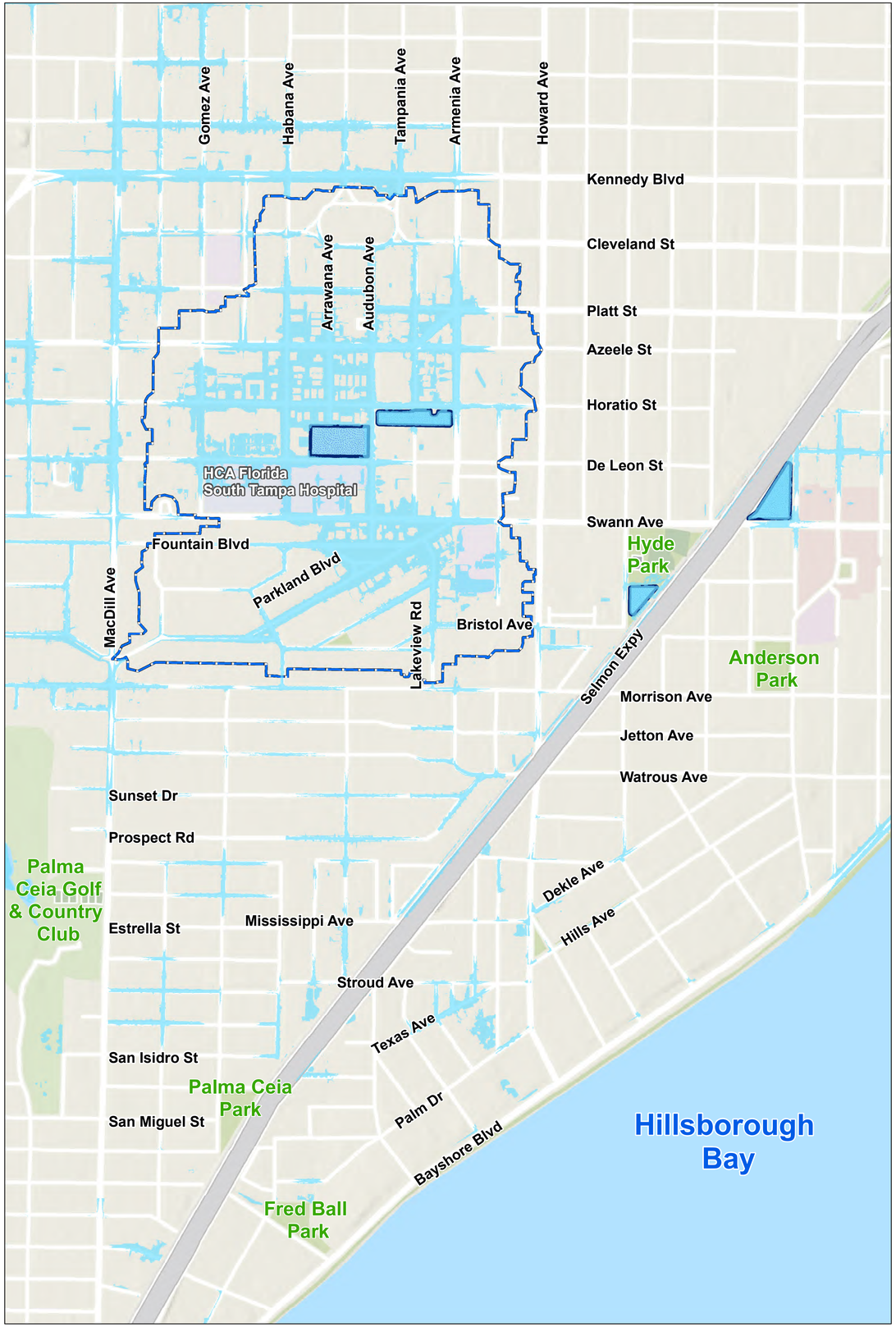
Notes:
The existing versus proposed flood extents are represented for the 5-year/8-hour storm event.

Project:
South Howard
Flood Relief & Streetscape

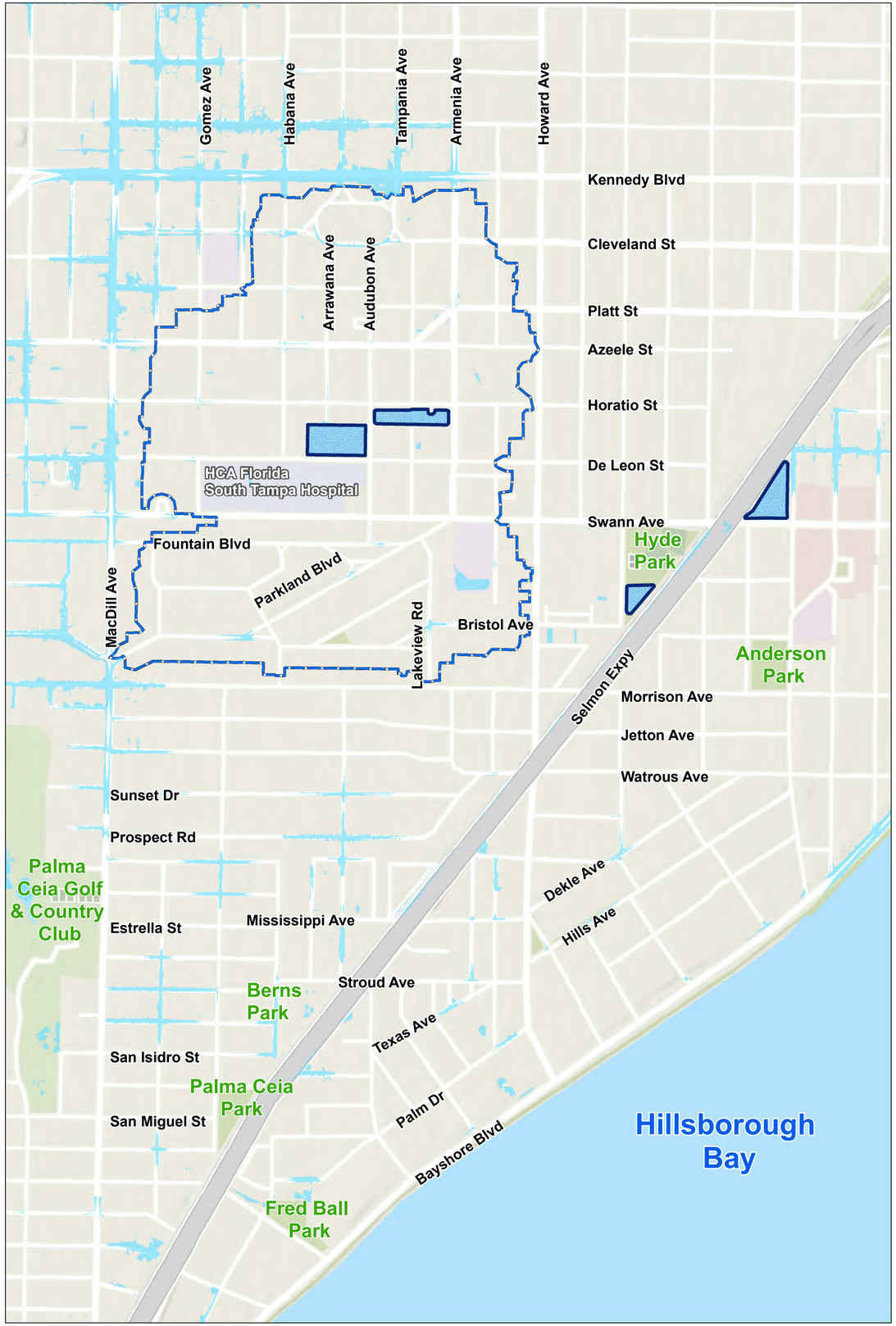
Map Title:
5-year/8-hour Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

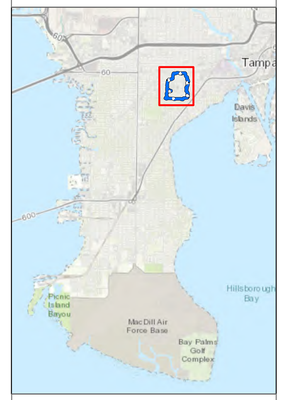
5-year/8-hour Flood Extents - EXISTING



5-year/8-hour Flood Extents - PROPOSED (ALL PHASES)



AtkinsRéalis



Legend

- Flood Extents
- SHFR Flood Reduction Focus Area
- Existing Pond

N
W E
S

0 1 2 4 6 Miles

Notes:
The existing versus proposed flood extents are represented for the 5-year/8-hour storm event.

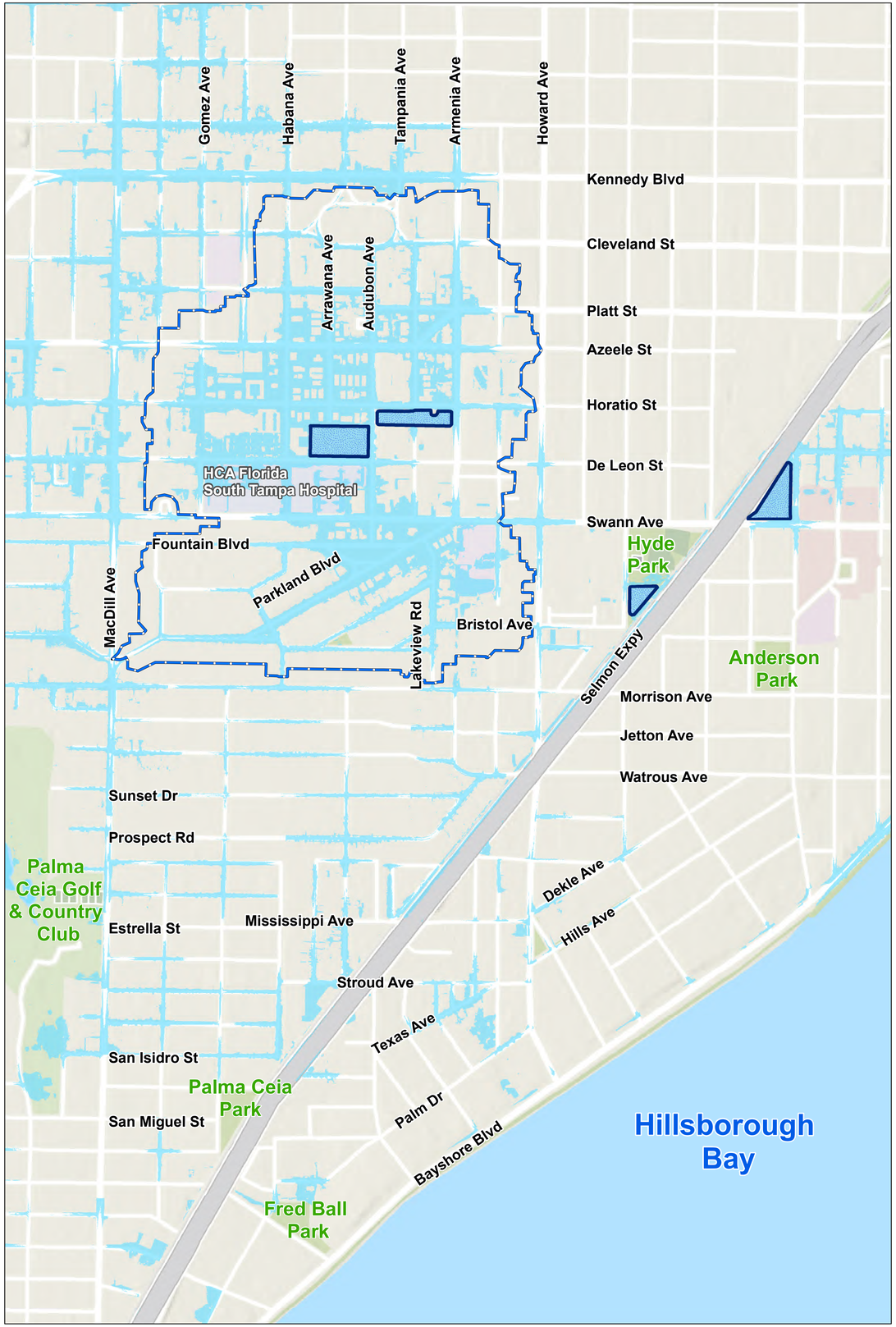
Project:
South Howard
Flood Relief & Streetscape

Map Title:
5-year/8-hour Flood Extents
Comparison Existing vs. Proposed

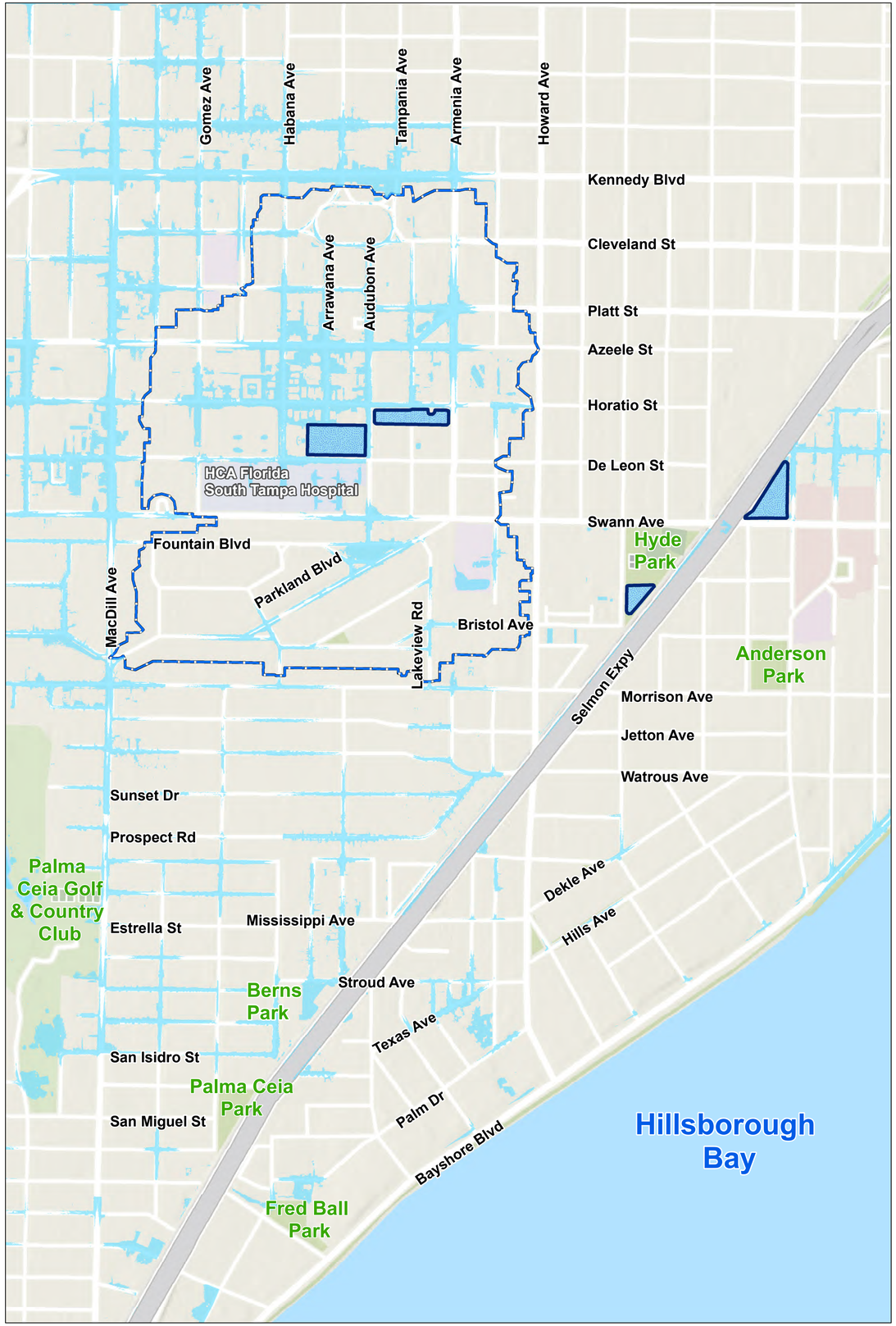
Date: January 30th, 2026

K.3 Flood Extent Comparison 10-year/24-hour

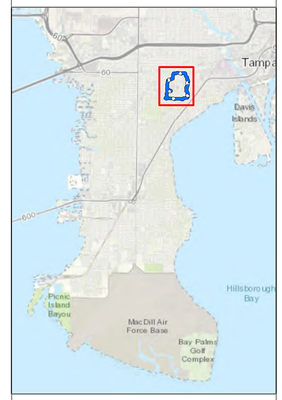
10-year/24-hour Flood Extents - EXISTING



10-year/24-hour Flood Extents - PROPOSED (PHASE I)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

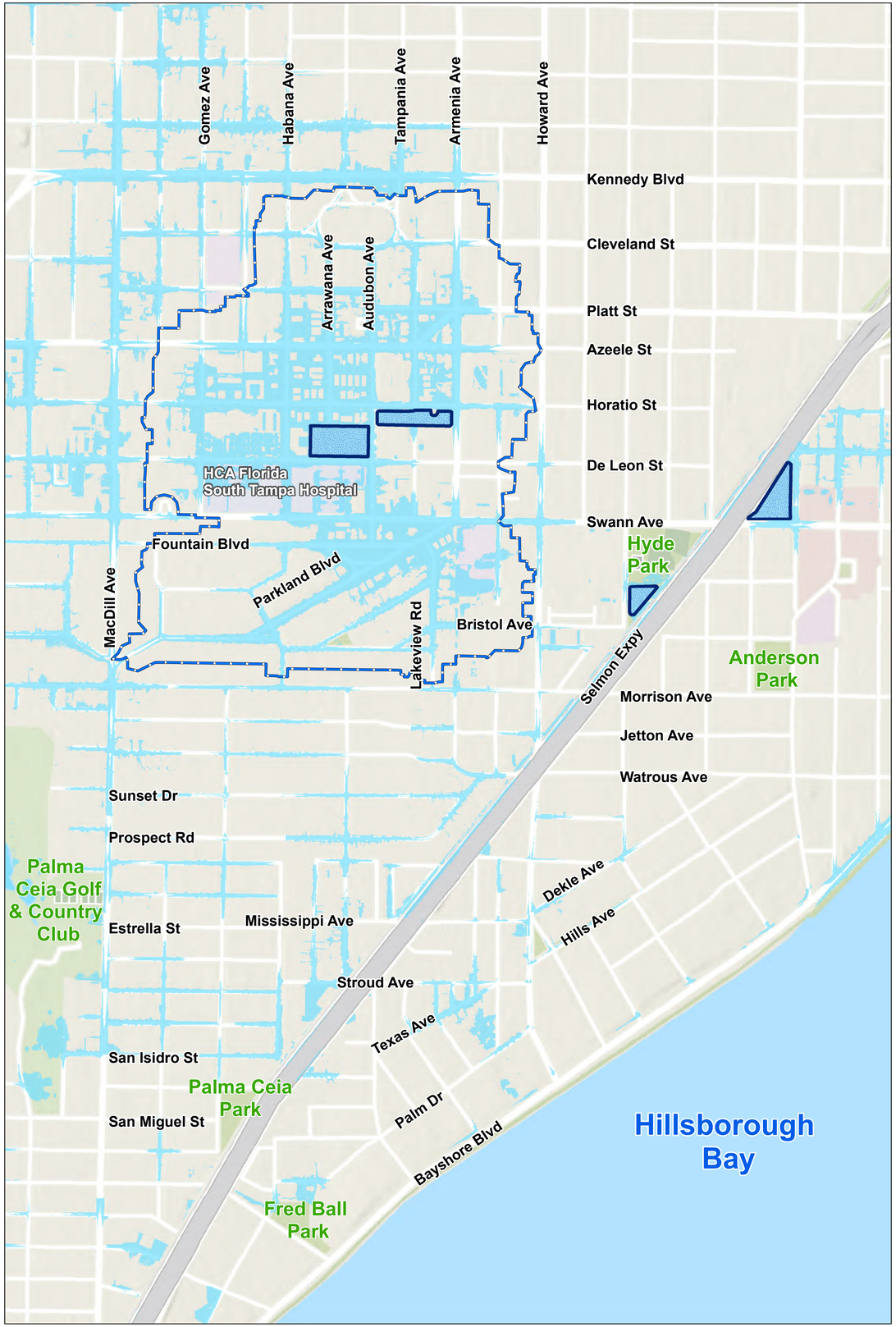
Notes:
The existing versus proposed flood extents are represented for the 10-year/24-hour storm event.

Project:
South Howard
Flood Relief & Streetscape

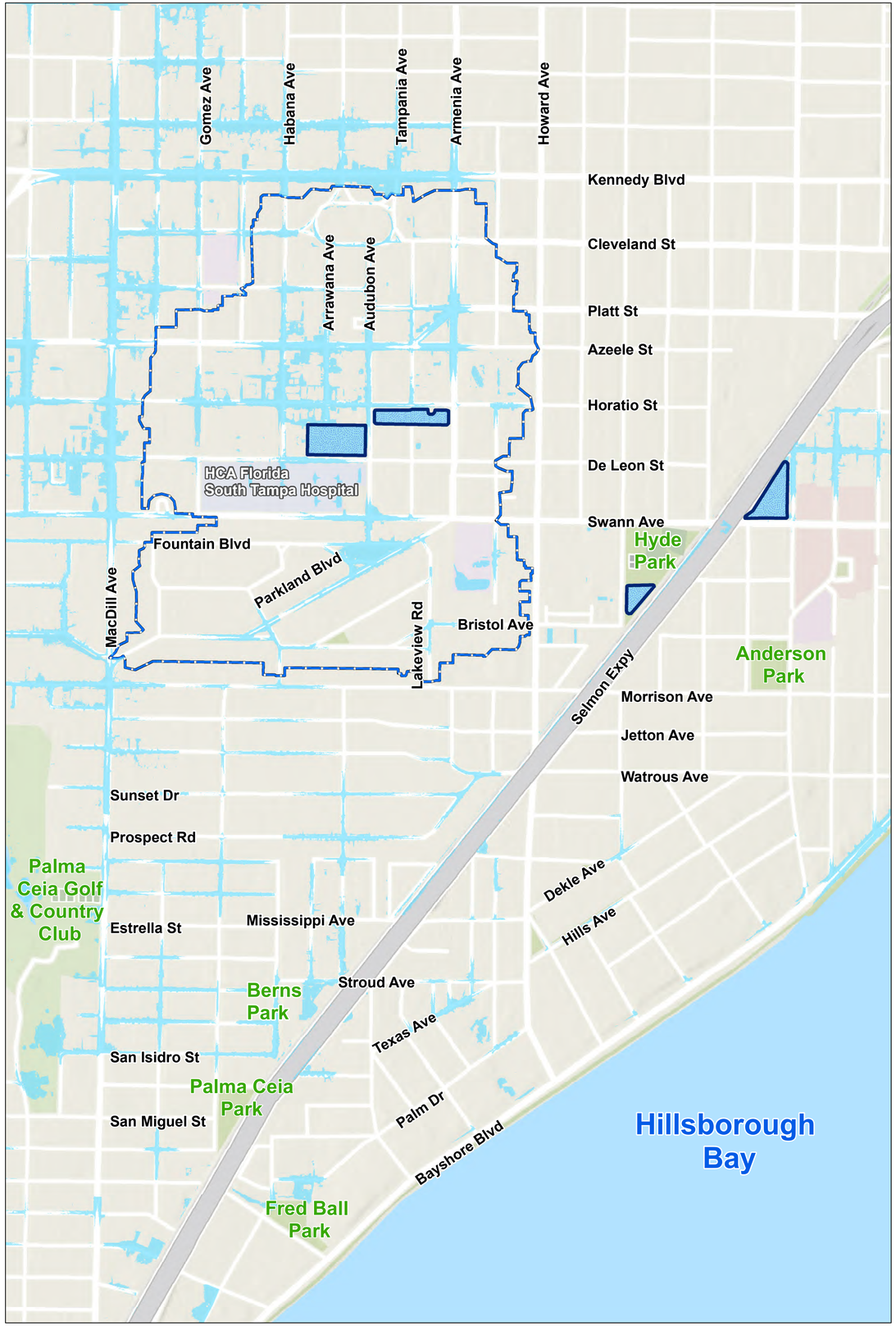
Map Title:
10-year/24-hour Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

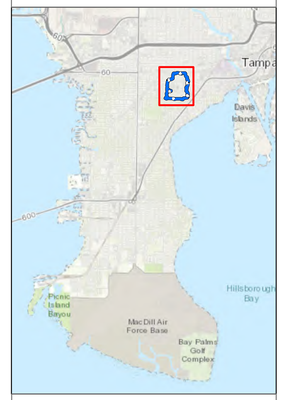
10-year/24-hour Flood Extents - EXISTING



10-year/24-hour Flood Extents - PROPOSED (ALL PHASES)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

Notes:
The existing versus proposed flood extents are represented for the 10-year/24-hour storm event.

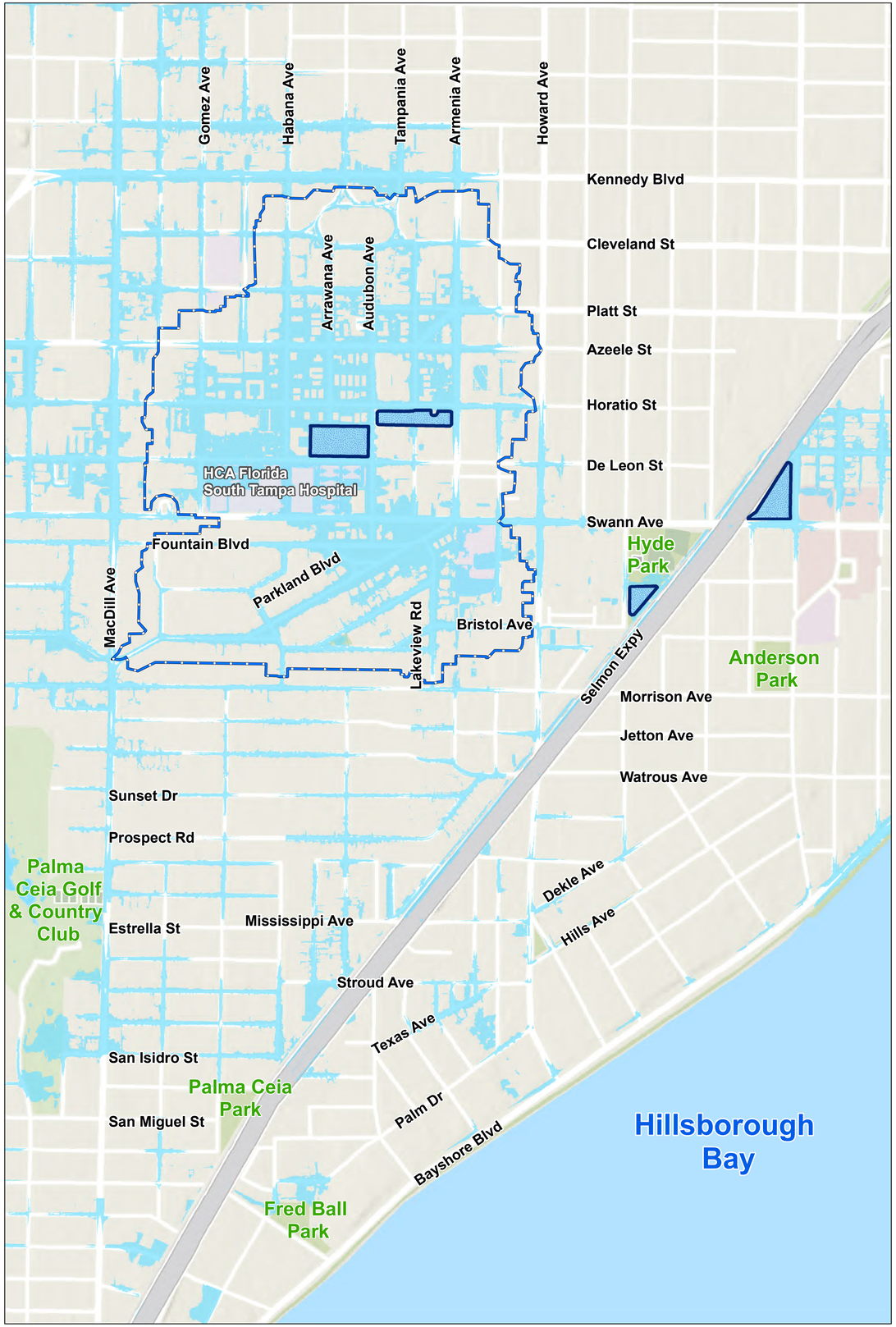
Project:
South Howard
Flood Relief & Streetscape

Map Title:
10-year/24-hour Flood Extents
Comparison Existing vs. Proposed

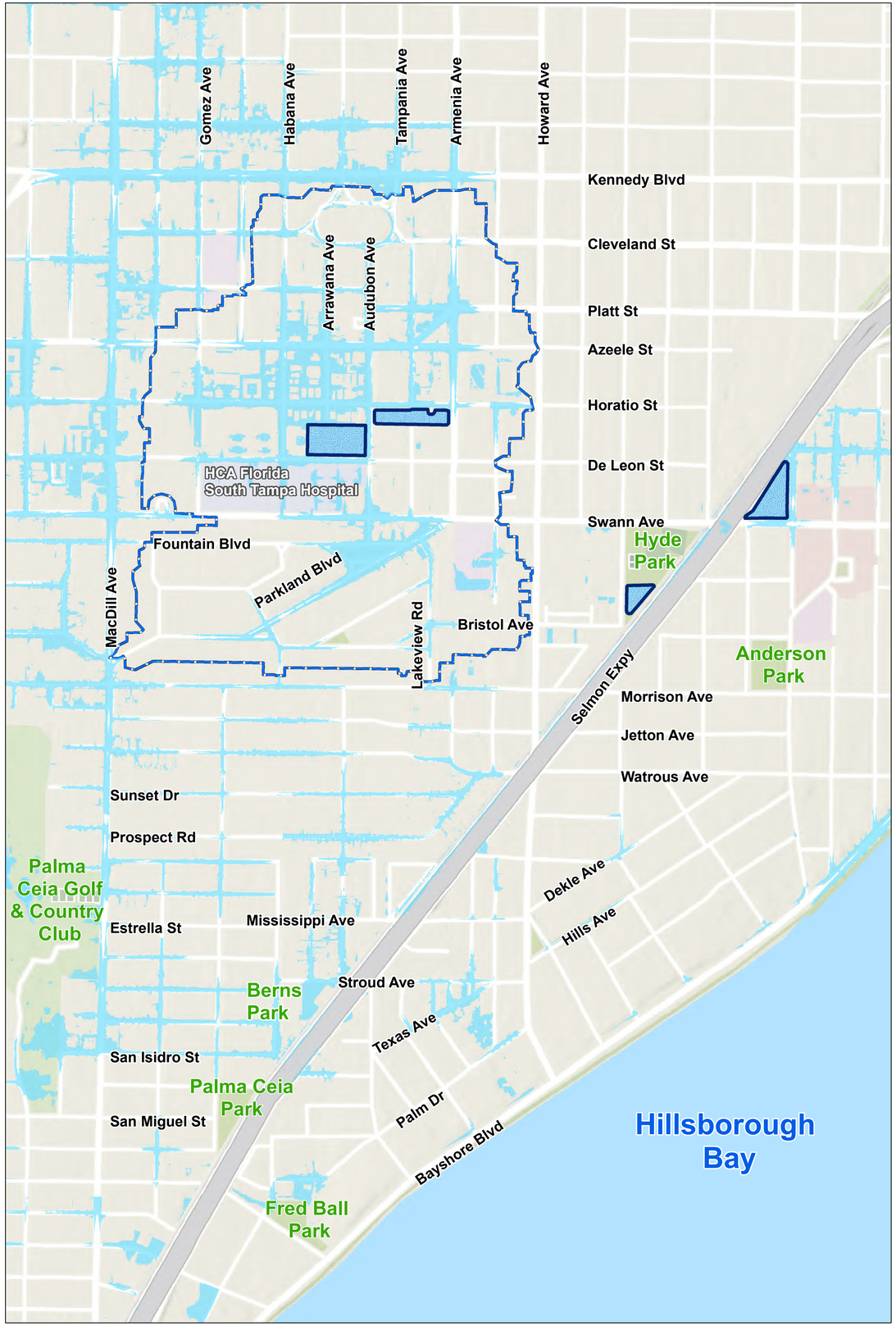
Date: January 30th, 2026

K.4 Flood Extent Comparison 25-year/24-hour

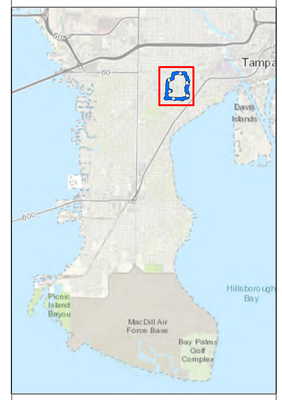
25-year/24-hour Flood Extents - EXISTING



25-year/24-hour Flood Extents - PROPOSED (PHASE I)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

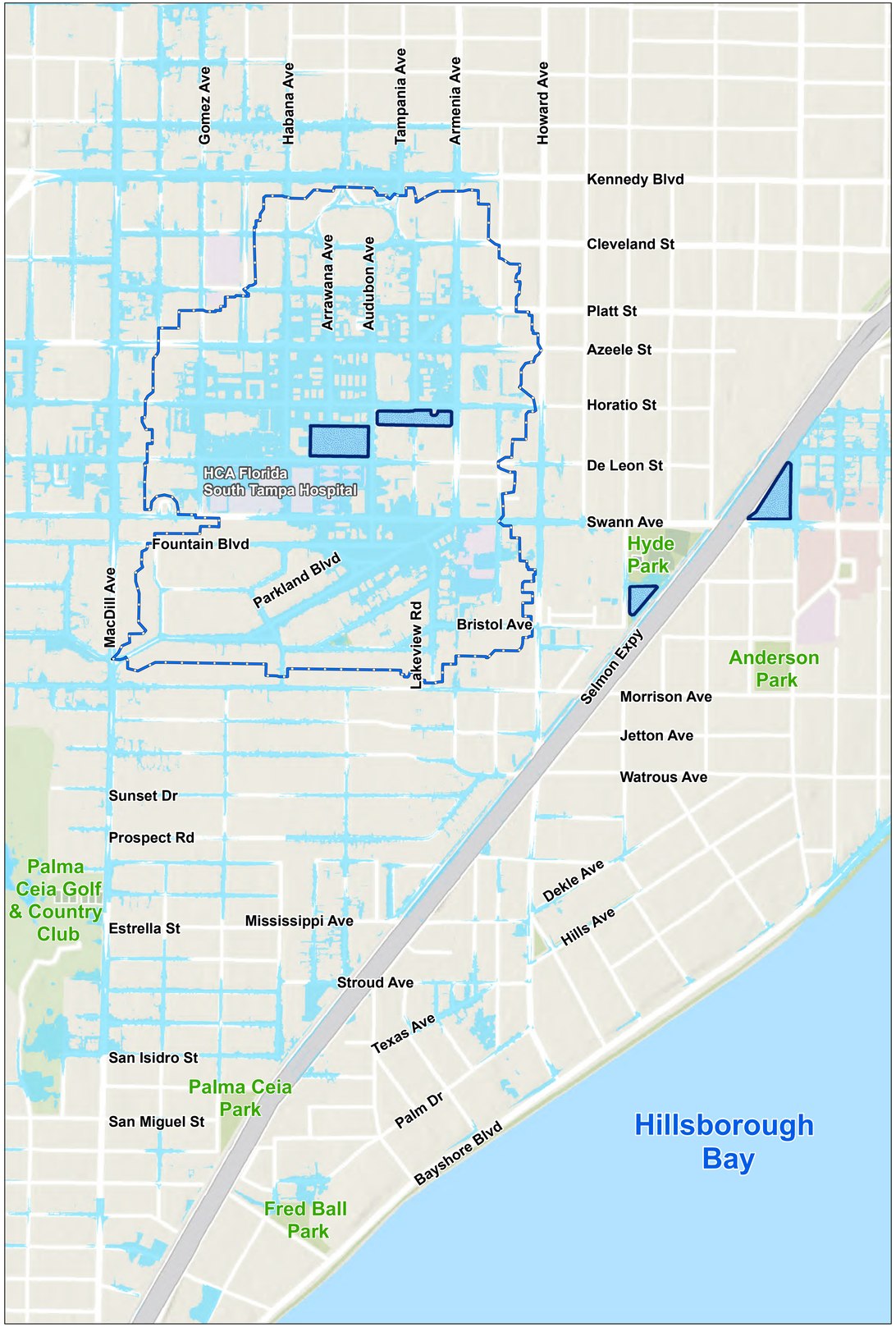
Notes:
The existing versus proposed flood extents are represented for the 25-year/24-hour storm event.

Project:
South Howard
Flood Relief & Streetscape

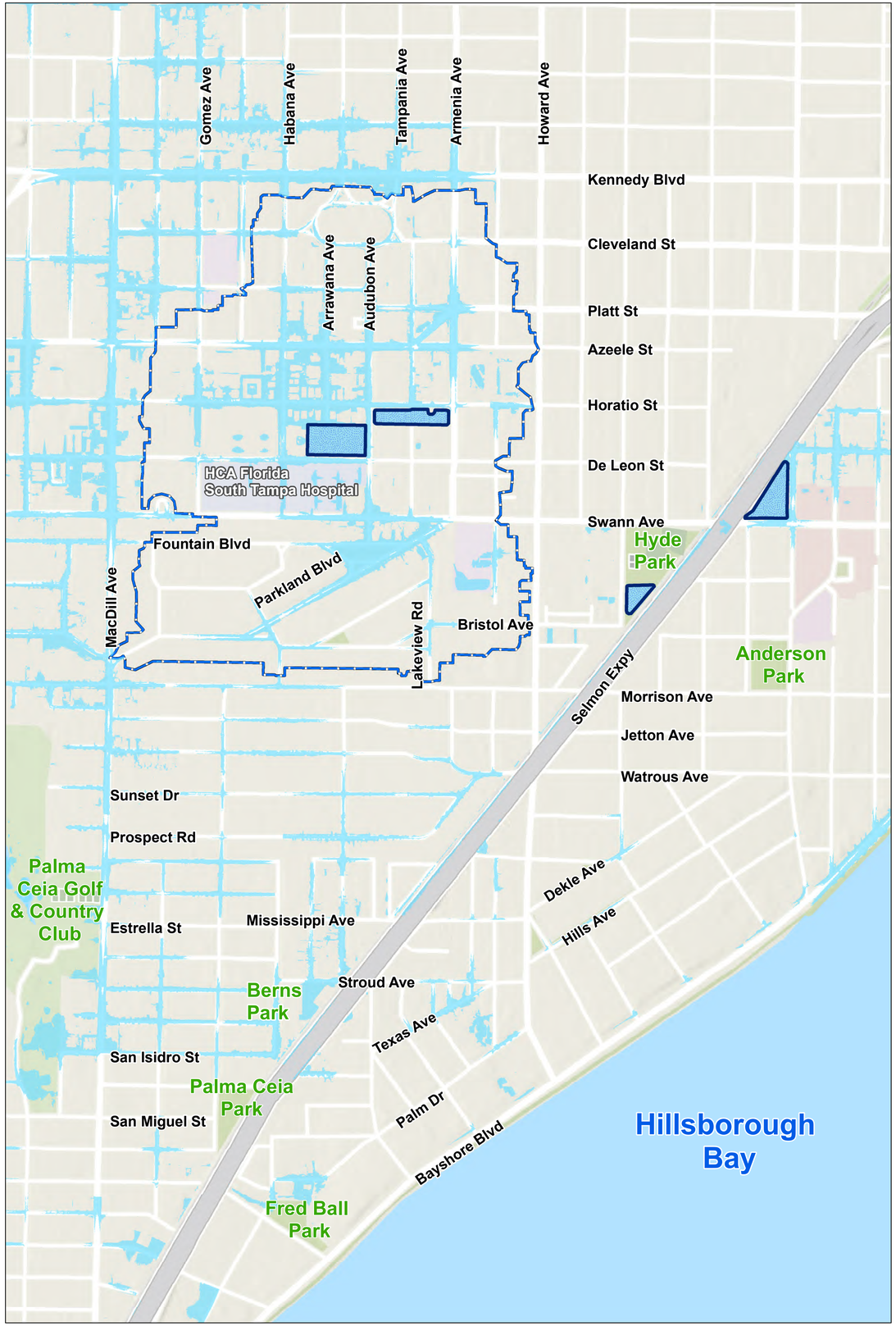
Map Title:
25-year/24-hour Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

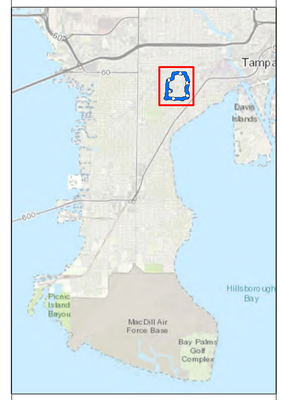
25-year/24-hour Flood Extents - EXISTING



25-year/24-hour Flood Extents - PROPOSED (ALL PHASES)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

Notes:
The existing versus proposed flood extents are represented for the 25-year/24-hour storm event.

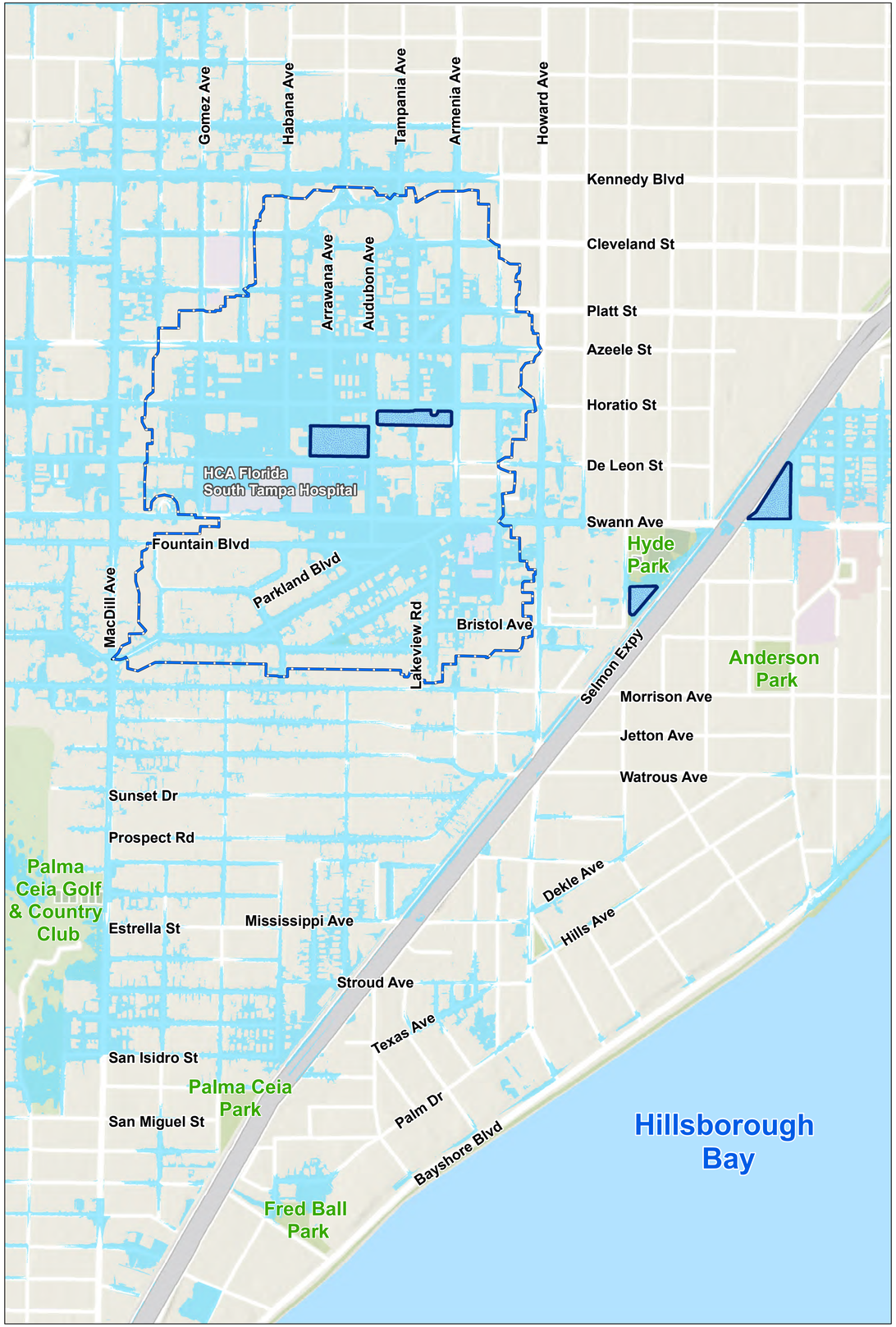
Project:
South Howard
Flood Relief & Streetscape

Map Title:
25-year/24-hour Flood Extents
Comparison Existing vs. Proposed

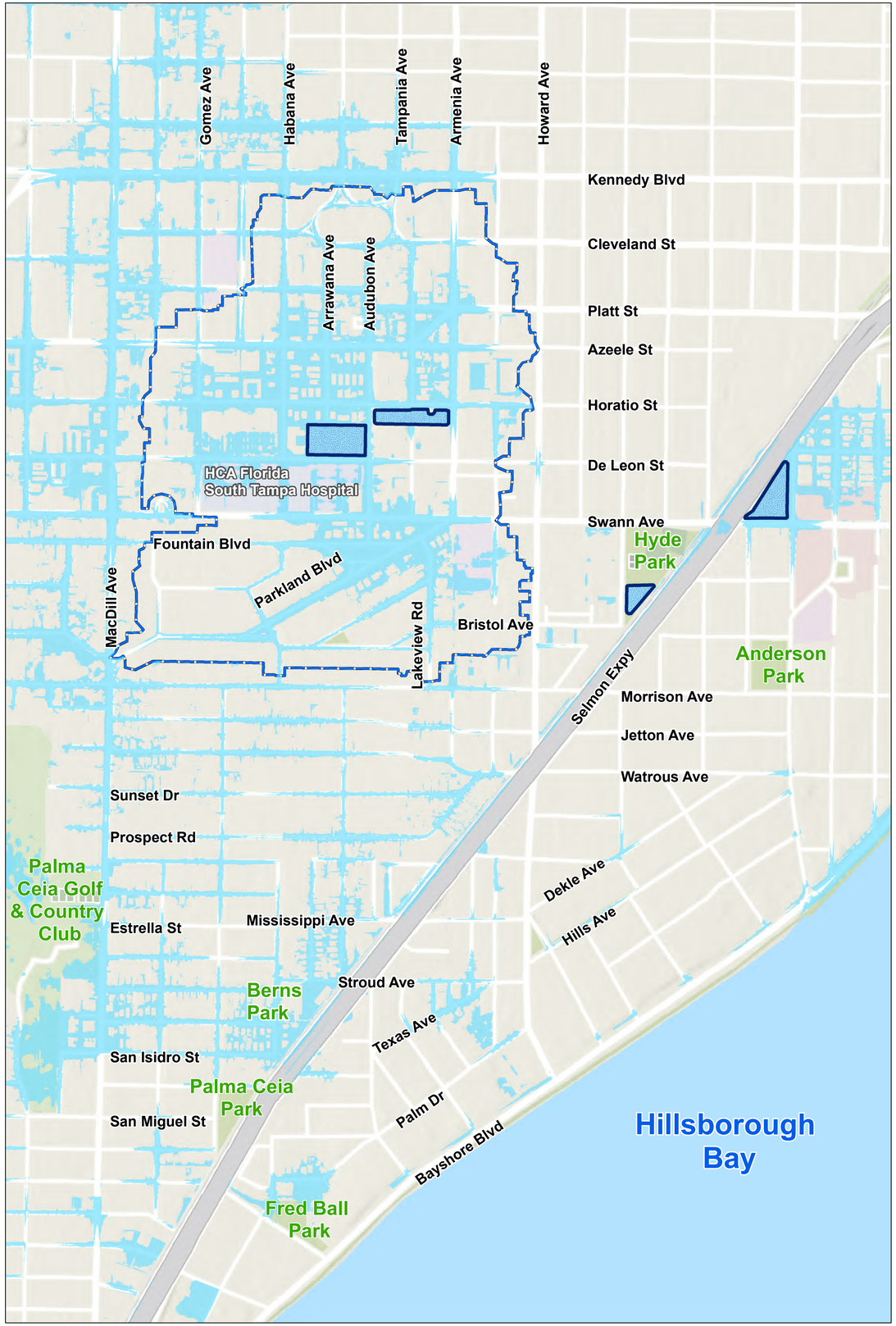
Date: January 30th, 2026

K.5 Flood Extent Comparison 100-year/24-hour

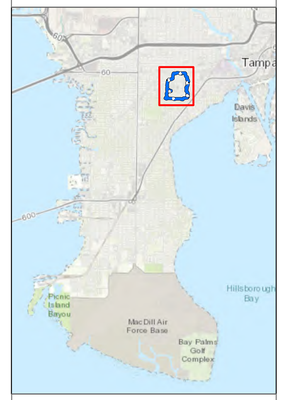
100-year/24-hour Flood Extents - EXISTING



100-year/24-hour Flood Extents - PROPOSED (PHASE I)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

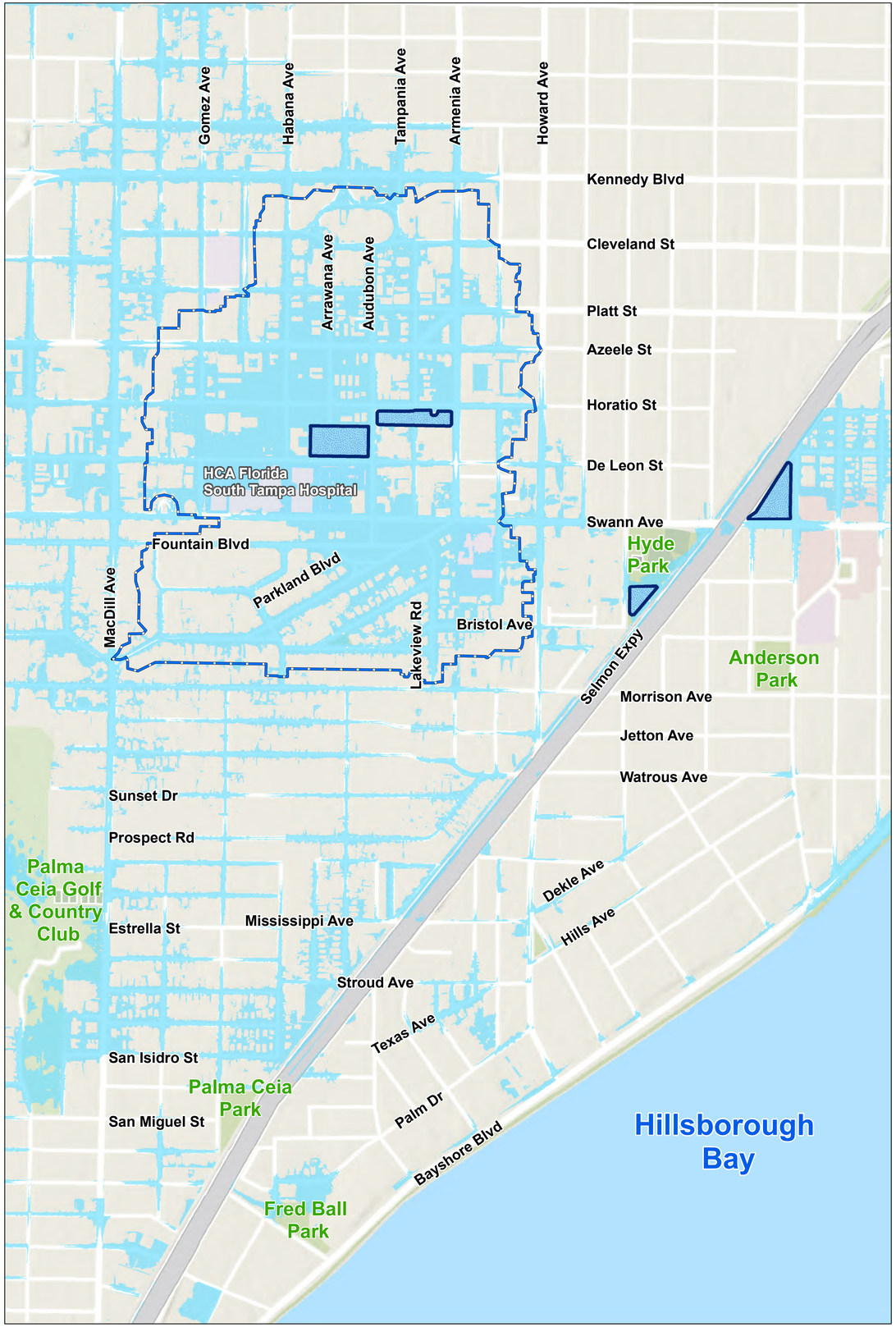
Notes:
The existing versus proposed flood extents are represented for the 100-year/24-hour storm event.

Project:
South Howard
Flood Relief & Streetscape

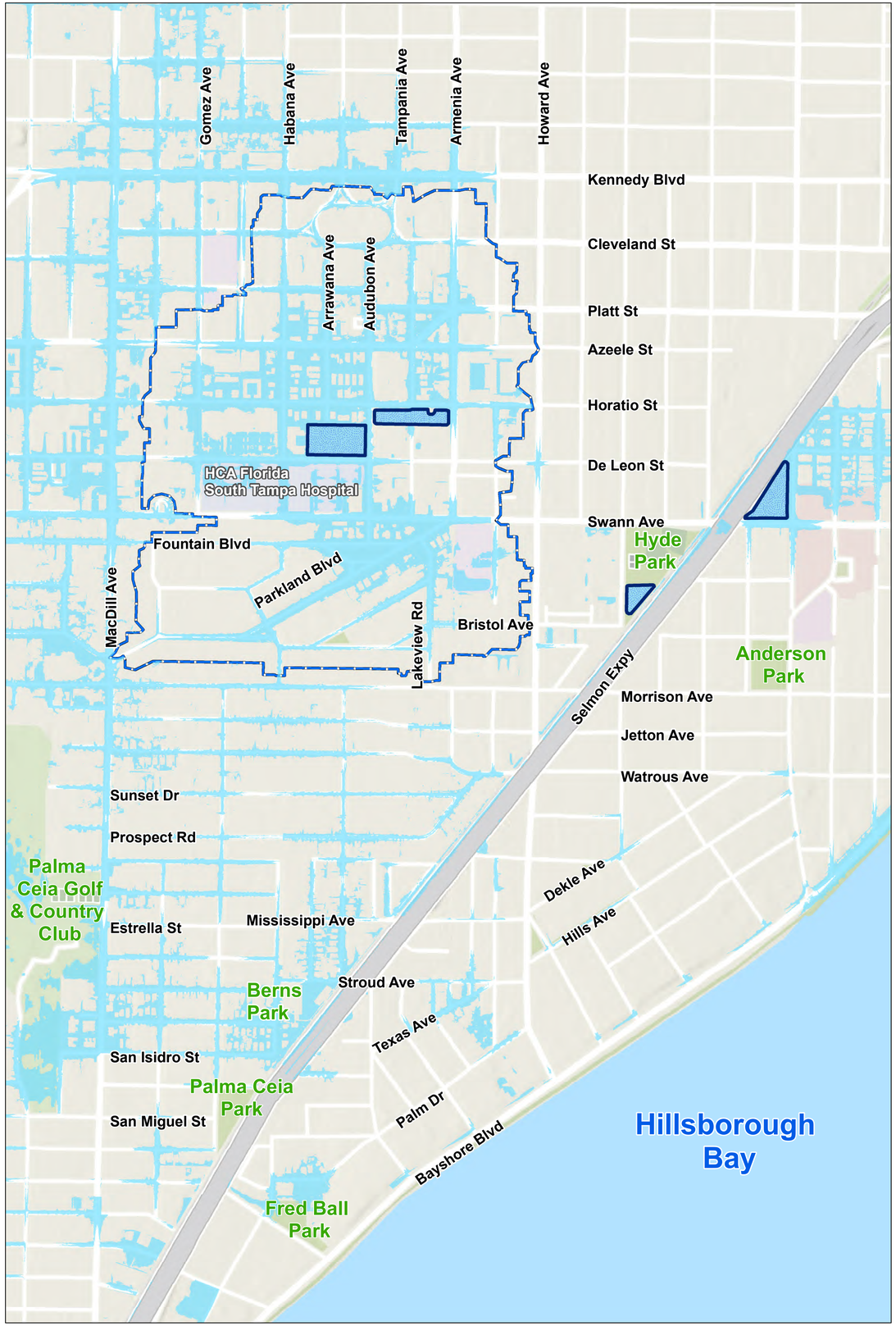
Map Title:
100-year/24-hour Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

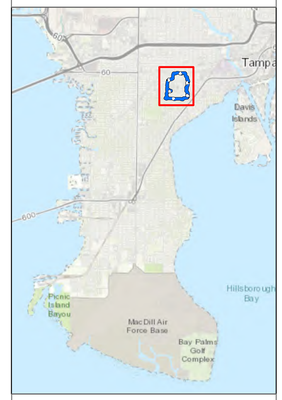
100-year/24-hour Flood Extents - EXISTING



100-year/24-hour Flood Extents - PROPOSED (ALL PHASES)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

Notes:
The existing versus proposed flood extents are represented for the 100-year/24-hour storm event.

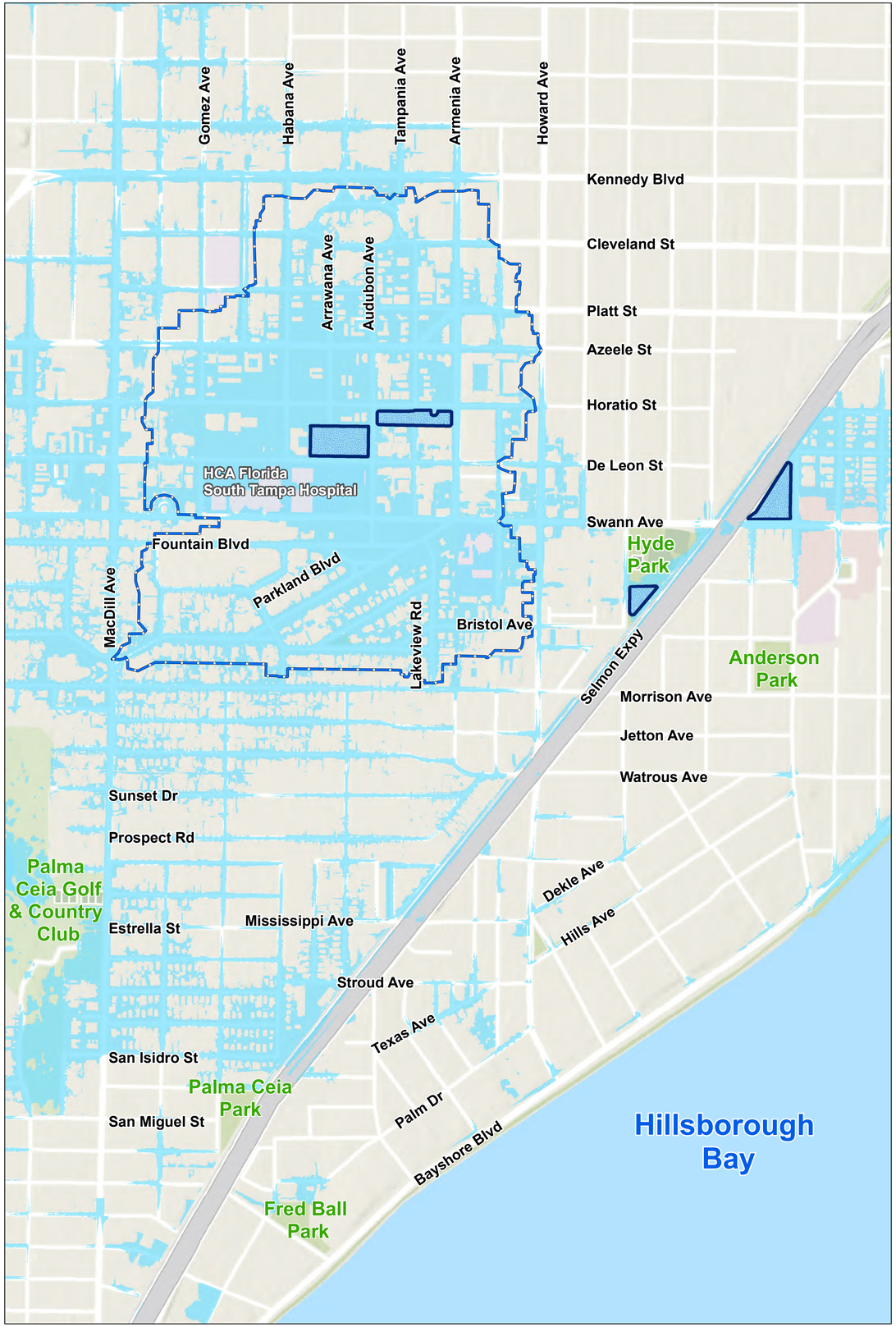
Project:
South Howard
Flood Relief & Streetscape

Map Title:
100-year/24-hour Flood Extents
Comparison Existing vs. Proposed

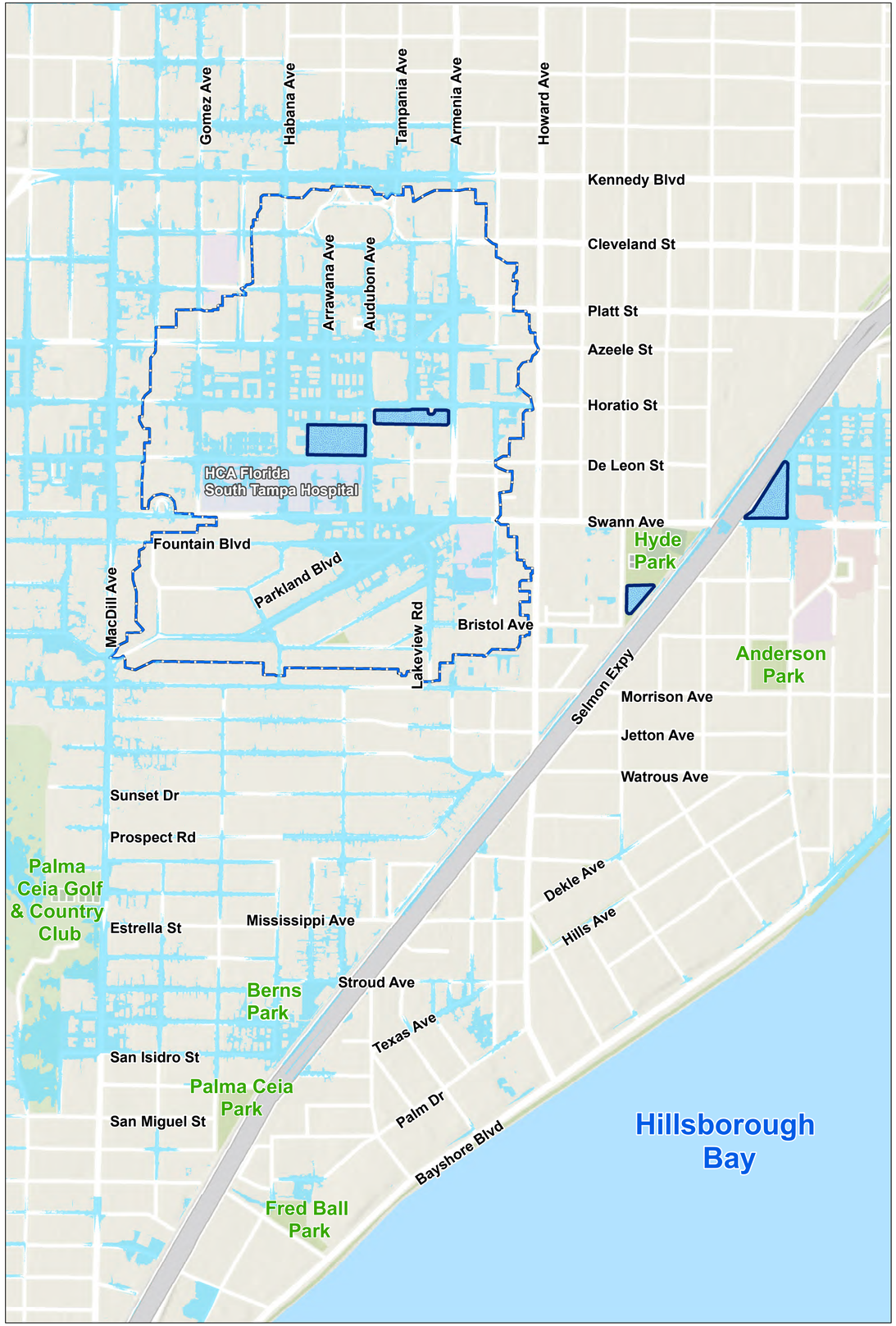
Date: January 30th, 2026

K.6 Flood Extent Comparison Hurricane Milton

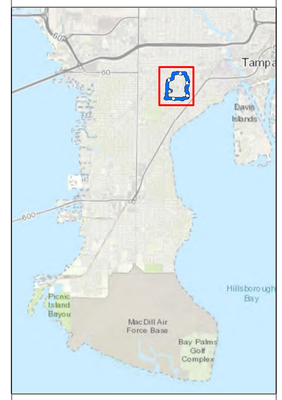
Hurricane Milton Flood Extents - EXISTING



Hurricane Milton Flood Extents - PROPOSED (PHASE I)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

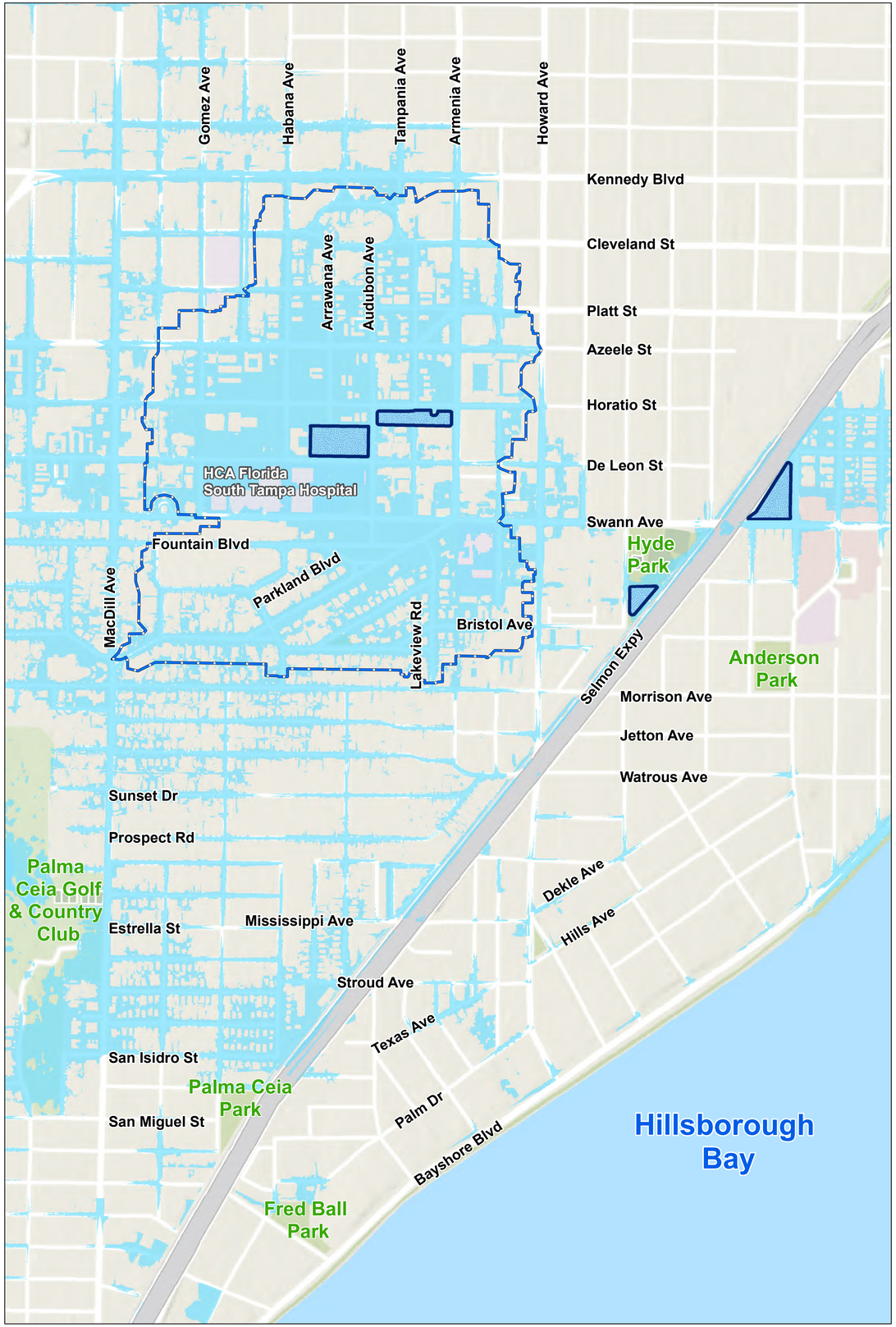
Notes:
The existing versus proposed flood extents are represented for Hurricane Milton.

Project:
South Howard
Flood Relief & Streetscape

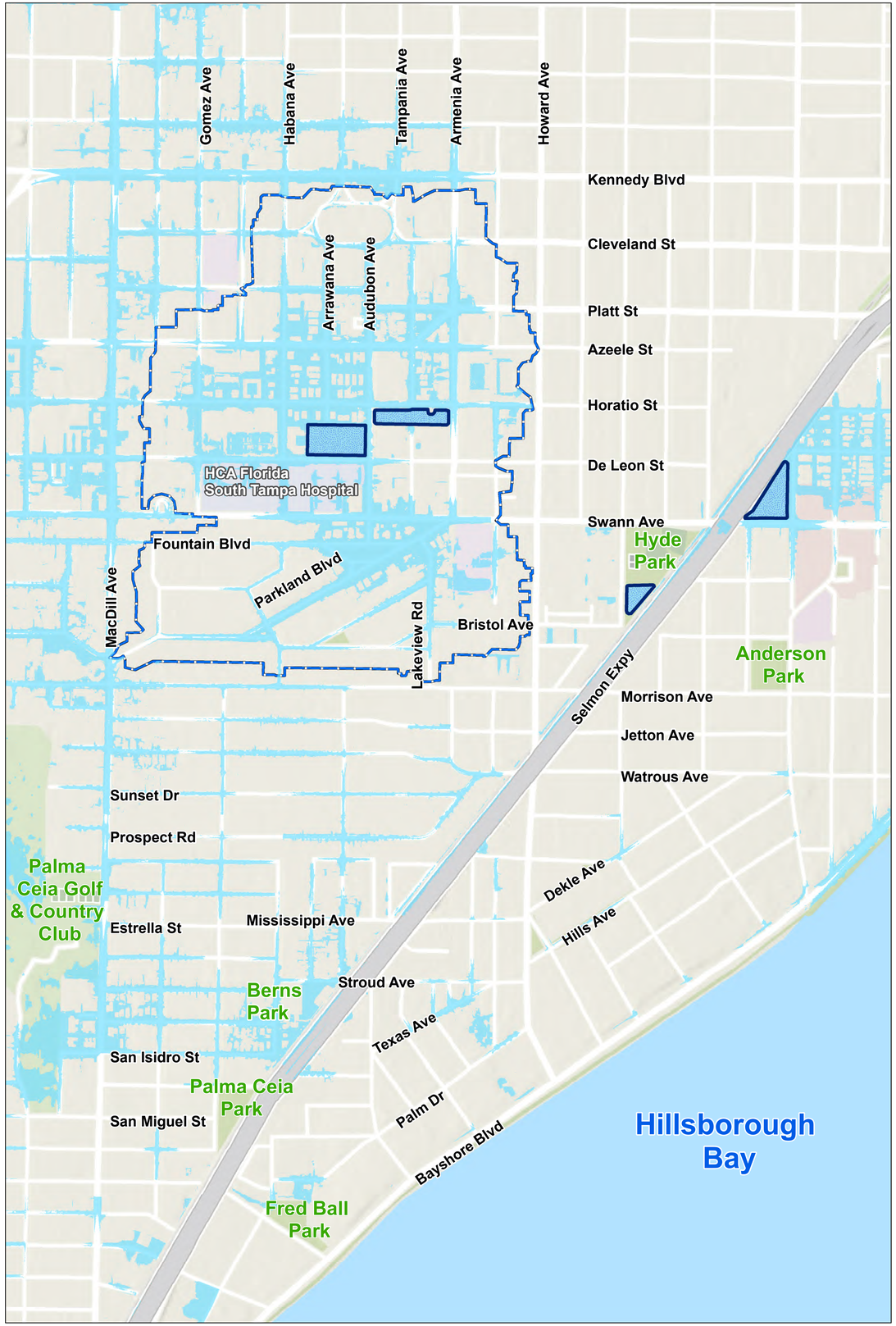
Map Title:
Hurricane Milton Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

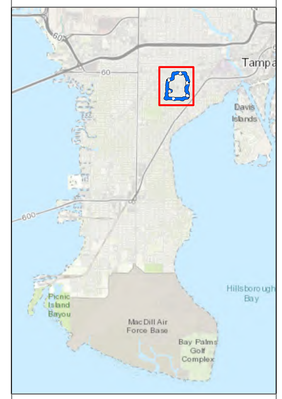
Hurricane Milton Flood Extents - EXISTING



Hurricane Milton Flood Extents - PROPOSED (ALL PHASESI)



AtkinsRéalis



Legend

- SHFR Flood Reduction Focus Area
- Existing Pond
- Flood Extents

N
W
E
S

0 1 2 4 6 Miles

Notes:
The existing versus proposed flood extents are represented for Hurricane Milton.

Project:
South Howard
Flood Relief & Streetscape

Map Title:
Hurricane Milton Flood Extents
Comparison Existing vs. Proposed

Date: January 30th, 2026

Appendix L. Preliminary Construction Cost Estimate

KIMMINS CONTRACTING CORP.

1501 E. 2nd Avenue • Tampa, Florida 33605

License No. CG C061458

To:	City Of Tampa	**Contact:**	
Address:	Municipal Building At City Hall Plaza, 306 East Jackson Street, 6N Tampa, FL 33602 USA	**Phone:** **Fax:**	(813) 274-7865
Project Name:	SOHO Flood Relief - CBC (30% GMP)	**Bid Number:**	
Project Location:		**Bid Date:**	

S. HOWARD - DEMO & EARTHWORK

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
10	Inlet Protection	100.00	EACH	$4,309.29	$430,929.00
20	Tree Barricades	4,400.00	LF	$11.24	$49,456.00
30	Clear & Grub	4,100.00	SY	$7.06	$28,946.00
40	Tree Removal	37.00	EACH	$1,567.57	$58,000.09
50	Demo Asphalt & Base	19,880.00	SY	$34.74	$690,631.20
60	Demo Concrete	6,150.00	SY	$26.67	$164,020.50
70	Demo Concrete Curb	5,670.00	LF	$47.36	$268,531.20
80	Remove Granite Curb	4,590.00	LF	$42.28	$194,065.20
90	Remove & Palletize Brick Pavers	1,060.00	SY	$65.90	$69,854.00
	Total Price for above S. HOWARD - DEMO & EARTHWORK Items:				**$1,954,433.19**

S. HOWARD - STORM DRAINAGE

100	10' X 10' Concrete Box Culvert	3,685.00	LF	$3,171.08	$11,685,429.80
110	7' X 7' Concrete Box Culvert	940.00	LF	$2,200.71	$2,068,667.40
120	Triple 4' X 6' CBC Extension	25.00	LF	$10,000.00	$250,000.00
130	12" RCP - CLIII	25.00	LF	$364.33	$9,108.25
140	15" RCP - CLIII	19.00	LF	$365.47	$6,943.93
150	18" RCP - CLIII	1,708.00	LF	$365.35	$624,017.80
160	24" RCP - CLIII	29.00	LF	$386.24	$11,200.96
170	30" RCP - CLIII	130.00	LF	$497.56	$64,682.80
180	36" RCP - CLIII	212.00	LF	$527.50	$111,830.00
190	72" Micro-Tunnel	360.00	LF	$11,555.04	$4,159,814.40
200	Junction Structure	3.00	EACH	$388,990.11	$1,166,970.33
210	Conflict Structure	1.00	EACH	$398,016.53	$398,016.53
220	Type 1 Curb Inlet (C.O.T.)	6.00	EACH	$14,944.33	$89,665.98
230	Type 2 Curb Inlet (C.O.T.)	51.00	EACH	$15,103.09	$770,257.59
240	Type 3 Curb Inlet (C.O.T.)	15.00	EACH	$16,613.63	$249,204.45
250	Type J5 Curb Inlet (FDOT)	1.00	EACH	$22,312.26	$22,312.26
260	Type T Grate Inlet	1.00	EACH	$9,509.04	$9,509.04

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
270	Type V Gutter Inlet	2.00	EACH	$10,364.14	$20,728.28
280	P7 Manhole	5.00	EACH	$8,402.75	$42,013.75
290	P7 Manhole Riser	16.00	EACH	$6,413.10	$102,609.60
300	J7 Manhole	5.00	EACH	$15,426.79	$77,133.95
310	Bank & Shore Rip-Rap @ Outfall	600.00	SF	$153.02	$91,812.00
320	Connect To Ex. RCP	6.00	EACH	$9,384.59	$56,307.54
330	Demo Ex. Storm Pipe	1,170.00	LF	$187.35	$219,199.50
340	Demo Ex. Storm Structure	12.00	EACH	$1,916.02	$22,992.24
	Total Price for above S. HOWARD - STORM DRAINAGE Items:				**$22,330,428.38**

S. HOWARD - SANITARY SEWER

350	8" SDR26 - SS	1,572.00	LF	$332.43	$522,579.96
360	10" SDR26 - SS	1,467.00	LF	$337.75	$495,479.25
370	Sanitary Sewer Bypass	1.00	LS	$270,000.00	$270,000.00
380	Sanitary Manhole	18.00	EACH	$9,589.80	$172,616.40
390	Sanitary Sewer Pipe Replacement With 42" Stainless Steel (COMPLETE)	1.00	LS	$285,866.28	$285,866.28
400	SS Laterals & Cleanouts	36.00	EACH	$5,159.47	$185,740.92
410	Demo Ex. SS Pipe	2,574.00	LF	$208.86	$537,605.64
420	Demo Ex. SS MH	13.00	EACH	$4,127.26	$53,654.38
	Total Price for above S. HOWARD - SANITARY SEWER Items:				**$2,523,542.83**

S. HOWARD - POTABLE WATER DISTRIBUTION

430	12" DIP - WM	3,840.00	LF	$203.60	$781,824.00
440	8" DIP - WM	310.00	LF	$193.46	$59,972.60
450	6" DIP - WM	420.00	LF	$171.23	$71,916.60
460	20" X 12" Jack & Bore	100.00	LF	$3,283.20	$328,320.00
470	CSX PERMITTING, TESTING & SOIL STABILIZATION - ALLOWANCE	1.00	LS	$500,000.00	$500,000.00
480	Fire Hydrant Assembly	4.00	EACH	$7,755.75	$31,023.00
490	12" Gate Valve Assembly	2.00	EACH	$5,963.04	$11,926.08
500	8" Gate Valve Assembly	2.00	EACH	$3,541.95	$7,083.90
510	ARV On 12" DIP	1.00	EACH	$7,171.90	$7,171.90
520	12" Bends & Fittings	88.00	EACH	$2,027.98	$178,462.24
530	8" Bends & Fittings	5.00	EACH	$1,312.68	$6,563.40
540	6" Bends & Fittings	20.00	EACH	$881.05	$17,621.00
550	Water Services	46.00	EACH	$9,342.72	$429,765.12
560	12" X 6" Tapping Sleeve & Valve	1.00	EACH	$9,034.40	$9,034.40
570	Connect To Ex. WM	18.00	EACH	$12,429.96	$223,739.28
580	WM Demo	5,880.00	LF	$38.09	$223,969.20
	Total Price for above S. HOWARD - POTABLE WATER DISTRIBUTION Items:				**$2,888,392.72**

S. HOWARD - RECLAIMED WATER DISTRIBUTION

590	12" DIP - RCW	72.00	LF	$321.49	$23,147.28
600	8" DIP - RCW	170.00	LF	$236.51	$40,206.70

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
610	4" DIP - RCW	140.00	LF	$268.24	$37,553.60
620	4" Gate Valve Assembly	1.00	EACH	$2,236.41	$2,236.41
630	12" Bends & Fittings	4.00	EACH	$1,966.42	$7,865.68
640	8" Bends & Fittings	11.00	EACH	$1,204.56	$13,250.16
650	4" Bends & Fittings	12.00	EACH	$849.46	$10,193.52
660	Connect To Ex. RCW	13.00	EACH	$9,764.22	$126,934.86
670	Demo Ex. RCW	380.00	LF	$107.20	$40,736.00
	Total Price for above S. HOWARD - RECLAIMED WATER DISTRIBUTION Items:				**$302,124.21**

S. HOWARD - ROADWAY

680	12" Stabilized Subgrade (LBR40)	16,210.00	SY	$47.09	$763,328.90
690	8" Crushed Concrete Road Base (OBG 6)	16,210.00	SY	$52.44	$850,052.40
700	2" Asphalt (SP-12.5) - ONE LIFT	16,210.00	SY	$38.88	$630,244.80
710	1" Asphalt (SP-9.5) - ONE LIFT	16,210.00	SY	$16.97	$275,083.70
720	Concrete Median	32.00	SY	$365.07	$11,682.24
730	Concrete Driveway	1,280.00	SY	$212.82	$272,409.60
740	Brick Paver Driveway	140.00	SY	$245.79	$34,410.60
750	Concrete Sidewalk	8,700.00	SY	$100.28	$872,436.00
760	Type F Curb	7,360.00	LF	$49.48	$364,172.80
770	Type D Curb	1,300.00	LF	$49.48	$64,324.00
780	Drop Curb	2,800.00	LF	$49.48	$138,544.00
790	Granite Curb (INSTALL ONLY--PROVIDED BY C.O.T.)	100.00	LF	$88.61	$8,861.00
800	Signage & Striping	1.00	LS	$238,000.00	$238,000.00
810	Signalization Adjustment	4.00	EACH	$200,000.00	$800,000.00
820	Landscape & Irrigation - ALLOWANCE	1.00	LS	$1,000,000.00	$1,000,000.00
	Total Price for above S. HOWARD - ROADWAY Items:				**$6,323,550.04**

SWANN - DEMO & EARTHWORK

830	Inlet Protection	34.00	EACH	$4,574.21	$155,523.14
840	Tree Barricades	1,600.00	LF	$11.24	$17,984.00
850	Clear & Grub	2,000.00	SY	$7.06	$14,120.00
860	Tree Removal	5.00	EACH	$1,700.00	$8,500.00
870	Demo Asphalt & Base	5,460.00	SY	$35.11	$191,700.60
880	Demo Concrete	1,450.00	SY	$26.67	$38,671.50
890	Demo Concrete Curb	2,900.00	LF	$47.36	$137,344.00
900	Remove & Palletize Brick Pavers	20.00	SY	$112.60	$2,252.00
	Total Price for above SWANN - DEMO & EARTHWORK Items:				**$566,095.24**

SWANN - STORM DRAINAGE

910	10' X 10' Concrete Box Culvert	1,260.00	LF	$3,145.55	$3,963,393.00
920	12" RCP - CLIII	15.00	LF	$376.27	$5,644.05
930	18" RCP - CLIII	1,054.00	LF	$366.22	$385,995.88
940	24" RCP - CLIII	36.00	LF	$383.23	$13,796.28

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
950	42" RCP - CLIII	54.00	LF	$581.31	$31,390.74
960	72" RCP - CLIII	54.00	LF	$1,136.89	$61,392.06
970	34" X 53" ERCP - CLIII	8.00	LF	$951.83	$7,614.64
980	43" X 68" ERCP - CLIII	5.00	LF	$1,438.75	$7,193.75
990	Type 2 Curb Inlet (C.O.T.)	23.00	EACH	$15,108.44	$347,494.12
1000	Type 3 Curb Inlet (C.O.T.)	4.00	EACH	$16,598.70	$66,394.80
1010	P7 Manhole	7.00	EACH	$8,389.95	$58,729.65
1020	P7 Manhole Riser	4.00	EACH	$6,413.10	$25,652.40
1030	J7 Manhole	1.00	EACH	$15,426.79	$15,426.79
1040	J7 Manhole Riser	1.00	EACH	$7,716.19	$7,716.19
1050	Connect To Ex. RCP	9.00	EACH	$9,384.59	$84,461.31
1060	Demo Ex. Storm Pipe	1,890.00	LF	$187.35	$354,091.50
1070	Demo Ex. Storm Structure	24.00	EACH	$1,916.02	$45,984.48
	Total Price for above SWANN - STORM DRAINAGE Items:				**$5,482,371.64**

SWANN - SANITARY SEWER

1080	8" SDR26 - SS	2,354.00	LF	$330.27	$777,455.58
1090	Sanitary Sewer Bypass	1.00	LS	$180,000.00	$180,000.00
1100	Sanitary Manhole	13.00	EACH	$9,758.85	$126,865.05
1110	SS Laterals & Cleanouts	12.00	EACH	$5,159.47	$61,913.64
1120	Demo Ex. SS Pipe	1,266.00	LF	$209.24	$264,897.84
1130	Demo Ex. SS MH	5.00	EACH	$4,139.57	$20,697.85
	Total Price for above SWANN - SANITARY SEWER Items:				**$1,431,829.96**

SWANN - POTABLE WATER DISTRIBUTION

1140	8" DIP - WM	760.00	LF	$213.82	$162,503.20
1150	6" DIP - WM	270.00	LF	$218.23	$58,922.10
1160	Fire Hydrant Assembly	2.00	EACH	$7,755.75	$15,511.50
1170	8" Gate Valve Assembly	2.00	EACH	$3,541.95	$7,083.90
1180	6" Gate Valve Assembly	2.00	EACH	$2,870.09	$5,740.18
1190	8" Bends & Fittings	9.00	EACH	$1,264.98	$11,384.82
1200	6" Bends & Fittings	17.00	EACH	$888.09	$15,097.53
1210	Water Services	9.00	EACH	$9,342.72	$84,084.48
1220	Connect To Ex. WM	4.00	EACH	$14,803.17	$59,212.68
1230	WM Demo	1,500.00	LF	$38.09	$57,135.00
	Total Price for above SWANN - POTABLE WATER DISTRIBUTION Items:				**$476,675.39**

SWANN - ROADWAY

1240	12" Stabilized Subgrade (LBR40)	5,400.00	SY	$47.09	$254,286.00
1250	8" Crushed Concrete Road Base (OBG 6)	5,400.00	SY	$52.44	$283,176.00
1260	2" Asphalt (SP-12.5) - ONE LIFT	5,400.00	SY	$35.93	$194,022.00
1270	1" Asphalt (SP-9.5) - ONE LIFT	5,400.00	SY	$16.48	$88,992.00
1280	Concrete Bus Stop Pad	10.00	SY	$613.08	$6,130.80
1290	Concrete Driveway	305.00	SY	$246.56	$75,200.80

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1300	Concrete Sidewalk	1,260.00	SY	$120.65	$152,019.00
1310	Type F Curb	2,480.00	LF	$49.48	$122,710.40
1320	Type D Curb	350.00	LF	$49.48	$17,318.00
1330	Drop Curb	450.00	LF	$49.48	$22,266.00
1340	Signage & Striping	1.00	LS	$48,000.00	$48,000.00
1350	Signalization Adjustment	1.00	EACH	$200,000.00	$200,000.00
1360	Fine Grade & Sod Disturbed Areas	2,000.00	SY	$19.74	$39,480.00
1640	12" Stabilized Subgrade (LBR40)	2,400.00	SY	$47.09	$113,016.00
1650	8" Crushed Concrete Road Base (OBG 6)	2,400.00	SY	$52.44	$125,856.00
1660	2" Asphalt (SP-12.5) - ONE LIFT	2,400.00	SY	$33.33	$79,992.00
1670	1" Asphalt (SP-9.5) - ONE LIFT	2,400.00	SY	$18.33	$43,992.00
1680	Concrete Driveway	100.00	SY	$439.32	$43,932.00
1690	Concrete Sidewalk	760.00	SY	$92.77	$70,505.20
1700	Type D Curb	300.00	LF	$49.48	$14,844.00
1710	Signage & Striping	1.00	LS	$24,000.00	$24,000.00
1720	Fine Grade & Sod Disturbed Areas	2,700.00	SY	$19.74	$53,298.00
	Total Price for above SWANN - ROADWAY Items:				**$2,073,036.20**

AUDUBON - DEMO & EARTHWORK

1370	Inlet Protection	10.00	EACH	$37,512.23	$375,122.30
1380	Tree Barricades	1,000.00	LF	$11.24	$11,240.00
1390	Clear & Grub	1,600.00	SY	$7.06	$11,296.00
1400	Tree Removal	15.00	EACH	$2,033.33	$30,499.95
1410	Demo Asphalt & Base	2,400.00	SY	$35.27	$84,648.00
1420	Demo Concrete	800.00	SY	$26.67	$21,336.00
1430	Demo Concrete Curb	400.00	LF	$47.36	$18,944.00
	Total Price for above AUDUBON - DEMO & EARTHWORK Items:				**$553,086.25**

AUDUBON - STORM DRAINAGE

1440	10' X 10' Concrete Box Culvert	600.00	LF	$3,127.49	$1,876,494.00
1450	18" RCP - CLIII	100.00	LF	$368.84	$36,884.00
1460	Type T Grate Inlet	4.00	EACH	$9,285.04	$37,140.16
1470	P7 Manhole Riser	3.00	EACH	$6,413.10	$19,239.30
1480	Connect To Ex. RCP	2.00	EACH	$9,384.59	$18,769.18
1490	Demo Ex. Storm Pipe	700.00	LF	$187.35	$131,145.00
1500	Demo Ex. Storm Structure	3.00	EACH	$1,916.02	$5,748.06
	Total Price for above AUDUBON - STORM DRAINAGE Items:				**$2,125,419.70**

AUDUBON - SANITARY SEWER

1510	8" SDR26 - SS	240.00	LF	$334.86	$80,366.40
1520	Sanitary Sewer Bypass	1.00	LS	$10,000.00	$10,000.00
1530	Sanitary Manhole	2.00	EACH	$9,875.59	$19,751.18
1540	SS Laterals & Cleanouts	3.00	EACH	$5,159.47	$15,478.41

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1550	Demo Ex. SS Pipe	240.00	LF	$210.17	$50,440.80
1560	Demo Ex. SS MH	2.00	EACH	$4,119.57	$8,239.14
	Total Price for above AUDUBON - SANITARY SEWER Items:				**$184,275.93**

AUDUBON - POTABLE WATER DISTRIBUTION

1570	6" DIP - WM	760.00	LF	$171.24	$130,142.40
1580	Fire Hydrant Assembly	2.00	EACH	$7,755.75	$15,511.50
1590	6" Gate Valve Assembly	2.00	EACH	$2,870.09	$5,740.18
1600	6" Bends & Fittings	10.00	EACH	$949.71	$9,497.10
1610	Water Services	4.00	EACH	$9,342.72	$37,370.88
1620	Connect To Ex. WM	4.00	EACH	$10,765.03	$43,060.12
1630	WM Demo	760.00	LF	$38.09	$28,948.40
	Total Price for above AUDUBON - POTABLE WATER DISTRIBUTION Items:				**$270,270.58**

MISSISSIPPI - DEMO & EARTHWORK

1730	Inlet Protection - NONE SHOWN	0.00	EACH	$0.00	$0.00
1740	Tree Barricades - NONE REQUIRED	0.00	LF	$0.00	$0.00
1750	Clear & Grub	25.00	SY	$7.06	$176.50
1760	Tree Removal - NONE SHOWN	0.00	EACH	$0.00	$0.00
1770	Demo Asphalt & Base	80.00	SY	$37.94	$3,035.20
1780	Demo Concrete	16.00	SY	$26.67	$426.72
1790	Remove Granite Curb	30.00	LF	$42.28	$1,268.40
	Total Price for above MISSISSIPPI - DEMO & EARTHWORK Items:				**$4,906.82**

MISSISSIPPI - STORM DRAINAGE

1800	18" RCP - CLIII	22.00	LF	$371.29	$8,168.38
1810	18" Brick & Mortar Plug	1.00	EACH	$2,099.77	$2,099.77
1820	DEMO EX. STORM DRAINAGE - NONE SHOWN	0.00	LF	$0.00	$0.00
	Total Price for above MISSISSIPPI - STORM DRAINAGE Items:				**$10,268.15**

MISSISSIPPI - ROADWAY

1830	12" Stabilized Subgrade (LBR40)	60.00	SY	$47.09	$2,825.40
1840	8" Crushed Concrete Road Base (OBG 6)	60.00	SY	$52.44	$3,146.40
1850	2" Asphalt (SP-12.5) - ONE LIFT	60.00	SY	$30.00	$1,800.00
1860	1" Asphalt (SP-9.5) - ONE LIFT	60.00	SY	$15.00	$900.00
1870	Concrete Sidewalk	15.00	EACH	$73.03	$1,095.45
1880	Type F Curb	30.00	LF	$49.48	$1,484.40
1890	Type D Curb	30.00	LF	$49.48	$1,484.40
1900	Signage & Striping - NONE SHOWN	0.00	LS	$0.00	$0.00
1910	Fine Grade & Sod Disturbed Areas	25.00	SY	$19.74	$493.50
	Total Price for above MISSISSIPPI - ROADWAY Items:				**$13,229.55**

WATROUS - DEMO & EARTHWORK

1920	Inlet Protection - NONE SHOWN	0.00	EACH	$0.00	$0.00

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1930	Tree Barricades	40.00	LF	$11.24	$449.60
1940	Clear & Grub	10.00	SY	$7.06	$70.60
1950	Tree Removal - NONE SHOWN	0.00	EACH	$0.00	$0.00
1960	Demo Asphalt & Base	90.00	SY	$37.49	$3,374.10
1970	Demo Concrete	44.00	SY	$26.67	$1,173.48
1980	Demo Concrete Curb	80.00	LF	$47.36	$3,788.80
	Total Price for above WATROUS - DEMO & EARTHWORK Items:				**$8,856.58**

WATROUS - STORM DRAINAGE

1990	24" RCP - CLIII	8.00	LF	$384.79	$3,078.32
2000	30" RCP - CLIII	30.00	LF	$495.55	$14,866.50
2010	J7 Manhole	1.00	EACH	$15,426.79	$15,426.79
2020	24" Brick & Mortar Plug	1.00	EACH	$2,099.77	$2,099.77
2030	DEMO EX. STORM DRAINAGE - NONE SHOWN	0.00	LF	$0.00	$0.00
	Total Price for above WATROUS - STORM DRAINAGE Items:				**$35,471.38**

WATROUS - ROADWAY

2040	12" Stabilized Subgrade (LBR40)	90.00	SY	$47.09	$4,238.10
2050	8" Crushed Concrete Road Base (OBG 6)	90.00	SY	$52.44	$4,719.60
2060	2" Asphalt (SP-12.5) - ONE LIFT	90.00	SY	$30.00	$2,700.00
2070	1" Asphalt (SP-9.5) - ONE LIFT	90.00	SY	$15.00	$1,350.00
2080	Concrete Sidewalk	44.00	SY	$73.03	$3,213.32
2090	Type F Curb	80.00	LF	$49.48	$3,958.40
2100	Signage & Striping - NONE SHOWN	0.00	LS	$0.00	$0.00
2110	Fine Grade & Sod Disturbed Areas	10.00	SY	$19.74	$197.40
	Total Price for above WATROUS - ROADWAY Items:				**$20,376.82**

BRISTOL - DEMO & EARTHWORK

2120	Inlet Protection	7.00	EACH	$2,082.83	$14,579.81
2130	Tree Barricades - NONE REQUIRED	0.00	LF	$0.00	$0.00
2140	Clear & Grub	560.00	SY	$7.06	$3,953.60
2150	Tree Removal	9.00	EACH	$500.00	$4,500.00
2160	Demo Asphalt & Base	1,700.00	SY	$35.82	$60,894.00
2170	Demo Concrete	610.00	SY	$26.67	$16,268.70
2180	Demo Concrete Curb	1,130.00	LF	$47.36	$53,516.80
2190	Remove Granite Curb	53.00	LF	$42.28	$2,240.84
	Total Price for above BRISTOL - DEMO & EARTHWORK Items:				**$155,953.75**

BRISTOL - STORM DRAINAGE

2200	18" RCP - CLIII	80.00	LF	$364.92	$29,193.60
2210	36" RCP - CLIII	614.00	LF	$527.46	$323,860.44
2220	Type 2 Curb Inlet (C.O.T.)	3.00	EACH	$15,173.37	$45,520.11
2230	Type J5 Curb Inlet (FDOT)	3.00	EACH	$22,312.26	$66,936.78
2240	J7 Manhole	1.00	EACH	$15,426.79	$15,426.79

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
2250	DEMO EX. STORM DRAINAGE - NONE SHOWN	0.00	LF	$0.00	$0.00
	Total Price for above BRISTOL - STORM DRAINAGE Items:				**$480,937.72**

BRISTOL - POTABLE WATER DISTRIBUTION

2260	6" DIP - WM	620.00	LF	$180.51	$111,916.20
2270	Fire Hydrant Assembly	1.00	EACH	$7,755.75	$7,755.75
2280	6" Gate Valve Assembly	2.00	EACH	$2,870.09	$5,740.18
2290	6" Bends & Fittings	4.00	EACH	$920.29	$3,681.16
2300	Water Services	24.00	EACH	$9,342.72	$224,225.28
2310	Connect To Ex. WM	1.00	EACH	$16,765.03	$16,765.03
2320	WM Demo	620.00	LF	$38.09	$23,615.80
	Total Price for above BRISTOL - POTABLE WATER DISTRIBUTION Items:				**$393,699.40**

BRISTOL - ROADWAY

2330	12" Stabilized Subgrade (LBR40)	6,400.00	SY	$47.09	$301,376.00
2340	8" Crushed Concrete Road Base (OBG 6)	6,400.00	SY	$52.44	$335,616.00
2350	2" Asphalt (SP-12.5) - ONE LIFT	6,400.00	SY	$35.00	$224,000.00
2360	1" Asphalt (SP-9.5) - ONE LIFT	6,400.00	SY	$16.25	$104,000.00
2370	Concrete Driveway	790.00	SY	$215.89	$170,553.10
2380	Concrete Sidewalk	1,830.00	SY	$73.03	$133,644.90
2390	Type F Curb	2,020.00	LF	$49.48	$99,949.60
2400	Type D Curb	200.00	LF	$49.48	$9,896.00
2410	Drop Curb	320.00	LF	$49.48	$15,833.60
2420	Signage & Striping	1.00	LS	$21,000.00	$21,000.00
2430	Fine Grade & Sod Disturbed Areas	560.00	SY	$19.74	$11,054.40
	Total Price for above BRISTOL - ROADWAY Items:				**$1,426,923.60**

LAKEVIEW - DEMO & EARTHWORK

2440	Inlet Protection	4.00	EACH	$2,486.19	$9,944.76
2450	Tree Barricades	80.00	LF	$11.24	$899.20
2460	Clear & Grub	370.00	SY	$7.06	$2,612.20
2470	Tree Removal	3.00	EACH	$2,666.67	$8,000.01
2480	Demo Asphalt & Base	440.00	SY	$37.57	$16,530.80
2490	Demo Concrete	290.00	SY	$26.67	$7,734.30
2500	Demo Concrete Curb	375.00	LF	$47.36	$17,760.00
2510	Remove & Palletize Brick Pavers	35.00	SY	$89.03	$3,116.05
	Total Price for above LAKEVIEW - DEMO & EARTHWORK Items:				**$66,597.32**

LAKEVIEW - STORM DRAINAGE

2520	15" RCP - CLIII	8.00	LF	$369.89	$2,959.12
2530	18" RCP - CLIII	22.00	LF	$366.20	$8,056.40
2540	30" RCP - CLIII	216.00	LF	$495.55	$107,038.80
2550	14" X 23" ERCP - CLIII	216.00	LF	$389.31	$84,090.96
2560	Type P5 Curb Inlet (FDOT)	1.00	EACH	$18,472.70	$18,472.70

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
2570	Type J5 Curb Inlet (FDOT)	2.00	EACH	$22,312.26	$44,624.52
2580	Connect To Ex. RCP	1.00	EACH	$9,384.59	$9,384.59
2590	Demo Ex. Storm Pipe	244.00	LF	$187.35	$45,713.40
2600	Demo Ex. Storm Structure	4.00	EACH	$1,916.02	$7,664.08
	Total Price for above LAKEVIEW - STORM DRAINAGE Items:				**$328,004.57**

LAKEVIEW - ROADWAY

2610	12" Stabilized Subgrade (LBR40)	430.00	SY	$47.09	$20,248.70
2620	8" Crushed Concrete Road Base (OBG 6)	430.00	SY	$52.44	$22,549.20
2630	2" Asphalt (SP-12.5) - ONE LIFT	430.00	SY	$48.60	$20,898.00
2640	1" Asphalt (SP-9.5) - ONE LIFT	430.00	SY	$15.00	$6,450.00
2650	Concrete Driveway	82.00	SY	$238.39	$19,547.98
2660	Brick Paver Driveway	32.00	SY	$245.79	$7,865.28
2670	Concrete Sidewalk	210.00	SY	$73.03	$15,336.30
2680	Type F Curb	370.00	LF	$49.48	$18,307.60
2690	Drop Curb	75.00	LF	$49.48	$3,711.00
2700	Signage & Striping	1.00	LS	$7,200.00	$7,200.00
2710	Fine Grade & Sod Disturbed Areas	370.00	SY	$19.74	$7,303.80
	Total Price for above LAKEVIEW - ROADWAY Items:				**$149,417.86**

PARKLAND - DEMO & EARTHWORK

2720	Inlet Protection	12.00	EACH	$1,154.21	$13,850.52
2730	Tree Barricades	1,000.00	LF	$11.24	$11,240.00
2740	Clear & Grub	1,010.00	SY	$7.06	$7,130.60
2750	Tree Removal	6.00	EACH	$1,333.33	$7,999.98
2760	Demo Asphalt & Base	1,900.00	SY	$35.62	$67,678.00
2770	Demo Concrete	340.00	SY	$26.67	$9,067.80
2780	Demo Concrete Curb	1,610.00	LF	$47.36	$76,249.60
2790	Remove & Palletize Brick Pavers	92.00	SY	$69.55	$6,398.60
	Total Price for above PARKLAND - DEMO & EARTHWORK Items:				**$199,615.10**

PARKLAND - STORM DRAINAGE

2800	18" RCP - CLIII	188.00	LF	$367.60	$69,108.80
2810	30" RCP - CLIII	73.00	LF	$501.43	$36,604.39
2820	72" RCP - CLIII	388.00	LF	$1,136.04	$440,783.52
2830	Type 2 Curb Inlet (C.O.T.)	1.00	EACH	$15,322.70	$15,322.70
2840	Type 3 Curb Inlet (C.O.T.)	4.00	EACH	$16,598.70	$66,394.80
2850	Type P5 Curb Inlet (FDOT)	1.00	EACH	$18,472.70	$18,472.70
2860	Type J5 Curb Inlet (FDOT)	1.00	EACH	$22,312.26	$22,312.26
2870	J7 Manhole	4.00	EACH	$15,426.79	$61,707.16
2880	Demo Ex. Storm Pipe	870.00	LF	$187.35	$162,994.50
2890	Demo Ex. Storm Structure	12.00	EACH	$1,916.02	$22,992.24
	Total Price for above PARKLAND - STORM DRAINAGE Items:				**$916,693.07**

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
PARKLAND - POTABLE WATER DISTRIBUTION					
2900	8" DIP - WM	540.00	LF	$193.17	$104,311.80
2910	6" DIP - WM	32.00	LF	$196.37	$6,283.84
2920	8" Gate Valve Assembly	2.00	EACH	$3,541.95	$7,083.90
2930	8" Bends & Fittings	8.00	EACH	$1,238.15	$9,905.20
2940	6" Bends & Fittings	2.00	EACH	$871.25	$1,742.50
2950	Water Services	8.00	EACH	$9,342.72	$74,741.76
2960	Connect To Ex. WM	2.00	EACH	$12,841.31	$25,682.62
2970	WM Demo	560.00	LF	$38.09	$21,330.40
	Total Price for above PARKLAND - POTABLE WATER DISTRIBUTION Items:				**$251,082.02**
PARKLAND - ROADWAY					
2980	12" Stabilized Subgrade (LBR40)	1,900.00	SY	$47.09	$89,471.00
2990	8" Crushed Concrete Road Base (OBG 6)	1,900.00	SY	$52.44	$99,636.00
3000	2" Asphalt (SP-12.5) - ONE LIFT	1,900.00	SY	$34.21	$64,999.00
3010	1" Asphalt (SP-9.5) - ONE LIFT	1,900.00	SY	$31.84	$60,496.00
3020	Speed Hump	2.00	EACH	$8,000.00	$16,000.00
3030	Mill & Overlay (1.0" Avg. Depth)	240.00	SY	$60.00	$14,400.00
3040	Brick Paver Driveway	100.00	SY	$245.79	$24,579.00
3050	Concrete Sidewalk	350.00	SY	$90.18	$31,563.00
3060	Type F Curb	970.00	LF	$49.48	$47,995.60
3070	Type D Curb	40.00	LF	$49.48	$1,979.20
3080	Type A Curb	80.00	LF	$49.48	$3,958.40
3090	Drop Curb	80.00	LF	$49.48	$3,958.40
3100	Signage & Striping	1.00	LS	$16,800.00	$16,800.00
3110	Fine Grade & Sod Disturbed Areas	1,010.00	SY	$19.74	$19,937.40
	Total Price for above PARKLAND - ROADWAY Items:				**$495,773.00**
FOUNTAIN - DEMO & EARTHWORK					
3120	Inlet Protection	10.00	EACH	$4,309.29	$43,092.90
3130	Tree Barricades	500.00	LF	$11.24	$5,620.00
3140	Clear & Grub	3,400.00	SY	$7.06	$24,004.00
3150	Tree Removal	2.00	EACH	$2,000.00	$4,000.00
3160	Demo Asphalt & Base	3,530.00	SY	$35.75	$126,197.50
3170	Demo Concrete	940.00	SY	$26.67	$25,069.80
3180	Demo Concrete Curb	1,470.00	LF	$47.36	$69,619.20
3190	Remove & Palletize Brick Pavers	100.00	SY	$68.60	$6,860.00
	Total Price for above FOUNTAIN - DEMO & EARTHWORK Items:				**$304,463.40**
FOUNTAIN - STORM DRAINAGE					
3200	18" RCP - CLIII	36.00	LF	$375.81	$13,529.16
3210	42" RCP - CLIII	155.00	LF	$584.95	$90,667.25
3220	60" RCP - CLIII	49.00	LF	$987.96	$48,410.04
3230	72" RCP - CLIII	136.00	LF	$1,136.65	$154,584.40

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
3240	14" X 23" ERCP - CLIII	86.00	LF	$393.41	$33,833.26
3250	Type 2 Curb Inlet (C.O.T.)	1.00	EACH	$15,322.70	$15,322.70
3260	Type 3 Curb Inlet (C.O.T.)	6.00	EACH	$16,598.70	$99,592.20
3270	J7 Manhole	2.00	EACH	$15,426.79	$30,853.58
3280	Connect To Ex. RCP	1.00	EACH	$9,384.59	$9,384.59
3290	Demo Ex. Storm Pipe	434.00	LF	$187.35	$81,309.90
3300	Demo Ex. Storm Structure	11.00	EACH	$1,916.02	$21,076.22
	Total Price for above FOUNTAIN - STORM DRAINAGE Items:				**$598,563.30**

FOUNTAIN - POTABLE WATER DISTRIBUTION

3310	8" DIP - WM	230.00	LF	$200.29	$46,066.70
3320	6" DIP - WM	60.00	LF	$243.01	$14,580.60
3330	8" Bends & Fittings	3.00	EACH	$1,242.47	$3,727.41
3340	6" Bends & Fittings	2.00	EACH	$871.25	$1,742.50
3350	Water Services	3.00	EACH	$9,342.72	$28,028.16
3360	Connect To Ex. WM	2.00	EACH	$12,841.31	$25,682.62
3370	WM Demo	290.00	LF	$38.09	$11,046.10
	Total Price for above FOUNTAIN - POTABLE WATER DISTRIBUTION Items:				**$130,874.09**

FOUNTAIN - ROADWAY

3380	12" Stabilized Subgrade (LBR40)	830.00	SY	$47.09	$39,084.70
3390	8" Crushed Concrete Road Base (OBG 6)	830.00	SY	$52.44	$43,525.20
3400	2" Asphalt (SP-12.5) - ONE LIFT	830.00	SY	$30.00	$24,900.00
3410	1" Asphalt (SP-9.5) - ONE LIFT	830.00	SY	$15.00	$12,450.00
3420	Concrete Driveway	55.00	SY	$212.41	$11,682.55
3430	Brick Paver Driveway	30.00	SY	$245.79	$7,373.70
3440	Concrete Sidewalk	200.00	SY	$103.03	$20,606.00
3450	Type F Curb	710.00	LF	$49.48	$35,130.80
3460	Type D Curb	30.00	LF	$49.48	$1,484.40
3470	Drop Curb	80.00	LF	$49.48	$3,958.40
3480	Signage & Striping	1.00	LS	$12,600.00	$12,600.00
3490	Fine Grade & Sod Disturbed Areas	3,400.00	SY	$19.74	$67,116.00
	Total Price for above FOUNTAIN - ROADWAY Items:				**$279,911.75**

GC'S, SERVICES, CONTINGENCIES & FEES

3500	General Conditions & Mob/De-Mob	1.00	LS	$7,594,515.58	$7,594,515.58
3510	Business Assistance Crew	30.00	MO	$37,843.52	$1,135,305.60
3520	Lot Rental	36.00	MO	$5,000.00	$180,000.00
3530	Laydown & Storage Yard	1.00	LS	$1,940,700.00	$1,940,700.00
3540	Survey & As-Builts	1.00	LS	$782,445.84	$782,445.84
3550	QC/Materials Testing	1.00	LS	$621,600.00	$621,600.00
3560	CEI Services	1.00	LS	$1,600,000.00	$1,600,000.00
3570	Mobility Tree Inspections	1.00	LS	$250,000.00	$250,000.00

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
3580	Utility Investigation	1.00	LS	$575,984.50	$575,984.50
3590	Full-Time M.O.T. & Street Cleaning Crew	30.00	MO	$87,480.46	$2,624,413.80
3600	Maintenance Of Traffic (3.0% Of Cost)	1.00	LS	$2,191,863.50	$2,191,863.50
3610	Pedestrian Safety	1.00	LS	$653,460.60	$653,460.60
3620	Owner's Contingency (5.0% Of Cost)	1.00	LS	$3,795,372.05	$3,795,372.05
3630	Contractor's Contingency (5.0% Of Cost)	1.00	LS	$3,795,372.05	$3,795,372.05
3640	OH&P (9.0% Of Cost)	1.00	LS	$6,831,669.68	$6,831,669.68
3650	Payment & Performance Bond (2.0% Of Total)	1.00	LS	$1,806,597.09	$1,806,597.09

Total Price for above GC'S, SERVICES, CONTINGENCIES & FEES Items: $36,379,300.29

Total Bid Price: $92,136,451.80

ACCEPTED:

The above prices, specifications and conditions are satisfactory and hereby accepted.

Buyer: _____

Signature: _____

Date of Acceptance: _____

CONFIRMED:

KIMMINS CONTRACTING CORP.

Authorized Signature: _____

Estimator: Thomas P. Butler
(727) 773-5838 tbutler@kimmins.com

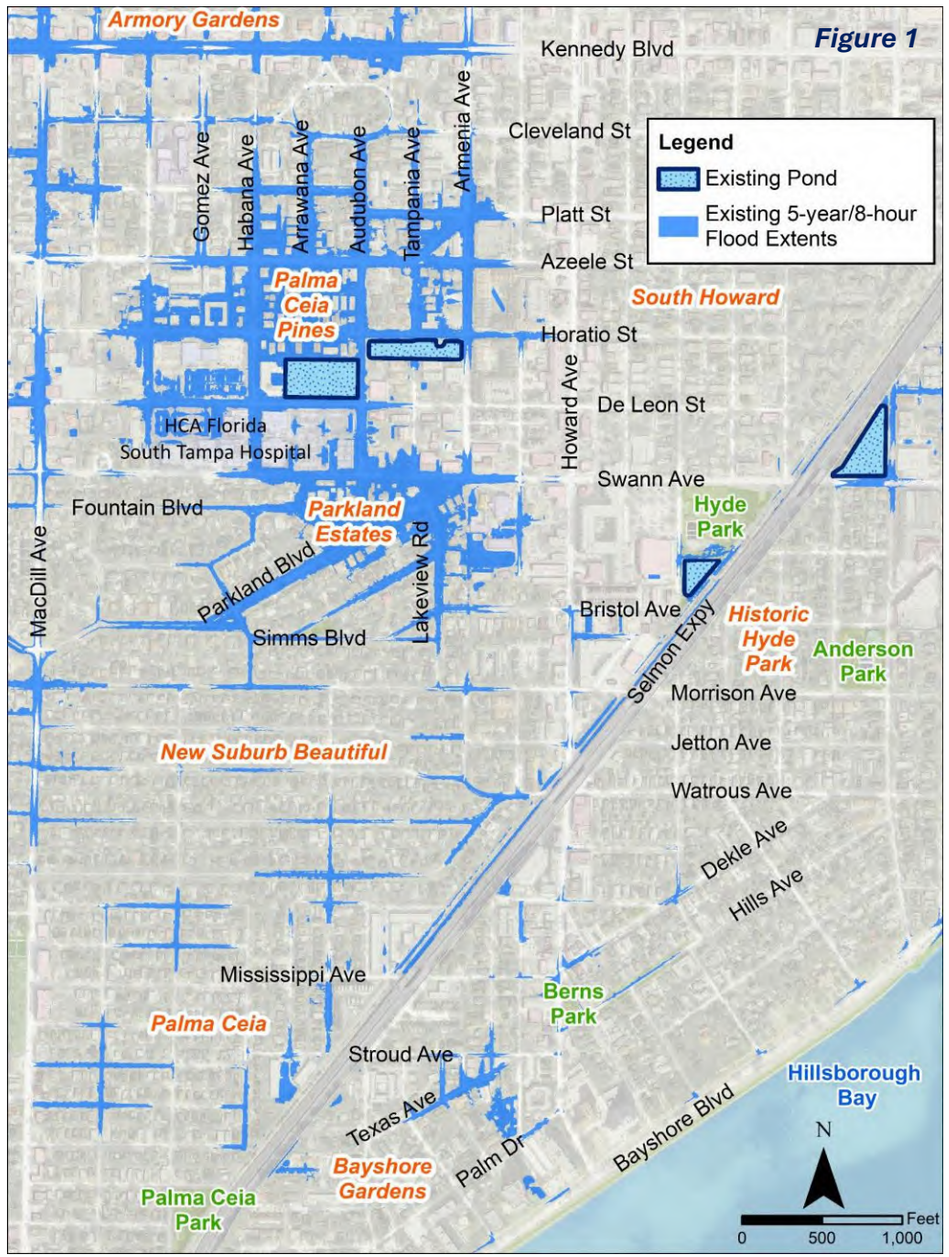
Appendix M. Memo – Findings from Analysis of Alternative Projects

City of Tampa

South Howard Flood Relief & Streetscape Project

Findings from Analysis of Alternative Projects

Project Overview



The Parkland Estates and Palma Ceia Pines neighborhoods of South Tampa have experienced severe and widespread flooding for decades due to the area's topography and antiquated stormwater infrastructure which conveys excess runoff produced by rainfall several miles to both Old Tampa Bay and Hillsborough Bay. **This flooding results in significant property damage and renders roadways impassible around Health Corporation of America (HCA) Florida South Tampa Hospital, jeopardizing the health, safety, and welfare of the public during heavy rainfall events.**

The topography of this area forms a large bowl, which includes the central and eastern portions of Parkland Estates and Palma Ceia Pines, bounded to the north and south by W Kennedy Blvd and W Morrison Ave, respectively, and to the east and west by S Armenia Ave and S MacDill Ave, respectively. This topographic bowl's existing stormwater infrastructure (primarily underground pipes and structures) currently drains to three separate outfalls into the bay. The stormwater infrastructure is aging and severely undersized by current design standards to handle the present-day development density. Due to these deficiencies, low-lying roadways and land within these neighborhoods flood when the stormwater infrastructure is overwhelmed by heavy rainfall.

Before analyzing potential alternative solutions, ensuring that the existing conditions hydrologic and hydraulic (H&H) model simulates known flooding events is essential. A detailed H&H model update was performed by this project's design-build team, Kimmins Contracting (builder) and AtkinsRéalis (designer). This effort began by building upon the City's Upper Peninsula Watershed model and the planning-level feasibility study performed by an engineering consulting firm, JMT. AtkinsRéalis reviewed in detail the JMT feasibility study, along with the area's current H&H conditions, to develop a comprehensive and updated revised existing conditions model (RECM) that accurately reflects flooding within Parkland Estates and Palma Ceia Pines along with surrounding neighborhoods within the study area. This RECM serves as an appropriate tool to analyze the new conveyance system needed to meet the project's flood reduction goals.

Figure 1 to the left shows predicted flood extents for the 5-year/8-hour design storm (5.3 inches of rainfall over an 8-hour period) for model update area in the existing condition. The design goal is a flood reduction alternative that reduces flood stages for the 5-year/8-hour design storm event (5.3 inches of rainfall) to the extent that roadways are passable (a maximum of 4 inches of water depth over the lowest edge of pavement).

<u>The H&H model analysis performed as part of this study led to the following conclusions:</u>

- **A new large stormwater conveyance system is needed** to move millions of gallons of stormwater runoff from this study's primary area of focus into Hillsborough Bay to effectively reduce flooding in Parkland Estates and Palma Ceia Pines.
- **A regional storage alternative** of adequate size and depth to manage the modeled flood volumes **is not feasible** given the region's natural topography, lack of available real estate, extremely large volumes of stormwater, and anticipated groundwater conditions.
- **A gravity system is preferred over a pump station and force main outfall** because it significantly reduces operation and maintenance costs, along with risk of the system failing when it is needed most – during severe storm events, such as Hurricane Milton. In addition, it is difficult for pumping systems to keep up with the large volume of runoff anticipated in severe rainfall events.
- **A pump station that can generate the discharge flow rates needed** to achieve the project's goal would require a pressurized outfall pipe that is similar size to the recommended gravity alternative which **will result in similar impacts to stakeholders along the project route.**
- Given the ground elevations within the project corridors (generally 15 to 21 feet above sea level**), a gravity system will still be hydraulically effective during high tides and moderate storm surge events.** In fact, the SHFR models already assume a conservative and constant tidal stage of 2.0 (ft, NAVD88) in the design storm simulations, which is about a foot higher than a normal high tide (Mean Higher-High Water elevation is 0.96 (ft, NAVD88) for Ballast Point, Station 8726639, per NOAA).

The following pages summarize the feasibility of the additional alternative solutions and project routes studied for the South Howard Flood Relief & Streetscape Project, and provide relevant data that supports comparative route analysis and ultimate recommendation:

Alternative 1 - S Howard Avenue Gravity System

Alternative 2 - W Swann Avenue Gravity System

Alternative 3 - Ponds within Parkland Estates and Palma Ceia Pines, no new outfall

Alternative 4 - Parkland Estates Pump Station

Alternative 5 - Hyde Park Softball Field Pump Station

Alternative 6 - Conveyance System along CSX Railroad

Alternative 1
S Howard Ave Gravity System



Description of Alternative:

Alternative 1 is the recommended solution, consisting of a 10'x10' box culvert trunkline along South Howard Ave from Bayshore Blvd to W Swann Ave, continuing west along W Swann Ave, and north along S Audubon Ave to the existing AMI stormwater detention pond between W De Leon St and W Horatio St. The box culvert will serve as the new primary outfall for this pond. **Figure 2 to the left provides a map of this alternative.**

Key Benefits of Alternative:

- This is the **shortest feasible route between Parkland Estates and Hillsborough Bay** and minimizes the cost and duration of construction in comparison to other alternatives.
- **Hydraulically more effective than a gravity system along other routes.**
- **The existing 5'x10' box culvert along S Howard Ave beneath the CSX railroad and Selmon Expressway is already in place and can be used.** The existing culvert will be supplemented by a parallel 60-inch pipe to be installed via microtunnel for additional hydraulic capacity. (A geotechnical investigation was performed on May 5th, 2025, by AREHNA Engineering, Inc. and ground penetrating radar (GPR) was used by ECHO UES, Inc. in December of 2025 to locate the existing 5'x10' box culvert)
- **The existing three 4'x6' box culverts beneath Bayshore Blvd at S Howard Ave, and their discharge point into Hillsborough Bay will be used and are sufficient to meet the flood reduction goal.** No additional pipe or box culvert is proposed to discharge into the bay, avoiding construction of a new outfall and the need to relocate the existing 48" force main along Bayshore Blvd. This will also simplify the permitting process and expedite construction.
- Use of the existing outfall avoids extended closure of Bayshore Blvd's northbound lanes
- The box culvert system will receive stormwater discharge from the Selmon Expressway at two locations: S Howard Ave's intersection with W Watrous Ave and S Howard Ave's intersection with W Bristol Ave. **This partnership is expected to provide at least $11M in project funding.**
- High ground elevations approaching Bayshore Blvd along S Howard Ave allow a large box culvert system to be constructed higher relative to the bay, creating less of a hydraulic sump condition than alternative routes like W Swann Ave.
- More attainable CSX permit because this alternative can meet the project's flood reduction goal using the CSX maximum allowable casing size (72") beneath the railroad, contrary to the other alternatives
- **A gravity system is passive and requires far less maintenance (especially a culvert of this size) than a pump station alternative.**

Key Concerns with Alternative:

- Construction will bring temporary impacts to residents, businesses, and commuters along S Howard Ave and a portion of W Swann Ave between S Howard Ave and S Audubon Ave.

Additional Notes Regarding the Alternative:

To further demonstrate the hydraulic efficiency of the proposed project during storm surge events, the proposed conditions model was simulated with a constant Tampa Bay water surface elevation of 8.0 (ft, NAVD88), which is estimated peak surge elevation observed throughout Tampa Bay during Hurricane Helene in 2024 according to NOAA tide gauge data. The flood reduction benefits observed in that model simulation are extremely significant, showing that even when Hillsborough Bay is at a surge elevation of 8 feet, the proposed project **still reduces peak stages in Parkland Estates by approximately 3 feet during a 5-year/8-hour rainfall event. This occurs even while Bayshore Blvd is fully submerged by the bay** at S Howard Ave. This is because 7 feet or more of hydraulic head, which can be thought of as energy available to push water through the culvert, is enough to force a large volume of stormwater runoff from Parkland Estates into the elevated bay in a relatively short amount of time.

Alternative 2
W Swann Ave Gravity System



Figure 3

Description of Alternative:

Alternative 2 consists of a 10'x10' box culvert trunkline along W Swann Ave between Hillsborough Bay and S Audubon Ave, and north along S Audubon Ave to the existing AMI stormwater detention pond between W De Leon St and W Horatio St. The box culvert will serve as the new primary outfall for this pond. **Figure 3 above provides a map of this alternative.**

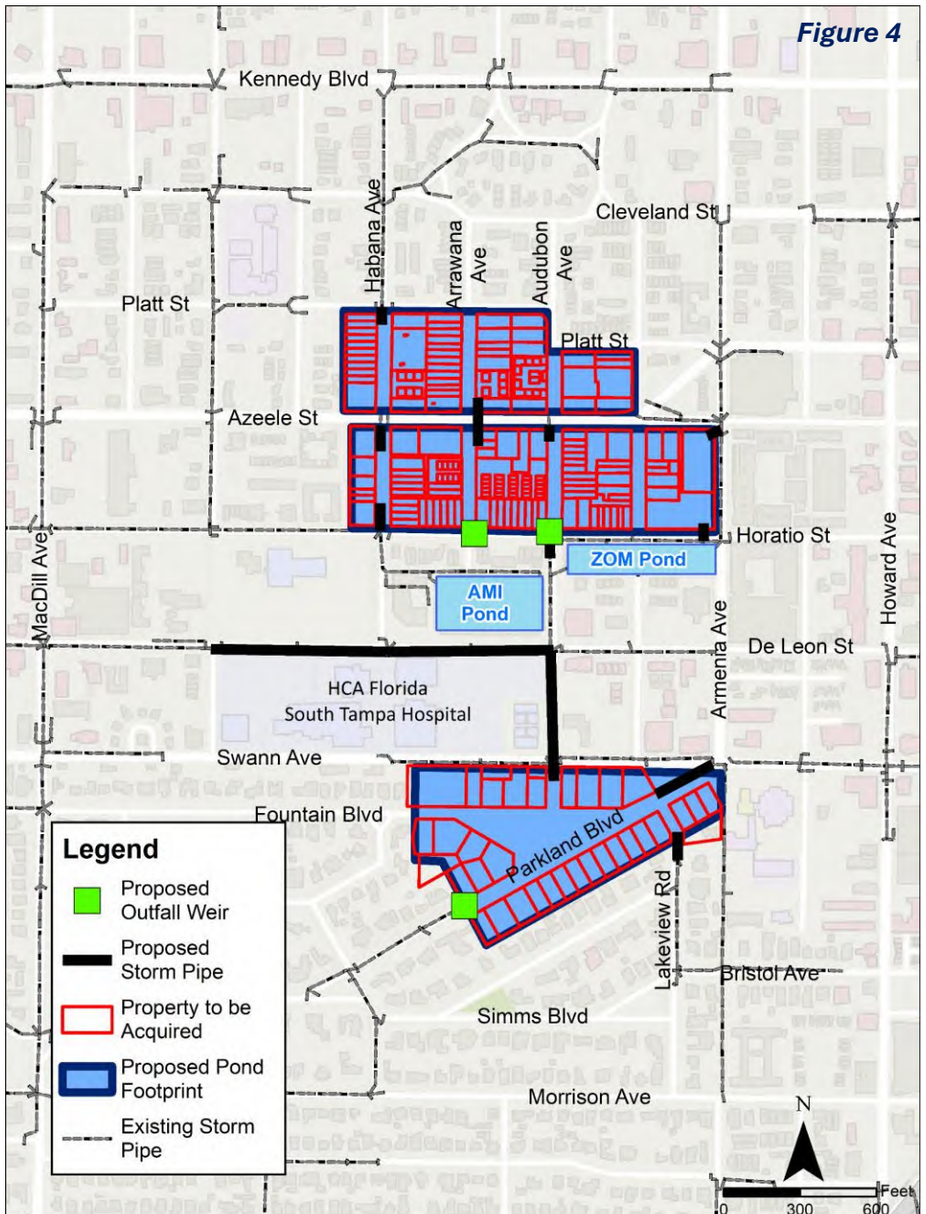
Key Benefits of Alternative:

- A gravity system is passive and requires far less maintenance (especially a culvert of this size) than a pump station alternative.

Key Concerns with Alternative:

- **Temporary impacts to businesses and residents are not eliminated**, just transferred to another group of stakeholders along W Swann Ave between S Howard Ave and Bayshore Blvd.
- **30% longer route to the bay** (additional 1300 LF of large box culvert and full corridor reconstruction increases cost and duration of construction significantly)
- **Extends anticipated duration of construction by 1 to 2 years** due to increased length and complex utility conflicts, most notably the 48" sanitary sewer force main at W Swann Ave and S Rome Ave, which handles roughly 30% of the City's sewage. The Swann/Rome intersection could be closed for 4 to 5 months to address this conflict. More complex permitting requirements for new outfall at Bayshore Blvd could delay start of construction in comparison to Alternative 1.
- **The existing 96" diameter steel casing beneath CSX that protects a 43"x68" elliptical reinforced concrete pipe (ERCP) cannot move**, so there is only room for one new stormwater pipe via microtunnel installation. A higher construction cost to achieve the same flood reduction drives down the benefit-cost ratio of the project in comparison to the recommended alternative.
- Using the existing 43"x68" storm pipe beneath the railroad has minimal impacts on the 5-year storm peak stages in Parkland Estates. This is because the shallow pipe's elevation is too high to provide significant hydraulic benefit to Parkland Estates and Palma Ceia Pines and would not even flow full during the peak of the 5-year design storm. It would be recommended to leave the existing pipe and casing in place to continue to convey stormwater runoff to the Swann Pond for treatment, as a separate parallel system along W Swann Ave.
- **The Bayshore Blvd northbound lane and the on ramp to Davis Islands will be closed for likely 2-3 months for outfall construction.**
- Potential vertical relocation of 30" reclaimed water main needed near the S Rome Ave intersection, increasing construction cost and extending duration in that area.
- Box culvert needs to be installed at a lower elevation than it would on S Howard Ave to stay underneath existing stormwater pipes entering the Swann Pond, to ensure that large volumes of runoff that currently receive treatment from the pond continue to do so, as required by the pond's issued permit from SWFWMD.
- **It will be difficult to provide both connection points for the proposed THEA system, jeopardizing $11M or more in project funding.**
- CSX permitting is more complicated (increasing project cost and duration) due to the need for a larger microtunnel pipe, which exceeds the CSX allowable casing size of 72" (a 108" casing around a 96" pipe would be needed to meet the flood reduction goal).
- Project will be delayed for new data collection and public involvement campaign with new group of stakeholders (including Hyde Park Village, Hyde Park residents, W Swann Ave businesses).

Alternative 3
Ponds within Parkland Estates and Palma Ceia Pines



Description of Alternative:

Alternative 3 consists of three hydraulically connected stormwater detention ponds within the lowest portions of Parkland Estates and Palma Ceia Pines that provide enough storage for runoff to meet the project's flood reduction goal without constructing a new conveyance system to Hillsborough Bay. **Figure 4 to the left provides a map of this alternative.** While this alternative is clearly not feasible or justifiable, it demonstrates the magnitude of detention ponds needed to mitigate the flooding without constructing a new outfall. **The combined ponds would need to store over 70 acre-ft of stormwater runoff above the normal water surface.**

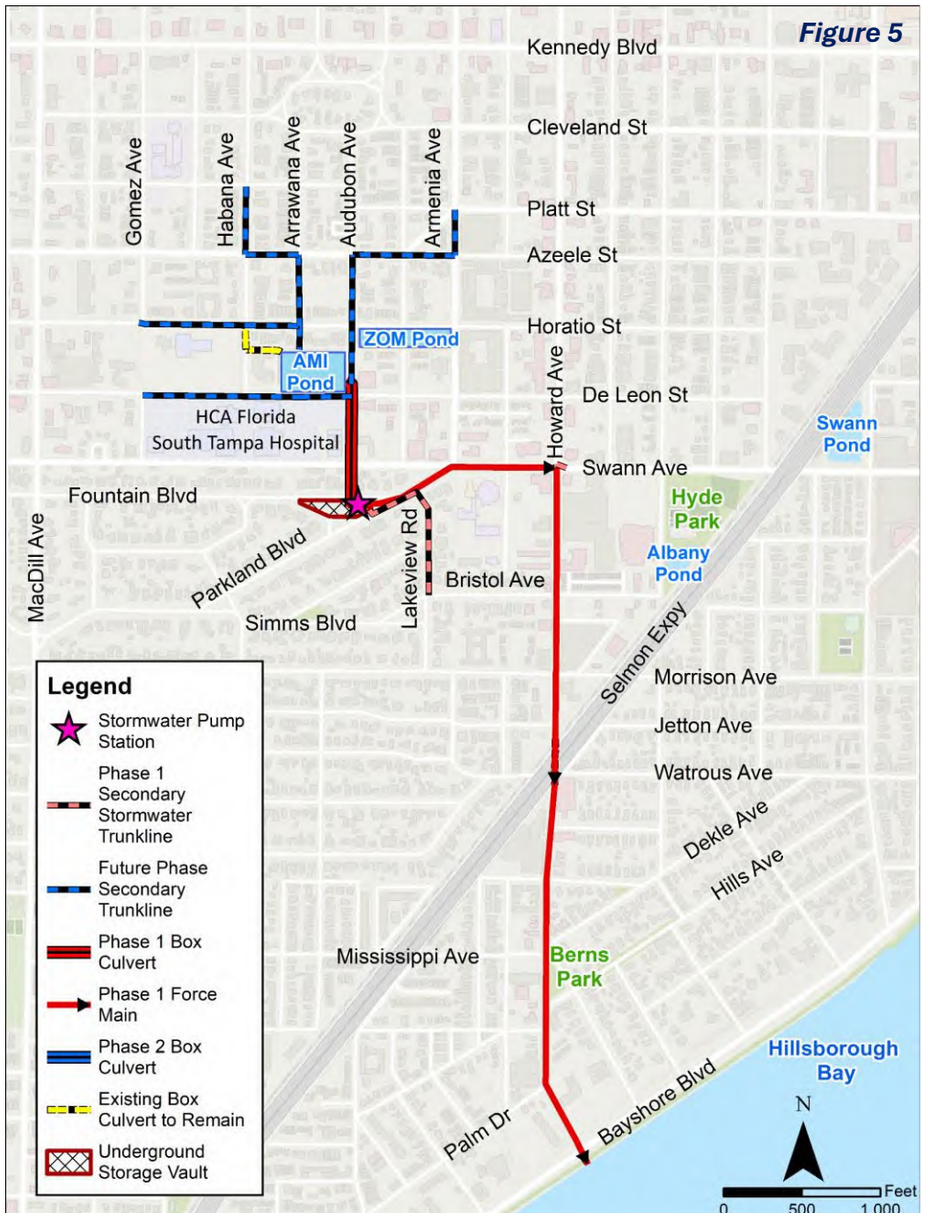
Key Benefits of Alternative:

- Does not require a new conveyance system to Hillsborough Bay, and does not impact S Howard Ave, eliminating coordination and permitting with CSX and significantly reducing impacts on businesses on S Howard Ave.
- Provides treatment of stormwater runoff

Key Concerns with Alternative:

- **This would require eminent domain to purchase 232 properties. The estimated combined property values alone exceed $150M and would be accompanied by significant legal fees and construction costs.**
- **Eminent domain cannot be used when there are viable, feasible alternatives (Alternative 1)**
- **Displaces hundreds of Palma Ceia Pines and Parkland Estates residents**
- **Loss of future tax revenue from 232 properties**
- A limited solution without a new outfall, leaving little room for additional runoff from future drainage improvement projects in the future.
- More long-term maintenance needs in comparison to Alternatives 1 and 2

Alternative 4
Parkland Estates Pump Station



Description of Alternative:

Alternative 4 consists of **a large 600-CFS capacity stormwater pump station in Parkland Estates**, located within open space between W Fountain Blvd and W Parkland Blvd at S Audubon Ave. This pump station would need to discharge through a **10-foot diameter force main pipe that outfalls into Hillsborough Bay**. The pump station is supplemented by a 0.5-acre underground storage vault that stores runoff before it is pumped to the bay. **Figure 5 to the left provides a map of this alternative.**

Key Benefits of Alternative:

- Force main installation does not have to be constructed as deep as gravity system with equivalent capacity

Key Concerns with Alternative:

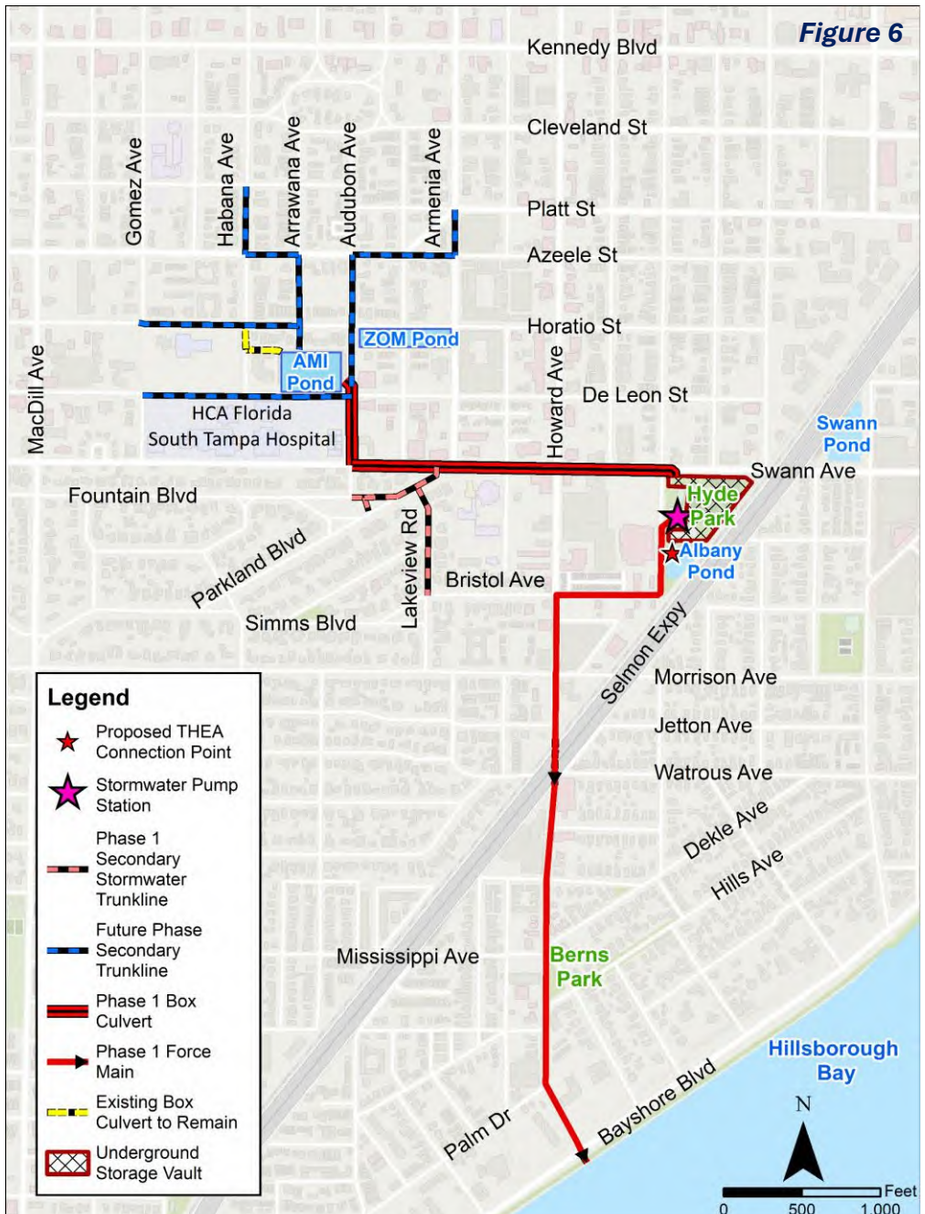
- **Significant operation and maintenance costs, power consumption**
- Much higher risk of failure during significant rainfall events due to loss of power or mechanical issues
- **Large box culvert is still needed to bring runoff from Palma Ceia Pines into Parkland Estates**
- Force main outfall eliminates opportunity for additional flood relief downstream of the pump station through smaller projects that could tap into a new gravity system
- A 0.5-acre underground vault up to 20 feet deep and a 30-foot deep wet well for the pumps will be challenging to construct within a confined, highly residential area
- Large pump station footprint that includes electrical components and backup power generators which need to be protected 4-5 feet above existing ground would come with permanent noise and aesthetic impacts to the Parkland Estates neighborhood
- **A 10-foot diameter force main will need to be constructed between the pump station and Hillsborough Bay** bringing similar temporary construction impacts to residents and businesses along the project corridor
- Runoff along the force main's reconstructed corridor will not be able to drain into the new system, eliminating an opportunity to improve drainage along S Howard Ave and its connecting side streets.
- **It will be difficult to provide both connection points for the proposed THEA system, jeopardizing $11M or more in project funding**
- CSX permitting is more complicated (increasing project cost and duration) due to the need for a larger microtunnel pipe, which exceeds the CSX allowable casing size of 72".

Additional Notes Regarding the Alternative:

Because of significant operation and maintenance costs and risk of failure during severe storm events when they are most needed, stormwater pump stations should be considered a "last resort" solution to drainage issues. They are commonly used when there is a lack of sufficient hydraulic head (change in elevation between upstream and downstream water surfaces of a conveyance system) for a gravity system to work effectively. This is applicable on some barrier islands or places like Louisiana, where ground elevations are not much higher than the nearby ocean or other large receiving water body. This is not the case here – even the lowest elevations in Parkland Estates are over 15 feet higher than Hillsborough Bay. The recommended solution for this project is a passive, low maintenance system that lets gravity do the work, rather than a power intensive collection of pumps. During Hurricanes Helene and Milton last year, several pump systems failed throughout the Tampa Bay area due to loss of power and failure of backup power systems, leading to increased flooding and sewage spills. **Figure below shows an example of 10-foot diameter pipe, to provide a visual of the size of the required force main.**



Alternative 5
Hyde Park Softball Field Pump Station



Description of Alternative:

Using the park on the south side of W Swann Ave between S Albany Ave and the CSX railroad to construct a massive underground storage vault for stormwater runoff would allow for a smaller stormwater pump station than Alternative 4, but it would not eliminate the need for a new outfall to Hillsborough Bay. **A 300-CFS capacity pump station and a 7-foot diameter main pipe into Hillsborough Bay** along with a 3-acre underground storage vault would be needed to meet the LOS goal. **Figure 6 to the left provides a map of this alternative.**

Key Benefits of Alternative:

- Force main installation does not have to be constructed as deep as gravity system with equivalent capacity

Key Concerns with Alternative:

- **Significant operation and maintenance costs, power consumption**
- Much higher risk of failure during significant rainfall events due to loss of power or mechanical issues
- **3000 LF of large box culvert still needed to bring runoff from Palma Ceia Pines along W Swann Ave to the park**
- Force main outfall eliminates opportunity for additional flood relief downstream of the pump station through smaller projects that could tap into a new gravity system
- A 3-acre vault up to 25 feet deep and a 30-foot deep wet well for the pumps will be challenging to construct. It is a massive undertaking that will increase duration and cost of construction
- **A 7-foot diameter force main will need to be constructed** between the pump station and Hillsborough Bay bringing similar temporary construction impacts to residents and businesses along the project corridor
- Runoff along the force main's reconstructed corridor will not be able to drain into the new system, eliminating an opportunity to improve drainage along S Howard Ave and its connecting side streets.
- **It will be difficult to provide both connection points for the proposed THEA system, jeopardizing $11M or more in project funding**
- CSX permitting is more complicated (increasing project cost and duration) due to the need for a larger microtunnel pipe, which exceeds the CSX allowable casing size of 72".
- Using W Swann Ave as an alternative route for the force main results in similar concerns as those discussed for Project Alternative 2.

Alternative 6
Conveyance System along CSX Railroad



Description of Alternative:

Alternative 6 uses the area alongside the CSX railroad and Selmon Expressway as a corridor for the new stormwater conveyance system. Because of the significant right of way and constructability challenges, along with the significantly increased route length, this is not a feasible alternative. **Figure 7** to the left provides a map of this alternative.

Key Benefits of Alternative:

- Reduces impacts to S Howard Ave residents, businesses, and commuters

Key Concerns with Alternative:

- **Construction would need to stay 25' away from center of the railroad track. This leaves roughly 10 to 12 feet of width available to work and install any infrastructure between the Selmon Expressway and CSX's property – not nearly enough space to install a conveyance system with adequate capacity.**
- A new box culvert or force main would need to cross beneath the railroad at some point. There is not enough space between the railroad and the Selmon Expressway for a microtunnel's receiving pit.
- The Hyde Park softball field at W Swann Ave and S Albany Ave would not feasibly provide enough storage to eliminate the need for a new outfall to Hillsborough Bay, as discussed previously
- **The existing conveyance system would need to be upsized and lowered significantly to provide hydraulic benefit and flood relief to Parkland Estates and Palma Ceia Pines**
- The conveyance capacity of the existing pipes that connect this ditch beneath several crossing roadways is just a small fraction of what would be required, so pumping the stormwater to the existing ditch system to overcome the gravity challenge would not work.
- **80% increase in length** of new conveyance system in comparison to Alternative 1, which reduces hydraulic efficiency and significantly increases cost and duration of construction
- **The existing outfalls at Rubideaux Street are already overwhelmed during major rainfall events and cannot handle this additional discharge. They would need to be upsized significantly to avoid adverse flooding impacts to Palma Ceia and Bayshore Gardens.**
- This alternative realistically would require demolishing and reconstructing the railroad, which is not a feasible option. This would require CSX to abandon their active railroad and donate or sell their property to the City.

Appendix N. Geotechnical Exploration Documentation

AREHNA | Engineering, Inc.

5012 W. Lemon Street
Tampa, Florida 33609
Ph 813.944.3464 | Fax 813.944.4959

May 16, 2025

Kimmins
1501 East 2nd Avenue
Tampa, Florida 33605
Attn: Matthew Gilbert

Subject: **Geotechnical Report – COT South Howard Avenue**
Property Address: South Howard Avenue. Tampa, FL 33606
AREHNA No.: B-25-078

AREHNA Engineering, Inc. (AREHNA) was retained by your company to conduct a geotechnical investigation at the subject property to locate a potential 10' by 5' existing box culvert, located below South Howard Avenue. This letter report provides a summary based on the work completed .

Field Testing

AREHNA completed nine (9) soundings (B-1 through B-9) to depths of up to 14 feet below existing grade within South Howard Avenue, at the locations provided by the client's on-site representative. The soundings were completed by jetting water to penetrate to the anticipated depth of the culvert. The attached **Boring Location Plan (Sheets 1A and 1B)** show the boring locations relative to existing features.

BORING NAME	BORING DEPTH (ft.)	ENCOUNTERED CULVERT?	DEPTH CULVERT ENCOUNTERED (ft.)	NOTES
B-1	14	NO	-	-
B-2	14	NO	-	-
B-3	11.5	YES	11.5	-
B-4	3	NO	-	Encountered Verizon Line at a depth of 3 feet
B-5	11.5	YES	11.5	-
B-6	11.5	YES	11.5	-
B-7	11.5	YES	11.5	-
B-8	11.5	YES	11.5	-
B-9	14	NO	-	-

Preliminary Evaluation

Based upon the information obtained to date during our investigation, the box culvert was encountered within soundings B-3, B-5, B-6, B-7, and B-8.

Certifications and Limitations

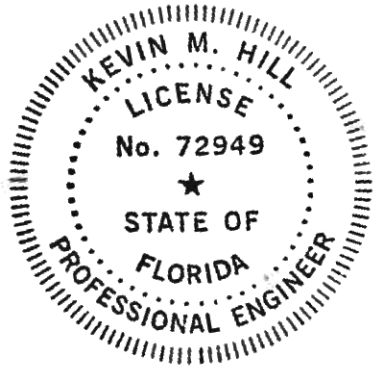
AREHNA certifies that the analysis, opinions, and conclusions expressed in this investigation have been prepared in accordance with generally accepted engineering principles and practices and within a reasonable degree of engineering certainty. The conclusions, analysis, and opinions expressed herein are based on the results and interpretations of the testing and/or data collection activities performed at the site and the information available to AREHNA at the time the report was issued. AREHNA is not responsible for the conclusions, opinions, or recommendations made by others based on the data presented in this report.

This report was prepared for the exclusive use of Kimmins and its assigns. Use of this report by persons or groups without the permission of Kimmins and AREHNA Engineering, Inc. is not authorized. AREHNA reserves the right to update this report should additional information become available.

AREHNA appreciates the opportunity to have assisted you on this project. Should you have any questions regarding this report, or if we can be of any further assistance, please contact this office.

Sincerely,

AREHNA ENGINEERING, INC.
FLORIDA BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATE OF AUTHORIZATION NO.: 28410



This item has been digitally signed and sealed by

Kevin M. Hill, P.E.
Senior Geotechnical Engineer
Florida Registration No. 72949

on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Attachment: Boring Location Plan – Sheets 1A & 1B



N

0 10
Feet

LEGEND

APPROXIMATE LOCATION OF SOUNDINGS TEST

REVISIONS			
NO.	DATE	DESCRIPTIONS	APPROVED

PREPARED BY:
AREHNA | Engineering, Inc.
5012 West Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959
Certificate of Authorization No. 28410

BORING LOCATION PLAN

	NAME	DATE
DESIGNED BY:	GA	5/2025
DRAWN BY:	DG	5/2025
CHECKED BY:	KH	5/2025
SUPERVISED BY:	Kevin M. Hill, P.E.	

PROJECT NAME	PROJECT NO.	SHEET NO.
COT SOUTH HOWARD AVE TAMPA, FLORIDA	B-25-078	1A

D:\t-Arehna\Projects\2025\B-25-078 - COT South Howard Ave\B-25-078.dwg (1A-BLP) tt13767 May 08, 2025 - 12:31pm



N

0 10
Feet

LEGEND

APPROXIMATE LOCATION OF SOUNDINGS TEST

REVISIONS			
NO.	DATE	DESCRIPTIONS	APPROVED

PREPARED BY:

AREHNA | Engineering, Inc.
5012 West Lemon Street, Tampa, FL 33609
Phone 813.944.3464 | Fax 813.944.4959
Certificate of Authorization No. 28410

BORING LOCATION PLAN

	NAME	DATE
DESIGNED BY:	GA	5/2025
DRAWN BY:	DG	5/2025
CHECKED BY:	KH	5/2025
SUPERVISED BY:	Kevin M. Hill, P.E.	

PROJECT NAME	PROJECT NO.	SHEET NO.
COT SOUTH HOWARD AVE TAMPA, FLORIDA	B-25-078	1B

D:\1-Arehna\Projects\2025\B-25-078 - COT South Howard Ave\B-25-078.dwg (1B-BLP) 6137&F May 09, 2025 - 12:31pm

25-489 South Howard Box Culvert
FOR EXHIBIT PURPOSES ONLY
THIS IS NOT A SURVEY

N

0 15 30 Feet

NOTE: BORE LOCATIONS IDENTIFIED AND COMPLETED BY OTHERS.

BOX CULVERT

BE-03

#1

#2

#3

#4

#5

NOTE: BORE LOCATIONS IDENTIFIED AND COMPLETED BY OTHERS.

#6

#7

#8

#9

BOX CULVERT

CSX RR RIGHT OF WAY

S Howard Ave

Lee Roy Selmon Expy E

Lee Roy Selmon Expy W

W Jetton Ave

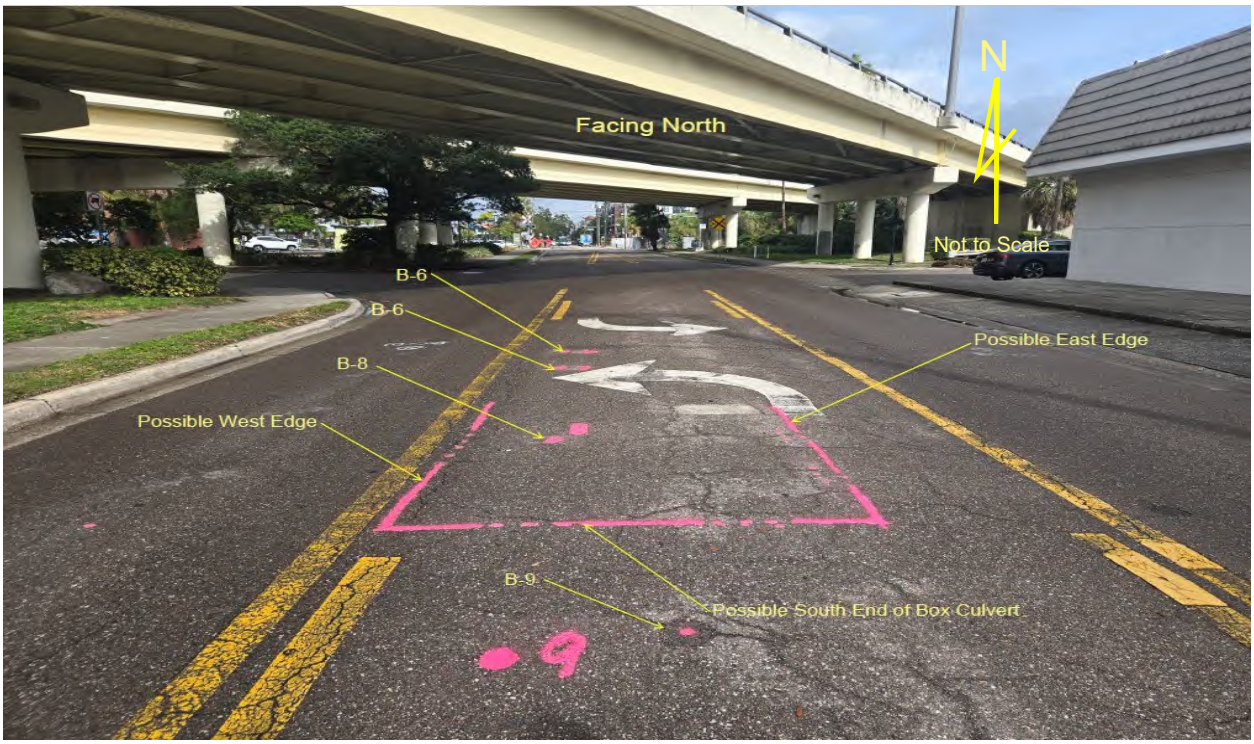
W Watrous Ave

618

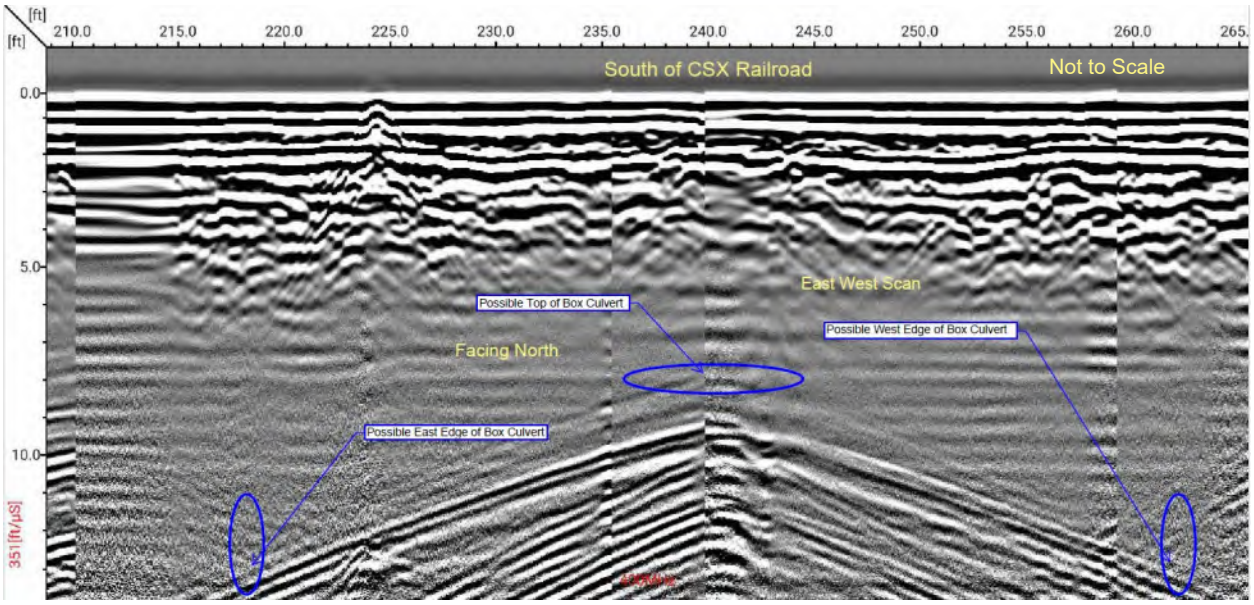
© 2025 Microsoft Corporation © 2025 Maxar ©CNES (2025) Distribution Airbus DS © 2025 TomTom

South Howard Box Culvert

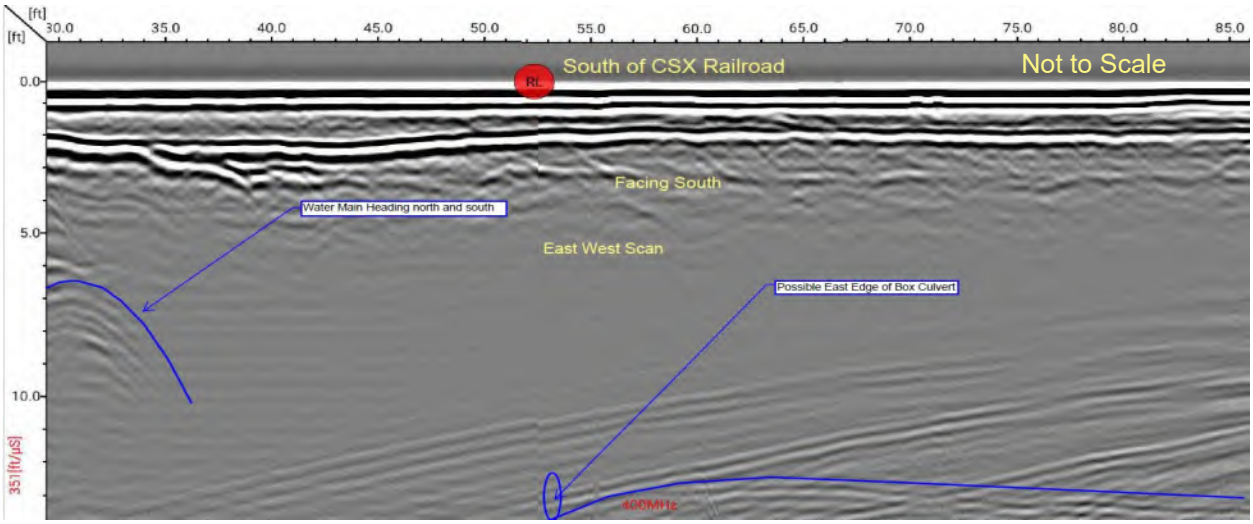
Location 1



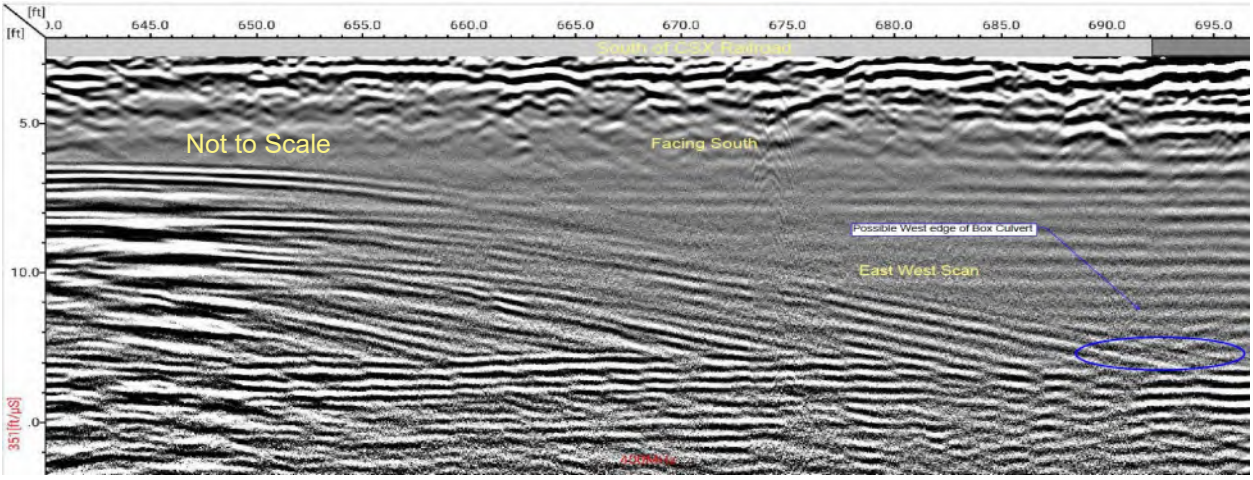
Location 1 (Scan 1)



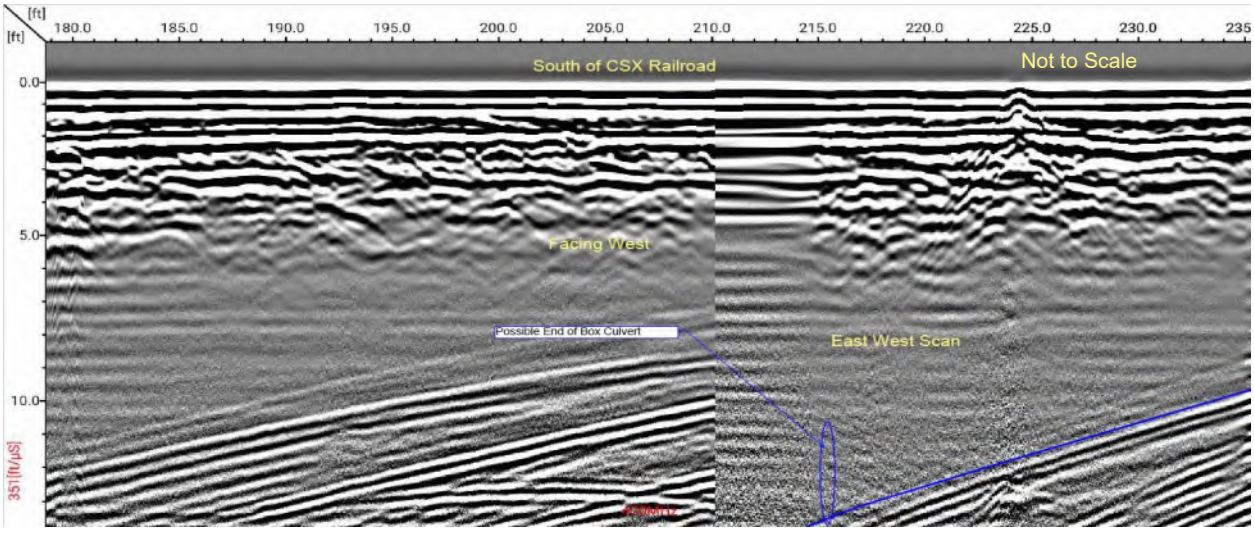
Location 1 (Scan 2)



Location 1 (Scan 3)

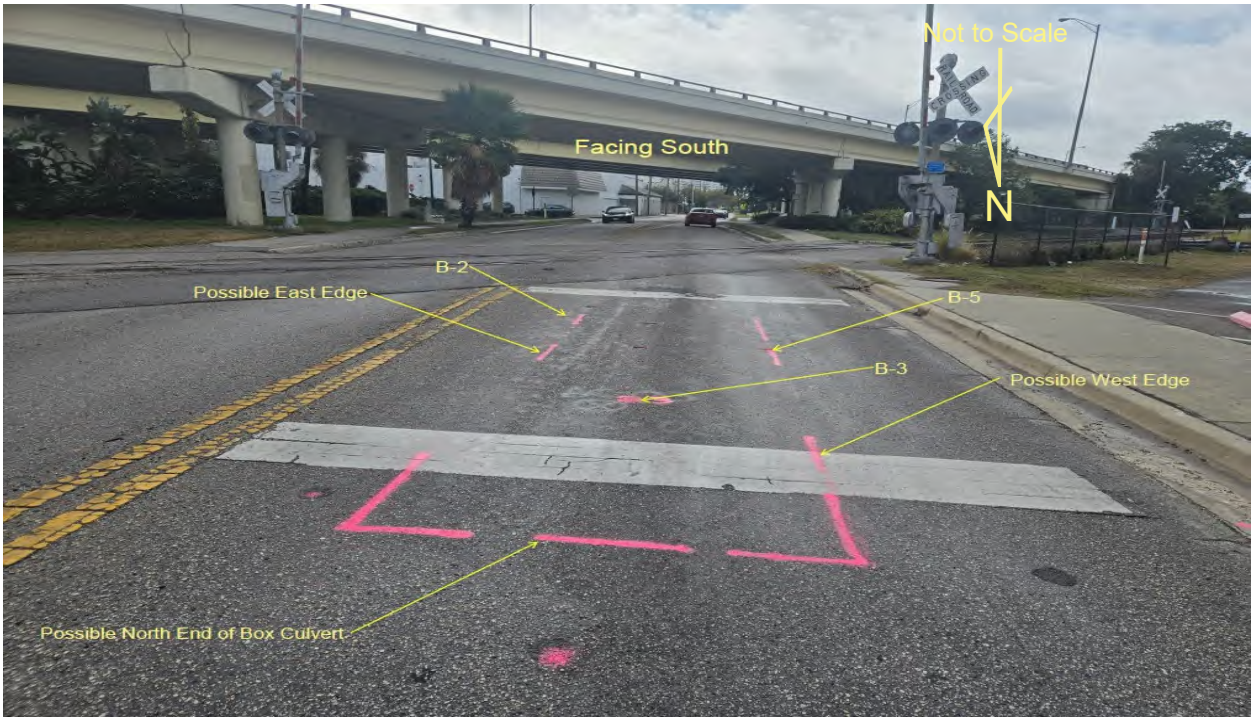


Location 1 (Scan 4)

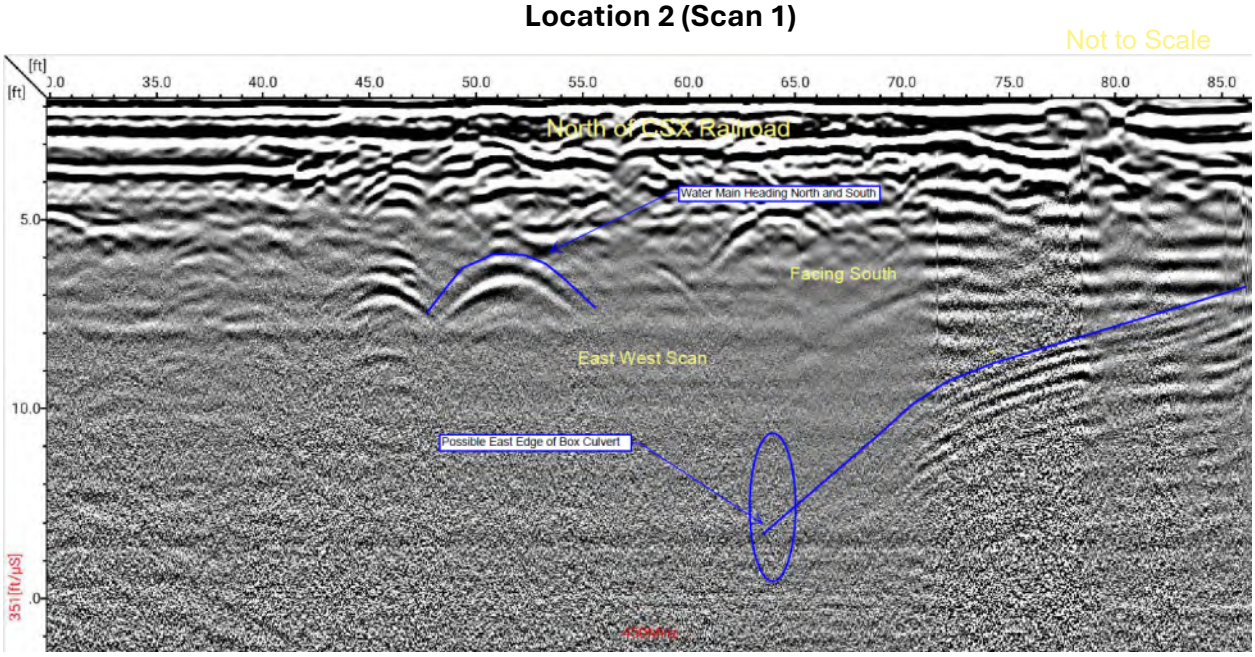


South Howard Box Culvert

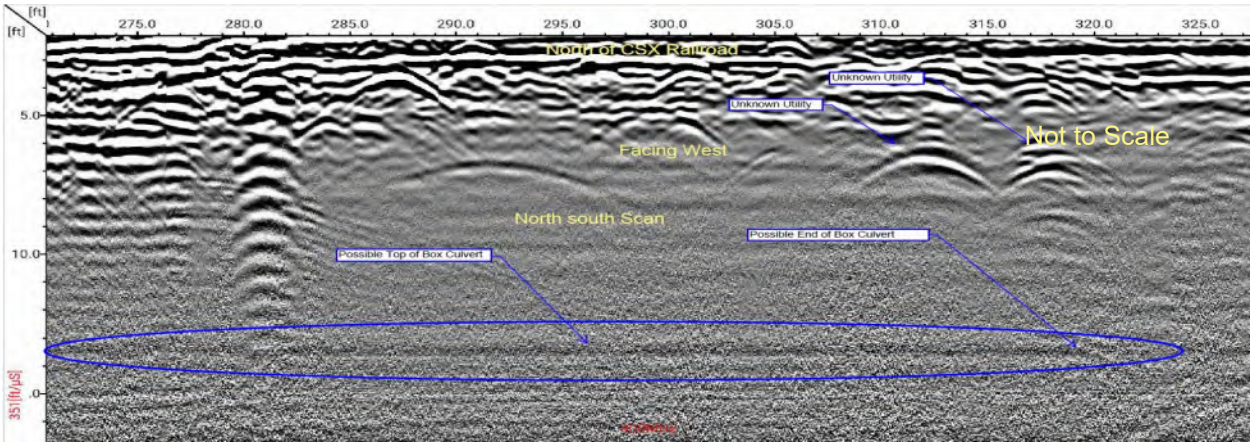
Location 2



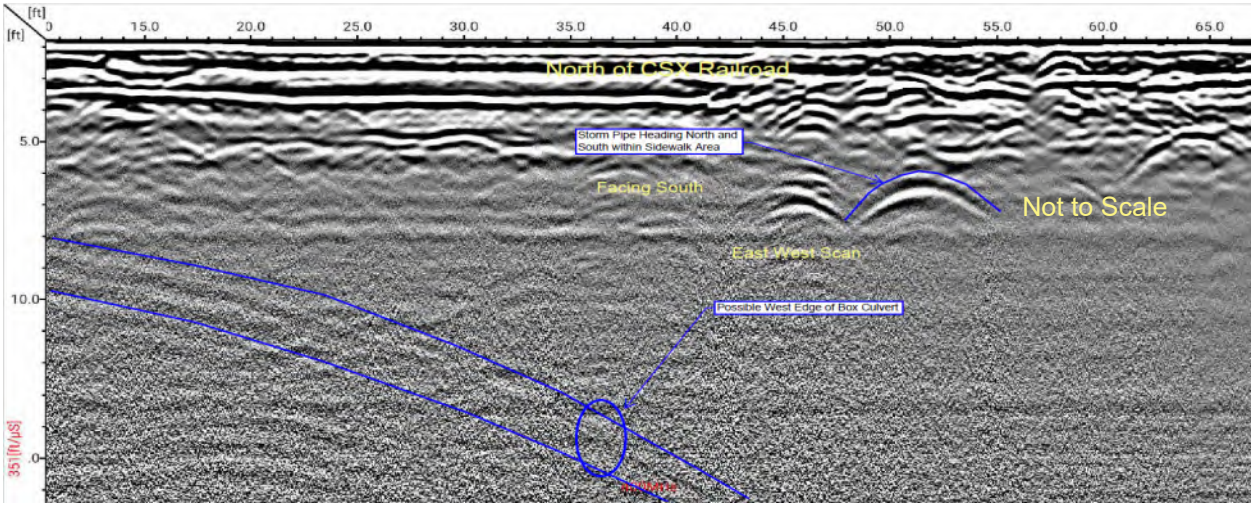
Location 2 (Scan 1)



Location 2 (Scan 2)



Location 2 (Scan 3)



Appendix O. Model Input / Results

O.1 Existing Model Input

Manual Basin: B01

Scenario:	Existing
Node:	N01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	99999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	6.2808 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6768	8100	A	97483		
0.2768	1400	A	97483		
0.3273	1300	A	97483		

Comment:

Manual Basin: B02

Scenario: Existing
Node: N02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.5481 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3351	1800	A	97483		
1.0137	8100	A	97483		
7.1993	1300	A	97483		

Comment:

Manual Basin: B03

Scenario: Existing
Node: N03
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5433 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4172	1800	A	97483		
0.1261	8100	A	97483		

Comment:

Manual Basin: B04

Scenario: Existing
Node: N04

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8159 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8159	8100	A	97483		

Comment:

Manual Basin: B07

Scenario: Existing
Node: N07A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.7781 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.6197	1300	A	97483		
0.1584	1400	A	97483		

Comment:

Manual Basin: B08

Scenario: Existing
Node: N08A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 35.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 31.4228 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
31.1525	1300	A	97483		
0.2703	1400	A	97483		

Comment:

Manual Basin: B08B

Scenario: Existing
Node: N08A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0349 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0349	8100	A	97483		

Comment: LOAD TO B08

Manual Basin: B08C

Scenario: Existing
Node: N08A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0990 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0990	8100	A	97483		

Comment: LOAD TO B08

Manual Basin: B09

Scenario: Existing
Node: N09
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.9669 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9669	1300	A	97483		

Comment:

Manual Basin: BPondA

Scenario: Existing
Node: PondA
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0901 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4624	8100	A	97483		
1.6925	1400	A	97483		
0.1386	1300	A	97483		
2.2431	1800	A	97483		
0.5535	6440	A	97483		

Comment:

Manual Basin: BPondB

Scenario: Existing
Node: PondB
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 50.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 48.0023 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
32.9961	1300	A	97483		
12.1657	1400	A	97483		
1.4731	8100	A	97483		
0.0279	1300	W	97483		
0.1133	5300	A	97483		
1.2262	5300	W	97483		

Comment:

Manual Basin: BSH02

Scenario: Existing
Node: NSH02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0097	1300	A	97483		
3.5233	1400	A	97483		

Comment:

Manual Basin: BSH04

Scenario: Existing
Node: NSH04
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.4090 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4149	1400	A	97483		
0.0381	1800	A	97483		
3.9560	1300	A	97483		

Comment:

Manual Basin: BSH05

Scenario: Existing
Node: NSH05
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8861 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6585	1300	A	97483		
1.2262	1400	A	97483		
0.0014	8100	A	97483		

Comment:

Manual Basin: BSH07

Scenario: Existing
Node: NSH07
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.7990 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2498	8100	A/D	97483		
3.8947	1300	A/D	97483		
6.6544	1300	A	97483		

Comment:

Manual Basin: BSH08

Scenario: Existing
Node: NSH08
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.9392 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4212	1300	A/D	97483		
0.0130	8100	A/D	97483		
0.5050	1400	A/D	97483		

Comment:

Manual Basin: BSH09

Scenario: Existing
Node: NSH09
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.1973 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0563	8100	A/D	97483		
4.8862	1300	A/D	97483		
1.2547	1300	A	97483		

Comment:

Manual Basin: BSH10

Scenario: Existing
Node: NSH10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8629	1300	A	97483		
0.0256	1400	A	97483		

Comment:

Manual Basin: BSH11

Scenario: Existing
Node: NSH11
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0211 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8987	1400	A	97483		
0.1224	8100	A	97483		

Comment: ERP EXEMPTION APP 669807 - HARD TO VERIFY ROOF DRAINAGE IN PLANS

Manual Basin: BSH12

Scenario: Existing
Node: NSH12
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4461 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8827	1300	A	97483		
0.5634	1400	A	97483		

Comment:

Manual Basin: BSH13

Scenario: Existing
Node: NSH13
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.4774 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0932	1300	A/D	97483		
3.7342	1300	A	97483		
0.0973	1400	A/D	97483		
0.5526	1400	A	97483		

Comment:

Manual Basin: BSH14

Scenario: Existing
Node: NSH14
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4353	1400	A/D	97483		

Comment: FLUME ON HOWARD GOES TO SMALL POND

Manual Basin: BSH15

Scenario: Existing
Node: NSH15

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7266 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4609	1300	A/D	97483		
0.2657	1400	A/D	97483		

Comment:

Manual Basin: BSH17

Scenario: Existing
Node: NSH17
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7972 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0046	1300	A/D	97483		
0.7926	1400	A/D	97483		

Comment:

Manual Basin: BSH18

Scenario: Existing
Node: NSH18
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4230 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1927	1300	A/D	97483		
0.2303	1400	A/D	97483		

Comment:

Manual Basin: BSH19

Scenario: Existing
Node: NSH19
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9807 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7503	1300	A/D	97483		
0.2079	1700	A/D	97483		
0.0225	1400	A/D	97483		

Comment:

Manual Basin: BSH21

Scenario: Existing
Node: NSH21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2953 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2944	1300	A/D	97483		
1.0009	1700	A/D	97483		

Comment:

Manual Basin: BSH22

Scenario: Existing
Node: NSH22
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5684 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6511	1300	A/D	97483		
0.9172	1400	A/D	97483		

Comment:

Manual Basin: BSH23

Scenario: Existing
Node: NSH23
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5052 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0241	8100	A/D	97482		
0.0281	1300	A/D	97482		
2.2879	1300	A/D	97483		
0.1652	8100	A/D	97483		

Comment:

Manual Basin: BSH24

Scenario: Existing
Node: NSH24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9455 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9455	1300	A/D	97483		

Comment:

Manual Basin: BSH25

Scenario: Existing
Node: NSH25
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0280 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7885	1300	A/D	97482		
2.1317	1300	A/D	97483		
0.1078	8100	A/D	97482		

Comment:

Manual Basin: BSH26

Scenario: Existing
Node: NSH26
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3652 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2907	1300	A/D	97482		
3.0620	1300	A/D	97483		
0.0125	8100	A/D	97482		

Comment:

Manual Basin: BSH27

Scenario: Existing
Node: NSH27
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9349 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9349	1300	A/D	97483		

Comment:

Manual Basin: BSH28

Scenario: Existing
Node: NSH28
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7975 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7975	1300	A/D	97483		

Comment:

Manual Basin: BSH29

Scenario: Existing
Node: NSH29
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7974 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1631	8100	A/D	97482		
2.6343	1300	A/D	97482		

Comment:

Manual Basin: BSH33

Scenario: Existing
Node: NSH33
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5883 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5776	1400	A/D	97483		
0.0106	1300	A/D	97483		

Comment:

Manual Basin: BSH34

Scenario: Existing
Node: NSH34
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.5228 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0173	8100	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3121	8100	A/D	97483		
6.8821	1300	A/D	97482		
3.3113	1300	A/D	97483		

Comment:

Manual Basin: BSH35

Scenario: Existing
Node: NSH35
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2961 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3325	8100	A/D	97483		
0.9636	1300	A/D	97483		

Comment:

Manual Basin: BSH37

Scenario: Existing
Node: NSH37
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9038 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9087	1400	A/D	97483		
0.2042	1400	A	97483		
0.0080	1300	A/D	97483		
0.7828	1300	A	97483		

Comment:

Manual Basin: BSH41

Scenario: Existing
Node: NSH41
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0916	1400	A	97483		
0.0512	8100	A	97483		

Comment:

Manual Basin: BSH41B

Scenario: Existing
Node: NSH41
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.0846 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0846	8100	A	97483		

Comment: LOAD TO BSH41

Manual Basin: BSH42

Scenario: Existing
Node: NSH42
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.2787 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2787	8100	A/D	97483		

Comment:

Manual Basin: BSH43

Scenario: Existing
Node: NSH43
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2770 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0822	8100	A/D	97483		
0.1948	1300	A/D	97483		

Comment: Assume Harbor House roof drains to Bayshore system

Manual Basin: BSH44

Scenario: Existing
Node: NSH44
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4203 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9634	1300	A/D	97483		
0.4569	1300	A/D	97482		

Comment:

Manual Basin: BSH45

Scenario: Existing
Node: NSH45
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.4369 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1504	1300	A/D	97483		
6.2855	1300	A	97483		
0.0010	1400	A/D	97483		

Comment:

Manual Basin: BSH48

Scenario: Existing
Node: NSH48
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3943 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1122	1300	A/D	97483		
0.1388	1300	A	97483		
0.1255	1400	A	97483		
0.0045	8100	A/D	97483		
0.0132	8100	A	97483		

Comment:

Manual Basin: BSH49

Scenario: Existing
Node: NSH49
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.9069 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1755	1400	A	97483		
0.0118	8100	A	97483		
0.7196	1300	A	97483		

Comment:

Manual Basin: BSH50

Scenario: Existing
Node: NSH50
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5388 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0556	1400	A	97483		
0.4832	1300	A	97483		

Comment:

Manual Basin: BSH51

Scenario: Existing
Node: NSH51
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.5541 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9882	1300	A	97483		
2.5964	1400	A	97483		
1.3563	1400	A/D	97483		
1.1038	1400	A/D	97957		
0.5094	1300	A/D	97957		

Comment:

Manual Basin: BSH52

Scenario: Existing
Node: NSH52
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3534 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8258	1400	A	97483		
0.5276	1300	A	97483		

Comment:

Manual Basin: BSH54

Scenario: Existing
Node: NSH54
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0267 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8027	1400	A	97483		
0.2240	1300	A	97483		

Comment:

Manual Basin: BSH55

Scenario: Existing
Node: NSH55
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0279 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5658	1400	A	97483		
0.0658	1700	A	97483		
1.3963	1300	A	97483		

Comment:

Manual Basin: BSH57

Scenario: Existing
Node: NSH57
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4444 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7578	1400	A	97483		
0.6866	1300	A	97483		

Comment:

Manual Basin: BSH60

Scenario: Existing
Node: NSH60
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0349	1300	A	97483		
3.7452	1400	A	97483		

Comment:

Manual Basin: BSH65

Scenario: Existing
Node: NSH65
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0295 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0103	1300	A	97483		
0.0192	1400	A	97483		

Comment:

Manual Basin: BSH75

Scenario: Existing
Node: NSH75
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8995 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1077	8100	A/D	97483		
4.7917	1300	A/D	97483		

Comment:

Manual Basin: BSH80

Scenario: Existing
Node: NSH80
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0431 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0047	1400	A	97483		
0.0384	1300	A	97483		

Comment:

Manual Basin: BSH81

Scenario: Existing
Node: NSH81
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.1214 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1214	1300	A	97483		

Comment:

Manual Basin: BSH82

Scenario: Existing
Node: NSH82
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.5831 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3085	1300	A	97483		
0.2746	1400	A	97483		

Comment:

Manual Basin: BSH83

Scenario: Existing
Node: NSH83
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0083 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8594	1300	A	97483		
0.1489	1400	A	97483		

Comment:

Manual Basin: C01

Scenario: Existing
Node: NC01
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8452 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2308	8100	A/D	97483		
1.4364	1300	A/D	97483		
2.1780	1300	A	97483		

Comment:

Manual Basin: C02

Scenario: Existing
Node: NC02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8905 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8905	1300	A	97483		

Comment:

Manual Basin: C03

Scenario: Existing
Node: NC03
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6668 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4080	8100	A	97483		
4.2588	1300	A	97483		

Comment:

Manual Basin: C04

Scenario: Existing
Node: NC04
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 16.6895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7158	8100	A	97483		
0.2304	8100	W	97483		
1.2696	8100	A/D	97483		
13.8017	1300	A	97483		
0.6469	1300	A/D	97483		
0.0252	1400	A	97483		

Comment:

Manual Basin: C05

Scenario: Existing
Node: NC05
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.3983 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4448	8100	A/D	97483		
0.9282	1300	A/D	97483		
6.8075	1300	A	97483		
0.2179	1400	A	97483		

Comment:

Manual Basin: C06

Scenario: Existing
Node: NC06
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.2752 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6355	8100	A/D	97483		
0.2698	1300	A/D	97483		
9.3699	1300	A	97483		

Comment:

Manual Basin: C07

Scenario: Existing
Node: NC07
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4367 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5225	8100	A/D	97483		
0.1834	1300	A/D	97483		
1.7307	1300	A	97483		

Comment:

Manual Basin: C08

Scenario: Existing
Node: NC08
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.6419 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4416	8100	A/D	97483		
0.2178	1300	A/D	97483		
10.9825	1300	A	97483		

Comment:

Manual Basin: CO1B

Scenario: Existing
Node: NC01B
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.1171 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0283	8100	A/D	97483		
0.0171	1300	A/D	97483		
0.1014	8100	A	97483		
5.9703	1300	A	97483		

Comment:

Manual Basin: N11

Scenario: Existing
Node: N11
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 35.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 30.8804 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
23.4724	1300	A	97483		
0.1644	8100	A	97483		
1.1247	1400	A	97483		
3.7994	1300	A	97957		
2.0112	1400	A	97957		
0.3082	8100	A	97957		

Comment:

Manual Basin: NBB0050

Scenario: Existing
Node: NBB0050

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2188	1400	A/D	97008		
0.6620	1300	A/D	97008		
0.3475	8100	A/D	97008		

Comment:

Manual Basin: NBB0070

Scenario: Existing
Node: NBB0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2083 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4465	8100	A/D	97008		
1.7618	1400	A/D	97008		

Comment:

Manual Basin: NBB0090

Scenario: Existing
Node: NBB0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8689 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1797	1300	A/D	97008		
2.2962	8100	A/D	97008		
0.3930	1400	A/D	97008		

Comment:

Manual Basin: NBB0110

Scenario: Existing
Node: NBB0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9752 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3413	1300	A/D	97008		
5.6339	1400	A/D	97008		

Comment:

Manual Basin: NBB0130

Scenario: Existing
Node: NBB0130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.3139 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8698	8100	C/D	97008		
0.4592	1300	C/D	97008		
1.0509	1300	B/D	97008		
5.3939	8100	B/D	97008		
0.0990	1700	B/D	97008		
0.0718	1400	B/D	97008		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2484	1400	A/D	97008		
4.0887	8100	A/D	97008		
1.0322	1300	A/D	97008		

Comment:

Manual Basin: NBB0190

Scenario: Existing
Node: NBB0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.0270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6039	1400	A/D	97008		
4.4231	1300	A/D	97008		

Comment:

Manual Basin: NBB0230

Scenario: Existing
Node: NBB0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3211 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3211	1400	A/D	97008		

Comment:

Manual Basin: NBB0270

Scenario: Existing
Node: NBB0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.2716 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2429	1400	A/D	97008		
1.0288	1300	A/D	97008		

Comment:

Manual Basin: NBB0310

Scenario: Existing
Node: NBB0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 26.9082 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7435	1400	A/D	97008		
10.5069	1300	A/D	97008		
9.1475	1300	C/D	97008		
0.0016	1300	A/D	97482		
4.3569	1300	C/D	97482		
0.1121	1700	C/D	97482		
0.0397	1700	D	97482		

Comment:

Manual Basin: NBB0330

Scenario: Existing
Node: NBB0330
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8868 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8674	1300	A/D	97008		
0.0195	1300	A/D	97007		

Comment:

Manual Basin: NBB0370

Scenario: Existing
Node: NBB0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7430 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1414	1300	A/D	97007		
0.0274	1300	A/D	97008		
1.5366	1700	A/D	97007		
0.0376	1700	A/D	97008		

Comment:

Manual Basin: NBB0410

Scenario: Existing
Node: NBB0410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3056 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3056	1300	A/D	97007		

Comment:

Manual Basin: NBB0430

Scenario: Existing
Node: NBB0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9730 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9730	1300	A/D	97007		

Comment:

Manual Basin: NBW0030

Scenario: Existing
Node: NBW0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8821 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8357	1300	A/D	97480		
0.0108	1300	A	97480		
0.0357	5400	A/D	97480		

Comment:

Manual Basin: NBW0050

Scenario: Existing
Node: NBW0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9661	1300	A/D	97480		
1.5669	1300	A	97480		

Comment:

Manual Basin: NBW0070

Scenario: Existing
Node: NBW0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9383 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9383	1300	A/D	97480		

Comment:

Manual Basin: NBW0090

Scenario: Existing
Node: NBW0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 2.1109 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1109	1300	A/D	97480		

Comment:

Manual Basin: NBW0150

Scenario: Existing
Node: NBW0150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0845 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0845	1300	A/D	97480		

Comment:

Manual Basin: NBW0170

Scenario: Existing
Node: NBW0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3971 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3971	1300	A/D	97480		

Comment:

Manual Basin: NBW0210

Scenario: Existing
Node: NBW0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4217 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4217	1300	A/D	97480		

Comment:

Manual Basin: NBW0270

Scenario: Existing
Node: NBW0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1864	1300	A/D	97481		
1.7837	1300	A	97481		
0.4727	1300	A/D	97480		

Comment:

Manual Basin: NBW0275

Scenario: Existing
Node: NBW2775
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 5.1635 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.1635	1300	A	97481		

Comment:

Manual Basin: NBW0290

Scenario: Existing
Node: NBW0290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4231 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4025	1300	A/D	97481		
7.0206	1300	A	97481		

Comment:

Manual Basin: NBW0310

Scenario: Existing
Node: NBW0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3252 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5689	1300	A/D	97481		
3.7563	1300	A	97481		

Comment:

Manual Basin: NBW0330

Scenario: Existing
Node: NBW0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5070 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0724	1300	A/D	97480		
0.1005	1300	A/D	97481		
0.3341	1300	A	97481		

Comment:

Manual Basin: NBW0350

Scenario: Existing
Node: NBW0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6014 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7851	1300	A/D	97480		
0.6576	1300	A/D	97481		
1.1587	1300	A	97481		

Comment:

Manual Basin: NBW0370

Scenario: Existing
Node: NBW0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8881 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8881	1300	A	97481		

Comment:

Manual Basin: NBW0390

Scenario: Existing
Node: NBW0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1812 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5117	1300	A/D	97480		
1.2951	1300	A/D	97481		
1.3744	1300	A	97481		

Comment:

Manual Basin: NBW0430

Scenario: Existing
Node: NBW0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2618 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2618	1300	A	97481		

Comment:

Manual Basin: NBW0450

Scenario: Existing
Node: NBW0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2195 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2195	1300	A	97481		

Comment:

Manual Basin: NBW0470

Scenario: Existing
Node: NBW0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6492 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6492	1300	A	97481		

Comment:

Manual Basin: NBW0510

Scenario: Existing
Node: NBW0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0573 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0007	1300	A	97481		
1.1664	1800	A	97481		
0.8452	1800	A/D	97481		
0.0451	1300	A/D	97481		

Comment:

Manual Basin: NBW0550

Scenario: Existing
Node: NBW0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.8137 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.1150	1300	A	97481		
5.6987	1300	A/D	97481		

Comment:

Manual Basin: NBW0570

Scenario: Existing
Node: NBW0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.0079 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.2233	1300	A	97481		
0.7604	1300	A/D	97481		
0.0243	1800	A	97481		

Comment:

Manual Basin: NBW0590

Scenario: Existing
Node: NBW0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 36.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 21.3885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
17.1027	1300	A/D	97481		
4.2858	1300	A	97481		

Comment:

Manual Basin: NBW0610

Scenario: Existing
Node: NBW0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1438	1800	A	97481		
0.0858	1800	A/D	97481		
0.0034	1300	A/D	97481		

Comment:

Manual Basin: NBW0630

Scenario: Existing
Node: NBW0630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1825 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1260	1300	A	97481		
1.4338	1800	A	97481		
0.5850	1800	A/D	97481		
0.0376	1300	A/D	97481		

Comment:

Manual Basin: NBW0650

Scenario: Existing
Node: NBW0650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2639	1300	A/D	97481		

Comment:

Manual Basin: NBW0670

Scenario: Existing
Node: NBW0670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7348	1300	A/D	97481		
0.2547	1300	A	97481		

Comment:

Manual Basin: NBW0710

Scenario: Existing
Node: NBW0710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0358 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8301	1300	A/D	97481		
0.0143	1800	A/D	97481		
0.1914	1300	A	97481		

Comment:

Manual Basin: NBW0730

Scenario: Existing
Node: NBW0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.2036 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3483	1300	A	97481		
6.1428	1300	A/D	97481		
1.6682	1300	A/D	97955		
2.0442	1300	A	97955		

Comment:

Manual Basin: NBW0750

Scenario: Existing
Node: NBW0750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.0074 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8504	1300	A/D	97481		
4.9254	1300	A	97481		
0.2315	1300	A/D	97955		

Comment:

Manual Basin: NBW0770

Scenario: Existing
Node: NBW0770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0964 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0964	1300	A/D	97481		

Comment:

Manual Basin: NBW0790

Scenario: Existing
Node: NBW0790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 7.3766 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.9905	1300	A	97481		
1.3861	1300	A/D	97481		

Comment:

Manual Basin: NBW0810

Scenario: Existing
Node: NBW0810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6512 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1233	1300	A/D	97481		
0.0732	1300	A	97481		
1.3595	1300	A/D	97955		
0.0951	1300	A	97955		

Comment:

Manual Basin: NBW0830

Scenario: Existing
Node: NBW0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8587 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0349	1300	A	97955		
0.8237	1300	A/D	97955		

Comment:

Manual Basin: NBW0850

Scenario: Existing
Node: NBW0850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.5596 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1915	1300	A	97481		
9.9378	1300	A	97955		
0.4303	1300	A/D	97955		

Comment:

Manual Basin: NBW0870

Scenario: Existing
Node: NBW0870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.2645 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.2987	1300	A/D	97955		
0.9658	1300	A	97955		

Comment:

Manual Basin: NBW0910

Scenario: Existing
Node: NBW0910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9495	1300	A/D	97481		
4.2787	1300	A/D	97955		

Comment:

Manual Basin: NBW0950

Scenario: Existing
Node: NBW0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.4599 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2817	1300	A/D	97955		
9.1782	1300	A	97955		

Comment:

Manual Basin: NBW0970

Scenario: Existing
Node: NBW0970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2003 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6862	1300	A/D	97955		
0.5142	1300	A	97955		

Comment:

Manual Basin: NBW1010

Scenario: Existing
Node: NBW1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2849 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2849	1300	A	97955		

Comment:

Manual Basin: NBW1030

Scenario: Existing
Node: NBW1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1589 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9415	1300	A	97955		
0.2035	1300	A/D	97955		
0.0140	1400	A	97955		

Comment:

Manual Basin: NBW1070

Scenario: Existing
Node: NBW1070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 1.7846 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5652	1300	A	97955		
0.0465	1300	A/D	97955		
0.1728	1400	A	97955		

Comment:

Manual Basin: NBW1090

Scenario: Existing
Node: NBW1090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8220	1300	A/D	97481		
0.2050	1300	A/D	97480		

Comment:

Manual Basin: NBW1130

Scenario: Existing
Node: NBW1130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3019 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8466	1300	A/D	97480		
0.4553	1300	A/D	97481		

Comment:

Manual Basin: NBW1150

Scenario: Existing
Node: NBW1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.7669 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3942	1300	A/D	97481		
0.6698	1300	A/D	97480		
0.7029	1300	A	97481		

Comment:

Manual Basin: NBW1169

Scenario: Existing
Node: NBW1169
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9034 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8137	1300	A/D	97481		
0.0897	1300	A	97481		

Comment:

Manual Basin: NBW1170

Scenario: Existing
Node: NBW1170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5981 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5981	1300	A	97481		

Comment:

Manual Basin: NBW1190

Scenario: Existing
Node: NBW1190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6560 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6029	1300	A/D	97481		
3.0531	1300	A	97481		

Comment:

Manual Basin: NBW1210

Scenario: Existing
Node: NBW1210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.2664 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7223	1300	A	97481		
4.5441	1300	A/D	97481		

Comment:

Manual Basin: NBW1230

Scenario: Existing
Node: NBW1230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 18.0700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.5870	1300	A	97481		
5.4830	1300	A/D	97481		

Comment:

Manual Basin: NBW1250

Scenario: Existing
Node: NBW1250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3575 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2148	1300	A	97481		
0.1427	1300	A/D	97481		

Comment:

Manual Basin: NBW1270

Scenario: Existing
Node: NBW1270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 3.4193 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4193	1300	A/D	97481		

Comment:

Manual Basin: NBW1310

Scenario: Existing
Node: NBW1310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0975 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0975	1300	A/D	97481		

Comment:

Manual Basin: NBW1330

Scenario: Existing
Node: NBW1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9570 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9570	1300	A/D	97481		

Comment:

Manual Basin: NBW1350

Scenario: Existing
Node: NBW1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.6230 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.6230	1300	A/D	97481		

Comment:

Manual Basin: NBW1351

Scenario: Existing
Node: NBW1351
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3914 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3914	1300	A/D	97481		

Comment:

Manual Basin: NBW1352

Scenario: Existing
Node: NBW1353
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2869 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2869	1300	A/D	97481		

Comment:

Manual Basin: NBW1353

Scenario: Existing
Node: NBW1352
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1570 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1570	1300	A/D	97481		

Comment:

Manual Basin: NBW1370

Scenario: Existing
Node: NBW1370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.1096 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.1096	1300	A/D	97481		

Comment:

Manual Basin: NBW1390

Scenario: Existing

Node: NBW1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.5184 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.5184	1300	A/D	97481		

Comment:

Manual Basin: NBW1410

Scenario: Existing
Node: NBW1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9784 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.9784	1300	A/D	97481		

Comment:

Manual Basin: NBW1430

Scenario: Existing
Node: NBW1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.7173 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.7173	1300	A/D	97481		

Comment:

Manual Basin: NBW1450

Scenario: Existing
Node: NBW1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.0126 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.0126	1300	A/D	97481		

Comment:

Manual Basin: NBW1460

Scenario: Existing
Node: NBW1460
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3586 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3586	1300	A/D	97481		

Comment:

Manual Basin: NBW1470

Scenario: Existing

Node: NBW1470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 31.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 48.6457 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
29.9068	1300	A/D	97481		
0.0002	1700	A/D	97481		
11.1706	1300	A	97481		
2.9728	1300	A/D	97955		
4.5952	1300	A	97955		

Comment:

Manual Basin: NBW1480

Scenario: Existing
Node: NBW1480
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8173 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8173	1300	A/D	97481		

Comment:

Manual Basin: NBW1490

Scenario: Existing
Node: NBW1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 19.6634 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6596	1700	A/D	97481		
0.3956	1700	D	97481		
6.9343	1300	A/D	97481		
0.0003	1400	D	97481		
5.9876	1400	A/D	97481		
0.4160	1700	A/D	97955		
0.2700	1300	A/D	97955		

Comment:

Manual Basin: NBW1510

Scenario: Existing
Node: NBW1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8351 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3290	1400	D	97482		
2.4480	1400	D	97481		
1.0580	1400	A/D	97481		

Comment:

Manual Basin: NBW1550

Scenario: Existing
Node: NBW1550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.1792 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9926	1400	D	97482		
3.4543	1400	D	97481		
1.7323	1400	A/D	97481		

Comment:

Manual Basin: NBW1590

Scenario: Existing
Node: NBW1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6664 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1071	1400	D	97481		
1.5593	1400	A/D	97481		

Comment:

Manual Basin: NBW1610

Scenario: Existing
Node: NBW1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.9618 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3249	1400	A/D	97481		
2.4962	1300	A/D	97481		
0.1407	1300	A/D	97482		

Comment:

Manual Basin: NBW1630

Scenario: Existing
Node: NBW1630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4468 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1511	1300	A/D	97482		
0.7076	1300	A/D	97481		
0.6198	1400	A/D	97481		
0.7681	1700	A/D	97481		
0.1797	1700	A/D	97955		
0.0205	1400	A/D	97955		

Comment:

Manual Basin: NBW1650

Scenario: Existing
Node: NBW1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6054 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0235	1700	A/D	97955		
2.0947	1400	A/D	97955		
0.1522	1300	A/D	97956		
0.3324	1300	A/D	97955		
0.0026	1400	A/D	97956		

Comment:

Manual Basin: NBW1670

Scenario: Existing

Node: NBW1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4690 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9166	1400	A/D	97955		
0.0190	1400	A/D	97956		
0.2602	1300	A/D	97956		
0.2732	1300	A/D	97955		

Comment:

Manual Basin: NBW1690

Scenario: Existing
Node: NBW1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.1621 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1346	1400	A/D	97955		
0.4729	1300	A/D	97955		
0.1889	1300	A/D	97956		
0.0176	1400	A/D	97956		
0.2953	1300	A	97955		
0.0528	1400	A	97955		

Comment:

Manual Basin: NBW1730

Scenario: Existing
Node: NBW1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.1904 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6660	1400	D	97482		
1.5468	1300	D	97482		
0.2839	1400	D	97481		
0.0185	1300	D	97481		
0.6932	1400	A/D	97482		
9.4603	1300	A/D	97482		
0.0770	1400	A/D	97481		
0.4447	1300	A/D	97481		

Comment:

Manual Basin: NBW1750

Scenario: Existing
Node: NBW1750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.6506 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0164	1300	A/D	97482		
0.4160	1300	A/D	97481		
0.2611	1400	A/D	97481		
0.0076	1300	C/D	97482		
2.1206	1300	C/D	97956		
2.9108	1300	A/D	97956		
0.2569	1300	D	97956		
0.6556	1300	A/D	97955		
1.0055	1400	A/D	97955		

Comment:

Manual Basin: NBW1770

Scenario: Existing
Node: NBW1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.0486 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.6000	1300	A/D	97956		
7.3493	1300	C/D	97956		
0.0993	1300	D	97956		

Comment:

Manual Basin: NBW1790

Scenario: Existing
Node: NBW1790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.9843 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1844	1300	A/D	97956		
1.1785	1400	A/D	97955		
0.1163	1400	A/D	97956		
1.0143	1300	A/D	97955		
0.0851	1300	D	97956		
0.2730	1400	D	97956		
0.1327	1400	D	97955		

Comment:

Manual Basin: NBW1820

Scenario: Existing
Node: NBW1820
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.2814 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.5708	1300	C/D	97482		
0.4989	1400	A/D	97482		
3.9495	1300	A/D	97482		
0.1313	1400	D	97482		
0.1309	1400	C/D	97482		

Comment:

Manual Basin: NBW1830

Scenario: Existing
Node: NBW1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8793 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2191	1300	A/D	97482		
0.6972	1400	A/D	97482		
2.9629	1400	D	97482		

Comment:

Manual Basin: NBW1840

Scenario: Existing
Node: NBW1840
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 19.9983 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6185	1300	C/D	97482		
8.1612	1300	A/D	97482		
1.0834	1400	A/D	97482		
0.1351	1400	D	97482		
0.0001	1300	D	97482		

Comment:

Manual Basin: NBW1850

Scenario: Existing
Node: NBW1850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.4229 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5635	1300	C/D	97482		
0.8385	1300	A/D	97482		
1.8763	1400	C/D	97482		
1.8223	1400	A/D	97482		
1.3224	1400	D	97482		

Comment:

Manual Basin: NBW1860

Scenario: Existing
Node: NBW1860
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8925 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8144	1300	C/D	97482		
0.0780	1300	A/D	97482		

Comment:

Manual Basin: NBW1870

Scenario: Existing
Node: NBW1870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4619 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2194	1300	A/D	97482		
0.3645	1400	A/D	97482		
0.2375	1400	D	97482		
0.6098	1400	C/D	97482		
0.0308	1300	C/D	97482		

Comment:

Manual Basin: NBW1910

Scenario: Existing
Node: NBW1910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9368 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8591	1300	C/D	97482		
0.0777	1400	C/D	97482		

Comment:

Manual Basin: NBW1930

Scenario: Existing
Node: NBW1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7547 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4299	1300	C/D	97482		
0.0933	1400	A/D	97482		
1.2306	1300	A/D	97482		
0.0009	1400	C/D	97482		

Comment:

Manual Basin: NBW1970

Scenario: Existing
Node: NBW1970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7669 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5219	1400	A/D	97482		
0.3504	1300	C/D	97482		
0.2230	1400	C/D	97482		
0.6716	1300	A/D	97482		

Comment: Updated per ERP 12053

Manual Basin: NBW1990

Scenario: Existing
Node: NBW1990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8406 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.4920	1300	A/D	97482		
2.3486	1400	A/D	97482		

Comment:

Manual Basin: NBW2010

Scenario: Existing
Node: NBW2010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9741 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9741	1300	A/D	97482		

Comment:

Manual Basin: NBW2030

Scenario: Existing
Node: NBW2030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0960 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5575	1300	A/D	97482		
1.5385	1300	C/D	97482		

Comment:

Manual Basin: NBW2050

Scenario: Existing
Node: NBW2050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6006 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6221	1300	A	97482		
0.0551	1400	A	97482		
0.1880	1300	A/D	97482		
0.7351	8300	A	97482		
0.0002	8300	A/D	97482		

Comment:

Manual Basin: NBW2060

Scenario: Existing
Node: NBW2060
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5646 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2655	1300	A/D	97482		
2.1181	1300	A	97482		
1.8858	1400	A/D	97482		
0.2952	1400	A	97482		

Comment:

Manual Basin: NBW2070

Scenario: Existing
Node: NBW2070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.3373 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6459	1400	A	97482		
0.4261	1300	A	97482		
0.2475	1300	D	97482		
7.0178	1400	D	97482		

Comment: Broke basin at crown of Swan Ave

Manual Basin: NBW2090

Scenario: Existing
Node: NBW2090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5529 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0369	1300	A	97482		
0.0019	1400	A	97482		
2.1372	1300	D	97482		
2.3770	1400	D	97482		

Comment:

Manual Basin: NBW2110

Scenario: Existing
Node: NBW2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2625 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0134	1300	A	97482		
0.1691	1400	A	97482		
7.0746	1400	D	97482		
0.0054	1300	D	97482		

Comment:

Manual Basin: NBW2130

Scenario: Existing
Node: NBW2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9912 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9912	1400	D	97482		

Comment:

Manual Basin: NBW2145

Scenario: Existing
Node: NBW2145
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8292 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0593	1400	A	97482		
3.7698	1400	D	97482		

Comment: Updated per ERP 9599. INLET IN ERP ON WEST SIDE NOT SEEN IN STREET VIEW

Manual Basin: NBW2150

Scenario: Existing
Node: NBW2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8281	1300	A	97482		
0.0357	1400	A	97482		

Comment:

Manual Basin: NBW2190

Scenario: Existing
Node: NBW2190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4904	1300	A	97482		
0.5796	1300	D	97482		

Comment:

Manual Basin: NBW2210

Scenario: Existing
Node: NBW2210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0711	1300	A	97482		

Comment:

Manual Basin: NBW2230

Scenario: Existing
Node: NBW2230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.1833 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2313	1300	A	97482		
5.9520	1300	A/D	97482		

Comment:

Manual Basin: NBW2250

Scenario: Existing
Node: NBW2250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 1.7527 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7527	1300	A	97482		

Comment:

Manual Basin: NBW2270

Scenario: Existing
Node: NBW2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5878 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5878	1300	A	97482		

Comment:

Manual Basin: NBW2290

Scenario: Existing
Node: NBW2290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 23.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.5587 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0061	1700	A	97482		
6.4803	1300	A/D	97482		
5.0724	1300	A	97482		

Comment:

Manual Basin: NBW2310

Scenario: Existing
Node: NBW2310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4265 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.0681	1300	A	97482		
2.3584	1700	A	97482		

Comment:

Manual Basin: NBW2330

Scenario: Existing
Node: NBW2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.9410 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1610	1300	A/D	97482		
3.9688	1300	A	97482		
0.0751	1300	C/D	97482		
0.7361	1700	A	97482		

Comment:

Manual Basin: NBW2350

Scenario: Existing
Node: NBW2350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6660 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1125	1700	A/D	97481		
5.5535	1300	A/D	97481		

Comment:

Manual Basin: NBW2370

Scenario: Existing
Node: NBW2370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3028 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.5485	1700	A/D	97481		
0.7542	1300	A/D	97481		

Comment:

Manual Basin: NBW2380

Scenario: Existing
Node: NBW2380
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9897 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8524	1300	A/D	97481		
0.0582	1300	D	97481		
0.0792	1700	A/D	97481		

Comment:

Manual Basin: NBW2385

Scenario: Existing
Node: NBW2385
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1150 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9542	1700	A/D	97481		
0.1608	1700	D	97481		

Comment:

Manual Basin: NBW2390

Scenario: Existing
Node: NBW2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.3917 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1432	1700	A/D	97481		
7.2486	1300	A/D	97481		

Comment:

Manual Basin: NBW2410

Scenario: Existing
Node: NBW2410

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9392	1700	D	97481		
1.6738	1400	D	97481		
5.8626	1700	A/D	97481		
1.2255	1400	A/D	97481		
4.1270	1300	A/D	97481		

Comment:

Manual Basin: NBW2430

Scenario: Existing
Node: NBW2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7239 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.1668	1400	D	97481		
0.2359	1400	A/D	97481		
0.3082	1700	D	97481		
0.0130	1700	A/D	97481		

Comment:

Manual Basin: NBW2470

Scenario: Existing
Node: NBW2470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5707 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5707	1400	D	97481		

Comment:

Manual Basin: NBW2490

Scenario: Existing
Node: NBW2490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9735 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9726	1400	D	97481		
0.0009	1400	D	97482		

Comment:

Manual Basin: NBW2510

Scenario: Existing
Node: NBW2510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6971 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3163	1400	D	97481		
0.0987	1700	D	97481		
0.2820	1400	A/D	97481		

Comment:

Manual Basin: NBW2570

Scenario: Existing
Node: NBW2570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8330	1400	A/D	97481		

Comment:

Manual Basin: NBW2610

Scenario: Existing
Node: NBW2610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.4373 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2042	1400	D	97482		
2.2332	1400	D	97481		

Comment:

Manual Basin: NBW2630

Scenario: Existing
Node: NBW2630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6691 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1244	1400	D	97482		
0.0118	1300	D	97482		
0.5231	1300	A/D	97482		
0.0097	1400	A/D	97482		

Comment:

Manual Basin: NBW2650

Scenario: Existing
Node: NBW2650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6077 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3389	1400	D	97481		
1.2688	1400	D	97482		

Comment:

Manual Basin: NBW2670

Scenario: Existing
Node: NBW2670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1363 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6575	1400	A/D	97482		
1.7910	1400	D	97481		
0.6699	1400	D	97482		
0.0180	1300	A/D	97482		

Comment:

Manual Basin: NBW2680

Scenario: Existing
Node: NBW2680
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5608 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7272	1300	A/D	97482		
0.8336	1400	A/D	97482		

Comment:

Manual Basin: NBW2690

Scenario: Existing
Node: NBW2690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.2447 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2055	1400	A/D	97481		
9.8680	1400	D	97481		
0.0001	1300	A/D	97481		
0.1468	1400	A/D	97482		
0.0206	1300	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0038	1400	D	97482		

Comment:

Manual Basin: NBW2730

Scenario: Existing
Node: NBW2730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5632 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4447	1400	A/D	97482		
0.1185	1300	A/D	97482		

Comment:

Manual Basin: NBW2780

Scenario: Existing
Node: NBW2780
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.7327 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.5430	1300	A/D	97482		
0.0051	1300	A/D	97481		
0.0026	1400	A/D	97481		
0.0035	1400	A/D	97482		
0.7676	1300	C/D	97482		
0.0455	1300	D	97482		
0.3654	1400	D	97482		

Comment:

Manual Basin: NBW2790

Scenario: Existing
Node: NBW2790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8216 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.0629	1300	C/D	97482		
8.3129	1300	A/D	97482		
0.3727	1400	D	97482		
0.0731	1300	D	97482		

Comment:

Manual Basin: NBW2810

Scenario: Existing
Node: NBW2810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.5567 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5567	1300	C/D	97482		

Comment:

Manual Basin: NBW2830

Scenario: Existing
Node: NBW2830

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 20.3605 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4155	1300	A/D	97482		
19.9450	1300	C/D	97482		

Comment:

Manual Basin: NCL0030

Scenario: Existing
Node: NCL0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2013 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2013	1300	A/D	97954		

Comment:

Manual Basin: NCL0070

Scenario: Existing
Node: NCL0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 19.3446 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2461	1300	A/D	97480		
0.1935	1300	A/D	97481		
13.2844	1300	A/D	97955		
3.6632	1300	A/D	97954		
1.8911	1300	A	97955		
0.0571	8100	A/D	97954		
0.0092	1400	A/D	97955		

Comment:

Manual Basin: NCL0090

Scenario: Existing
Node: NCL0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.4929 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.8415	1300	A	97481		
2.2225	1300	A/D	97481		
2.5923	1300	A	97955		
2.8366	1300	A/D	97955		

Comment:

Manual Basin: NCL0110

Scenario: Existing
Node: NCL0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.3317 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8071	1300	A/D	97954		
1.0177	1400	A/D	97954		
2.5068	1400	D	97954		

Comment:

Manual Basin: NCL0150

Scenario: Existing
Node: NCL0150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3382 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9307	1400	D	97954		
0.4076	8100	D	97954		

Comment:

Manual Basin: NCL0170

Scenario: Existing
Node: NCL0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7512 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7512	1400	D	97954		

Comment:

Manual Basin: NCL0190

Scenario: Existing
Node: NCL0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6952 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6952	1400	D	97954		

Comment:

Manual Basin: NCL0210

Scenario: Existing
Node: NCL0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1607 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9263	1400	D	97954		
1.2344	8100	D	97954		

Comment:

Manual Basin: NCL0230

Scenario: Existing
Node: NCL0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 5.2403 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5377	1400	A/D	97955		
0.3103	1400	D	97954		
1.7702	1400	D	97955		
0.4153	8100	D	97954		
0.0281	8100	A/D	97955		
1.1786	8100	D	97955		

Comment:

Manual Basin: NCL0270

Scenario: Existing
Node: NCL0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2523 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2745	1400	D	97954		
0.9079	1400	D	97955		
0.0698	1400	A/D	97955		

Comment:

Manual Basin: NCL0330

Scenario: Existing
Node: NCL0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3578 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3578	8100	D	97954		

Comment:

Manual Basin: NCL0350

Scenario: Existing
Node: NCL0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3567 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3747	1400	A/D	97955		
0.5111	1400	D	97955		
0.2822	8100	D	97954		
0.4047	1400	D	97954		
1.6180	1300	A/D	97955		
0.1659	1300	D	97955		

Comment:

Manual Basin: NCL0370

Scenario: Existing
Node: NCL0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.4057 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4129	1400	D	97955		
1.7776	1400	A/D	97955		
2.2152	1300	A/D	97955		

Comment:

Manual Basin: NCL0390

Scenario: Existing
Node: NCL0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0817 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2662	1300	A/D	97954		
0.7299	8100	A/D	97954		
0.2831	1300	A/D	97955		
0.5944	1400	A/D	97955		
0.2156	1400	A/D	97954		
0.1640	1400	D	97955		
0.3950	1400	D	97954		
0.4335	8100	D	97954		

Comment:

Manual Basin: NCL0430

Scenario: Existing
Node: NCL0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6357 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4129	1400	A/D	97955		
0.0832	1400	D	97955		
0.5378	1400	D	97954		
0.6018	8100	D	97954		

Comment:

Manual Basin: NCL0450

Scenario: Existing
Node: NCL0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4540 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4590	1300	A/D	97955		
1.9949	1400	A/D	97955		

Comment:

Manual Basin: NCL0470

Scenario: Existing
Node: NCL0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5365 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9997	1300	A/D	97955		
1.5369	1400	A/D	97955		

Comment:

Manual Basin: NCL0490

Scenario: Existing
Node: NCL0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 17.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 12.5300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4144	1300	A	97481		
11.3249	1300	A	97955		
0.7906	1300	A/D	97955		

Comment:

Manual Basin: NCL0510

Scenario: Existing
Node: NCL0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0969 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0461	1300	A	97955		
3.2495	1300	A/D	97955		
0.8013	1400	A/D	97955		

Comment:

Manual Basin: NCL0550

Scenario: Existing
Node: NCL0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7772 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9144	1400	A/D	97955		
1.3586	1400	D	97955		
1.5007	8100	D	97955		
0.0035	8100	A/D	97955		

Comment:

Manual Basin: NCL0570

Scenario: Existing
Node: NCL0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8753 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1680	1300	A	97955		
0.9732	1400	A	97955		
0.1178	1400	A/D	97955		
1.5251	1400	D	97955		
1.0913	8100	D	97955		

Comment:

Manual Basin: NCL0590

Scenario: Existing
Node: NCL0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4140 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.4773	1300	A	97955		
1.2462	1300	A/D	97955		
0.5742	1400	A/D	97955		
0.0789	1400	A	97955		
0.0373	1400	D	97955		

Comment:

Manual Basin: NCL0610

Scenario: Existing
Node: NCL0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5532 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5532	1300	A	97955		

Comment:

Manual Basin: NCL0630

Scenario: Existing
Node: NCL0630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.7745 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.3730	1300	A	97955		
1.1054	1400	A	97955		
0.2961	1400	D	97955		

Comment:

Manual Basin: NCL0690

Scenario: Existing
Node: NCL0690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.2403 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0233	1400	D	97955		
0.2169	8100	D	97955		

Comment:

Manual Basin: NCL0730

Scenario: Existing
Node: NCL0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9857 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9857	1400	D	97955		

Comment:

Manual Basin: NCL0750

Scenario: Existing
Node: NCL0750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.2178 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.1369	1400	D	97955		
0.6413	1400	A	97955		
1.0303	1400	A/D	97955		
0.8376	1300	D	97955		
0.8883	1300	A	97955		
1.6832	1300	A/D	97955		

Comment:

Manual Basin: NCL0770

Scenario: Existing
Node: NCL0770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 18.3987 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4170	1300	A/D	97955		
10.1059	1300	A	97955		
6.1524	1300	D	97955		
0.1429	1400	D	97955		
1.5764	1700	D	97955		
0.0041	8300	A	97955		

Comment:

Manual Basin: NCL0810

Scenario: Existing
Node: NCL0810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1896 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4880	1400	A	97955		
0.2305	1400	D	97955		
1.4711	8100	D	97955		

Comment:

Manual Basin: NCL0830

Scenario: Existing
Node: NCL0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0210 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9743	1300	A	97955		
0.0467	1400	A	97955		

Comment:

Manual Basin: NCL0850

Scenario: Existing
Node: NCL0850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9559 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2205	1300	A	97955		
0.6623	1400	A	97955		
0.0732	1400	D	97955		

Comment:

Manual Basin: NCL0910

Scenario: Existing
Node: NCL0910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8469 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8469	1400	D	97955		

Comment:

Manual Basin: NCL0930

Scenario: Existing
Node: NCL0930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8458 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8207	1400	D	97955		
0.0252	1300	D	97955		

Comment:

Manual Basin: NCL0950

Scenario: Existing
Node: NCL0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.8899 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9956	1300	D	97955		
0.0284	1400	D	97955		
2.8660	1300	A	97955		

Comment:

Manual Basin: NCL0970

Scenario: Existing
Node: NCL0970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0332 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5997	1400	A	97955		
0.8996	1400	D	97955		
0.1107	1300	D	97955		
2.4233	1300	A	97955		

Comment:

Manual Basin: NCL0990

Scenario: Existing
Node: NCL0990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.5234 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.3941	1300	A	97955		
0.1293	1300	D	97955		

Comment:

Manual Basin: NCL1010

Scenario: Existing
Node: NCL1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5691 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5071	1300	A	97955		
0.0620	1300	A/D	97955		

Comment:

Manual Basin: NCL1030

Scenario: Existing
Node: NCL1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3529 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0065	1400	D	97955		
0.3465	8100	D	97955		

Comment:

Manual Basin: NCL1050

Scenario: Existing
Node: NCL1050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7773 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3034	8100	D	97955		
1.4739	1400	D	97955		

Comment:

Manual Basin: NCL1090

Scenario: Existing
Node: NCL1090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8979 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5365	1300	A	97955		
0.1855	1400	A	97955		
1.1276	1400	D	97955		
0.0456	1300	D	97955		
0.0026	8100	D	97955		

Comment:

Manual Basin: NCL1110

Scenario: Existing
Node: NCL1110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5372 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7131	1400	D	97955		
0.8242	8100	D	97955		

Comment:

Manual Basin: NCL1130

Scenario: Existing
Node: NCL1130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5352 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3162	1400	A	97955		
0.0005	1300	A	97955		
1.9126	1400	D	97955		
1.3059	8100	D	97955		

Comment:

Manual Basin: NCL1150

Scenario: Existing
Node: NCL1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.8206 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4641	1300	A	97955		
0.8996	1400	A	97955		
2.2726	1400	D	97955		
0.1803	1300	D	97955		
0.0039	8100	D	97955		

Comment:

Manual Basin: NCL1170

Scenario: Existing
Node: NCL1170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.7633 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.7633	1300	A	97955		

Comment:

Manual Basin: NCL1210

Scenario: Existing
Node: NCL1210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7185 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0184	1300	A	97955		
1.3147	1400	A	97955		
0.3760	1400	D	97955		
0.0094	8100	D	97955		

Comment:

Manual Basin: NCL1270

Scenario: Existing
Node: NCL1270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 19.6673 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.4660	1400	A	97955		
8.0653	1300	A	97955		
6.1360	1300	A/D	97955		

Comment:

Manual Basin: NCL1290

Scenario: Existing
Node: NCL1290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5477 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.4738	1300	A	97955		
0.0466	1400	A	97955		
0.0273	1300	A/D	97955		

Comment:

Manual Basin: NCL1310

Scenario: Existing
Node: NCL1310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.1520 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1624	1300	A/D	97955		
11.9896	1300	A	97955		

Comment:

Manual Basin: NCL1330

Scenario: Existing
Node: NCL1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2534 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2534	1300	A	97955		

Comment:

Manual Basin: NCL1350

Scenario: Existing
Node: NCL1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9295 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2955	1300	A	97955		
1.1668	1400	A	97955		
0.4492	1400	D	97955		
0.0180	8100	D	97955		

Comment:

Manual Basin: NCL1370

Scenario: Existing
Node: NCL1370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4262 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2470	1400	A	97955		
1.1596	1400	D	97955		
1.0197	8100	D	97955		

Comment:

Manual Basin: NCL1390

Scenario: Existing
Node: NCL1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1212 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3013	8100	D	97955		
0.6328	1400	D	97955		
0.1871	1400	A	97955		

Comment:

Manual Basin: NCL1410

Scenario: Existing
Node: NCL1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2080 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0622	1400	D	97955		
0.1458	1400	A	97955		

Comment:

Manual Basin: NCL1430

Scenario: Existing
Node: NCL1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.2922 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.7254	1300	A	97955		
0.2679	1300	A/D	97955		
1.1946	1400	A	97955		
0.1043	1400	D	97955		

Comment:

Manual Basin: NCL1450

Scenario: Existing
Node: NCL1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 26.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2431	1300	A/D	97955		
8.2532	1300	A	97955		
0.3747	1400	A	97955		

Comment:

Manual Basin: NCL1490

Scenario: Existing
Node: NCL1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4225 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3566	1400	A	97955		
0.0658	1400	D	97955		

Comment:

Manual Basin: NCL1510

Scenario: Existing
Node: NCL1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1970 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5624	1300	A	97955		
2.5621	1400	A	97955		
0.0725	1400	D	97955		

Comment:

Manual Basin: NCL1530

Scenario: Existing
Node: NCL1530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3362 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7688	1300	A	97955		
0.4465	1400	A	97955		
0.1200	1400	D	97955		
0.0008	8100	D	97955		

Comment:

Manual Basin: NCL1590

Scenario: Existing
Node: NCL1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5901 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4151	1400	A	97955		
0.1750	1300	A	97955		

Comment:

Manual Basin: NCL1610

Scenario: Existing
Node: NCL1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7505 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7210	1400	A	97955		
0.0295	1400	D	97955		

Comment:

Manual Basin: NCL1630

Scenario: Existing
Node: NCL1630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5222 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3014	1400	A	97955		
0.2208	1400	D	97955		

Comment:

Manual Basin: NCL1650

Scenario: Existing
Node: NCL1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1582 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4039	1400	A	97955		
1.0382	1400	D	97955		
0.7160	8100	D	97955		

Comment:

Manual Basin: NCL1670

Scenario: Existing

Node: NCL1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1908 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6913	8100	D	97955		
1.7644	1400	D	97955		
0.3845	1400	A	97955		
0.3506	1300	A	97955		

Comment:

Manual Basin: NCL1690

Scenario: Existing
Node: NCL1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7534 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9705	1400	A	97955		
0.7368	1400	D	97955		
0.0461	8100	D	97955		

Comment:

Manual Basin: NCL1710

Scenario: Existing
Node: NCL1710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3560 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0155	1400	D	97955		
0.3405	8100	D	97955		

Comment:

Manual Basin: NCL1730

Scenario: Existing
Node: NCL1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 47.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.8931 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2576	8100	D	97955		
1.7660	1400	D	97955		
0.2826	1400	A	97955		
4.6210	1300	A	97955		
0.1014	1400	A/D	97955		
5.8646	1300	A/D	97955		

Comment:

Manual Basin: NCL1770

Scenario: Existing
Node: NCL1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5456 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0006	8100	D	97955		
0.0822	1400	D	97955		
0.0119	1400	A	97955		
1.5040	1300	A	97955		
4.9469	1300	A/D	97955		

Comment:

Manual Basin: NCL1810

Scenario: Existing
Node: NCL1810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8502 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8896	1300	A/D	97955		
0.0767	1700	A/D	97955		
4.3027	1400	A/D	97955		
1.5414	1300	A	97955		
0.0399	1400	A	97955		

Comment:

Manual Basin: NCL1830

Scenario: Existing
Node: NCL1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7445 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2100	1400	A/D	97955		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8670	1400	A	97955		
0.6675	1400	D	97955		

Comment:

Manual Basin: NCL1930

Scenario: Existing
Node: NCL1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5377 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1257	1400	A/D	97955		
0.4120	1400	D	97955		

Comment:

Manual Basin: NCL1970

Scenario: Existing
Node: NCL1970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6563 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4438	1400	D	97955		
0.2125	1400	A/D	97955		

Comment:

Manual Basin: NCL2030

Scenario: Existing
Node: NCL2030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9246 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5308	1400	A/D	97955		
0.3584	1400	D	97955		
0.0354	8100	D	97955		

Comment:

Manual Basin: NCL2070

Scenario: Existing
Node: NCL2070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5106 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1344	1400	A/D	97955		
0.3762	1400	D	97955		

Comment: Updated basin per ERP 25926

Manual Basin: NCL2110

Scenario: Existing
Node: NCL2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3286 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9950	1400	D	97956		
2.0001	1400	D	97955		
0.3335	1400	A/D	97956		

Comment:

Manual Basin: NCL2130

Scenario: Existing
Node: NCL2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.0476 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0005	1400	D	97956		
0.8474	1400	A/D	97956		
7.0531	1300	A/D	97956		
0.1464	1300	C/D	97956		
0.0002	1400	C/D	97956		

Comment:

Manual Basin: NCL2150

Scenario: Existing
Node: NCL2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.4407 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5497	1400	D	97955		
0.8257	1400	D	97956		
8.7976	1300	A/D	97956		
0.2444	1400	A/D	97956		
0.0233	1300	D	97956		

Comment:

Manual Basin: NCL2170

Scenario: Existing
Node: NCL2170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.8440 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3971	1400	D	97956		
3.0688	1400	D	97955		
1.2926	8100	D	97955		
0.0533	1400	A/D	97956		
0.0322	1300	A/D	97956		

Comment:

Manual Basin: NCL2230

Scenario: Existing
Node: NCL2230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.5855 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.7078	1300	C/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3830	1300	A/D	97956		
0.7191	1400	C/D	97956		
0.1355	1300	D	97956		
0.6401	1400	D	97956		

Comment:

Manual Basin: NCL2270

Scenario: Existing
Node: NCL2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6996 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4990	1400	D	97956		
1.0138	1400	C/D	97956		
0.0483	1400	A/D	97956		
0.0051	1300	A/D	97956		
0.1335	1300	C/D	97956		

Comment:

Manual Basin: NCL2290

Scenario: Existing
Node: NCL2290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8370 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7317	1400	D	97956		
0.0769	1400	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0284	1300	A/D	97956		

Comment:

Manual Basin: NCL2330

Scenario: Existing
Node: NCL2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9821 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1203	1400	A/D	97956		
0.6523	1400	C/D	97956		
4.4979	1400	D	97956		
0.5279	1300	D	97956		
0.1837	1300	A/D	97956		

Comment:

Manual Basin: NCL2350

Scenario: Existing
Node: NCL2350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6713 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8290	1400	A/D	97956		
1.2574	1400	D	97956		
0.5849	1300	D	97956		

Comment:

Manual Basin: NCL2390

Scenario: Existing
Node: NCL2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.3537 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2177	1400	D	97956		
0.2369	1300	D	97956		
1.0743	1400	A/D	97956		
8.8248	1300	A/D	97956		

Comment:

Manual Basin: NCL2410

Scenario: Existing
Node: NCL2410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3373 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2375	1400	A/D	97956		
2.0998	1300	A/D	97956		

Comment:

Manual Basin: NCL2430

Scenario: Existing
Node: NCL2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3441 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4059	1400	A/D	97956		
2.9382	1300	A/D	97956		

Comment:

Manual Basin: NCL2470

Scenario: Existing
Node: NCL2470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6972 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1828	1400	D	97956		
2.5145	1400	A/D	97956		

Comment: DELINEATED PER ERP 2903

Manual Basin: NCL2490

Scenario: Existing
Node: NCL2490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1638 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0342	1400	A/D	97956		
2.1297	1300	A/D	97956		

Comment:

Manual Basin: NCL2510

Scenario: Existing
Node: NCL2510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.3623 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1208	1400	D	97956		
2.0157	1400	A/D	97956		
12.2258	1300	A/D	97956		

Comment:

Manual Basin: NCL2530

Scenario: Existing
Node: NCL2530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6123 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0006	1400	D	97956		
0.2078	1400	A/D	97956		
4.4039	1300	A/D	97956		

Comment:

Manual Basin: NCL2540

Scenario: Existing

Node: NCL2540
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7763 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7763	1300	A/D	97956		

Comment: LOW POINT WITH NO DRAINAGE INFRASTRUCTURE

Manual Basin: NCL2550

Scenario: Existing
Node: NCL2550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8345 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8345	1300	A/D	97956		

Comment:

Manual Basin: NCL2580

Scenario: Existing
Node: NCL2580
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2237 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.5769	1300	A/D	97956		
0.6468	1300	C/D	97956		

Comment:

Manual Basin: NCL2590

Scenario: Existing
Node: NCL2590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.0860 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
16.9990	1300	A/D	97956		
0.0013	1400	A/D	97956		
0.0857	1300	C/D	97956		

Comment:

Manual Basin: NCL2610

Scenario: Existing
Node: NCL2610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7263 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7263	1300	A/D	97956		

Comment:

Manual Basin: NCL2630

Scenario: Existing
Node: NCL2630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5093 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.3873	1300	A/D	97956		
1.1220	1300	A/D	97957		

Comment:

Manual Basin: NCL2631

Scenario: Existing
Node: NCL2631
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3837 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3124	1400	D	97957		
1.0079	1400	D	97956		
0.7657	1400	A/D	97956		
0.1450	1400	A/D	97957		
0.2004	1300	A/D	97957		
0.9523	1300	A/D	97956		

Comment:

Manual Basin: NCL2650

Scenario: Existing
Node: NCL2650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.1756 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.0462	1300	A/D	97956		
1.9949	1300	C/D	97956		
2.1345	1300	B/D	97956		

Comment:

Manual Basin: NCL2670

Scenario: Existing
Node: NCL2670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.9653 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4507	1300	C/D	97956		
5.4431	1300	B/D	97956		
0.0715	1300	A/D	97956		

Comment:

Manual Basin: NCL2690

Scenario: Existing
Node: NCL2690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8398	1300	A/D	97956		
3.2004	1300	B/D	97956		

Comment:

Manual Basin: NCL2710

Scenario: Existing
Node: NCL2710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7966 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4243	1300	A/D	97956		
3.7604	1300	C/D	97956		
0.6119	1300	B/D	97956		

Comment:

Manual Basin: NCL2730

Scenario: Existing
Node: NCL2730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9748 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8392	1300	A/D	97956		
3.1356	1300	C/D	97956		

Comment: NE CORNER HAS A 12" PIPE. NOT MODELED; ASSUMING ALL WATER STAYS WITHIN THE SYSTEM.

Manual Basin: NCL2750

Scenario: Existing
Node: NCL2750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9267 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5792	1300	A/D	97956		
0.3475	1300	C/D	97956		

Comment:

Manual Basin: NCL2780

Scenario: Existing
Node: NCL2780
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2848 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7802	1300	A/D	97956		
0.5045	1300	C/D	97956		

Comment:

Manual Basin: NCL2790

Scenario: Existing
Node: NCL2790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 19.5818 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8795	1300	A/D	97956		
15.6707	1300	C/D	97956		
0.0316	1300	A	97956		

Comment:

Manual Basin: NCL2810

Scenario: Existing
Node: NCL2810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4472	1300	C/D	97956		
0.4930	1300	A/D	97956		

Comment:

Manual Basin: NCL2830

Scenario: Existing
Node: NCL2830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6354 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5974	1300	A/D	97956		
0.0379	1300	C/D	97956		

Comment:

Manual Basin: NCL2840

Scenario: Existing
Node: NCL2840
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4508 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9321	1300	C/D	97956		
0.2584	1300	A/D	97956		
3.9649	1300	A	97956		
0.2954	1400	A	97956		

Comment:

Manual Basin: NCL2845

Scenario: Existing
Node: NCL2845
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2245 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1198	1300	A/D	97956		
0.0577	1300	C/D	97956		
2.0470	1300	A	97956		

Comment:

Manual Basin: NCL2850

Scenario: Existing
Node: NCL2850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0003 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5061	1400	A/D	97956		
1.4933	1400	D	97956		
0.0010	1300	A/D	97956		

Comment: DELINEATED PER ERP 2903

Manual Basin: NCL2890

Scenario: Existing
Node: NCL2890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0208 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3387	1400	A/D	97956		
1.6821	1400	D	97956		

Comment:

Manual Basin: NCL2910

Scenario: Existing
Node: NCL2910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9371 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4206	1400	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5165	1400	D	97956		

Comment:

Manual Basin: NCL2930

Scenario: Existing
Node: NCL2930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5563 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5460	1300	C/D	97956		
0.7197	1400	C/D	97956		
0.2906	1400	D	97956		

Comment:

Manual Basin: NCL2950

Scenario: Existing
Node: NCL2950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.4625 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0039	1300	D	97956		
2.4587	1300	C/D	97956		

Comment:

Manual Basin: NCL2970

Scenario: Existing
Node: NCL2970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8409 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.2796	1300	C/D	97956		
2.6872	1400	C/D	97956		
0.7777	1300	A/D	97956		
0.6252	1400	A/D	97956		
0.4712	1400	D	97956		

Comment:

Manual Basin: NCL2990

Scenario: Existing
Node: NCL2990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9027 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2031	1300	D	97482		
0.6996	1300	D	97956		

Comment:

Manual Basin: NCL3010

Scenario: Existing
Node: NCL3010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.1811 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4141	1400	C/D	97482		
0.1793	1300	C/D	97482		
3.8764	1400	D	97482		
0.5496	1400	A/D	97482		
0.1750	1300	D	97482		
0.8660	1400	C/D	97956		
3.5634	1400	D	97956		
1.5573	1300	D	97956		

Comment:

Manual Basin: NCL3030

Scenario: Existing
Node: NCL3030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.1011 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7579	1400	A/D	97482		
1.3924	1300	A/D	97482		
0.1289	1400	C/D	97482		
0.8145	1300	A/D	97956		
1.3067	1400	A/D	97956		
0.7008	1400	C/D	97956		

Comment:

Manual Basin: NCL3050

Scenario: Existing
Node: NCL3050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 22.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.1442 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.1848	1400	A/D	97956		
2.9595	1400	C/D	97956		
0.1628	1400	D	97956		
4.7178	1300	A/D	97956		
0.1192	1300	C/D	97956		

Comment:

Manual Basin: NCL3070

Scenario: Existing
Node: NCL3070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.9611 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1620	1400	C/D	97956		
0.0444	1400	D	97956		
0.3517	1300	D	97956		
5.7626	1300	C/D	97956		
0.7705	1400	A/D	97956		
1.8699	1300	A/D	97956		

Comment:

Manual Basin: NCL3090

Scenario: Existing
Node: NCL3090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.3728 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2484	1300	A/D	97482		
1.4698	1300	A	97482		
0.2407	8300	A	97482		
0.1805	1300	D	97482		
0.3992	8300	A/D	97482		
2.7405	1300	A/D	97956		
0.0939	1300	D	97956		

Comment:

Manual Basin: NCL3110

Scenario: Existing
Node: NCL3110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.3237 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.4652	1300	A/D	97956		
0.8364	1400	A/D	97956		
0.0221	1400	D	97956		

Comment:

Manual Basin: NCL3130

Scenario: Existing
Node: NCL3130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 7.0928 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.6281	1300	A/D	97956		
0.4646	1400	A/D	97956		

Comment:

Manual Basin: NCL3150

Scenario: Existing
Node: NCL3150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.7878 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1866	1400	D	97482		
0.1717	1300	D	97482		
2.0227	1400	D	97956		
0.0703	1300	D	97956		
0.3365	1400	A/D	97956		

Comment:

Manual Basin: NCL3170

Scenario: Existing
Node: NCL3170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7433 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2703	1400	A/D	97956		
1.0844	1400	D	97956		
1.2083	1300	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1803	1300	D	97956		

Comment:

Manual Basin: NCL3190

Scenario: Existing
Node: NCL3190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.9739 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7545	1400	A/D	97956		
6.2194	1300	A/D	97956		

Comment:

Manual Basin: NCL3210

Scenario: Existing
Node: NCL3210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.6576 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.0317	1300	A/D	97956		
0.6170	1400	A/D	97956		
0.0088	1400	D	97956		

Comment:

Manual Basin: NCL3230

Scenario: Existing
Node: NCL3230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0158 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8587	1300	A/D	97956		
1.1572	1400	A/D	97956		

Comment:

Manual Basin: NCL3250

Scenario: Existing
Node: NCL3250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.0117 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2815	1400	D	97482		
0.4920	1300	D	97482		
0.0173	1300	A	97482		
0.0200	1400	A	97482		
0.7725	1400	A	97956		
0.0173	1400	D	97956		
0.6510	1300	A	97956		
0.0278	1300	D	97956		
0.4186	1400	A/D	97956		
2.3138	1300	A/D	97956		

Comment:

Manual Basin: NCL3270

Scenario: Existing
Node: NCL3270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0215 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6671	1400	A/D	97956		
0.3544	1300	A/D	97956		

Comment:

Manual Basin: NCL3280

Scenario: Existing
Node: NCL3280
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0493 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0487	1300	A/D	97956		
0.0006	1400	A/D	97956		

Comment:

Manual Basin: NCL3290

Scenario: Existing
Node: NCL3290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 2.6258 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4062	1300	A/D	97956		
0.2196	1700	A/D	97956		

Comment:

Manual Basin: NCL3300

Scenario: Existing
Node: NCL3300
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2558 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7280	1300	A/D	97956		
0.5278	1700	A/D	97956		

Comment:

Manual Basin: NCL3330

Scenario: Existing
Node: NCL3330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0124 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0124	1700	A/D	97956		

Comment: ERP 19405 HAS CONTROL STRUCTURE DETAIL BUT SCHOOL DRAINAGE PLANS ARE REMOVED. ASSUME POND TREATMENT. NORTH BUILDING HAS ROOF DRAINS

Manual Basin: NCL3350

Scenario: Existing
Node: NCL3350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6283 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5083	1300	A/D	97956		
0.6283	1700	A/D	97956		
1.4918	1400	A/D	97956		

Comment: Assumes parking lot connects to Gomez system

Manual Basin: NCL3360

Scenario: Existing
Node: NCL3360
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7811 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2765	1300	A/D	97956		
0.5047	1400	A/D	97956		

Comment:

Manual Basin: NCL3365

Scenario: Existing
Node: NCL3365
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1143 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9144	1300	A/D	97956		
0.5396	1700	A/D	97956		
0.6088	1400	A/D	97956		
0.0515	1400	D	97956		

Comment:

Manual Basin: NCL3370

Scenario: Existing
Node: NCL3370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6219 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7110	1300	A/D	97956		
1.7604	1400	A/D	97956		
3.1505	1400	D	97956		

Comment:

Manual Basin: NCL3390

Scenario: Existing
Node: NCL3390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1557 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6841	1400	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4716	1400	D	97956		

Comment:

Manual Basin: NCL3430

Scenario: Existing
Node: NCL3430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3548 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2650	1400	A/D	97956		
0.0897	1400	D	97956		

Comment:

Manual Basin: NCL3450

Scenario: Existing
Node: NCL3450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7799 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8446	1400	D	97482		
0.1865	1400	A	97482		
1.5243	1300	A	97482		
0.6480	1300	D	97482		
3.3405	1300	A	97956		
0.0145	1300	D	97956		
0.0008	1400	D	97956		
0.2207	1400	A	97956		

Comment:

Manual Basin: NCL3470

Scenario: Existing
Node: NCL3470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.9569 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.7630	1300	A	97956		
8.1939	1300	A/D	97956		

Comment:

Manual Basin: NCL3490

Scenario: Existing
Node: NCL3490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6868	1300	A/D	97956		
0.0026	1300	A	97956		

Comment:

Manual Basin: NCL3510

Scenario: Existing
Node: NCL3510

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0542 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8625	1300	A/D	97956		
0.1917	1400	A/D	97956		

Comment:

Manual Basin: NCL3520

Scenario: Existing
Node: NCL3520
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6475 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.1836	1300	A/D	97956		
2.3385	1400	A/D	97956		
0.1254	1400	D	97956		

Comment:

Manual Basin: NCL3530

Scenario: Existing
Node: NCL3530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7388 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3834	1400	A/D	97956		
2.2252	1400	D	97956		
0.1302	1300	A/D	97956		

Comment:

Manual Basin: NCL3590

Scenario: Existing
Node: NCL3590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6086 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3424	1400	D	97956		
0.2663	1400	A/D	97956		

Comment:

Manual Basin: NCL3630

Scenario: Existing
Node: NCL3630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.1191 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3313	1400	A/D	97956		
0.0160	1400	A/D	97957		
0.3019	1400	D	97957		
3.4104	1400	D	97956		
0.0596	1300	A/D	97956		

Comment:

Manual Basin: NCL3640

Scenario: Existing
Node: NCL3640
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.7355 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4920	1400	A/D	97957		
2.1272	1400	D	97957		
1.1163	1300	A/D	97957		

Comment:

Manual Basin: NCL3670

Scenario: Existing
Node: NCL3670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8150 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8150	1400	D	97482		

Comment:

Manual Basin: NCL3730

Scenario: Existing
Node: NCL3730
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0025 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6458	1400	D	97482		
2.6610	1400	A	97482		
0.6957	1300	A	97482		

Comment:

Manual Basin: NCL3740

Scenario: Existing
Node: NCL3740
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2852 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1537	1300	A	97482		
1.1314	1300	A	97956		

Comment:

Manual Basin: NCL3750

Scenario: Existing
Node: NCL3750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.6366 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4763	1400	D	97482		
3.1096	1300	D	97482		
3.0411	1300	C/D	97482		
2.0039	1300	A/D	97482		
0.0036	1300	C/D	97956		
0.0021	1300	D	97956		

Comment:

Manual Basin: NCL3770

Scenario: Existing
Node: NCL3770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6106 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9090	1400	D	97482		
0.2771	1400	C/D	97482		
0.1298	1400	A/D	97482		
0.7417	1300	A/D	97482		
1.4634	1300	C/D	97482		
0.0895	1300	D	97482		

Comment:

Manual Basin: NCL4000

Scenario: Existing
Node: NCL4000
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.9325 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4513	1400	A	97956		
13.8820	1300	A	97956		
0.5992	8100	A	97956		

Comment:

Manual Basin: NCL4010

Scenario: Existing
Node: NCL4010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2561 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3043	1400	A	97956		
5.9518	1300	A	97956		

Comment:

Manual Basin: NOC0030

Scenario: Existing
Node: NOC0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.0811 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.0811	1300	A/D	97954		

Comment:

Manual Basin: NOC0050

Scenario: Existing
Node: NOC0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6402	1300	A/D	97954		

Comment:

Manual Basin: NOC0070

Scenario: Existing
Node: NOC0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4199 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2382	1300	A/D	97954		
0.2011	1400	A/D	97954		
0.9475	1400	D	97954		
0.0330	1300	D	97954		

Comment:

Manual Basin: NOC0170

Scenario: Existing
Node: NOC0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8390 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1861	1300	A/D	97954		
0.4845	1400	A/D	97954		
3.1683	1400	D	97954		
0.0000	1300	D	97954		

Comment:

Manual Basin: NOC0190

Scenario: Existing
Node: NOC0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0120 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1957	1400	D	97954		
0.8163	8100	D	97954		

Comment:

Manual Basin: NOC0210

Scenario: Existing
Node: NOC0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6430 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1009	1300	A/D	97954		
0.2165	1300	D	97954		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.3253	1400	D	97954		
0.0003	8100	D	97954		

Comment:

Manual Basin: NOC0250

Scenario: Existing
Node: NOC0250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1164	1400	D	97954		
1.0475	8100	D	97954		

Comment:

Manual Basin: NOC0270

Scenario: Existing
Node: NOC0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4015 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4258	1400	D	97954		
0.9757	8100	D	97954		

Comment:

Manual Basin: NOC0310

Scenario: Existing
Node: NOC0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 17.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 18.9729 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
18.2811	1400	D	97954		
0.1900	1400	C/D	97954		
0.0539	1400	A	97954		
0.0067	8100	A	97954		
0.4413	8100	D	97954		

Comment:

Manual Basin: NOC0330

Scenario: Existing
Node: NOC0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.5568 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.4669	1400	D	97954		
0.0899	8100	D	97954		

Comment:

Manual Basin: NOC0350

Scenario: Existing
Node: NOC0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 25.4007 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
24.8599	1400	D	97954		
0.5407	8100	D	97954		

Comment:

Manual Basin: NOC0370

Scenario: Existing
Node: NOC0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.7970 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1993	8100	D	97954		
0.8418	1400	D	97954		
9.7466	1400	D	97955		
0.0093	8100	D	97955		

Comment:

Manual Basin: NOC0390

Scenario: Existing
Node: NOC0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6741 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6655	1300	A/D	97955		
0.2883	1300	D	97955		
2.2986	1400	D	97955		
0.4216	1400	D	97954		

Comment:

Manual Basin: NOC0410

Scenario: Existing
Node: NOC0410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2691 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.8281	1300	A/D	97955		
0.1177	1300	D	97955		
0.2651	1400	D	97955		
0.0006	1400	A/D	97955		
0.0575	1300	A	97955		

Comment:

Manual Basin: NOC0430

Scenario: Existing
Node: NOC0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0478 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5665	1300	A/D	97955		
0.2791	1300	A	97955		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0918	1300	D	97955		
0.1103	1400	D	97955		

Comment:

Manual Basin: NOC0450

Scenario: Existing
Node: NOC0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7627 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5245	1300	A/D	97955		
1.0399	1400	D	97955		
0.1522	1300	D	97955		
0.0098	1900	D	97955		
0.0364	1900	A/D	97955		

Comment:

Manual Basin: NOC0470

Scenario: Existing
Node: NOC0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 33.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.4610 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8668	1300	A/D	97955		
6.3847	1300	A	97955		
1.2116	8300	A	97955		
0.0011	1900	A/D	97955		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9966	1900	A	97955		

Comment:

Manual Basin: NOC0490

Scenario: Existing
Node: NOC0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7828 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1980	1900	D	97955		
0.0017	1900	A/D	97955		
1.5664	1400	D	97955		
0.0167	8100	D	97955		

Comment:

Manual Basin: NRU0070

Scenario: Existing
Node: NRU0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5705 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.5705	1300	A/D	97482		

Comment:

Manual Basin: NRU0090

Scenario: Existing
Node: NRU0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.9334 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
15.9334	1300	A/D	97482		

Comment:

Manual Basin: NRU0110

Scenario: Existing
Node: NRU0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.6410 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8614	1300	A/D	97008		
5.7795	1300	A/D	97482		

Comment:

Manual Basin: NRU0130

Scenario: Existing
Node: NRU0130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 3.9430 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4531	1300	A/D	97482		
3.4899	8100	A/D	97482		

Comment:

Manual Basin: NRU0165

Scenario: Existing
Node: NRU0165
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2695 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1272	1800	A/D	97482		
0.0378	8100	A/D	97482		
1.1045	1300	A/D	97482		

Comment:

Manual Basin: NRU0170

Scenario: Existing
Node: NRU0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.7159 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.7159	1300	A/D	97482		

Comment:

Manual Basin: NRU0180

Scenario: Existing
Node: NRU0180
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.2511 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.4634	1300	A/D	97482		
0.7702	1400	A/D	97482		
1.6649	1400	A	97482		
0.3526	1300	A	97482		

Comment:

Manual Basin: NRU0190

Scenario: Existing
Node: NRU0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6017 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4747	8100	A/D	97482		
1.1269	1300	A/D	97482		

Comment:

Manual Basin: NRU0210

Scenario: Existing
Node: NRU0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1327 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1327	8100	A/D	97482		

Comment:

Manual Basin: NRU0230

Scenario: Existing
Node: NRU0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.9256 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8642	1300	A/D	97482		
1.0613	8100	A/D	97482		

Comment: Assume ponds connect on same property

Manual Basin: NRU0250

Scenario: Existing
Node: NRU0250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5153 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.5153	1300	A/D	97482		

Comment:

Manual Basin: NRU0270

Scenario: Existing
Node: NRU0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3476 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3476	1300	A/D	97482		

Comment:

Manual Basin: NRU0290

Scenario: Existing
Node: NRU0290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6281 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6281	1300	A/D	97482		

Comment:

Manual Basin: NRU0310

Scenario: Existing
Node: NRU0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1315 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1315	1300	A/D	97482		

Comment:

Manual Basin: NRU0335

Scenario: Existing
Node: NRU0335
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2036 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2036	1300	A/D	97482		

Comment:

Manual Basin: NRU0340

Scenario: Existing
Node: NRU0340
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8397 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8397	1300	A/D	97482		

Comment:

Manual Basin: NRU0345

Scenario: Existing

Node: NRU0345
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.1571 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.7808	1300	A/D	97482		
0.6642	1300	A/D	97483		
1.6797	1300	A	97482		
0.0324	1300	A	97483		

Comment:

Manual Basin: NRU0350

Scenario: Existing
Node: NRU0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0728 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9550	1300	A/D	97482		
0.1179	1300	A/D	97483		

Comment:

Manual Basin: NRU0370

Scenario: Existing
Node: NRU0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 1.3204 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1027	8100	A/D	97482		
0.2298	1300	A/D	97482		
0.0670	8100	A/D	97483		
0.2460	1300	A/D	97483		
0.1188	8100	A	97483		
0.5561	1300	A	97483		

Comment:

Manual Basin: NRU0390

Scenario: Existing
Node: NRU0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.1520 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7953	8100	A/D	97482		
1.5336	8100	A/D	97483		
2.8231	8100	A	97483		

Comment:

Manual Basin: NRU0490

Scenario: Existing
Node: NRU0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8802 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6429	1300	A	97483		
0.0887	8100	A	97483		
0.1486	1400	A	97483		

Comment:

Manual Basin: NRU0495

Scenario: Existing
Node: NRU0495
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7046 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2248	1400	A	97483		
0.4694	1300	A	97483		
0.0103	8100	A	97483		

Comment:

Manual Basin: NRU0500

Scenario: Existing
Node: NRU0500
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7226 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7162	1400	A	97483		
0.0063	8100	A	97483		

Comment:

Manual Basin: NRU0510

Scenario: Existing
Node: NRU0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.0446 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0827	1300	A/D	97483		
7.0694	1300	A	97483		
0.3066	1300	A/D	97482		
1.5816	1300	A	97482		
0.0043	8100	A	97483		

Comment:

Manual Basin: NRU0550

Scenario: Existing
Node: NRU0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.6652 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6649	1300	A/D	97482		
0.0002	1300	A	97482		

Comment:

Manual Basin: NRU0570

Scenario: Existing
Node: NRU0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2061 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0481	1300	A/D	97482		
4.1580	1300	A	97482		

Comment:

Manual Basin: NRU0590

Scenario: Existing
Node: NRU0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9773 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9773	1300	A	97482		

Comment:

Manual Basin: NRU0610

Scenario: Existing
Node: NRU0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.6775 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
13.6775	1300	A	97482		

Comment:

Manual Basin: NRU0612

Scenario: Existing
Node: NRU0612
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.6868 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6868	1300	A	97482		

Comment:

Manual Basin: NRU0616

Scenario: Existing
Node: NRU0616
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4792 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8728	1300	A	97483		
0.6064	1300	A	97482		

Comment:

Manual Basin: NRU0618

Scenario: Existing
Node: NRU0618
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 4.1786 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2382	1300	A	97483		
0.9404	1300	A	97482		

Comment:

Manual Basin: NRU0620

Scenario: Existing
Node: NRU0620
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.4480 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.4382	1300	A	97482		
0.0098	1300	A/D	97482		

Comment:

Manual Basin: NRU0630

Scenario: Existing
Node: NRU0630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6761 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6761	1300	A	97482		

Comment:

Manual Basin: NRU0650

Scenario: Existing
Node: NRU0650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8666 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8666	1300	A	97482		

Comment:

Manual Basin: NRU0690

Scenario: Existing
Node: NRU0690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5910 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.5910	1300	A	97482		

Comment:

Manual Basin: NRU0710

Scenario: Existing
Node: NRU0710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2980 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.2980	1300	A	97482		

Comment:

Manual Basin: NRU0730

Scenario: Existing
Node: NRU0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.8353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.8353	1300	A	97482		

Comment:

Manual Basin: NRU0740

Scenario: Existing
Node: NRU0740
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2562 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2562	1300	A	97482		

Comment:

Manual Basin: NRU0745

Scenario: Existing

Node: NRU0745
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4582 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4582	1300	A	97482		

Comment:

Manual Basin: NRU0750

Scenario: Existing
Node: NRU0750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.7082 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
15.0321	1300	A	97482		
0.6761	1400	A	97482		

Comment:

Manual Basin: NRU0785

Scenario: Existing
Node: NRU0785
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3526 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7187	1300	A	97482		
0.1093	1300	A	97483		
0.5053	1400	A	97482		
0.0193	1400	A	97483		

Comment:

Manual Basin: NRU0790

Scenario: Existing
Node: NRU0790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.0594 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3869	1400	A	97483		
4.6360	1400	A	97482		
0.0050	1300	A	97482		
4.0315	1400	D	97482		

Comment:

Manual Basin: NRU0830

Scenario: Existing
Node: NRU0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1448 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2160	1400	A	97483		
1.3643	1400	A	97482		
0.0959	1400	D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1497	1300	A	97483		
0.3189	1300	A	97482		

Comment:

Manual Basin: NRU0890

Scenario: Existing
Node: NRU0890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2093 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2057	1400	A	97482		
1.3396	1300	A	97482		
0.3680	1300	A	97483		
0.8861	5300	A	97482		
0.2938	5300	A	97483		
0.1160	1400	A	97483		

Comment:

Manual Basin: NRU0930

Scenario: Existing
Node: NRU0930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7012 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5013	1300	A	97483		
0.1999	1300	A	97482		

Comment:

Manual Basin: NRU0950

Scenario: Existing
Node: NRU0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7985 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0709	1400	D	97482		
0.4050	1400	A	97482		
1.3226	1300	A	97482		

Comment:

Manual Basin: NRU0955

Scenario: Existing
Node: NRU0955
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8435 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0964	1300	A	97482		
1.7471	1300	A	97956		

Comment:

Manual Basin: NRU0960

Scenario: Existing
Node: NRU0960

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2794 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2794	1300	A	97956		

Comment:

Manual Basin: NRU0965

Scenario: Existing
Node: NRU0965
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.6879 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8978	1300	A	97956		
1.7901	1300	A/D	97956		

Comment:

Manual Basin: NRU0970

Scenario: Existing
Node: NRU0970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6908 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4593	1400	A	97483		
0.3510	1400	A	97482		
0.2604	1300	A	97482		
0.0003	1300	A	97483		
0.0657	1400	A	97956		
1.5542	1300	A	97956		

Comment:

Manual Basin: NRU1010

Scenario: Existing
Node: NRU1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3089 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2367	1400	A	97483		
0.9826	1300	A	97483		
0.0339	1300	A/D	97483		
0.0558	1400	A/D	97483		

Comment:

Manual Basin: NRU1015

Scenario: Existing
Node: NRU1015
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4853 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9018	1300	A	97483		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1720	1400	A	97483		
0.7445	1400	A/D	97483		
0.6630	1300	A/D	97483		
0.0040	1400	A/D	97957		

Comment:

Manual Basin: NRU1020

Scenario: Existing
Node: NRU1020
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3193 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3080	1300	A	97483		
0.0113	1300	A/D	97483		

Comment:

Manual Basin: NRU1030

Scenario: Existing
Node: NRU1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.0154 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8477	1400	A/D	97957		
1.3017	1300	A/D	97957		
1.5655	1300	A	97956		
0.1038	1300	A	97957		
0.1967	1300	A/D	97956		

Comment: CHEAP roof drains on west side of building

Manual Basin: NRU1035

Scenario: Existing
Node: NRU1035
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2098 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2098	1400	A/D	97957		

Comment:

Manual Basin: NRU1040

Scenario: Existing
Node: NRU1040
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3126 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1340	1400	A	97483		
0.0188	1400	A	97482		
0.2082	1400	A	97957		
0.0263	1400	A	97956		
1.1956	1300	A	97957		
0.4509	1300	A	97956		
0.9643	1400	A/D	97957		
0.3146	1300	A/D	97957		

Comment:

Manual Basin: NRU1045

Scenario: Existing
Node: NRU1045
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.9788 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5370	1400	A/D	97483		
0.1519	1400	A	97483		
3.2214	1400	A/D	97957		
0.0685	1400	A	97957		

Comment:

Manual Basin: NRU1050

Scenario: Existing
Node: NRU1050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.3263 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.2529	1300	A/D	97957		
0.1284	1400	A/D	97957		
3.2071	1300	A/D	97956		
0.6420	1300	A	97956		
0.0958	1400	A/D	97956		

Comment:

Manual Basin: NRU1070

Scenario: Existing
Node: NRU1070
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.3113 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4912	1300	A/D	97957		
0.4073	1300	A/D	97956		
2.7103	1400	A/D	97957		
0.6749	1400	A/D	97956		
0.0277	1400	D	97957		

Comment:

Manual Basin: NRU1110

Scenario: Existing
Node: NRU1110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4386 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9243	1300	A	97482		
1.5143	1300	A	97483		

Comment:

Manual Basin: NRU1150

Scenario: Existing
Node: NRU1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 5.6589 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3204	1300	A	97482		
1.3385	1300	A	97483		

Comment:

Manual Basin: NRU1170

Scenario: Existing
Node: NRU1170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.2984 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.0988	1300	A	97482		
5.9207	1300	A	97483		
0.2789	1400	A	97483		

Comment:

Manual Basin: NRU1182

Scenario: Existing
Node: NRU1182
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2927 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0312	1300	A	97483		
1.2614	1700	A	97483		

Comment:

Manual Basin: NRU1185

Scenario: Existing
Node: NRU1185
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.4406 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5105	1300	A	97483		
2.5737	1400	A	97483		
1.3564	1700	A	97483		

Comment:

Manual Basin: NRU1188

Scenario: Existing
Node: NRU1188
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3012 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1053	1300	A	97483		
1.1958	1700	A	97483		

Comment:

Manual Basin: NRU1220

Scenario: Existing
Node: NRU1220
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9601 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.7034	1300	A	97483		
0.3380	1300	A	97482		
0.9187	1400	A	97483		

Comment:

Manual Basin: NRU1225

Scenario: Existing
Node: NRU1225
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5031 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5031	1300	A	97483		

Comment:

Manual Basin: NRU1234

Scenario: Existing
Node: NRU1234
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2454 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2037	1700	A	97483		
0.0002	1300	A	97483		
0.0416	1400	A	97483		

Comment:

Manual Basin: NRU1240

Scenario: Existing
Node: NRU1240
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3933 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3919	1400	A	97483		
0.0014	1300	A	97483		

Comment:

Manual Basin: NRU1250

Scenario: Existing
Node: NRU1250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0793 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3808	8100	A/D	97008		
0.1567	1300	A/D	97008		
0.2537	1300	A/D	97482		
0.2882	8100	A/D	97482		

Comment:

Manual Basin: NRU1270

Scenario: Existing

Node: NRU1270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0265 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7322	1300	A/D	97008		
1.2943	1300	A/D	97482		

Comment:

Manual Basin: NRU1330

Scenario: Existing
Node: NRU1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6339 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1447	8100	A/D	97482		
0.2164	1300	A/D	97482		
1.2727	1800	A/D	97482		

Comment:

Manual Basin: NRU1350

Scenario: Existing
Node: NRU1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 1.7533 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7533	1300	A/D	97482		

Comment:

Manual Basin: NRU1370

Scenario: Existing
Node: NRU1370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.3283 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5186	1300	A/D	97008		
0.0402	1400	A/D	97008		
4.3960	1300	A/D	97482		
1.3735	1400	A/D	97482		

Comment:

Manual Basin: NRU1390

Scenario: Existing
Node: NRU1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.3781 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.9929	1300	A/D	97482		
2.6523	1400	A/D	97482		
0.7329	1800	A/D	97482		

Comment:

Manual Basin: NRU1410

Scenario: Existing
Node: NRU1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.7877 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4994	1400	A/D	97482		
6.1874	1300	A/D	97482		
0.1009	1820	A/D	97482		

Comment:

Manual Basin: NRU1430

Scenario: Existing
Node: NRU1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.5087 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9651	1400	A/D	97008		
3.2907	1300	A/D	97008		
1.2781	1400	A/D	97482		
1.9747	1300	A/D	97482		

Comment:

Manual Basin: NRU1450

Scenario: Existing
Node: NRU1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.2294 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2390	1400	A/D	97008		
3.9904	1300	A/D	97008		

Comment:

Manual Basin: NRU1490

Scenario: Existing
Node: NRU1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3216 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3072	1400	A/D	97008		
0.0145	8100	A/D	97008		

Comment:

Manual Basin: NRU1510

Scenario: Existing
Node: NRU1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4857 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0613	1820	A/D	97482		
4.0198	1300	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8969	1400	A/D	97482		
0.3482	1820	A	97482		
2.8706	1300	A	97482		
0.2596	1400	A	97482		
0.0293	1800	A	97482		

Comment:

Manual Basin: NRU1530

Scenario: Existing
Node: NRU1530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8215 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0073	1300	A/D	97482		
1.0664	1820	A/D	97482		
0.7478	1820	A	97482		

Comment:

Manual Basin: NRU1550

Scenario: Existing
Node: NRU1550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3558 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0123	1300	A/D	97482		
0.0447	1820	A/D	97482		
0.3531	1820	A	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9456	1300	A	97482		

Comment:

Manual Basin: NRU1570

Scenario: Existing
Node: NRU1570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9266 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9266	1300	A/D	97482		

Comment:

Manual Basin: NRU1590

Scenario: Existing
Node: NRU1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1239 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8642	1300	A/D	97482		
0.2558	1820	A/D	97482		
0.0040	1820	A	97482		

Comment:

Manual Basin: NRU1610

Scenario: Existing
Node: NRU1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.6841 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.8309	1300	A/D	97482		
1.3310	1300	C/D	97482		
0.3939	1820	A/D	97482		
0.1283	1820	C/D	97482		

Comment:

Manual Basin: NRU1650

Scenario: Existing
Node: NRU1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6442 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4600	1300	A/D	97482		
7.0760	1300	C/D	97482		
0.1082	1820	C/D	97482		

Comment:

Manual Basin: NRU1670

Scenario: Existing
Node: NRU1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8381 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.4600	1300	C/D	97482		
0.2659	1700	C/D	97482		
0.0234	1300	A/D	97482		
0.0180	1700	D	97482		
0.0505	1300	D	97482		
0.0204	1820	C/D	97482		

Comment:

Manual Basin: NRU1690

Scenario: Existing
Node: NRU1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0769 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2375	1700	D	97482		
0.6127	1700	C/D	97482		
2.5293	1300	C/D	97482		
0.6975	1300	D	97482		

Comment:

Manual Basin: NRU1730

Scenario: Existing
Node: NRU1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 5.5630 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9199	1300	C/D	97482		
2.2692	1820	C/D	97482		
0.3740	5300	C/D	97482		

Comment:

Manual Basin: NRU1770

Scenario: Existing
Node: NRU1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2748 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6910	1820	C/D	97482		
0.5838	1300	C/D	97482		

Comment:

Manual Basin: NRU1790

Scenario: Existing
Node: NRU1790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8045 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8045	1820	C/D	97482		

Comment:

Manual Basin: NRU1810

Scenario: Existing
Node: NRU1810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6712 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3317	1820	C/D	97482		
0.3395	5300	C/D	97482		

Comment:

Manual Basin: NRU1830

Scenario: Existing
Node: NRU1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2746 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7041	1820	C/D	97482		
2.4386	1300	C/D	97482		
0.1319	1300	A/D	97482		

Comment:

Manual Basin: NRU1890

Scenario: Existing
Node: NRU1890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.9910 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5927	1300	C/D	97482		
0.3983	1300	A/D	97482		

Comment:

Manual Basin: NRU1910

Scenario: Existing
Node: NRU1910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2999 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2336	1300	C/D	97482		
3.0663	1300	A/D	97482		

Comment:

Manual Basin: NRU1930

Scenario: Existing
Node: NRU1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2841 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1560	1820	A/D	97482		
6.1047	1820	A	97482		
0.0212	1300	A	97482		
0.0022	1800	A	97482		

Comment:

Manual Basin: NRU1990

Scenario: Existing
Node: NRU1990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 56.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6087 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8070	1820	A	97482		
2.0906	1820	A/D	97482		
0.7112	1820	C/D	97482		

Comment:

Manual Basin: NRU2010

Scenario: Existing
Node: NRU2010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8104 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7289	1820	C/D	97482		
0.0814	1300	C/D	97482		

Comment:

Manual Basin: NRU2030

Scenario: Existing

Node: NRU2030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 28.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2671 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2452	1820	C/D	97482		
0.0220	1820	A	97482		

Comment:

Manual Basin: NRU2070

Scenario: Existing
Node: NRU2070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3101 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0733	1820	C/D	97482		
0.2368	5300	C/D	97482		

Comment:

Manual Basin: NRU2090

Scenario: Existing
Node: NRU2090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 79.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.2298 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0527	1820	A/D	97482		
2.6158	1820	A	97482		
1.5612	1820	C/D	97482		

Comment:

Manual Basin: NRU2110

Scenario: Existing
Node: NRU2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6852 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6393	1820	A	97482		
0.0459	1820	C/D	97482		

Comment:

Manual Basin: NRU2130

Scenario: Existing
Node: NRU2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5209 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5132	1820	C/D	97482		
0.0077	1820	A	97482		

Comment:

Manual Basin: NRU2150

Scenario: Existing
Node: NRU2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 29.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6703 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6701	1820	C/D	97482		
0.0002	5300	C/D	97482		

Comment:

Manual Basin: NRU2190

Scenario: Existing
Node: NRU2190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7804 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1449	1820	C/D	97482		
0.6356	5300	C/D	97482		

Comment:

Manual Basin: NRU2230

Scenario: Existing
Node: NRU2230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 6.5224 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7651	1820	A	97482		
1.6944	5300	A	97482		
1.9385	1820	C/D	97482		
0.1244	5300	C/D	97482		

Comment:

Manual Basin: NRU2250

Scenario: Existing
Node: NRU2250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4592 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0391	1820	A	97482		
0.4200	5300	A	97482		

Comment:

Manual Basin: NRU2270

Scenario: Existing
Node: NRU2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8116 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8116	1820	C/D	97482		

Comment:

Manual Basin: NRU2290

Scenario: Existing
Node: NRU2290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 29.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5677	1820	C/D	97482		
1.9751	1300	C/D	97482		

Comment:

Manual Basin: NRU2310

Scenario: Existing
Node: NRU2310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4937 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2163	1820	C/D	97482		
1.2774	1300	C/D	97482		

Comment:

Manual Basin: NRU2330

Scenario: Existing
Node: NRU2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 56.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 4.2881 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1778	1820	A	97482		
2.0877	1820	C/D	97482		
2.0225	1300	C/D	97482		

Comment:

Manual Basin: NRU2390

Scenario: Existing
Node: NRU2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8038 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9834	1820	C/D	97482		
1.0319	1820	A	97482		
0.5080	5300	A	97482		
0.2318	5300	C/D	97482		
0.0291	1820	A/D	97482		
0.0195	1300	C/D	97482		

Comment:

Manual Basin: NRU2410

Scenario: Existing
Node: NRU2410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1352	1820	A	97482		
0.0000	1820	C/D	97482		

Comment:

Manual Basin: NRU2430

Scenario: Existing
Node: NRU2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 52.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.2471 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8911	1820	A	97482		
0.0344	1820	A/D	97482		
0.0234	1820	C/D	97482		
0.7924	1300	C/D	97482		
0.8716	1300	A/D	97482		
1.6341	1300	A	97482		

Comment:

Manual Basin: NRU2450

Scenario: Existing
Node: NRU2450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7414 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7302	1820	A	97482		
0.0112	1800	A	97482		

Comment:

Manual Basin: NRU2490

Scenario: Existing
Node: NRU2490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2343 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3667	1800	A	97482		
1.8676	1820	A	97482		

Comment:

Manual Basin: NRU2550

Scenario: Existing
Node: NRU2550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2667 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0288	1300	A	97482		
1.5707	1400	A	97482		
3.1500	1800	A	97482		
0.0106	1820	A	97482		
0.9046	1400	A/D	97482		
0.6021	1300	A/D	97482		

Comment:

Manual Basin: NRU2570

Scenario: Existing
Node: NRU2570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.4682 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5996	1800	A	97482		
1.0828	1400	A	97482		
0.3515	1820	A	97482		
1.8422	1300	A/D	97482		
0.1124	1400	A/D	97482		
3.4797	1300	A	97482		

Comment:

Manual Basin: NRU2590

Scenario: Existing
Node: NRU2590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8716 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0965	1300	A/D	97482		
0.7751	1300	A	97482		

Comment:

Manual Basin: NRU2610

Scenario: Existing
Node: NRU2610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.4683 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.1549	1300	A	97482		
0.9905	1300	A/D	97482		
0.3229	1820	A	97482		

Comment:

Manual Basin: NRU2630

Scenario: Existing
Node: NRU2630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4474 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.1250	1300	A	97482		
0.3224	1820	A	97482		

Comment:

Manual Basin: NRU2650

Scenario: Existing
Node: NRU2650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.4821 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.1392	1300	A	97482		
0.3429	1820	A	97482		

Comment:

Manual Basin: NRU2670

Scenario: Existing
Node: NRU2670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.8282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2885	1300	A/D	97008		
6.4714	1300	A/D	97482		
0.0683	1300	C/D	97482		

Comment:

Manual Basin: NRU2690

Scenario: Existing
Node: NRU2690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 60.9803 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8658	1400	A/D	97008		
21.9587	1300	A/D	97008		
12.6064	1300	A/D	97482		
24.2615	1300	C/D	97482		
0.0000	1300	C/D	97008		
1.2879	1700	C/D	97482		

Comment:

Manual Basin: NSH20

Scenario: Existing
Node: NSH20
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9879 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4945	1300	A/D	97483		
0.4896	1300	A	97483		
0.0038	1400	A	97483		

Comment:

Manual Basin: NSR0030

Scenario: Existing
Node: NSR0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5719 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6929	1300	A	97480		
0.9228	5400	A	97480		
1.0943	5400	W	97480		
0.3865	1300	A/D	97480		
0.4693	5400	A/D	97480		
0.0063	1300	W	97480		

Comment:

Manual Basin: NSR0032

Scenario: Existing
Node: NSR0032
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5073 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7232	1300	A	97480		
1.7663	1300	A/D	97480		
0.0178	1300	W	97480		

Comment:

Manual Basin: NSR0034

Scenario: Existing
Node: NSR0034
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.8157 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.4621	1300	A/D	97480		
4.3536	1300	A	97480		

Comment:

Manual Basin: NSR0050

Scenario: Existing
Node: NSR0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8984 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9647	1300	A/D	97480		
0.9337	5400	A/D	97480		

Comment:

Manual Basin: NSR0070

Scenario: Existing
Node: NSR0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5624 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0568	1300	A/D	97481		
3.4691	1300	A/D	97480		
0.0364	5400	A/D	97480		

Comment:

Manual Basin: NSR0090

Scenario: Existing
Node: NSR0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8858 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8853	1300	A/D	97480		
0.0005	1300	A/D	97481		

Comment:

Manual Basin: NSR0100

Scenario: Existing
Node: NSR0100
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1125 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3774	1300	A/D	97480		
0.7351	1300	A	97480		

Comment:

Manual Basin: NSR0102

Scenario: Existing
Node: NSR0102
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9685 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9193	1300	A/D	97480		
0.0492	1300	A	97480		

Comment:

Manual Basin: NSR0105

Scenario: Existing
Node: NSR0105
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2784 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2314	1300	A/D	97480		
0.0470	1300	A	97480		

Comment:

Manual Basin: NSR0110

Scenario: Existing
Node: NSR0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5080 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5080	1300	A/D	97480		

Comment:

Manual Basin: NSR0112

Scenario: Existing
Node: NSR0112
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3329 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3329	1300	A/D	97480		

Comment:

Manual Basin: NSR0115

Scenario: Existing
Node: NSR0115
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6321 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6321	1300	A/D	97480		

Comment:

Manual Basin: NSR0120

Scenario: Existing
Node: NSR0120
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4524 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4524	1300	A/D	97480		

Comment:

Manual Basin: NSR0130

Scenario: Existing
Node: NSR0130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0325 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0325	1300	A/D	97480		

Comment:

Manual Basin: NSR0135

Scenario: Existing
Node: NSR0135
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0019 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0019	1300	A/D	97480		

Comment:

Manual Basin: NSR0140

Scenario: Existing
Node: NSR0140
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9814 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9814	1300	A/D	97480		

Comment:

Manual Basin: NSR0150

Scenario: Existing
Node: NSR0150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4229 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0961	1300	A/D	97480		
0.1332	1300	A/D	97481		
0.1936	1800	A/D	97481		

Comment:

Manual Basin: NSR0160

Scenario: Existing
Node: NSR0160
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1118 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0816	1300	A/D	97480		
0.0302	1300	A/D	97481		

Comment:

Manual Basin: NSR0165

Scenario: Existing
Node: NSR0165
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8662 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8264	1300	A/D	97480		
0.0397	1300	A/D	97481		

Comment:

Manual Basin: NSR0170

Scenario: Existing
Node: NSR0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8156 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8156	1300	A/D	97480		

Comment:

Manual Basin: NSR0180

Scenario: Existing
Node: NSR0180
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8255 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7332	1300	A/D	97480		
0.0922	1300	A/D	97481		

Comment:

Manual Basin: NSR0190

Scenario: Existing
Node: NSR0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8511 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3687	1300	A/D	97480		
0.4825	1300	A/D	97481		

Comment:

Manual Basin: NSR0210

Scenario: Existing
Node: NSR0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1410 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6343	1300	A/D	97481		
0.0015	1800	A/D	97481		
0.5052	1300	A/D	97480		

Comment:

Manual Basin: NSR0230

Scenario: Existing
Node: NSR0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5473 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0950	1300	A/D	97481		
2.4523	1300	A/D	97480		

Comment:

Manual Basin: NSR0270

Scenario: Existing
Node: NSR0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0458	1800	A/D	97481		
0.8979	1300	A/D	97480		
3.9201	1300	A/D	97481		

Comment:

Manual Basin: NSR0280

Scenario: Existing
Node: NSR0280
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4029 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4029	1300	A/D	97481		

Comment:

Manual Basin: NSR0281

Scenario: Existing
Node: NSR0281
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0897 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.0897	1300	A/D	97481		

Comment:

Manual Basin: NSR0290

Scenario: Existing
Node: NSR0290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2170 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.2170	1300	A/D	97481		

Comment:

Manual Basin: NSR0310

Scenario: Existing
Node: NSR0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.1088 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0360	1400	A/D	97481		
10.1506	1700	A/D	97481		
5.9222	1300	A/D	97481		

Comment:

Manual Basin: NSR0370

Scenario: Existing
Node: NSR0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.9327 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9217	1700	A/D	97481		
0.0110	1300	A/D	97481		

Comment:

Manual Basin: NSR0390

Scenario: Existing
Node: NSR0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 23.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0658 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2946	1300	A/D	97481		
2.7713	1700	A/D	97481		

Comment:

Manual Basin: NSR0430

Scenario: Existing
Node: NSR0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2328 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7346	1700	A/D	97481		
0.4982	1300	A/D	97481		

Comment:

Manual Basin: NSR0450

Scenario: Existing
Node: NSR0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8329 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1758	1300	A/D	97481		
3.6571	1700	A/D	97481		

Comment:

Manual Basin: NSR0470

Scenario: Existing
Node: NSR0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 2.7787 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7787	1300	A/D	97481		

Comment:

Manual Basin: NSR0490

Scenario: Existing
Node: NSR0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8575 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8575	1300	A/D	97481		

Comment:

Manual Basin: NSR0510

Scenario: Existing
Node: NSR0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2225 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2225	1300	A/D	97481		

Comment:

Manual Basin: NSR0530

Scenario: Existing
Node: NSR0530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1079 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2199	1300	A/D	97480		
2.8880	1300	A/D	97481		

Comment:

Manual Basin: NSR0540

Scenario: Existing
Node: NSR0540
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1820 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1792	1300	A/D	97481		
0.0028	1300	A/D	97480		

Comment:

Manual Basin: NSR0550

Scenario: Existing
Node: NSR0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 1.4950 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3008	1300	A/D	97481		
0.1942	1300	A/D	97480		

Comment:

Manual Basin: NSR0560

Scenario: Existing
Node: NSR0560
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.8730 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.2038	1300	A/D	97481		
0.6692	1300	A/D	97480		

Comment:

Manual Basin: NSR0570

Scenario: Existing
Node: NSR0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5001 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1522	1300	A/D	97481		
0.3479	1300	A/D	97480		

Comment:

Manual Basin: NSR0580

Scenario: Existing
Node: NSR0580
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5362 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9697	1300	A/D	97481		
1.5665	1300	A	97481		

Comment:

Manual Basin: NSR0590

Scenario: Existing
Node: NSR0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6611 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6611	1300	A/D	97481		

Comment:

Manual Basin: NSR0610

Scenario: Existing
Node: NSR0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 4.4880 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4880	1300	A/D	97481		

Comment:

Manual Basin: NSR0650

Scenario: Existing
Node: NSR0650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.2984 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.3918	1300	A/D	97481		
0.9066	1300	A	97481		

Comment:

Manual Basin: NSR0660

Scenario: Existing
Node: NSR0660
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2774 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9902	1300	A/D	97481		
0.2871	1300	A	97481		

Comment:

Manual Basin: NSR0680

Scenario: Existing
Node: NSR0680
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.3646 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7806	1300	A/D	97481		
1.5840	1300	A/D	97480		

Comment:

Manual Basin: NSR0730

Scenario: Existing
Node: NSR0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.2491 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.2491	1300	A/D	97481		

Comment:

Manual Basin: NSR0770

Scenario: Existing
Node: NSR0770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 2.0172 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0172	1300	A/D	97481		

Comment:

Manual Basin: NSR0780

Scenario: Existing
Node: NSR0780
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2311 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2311	1300	A/D	97481		

Comment:

Manual Basin: NSR0790

Scenario: Existing
Node: NSR0790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.9154 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6602	1300	A/D	97481		
7.2552	1700	A/D	97481		

Comment:

Manual Basin: NSR0810

Scenario: Existing
Node: NSR0810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7174 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9131	1700	A/D	97481		
3.8044	1300	A/D	97481		

Comment:

Manual Basin: NSR0830

Scenario: Existing
Node: NSR0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 23.6571 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2753	1400	A/D	97481		
19.9901	1300	A/D	97481		
3.3917	1700	A/D	97481		

Comment:

Manual Basin: NSR0840

Scenario: Existing
Node: NSR0840
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8766 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6235	1400	A/D	97481		
0.2531	1300	A/D	97481		

Comment:

Manual Basin: NSR0850

Scenario: Existing
Node: NSR0850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3592 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7670	1400	A/D	97481		
5.5922	1300	A/D	97481		

Comment:

Manual Basin: NSR0860

Scenario: Existing
Node: NSR0860
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6225 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6225	1300	A/D	97481		

Comment:

Manual Basin: NSR0870

Scenario: Existing
Node: NSR0870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5092 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5092	1400	A/D	97481		

Comment:

Manual Basin: NSR0880

Scenario: Existing
Node: NSR0880
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5097 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5461	1400	A/D	97481		
2.2860	1400	D	97481		
1.5455	1300	A/D	97481		
0.1321	1300	D	97481		

Comment:

Manual Basin: NSR0881

Scenario: Existing
Node: NSR0881
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2181 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9194	1400	D	97481		
0.1466	1300	D	97481		
0.0044	1300	A/D	97481		
0.1335	1700	D	97481		
0.0141	1700	A/D	97481		

Comment:

Manual Basin: NSR0890

Scenario: Existing
Node: NSR0890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.0131 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7212	1300	A/D	97481		
3.9859	1800	A/D	97481		
0.3060	5300	A/D	97481		

Comment:

Manual Basin: NSR0910

Scenario: Existing
Node: NSR0910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.2129 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3757	1300	A/D	97481		
0.8372	1800	A/D	97481		

Comment:

Manual Basin: NSR0930

Scenario: Existing
Node: NSR0930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.9711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.5193	1300	A/D	97481		
0.4518	5300	A/D	97481		

Comment:

Manual Basin: NSR0950

Scenario: Existing
Node: NSR0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.0039 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
13.7571	1300	A/D	97481		
0.2467	1400	A/D	97481		

Comment:

Manual Basin: NSR1010

Scenario: Existing
Node: NSR1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0137 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1854	1400	A/D	97481		
0.8282	1300	A/D	97481		

Comment:

Manual Basin: NSR1030

Scenario: Existing
Node: NSR1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.1569 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0381	1400	A/D	97481		
0.1188	1300	A/D	97481		

Comment:

Manual Basin: NSR1050

Scenario: Existing
Node: NSR1050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.8440 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5187	1300	A/D	97481		
0.3253	1400	A/D	97481		

Comment:

Manual Basin: NSR1070

Scenario: Existing
Node: NSR1070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 20.9918 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.4824	1300	A/D	97481		
13.4034	1400	A/D	97481		
0.1060	1700	A/D	97481		

Comment:

Manual Basin: NSR1090

Scenario: Existing
Node: NSR1090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2749 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2749	1300	A/D	97481		

Comment:

Manual Basin: NSR1110

Scenario: Existing
Node: NSR1110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6851 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6851	1300	A/D	97481		

Comment:

Manual Basin: NSR1130

Scenario: Existing
Node: NSR1130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5665 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2059	1300	A/D	97481		
6.3605	1400	A/D	97481		

Comment:

Manual Basin: NSR1150

Scenario: Existing
Node: NSR1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 1.6292 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2676	1300	A/D	97481		
1.3616	1400	A/D	97481		

Comment:

Manual Basin: NSR1190

Scenario: Existing
Node: NSR1190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3456 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3456	1300	A/D	97481		

Comment:

Manual Basin: NSR1210

Scenario: Existing
Node: NSR1210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8115 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9527	1300	A/D	97481		
0.8587	1400	A/D	97481		

Comment:

Manual Basin: NSR1290

Scenario: Existing
Node: NSR1290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9738 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9738	1300	A/D	97481		

Comment:

Manual Basin: NSR1310

Scenario: Existing
Node: NSR1310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2211 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.9137	1300	A/D	97481		
1.3074	1400	A/D	97481		

Comment:

Manual Basin: NSR1330

Scenario: Existing
Node: NSR1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.3336 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3336	1300	A/D	97481		

Comment:

Manual Basin: NSR1350

Scenario: Existing
Node: NSR1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 31.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.8927 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.4993	1300	A/D	97481		
1.2382	8300	A/D	97481		
0.1551	1400	A/D	97481		

Comment:

Manual Basin: NSR1390

Scenario: Existing
Node: NSR1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9619 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9619	1300	A/D	97481		

Comment:

Manual Basin: NSR1410

Scenario: Existing
Node: NSR1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6248 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6248	1300	A/D	97481		

Comment:

Manual Basin: NSR1430

Scenario: Existing
Node: NSR1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7061 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7061	1300	A/D	97481		

Comment:

Manual Basin: NSR1450

Scenario: Existing
Node: NSR1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.3736 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.9527	1300	A/D	97481		
0.4209	5300	A/D	97481		

Comment:

Manual Basin: NSR1470

Scenario: Existing
Node: NSR1470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6192 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6192	1300	A/D	97481		

Comment:

Manual Basin: NSR1490

Scenario: Existing
Node: NSR1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.7549 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
15.9075	1300	A/D	97481		
0.4399	1400	A/D	97481		
0.4075	5300	A/D	97481		

Comment:

Manual Basin: NSR1510

Scenario: Existing
Node: NSR1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 36.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.9575 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1721	1400	A/D	97481		
11.7853	1300	A/D	97481		

Comment:

Manual Basin: NSR1530

Scenario: Existing
Node: NSR1530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4394 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4394	1300	A/D	97481		

Comment:

Manual Basin: NSR1550

Scenario: Existing
Node: NSR1550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.3905 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3905	1300	A/D	97481		

Comment:

Manual Basin: NSR1570

Scenario: Existing
Node: NSR1570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0108 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0108	1300	A/D	97481		

Comment:

Manual Basin: NSR1590

Scenario: Existing
Node: NSR1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4326 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4326	1300	A/D	97481		

Comment:

Manual Basin: NSR1610

Scenario: Existing
Node: NSR1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.3518 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.3518	1300	A/D	97481		

Comment:

Manual Basin: NSR1630

Scenario: Existing
Node: NSR1630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3270	1300	A/D	97481		

Comment:

Manual Basin: NSR1650

Scenario: Existing
Node: NSR1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8103 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8103	1300	A/D	97481		

Comment:

Manual Basin: NSR1670

Scenario: Existing
Node: NSR1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.1548 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.0780	1300	A/D	97481		
0.0768	1400	A/D	97481		

Comment:

Manual Basin: NSR1690

Scenario: Existing
Node: NSR1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3796 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1027	1300	C/D	97481		
0.2513	1300	A/D	97481		
0.0256	1400	C/D	97481		

Comment:

Manual Basin: NSR1710

Scenario: Existing
Node: NSR1710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0525 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0071	1400	C/D	97481		
0.0692	1300	C/D	97481		
1.4379	1300	A/D	97481		
0.3118	1300	D	97481		
0.1863	1400	D	97481		
0.0402	1400	A/D	97481		

Comment:

Manual Basin: NSR1730

Scenario: Existing
Node: NSR1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3641 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0009	1300	A/D	97481		
0.1966	1300	C/D	97481		
0.1978	1400	C/D	97481		
0.0027	1700	C/D	97481		
0.9548	1400	D	97481		
0.0113	1700	D	97481		

Comment:

Manual Basin: NSR1750

Scenario: Existing
Node: NSR1750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8526 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4751	1300	A/D	97481		
0.3775	1300	C/D	97481		

Comment:

Manual Basin: NSR1770

Scenario: Existing
Node: NSR1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5465 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8766	1400	D	97481		
0.0138	1700	D	97481		
0.5923	1400	A/D	97481		
0.0638	1300	A/D	97481		

Comment:

Manual Basin: NSR1790

Scenario: Existing
Node: NSR1790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5648 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2606	1400	D	97481		
0.0687	1300	A/D	97481		
0.0356	1400	A/D	97481		
0.1988	1700	D	97481		
0.0010	1300	D	97481		

Comment:

Manual Basin: NSR1810

Scenario: Existing
Node: NSR1810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8907 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8885	1400	D	97481		
0.0013	1300	A/D	97481		
0.0009	1300	D	97481		

Comment:

Manual Basin: NSR1830

Scenario: Existing
Node: NSR1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.9339 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
13.5378	1300	A/D	97481		
0.0273	1300	D	97481		
2.3032	1400	D	97481		
0.0656	1400	A/D	97481		

Comment:

Manual Basin: NSR1870

Scenario: Existing
Node: NSR1870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9982 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2522	1400	D	97481		
0.6794	1400	A/D	97481		
0.6143	1300	A/D	97481		
0.4524	1300	D	97481		

Comment:

Manual Basin: NSR1910

Scenario: Existing
Node: NSR1910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.9788 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.9788	1400	D	97481		

Comment:

Manual Basin: NSR1930

Scenario: Existing
Node: NSR1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5888 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0094	1300	C/D	97481		
0.0367	1700	C/D	97481		
0.5427	1700	D	97481		

Comment:

Manual Basin: NSR1950

Scenario: Existing
Node: NSR1950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1055 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5488	1300	C/D	97482		
0.5535	1300	C/D	97481		
0.0032	1300	A/D	97481		

Comment:

Manual Basin: NSR1970

Scenario: Existing
Node: NSR1970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8151 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0339	1300	A/D	97007		
1.3116	1300	C/D	97008		
0.2783	1300	A/D	97008		
0.0857	1300	C/D	97007		
0.9084	1300	C/D	97482		
0.5265	1300	A/D	97481		
0.6707	1300	C/D	97481		

Comment:

Manual Basin: NSR2010

Scenario: Existing
Node: NSR2010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1242 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4786	1300	A/D	97007		
0.4291	1300	C/D	97008		
1.2164	1300	A/D	97008		

Comment:

Manual Basin: NSR2050

Scenario: Existing
Node: NSR2050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 3.1130 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4256	1300	A/D	97008		
0.0467	1700	A/D	97008		
0.6281	1700	A/D	97007		
0.9970	1300	A/D	97007		
0.0156	1300	C/D	97008		

Comment:

Manual Basin: NSR2110

Scenario: Existing
Node: NSR2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2954 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5671	1300	A/D	97008		
1.7282	1300	A/D	97007		

Comment:

Manual Basin: NSR2130

Scenario: Existing
Node: NSR2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5797 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4532	1300	A/D	97008		
2.1265	1300	A/D	97007		

Comment:

Manual Basin: NSR2150

Scenario: Existing
Node: NSR2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.4760 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5407	1700	D	97482		
3.8968	1700	D	97481		
0.0385	1400	D	97481		

Comment:

Manual Basin: NSR2210

Scenario: Existing
Node: NSR2210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 41.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 23.7519 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.7724	1700	D	97482		
0.2053	1700	D	97481		
0.0989	1400	D	97481		
0.2558	1300	D	97481		
0.3983	1300	D	97482		
5.6095	1300	C/D	97482		
0.0747	1300	C/D	97481		
0.0460	1400	C/D	97482		
0.0583	1400	A/D	97482		
9.2328	1300	A/D	97482		

Comment:

Manual Basin: NSR2250

Scenario: Existing
Node: NSR2250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5771 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4888	1400	D	97481		
0.0883	1300	D	97481		

Comment:

Manual Basin: NSR2270

Scenario: Existing
Node: NSR2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3565 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1963	1300	D	97481		
0.2114	1300	C/D	97481		
0.9673	1400	D	97481		
0.9815	1300	C/D	97482		

Comment:

Manual Basin: NSR2310

Scenario: Existing

Node: NSR2310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3456 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0775	1300	C/D	97482		
1.8020	1400	D	97481		
0.0047	1300	D	97481		
0.0074	1300	C/D	97481		
0.2539	1400	C/D	97482		
0.0681	1400	C/D	97481		
0.0002	1400	D	97482		
0.1259	1400	A/D	97482		
0.0058	1400	A/D	97481		

Comment:

Manual Basin: NSR2330

Scenario: Existing
Node: NSR2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2963 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4422	1400	A/D	97482		
1.7708	1400	D	97481		
0.0832	1400	A/D	97481		

Comment:

Manual Basin: NSR2350

Scenario: Existing
Node: NSR2350

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.0645 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0653	1400	A/D	97482		
3.9834	1400	D	97481		
0.3815	1400	A/D	97481		
0.5911	1300	A/D	97482		
0.0432	1300	A/D	97481		

Comment:

Manual Basin: NSR2390

Scenario: Existing
Node: NSR2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3283	1700	C/D	97481		
0.0191	1700	C/D	97482		
2.8309	1700	D	97481		
0.2102	1700	D	97482		

Comment:

Manual Basin: NSR2410

Scenario: Existing
Node: NSR2410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4641 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1575	1300	C/D	97482		
0.1874	1300	C/D	97481		
0.0671	1700	C/D	97482		
0.0521	1700	C/D	97481		

Comment:

Manual Basin: NSR2430

Scenario: Existing
Node: NSR2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7438 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4719	1300	C/D	97481		
0.2718	1300	C/D	97482		

Comment:

Manual Basin: NSR2450

Scenario: Existing
Node: NSR2450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.0719 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2742	1300	C/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1036	1700	C/D	97482		
8.6941	1700	D	97482		

Comment:

Manual Basin: NSR3000

Scenario: Existing
Node: NSR3000
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0775 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0635	1400	D	97481		
0.0139	1400	A/D	97481		

Comment:

Manual Basin: NSR3020

Scenario: Existing
Node: NSR3020
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.1505 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.6535	1400	D	97481		
0.3180	1300	D	97481		
0.6453	1300	A/D	97481		
1.5337	1400	A/D	97481		

Comment:

Manual Basin: NSR3040

Scenario: Existing
Node: NSR3040
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.6324 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.4191	1300	A/D	97481		
3.9750	1400	A/D	97481		
2.2383	1400	D	97481		

Comment:

Manual Basin: NSR3060

Scenario: Existing
Node: NSR3060
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8878 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6183	1300	A/D	97481		
1.2695	1400	A/D	97481		

Comment:

Manual Basin: NSW0050

Scenario: Existing
Node: NSW0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.4530 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6653	1300	A	97481		
1.3752	1800	A	97481		
1.3637	1300	A/D	97481		
2.0489	1300	A/D	97480		

Comment:

Channel Link: CHAN1047		Upstream		Downstream	
Scenario:	Existing	Invert:	11.23 ft	Invert:	7.37 ft
From Node:	NSH19	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH75	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB36FT_FULL	Cross Section:	CB36FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	365.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1048		Upstream		Downstream	
Scenario:	Existing	Invert:	15.47 ft	Invert:	11.89 ft
From Node:	NSH18	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH19	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_FULL	Cross Section:	CB30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	327.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1049		Upstream		Downstream	
Scenario:	Existing	Invert:	16.83 ft	Invert:	15.95 ft
From Node:	NSH17	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH18	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB34FT_FULL	Cross Section:	CB34FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	122.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1050		Upstream		Downstream	
Scenario:	Existing	Invert:	17.52 ft	Invert:	17.11 ft
From Node:	NSH13	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH17	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	376.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1051		Upstream		Downstream	
Scenario:	Existing	Invert:	17.34 ft	Invert:	17.09 ft
From Node:	NSH14	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH17	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	190.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment: US invert per ERP 30404

Channel Link: CHAN1052		Upstream		Downstream	
Scenario:	Existing	Invert:	18.64 ft	Invert:	17.67 ft
From Node:	JUNCT1	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH37	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	433.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1053		Upstream		Downstream	
Scenario:	Existing	Invert:	18.73 ft	Invert:	17.85 ft
From Node:	NSH12	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH13	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	377.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1054		Upstream		Downstream	
Scenario:	Existing	Invert:	21.42 ft	Invert:	18.91 ft

From Node:	NRU0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH41	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	630.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1055		Upstream		Downstream	
Scenario:	Existing	Invert:	19.42 ft	Invert:	19.04 ft
From Node:	NSH05	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH12	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	281.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1056		Upstream		Downstream	
Scenario:	Existing	Invert:	20.48 ft	Invert:	19.47 ft
From Node:	NRU0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH05	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	296.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1057		Upstream		Downstream	
Scenario:	Existing	Invert:	21.22 ft	Invert:	20.74 ft
From Node:	NRU0500	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0495	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	229.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1058		Upstream		Downstream	
Scenario:	Existing	Invert:	21.02 ft	Invert:	20.46 ft
From Node:	NRU0500	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH49	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB38FT_HF	Cross Section:	CB38FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	310.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1059		Upstream		Downstream	
Scenario:	Existing	Invert:	21.15 ft	Invert:	19.63 ft
From Node:	NRU0500	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1220	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB22FT_HF	Cross Section:	CB22FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	626.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1060		Upstream		Downstream	
Scenario:	Existing	Invert:	16.36 ft	Invert:	14.26 ft
From Node:	NSH33	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT4	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_SDESOTO_HF	Cross Section:	CB_SDESOTO_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	559.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1061		Upstream		Downstream	
Scenario:	Existing	Invert:	15.80 ft	Invert:	10.50 ft
From Node:	NSH45	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH09	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	753.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1062		Upstream		Downstream	
Scenario:	Existing	Invert:	18.75 ft	Invert:	16.74 ft
From Node:	NSH10	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH45	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	251.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1063		Upstream		Downstream	
Scenario:	Existing	Invert:	18.71 ft	Invert:	17.75 ft
From Node:	NSH10	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH13	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	641.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1064		Upstream		Downstream	
Scenario:	Existing	Invert:	17.58 ft	Invert:	17.52 ft
From Node:	NSH37	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH14	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	69.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1065		Upstream		Downstream	
Scenario:	Existing	Invert:	10.07 ft	Invert:	7.71 ft
From Node:	NSH08	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH75	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB36FT_HF	Cross Section:	CB36FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	391.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1066		Upstream		Downstream	
Scenario:	Existing	Invert:	17.16 ft	Invert:	14.13 ft
From Node:	NSH45	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT4	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_SDESOTO_HF	Cross Section:	CB_SDESOTO_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	559.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1069		Upstream		Downstream	
Scenario:	Existing	Invert:	7.89 ft	Invert:	5.96 ft
From Node:	NSH07	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NC01	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	455.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1071		Upstream		Downstream	
Scenario:	Existing	Invert:	8.37 ft	Invert:	4.74 ft
From Node:	NC02	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NC03	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB44FT_FULL	Cross Section:	CB44FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	414.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1075		Upstream		Downstream	
Scenario:	Existing	Invert:	19.43 ft	Invert:	17.54 ft
From Node:	N07A	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N08A	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	252.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1076		Upstream		Downstream	
Scenario:	Existing	Invert:	19.20 ft	Invert:	15.99 ft
From Node:	N07A	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N08A	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	548.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1080		Upstream		Downstream	
Scenario:	Existing	Invert:	19.56 ft	Invert:	18.71 ft
From Node:	NSH05	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH10	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	609.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1081		Upstream		Downstream	
Scenario:	Existing	Invert:	13.67 ft	Invert:	12.96 ft

From Node:	NSH25	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	226.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1082		Upstream		Downstream	
Scenario:	Existing	Invert:	13.95 ft	Invert:	13.19 ft
From Node:	NSH25	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_FULL	Cross Section:	CB26FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	139.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1083		Upstream		Downstream	
Scenario:	Existing	Invert:	13.50 ft	Invert:	13.31 ft
From Node:	JUNCT2	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	76.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1084		Upstream		Downstream	
Scenario:	Existing	Invert:	13.40 ft	Invert:	13.40 ft
From Node:	NSH22	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	66.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1085		Upstream		Downstream	
Scenario:	Existing	Invert:	17.79 ft	Invert:	13.33 ft
From Node:	NSH23	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH24	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	434.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1086		Upstream		Downstream	
Scenario:	Existing	Invert:	17.78 ft	Invert:	13.39 ft
From Node:	NSH48	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH22	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	434.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1087		Upstream		Downstream	
Scenario:	Existing	Invert:	18.48 ft	Invert:	18.29 ft
From Node:	NSH15	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH48	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	107.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1088		Upstream		Downstream	
Scenario:	Existing	Invert:	18.45 ft	Invert:	17.81 ft
From Node:	NSH15	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH37	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	134.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1089		Upstream		Downstream	
Scenario:	Existing	Invert:	20.02 ft	Invert:	18.36 ft
From Node:	NSH20	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH15	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	195.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1090		Upstream		Downstream	
Scenario:	Existing	Invert:	20.08 ft	Invert:	18.94 ft
From Node:	NSH20	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT1	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	184.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1091		Upstream		Downstream	
Scenario:	Existing	Invert:	15.40 ft	Invert:	13.54 ft
From Node:	NSH18	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH22	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	358.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1092		Upstream		Downstream	
Scenario:	Existing	Invert:	11.55 ft	Invert:	10.41 ft
From Node:	NSH19	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH21	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	95.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1093		Upstream		Downstream	
Scenario:	Existing	Invert:	20.17 ft	Invert:	18.13 ft
From Node:	NRU0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH23	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	459.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1097		Upstream		Downstream	
Scenario:	Existing	Invert:	19.12 ft	Invert:	17.67 ft
From Node:	NRU0340	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB28FT_FULL	Cross Section:	CB28FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	428.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1102		Upstream		Downstream	
Scenario:	Existing	Invert:	16.15 ft	Invert:	15.46 ft
From Node:	NRU0180	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0174	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_FULL	Cross Section:	CB22FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	392.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1104		Upstream		Downstream	
Scenario:	Existing	Invert:	14.18 ft	Invert:	13.60 ft
From Node:	NSH25	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT2	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	122.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1109		Upstream		Downstream	
Scenario:	Existing	Invert:	16.15 ft	Invert:	15.12 ft
From Node:	NRU0180	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	425.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1110		Upstream		Downstream	
Scenario:	Existing	Invert:	16.18 ft	Invert:	14.88 ft
From Node:	NRU0180	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT6	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	425.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1111		Upstream		Downstream	
Scenario:	Existing	Invert:	18.22 ft	Invert:	17.08 ft

From Node:	NRU0310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	395.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1117		Upstream		Downstream	
Scenario:	Existing	Invert:	19.56 ft	Invert:	18.74 ft
From Node:	NRU0630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2310	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	387.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1119		Upstream		Downstream	
Scenario:	Existing	Invert:	19.64 ft	Invert:	19.15 ft
From Node:	JUNCT3	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0612	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_FULL	Cross Section:	CB18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	280.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Momentum

Comment:

Channel Link: CHAN1121		Upstream		Downstream	
Scenario:	Existing	Invert:	20.20 ft	Invert:	19.67 ft
From Node:	NRU0618	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT3	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	485.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1122		Upstream		Downstream	
Scenario:	Existing	Invert:	19.54 ft	Invert:	18.66 ft
From Node:	NRU0620	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0345	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	240.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1123		Upstream		Downstream	
Scenario:	Existing	Invert:	19.13 ft	Invert:	18.74 ft
From Node:	NRU0345	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0570	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	443.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1124		Upstream		Downstream	
Scenario:	Existing	Invert:	19.02 ft	Invert:	18.67 ft
From Node:	NRU0335	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0340	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	196.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1663		Upstream		Downstream	
Scenario:	Existing	Invert:	19.74 ft	Invert:	18.83 ft
From Node:	NBW1840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_PARKLAND_FULL	Cross Section:	CB_PARKLAND_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	704.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1900		Upstream		Downstream	
Scenario:	Existing	Invert:	20.09 ft	Invert:	18.66 ft
From Node:	NCL2630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2631	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	296.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1927		Upstream		Downstream	
Scenario:	Existing	Invert:	19.99 ft	Invert:	19.14 ft
From Node:	NSH83	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH50	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	524.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1928		Upstream		Downstream	
Scenario:	Existing	Invert:	19.09 ft	Invert:	18.26 ft
From Node:	NSH04	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH54	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_FULL	Cross Section:	CB40FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	221.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1929		Upstream		Downstream	
Scenario:	Existing	Invert:	18.90 ft	Invert:	18.25 ft
From Node:	NSH50	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH52	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB50FT_FULL	Cross Section:	CB50FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	228.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1930		Upstream		Downstream	
Scenario:	Existing	Invert:	19.13 ft	Invert:	18.30 ft
From Node:	NSH51	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH53	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB36FT_FULL	Cross Section:	CB36FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	141.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1931		Upstream		Downstream	
Scenario:	Existing	Invert:	18.62 ft	Invert:	18.06 ft
From Node:	NSH55	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH52	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_FULL	Cross Section:	CB40FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	197.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1932		Upstream		Downstream	
Scenario:	Existing	Invert:	18.60 ft	Invert:	18.02 ft
From Node:	NSH55	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH56	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_HF	Cross Section:	CB40FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	247.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1933		Upstream		Downstream	
Scenario:	Existing	Invert:	18.51 ft	Invert:	17.90 ft
From Node:	NSH55	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1234	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_HF	Cross Section:	CB40FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	255.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1934		Upstream		Downstream	
Scenario:	Existing	Invert:	17.64 ft	Invert:	16.85 ft
From Node:	NRU1240	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	222.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1935		Upstream		Downstream	
Scenario:	Existing	Invert:	17.78 ft	Invert:	17.05 ft
From Node:	NRU1234	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0785	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	305.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1936		Upstream		Downstream	
Scenario:	Existing	Invert:	18.04 ft	Invert:	16.25 ft

From Node:	NRU0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V32FT_FULL	Cross Section:	V32FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	395.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1937		Upstream		Downstream	
Scenario:	Existing	Invert:	16.83 ft	Invert:	16.02 ft
From Node:	NRU0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	266.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1938		Upstream		Downstream	
Scenario:	Existing	Invert:	18.11 ft	Invert:	17.24 ft
From Node:	NRU0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V28FT_FULL	Cross Section:	V28FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	397.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1939		Upstream		Downstream	
Scenario:	Existing	Invert:	17.47 ft	Invert:	17.07 ft
From Node:	NRU0960	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0955	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	346.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1940		Upstream		Downstream	
Scenario:	Existing	Invert:	18.44 ft	Invert:	17.90 ft
From Node:	JUNCT8	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT8B	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB42FT_FULL	Cross Section:	CB42FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	311.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1941		Upstream		Downstream	
Scenario:	Existing	Invert:	18.33 ft	Invert:	17.96 ft
From Node:	JUNCT7	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT7B	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	318.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1942		Upstream		Downstream	
Scenario:	Existing	Invert:	19.16 ft	Invert:	18.47 ft
From Node:	NCL3510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_FULL	Cross Section:	V18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	378.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1943		Upstream		Downstream	
Scenario:	Existing	Invert:	18.09 ft	Invert:	16.96 ft
From Node:	NCL3490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_FULL	Cross Section:	V20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	293.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1944		Upstream		Downstream	
Scenario:	Existing	Invert:	19.45 ft	Invert:	16.79 ft
From Node:	NCL3270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	629.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1945		Upstream		Downstream	
Scenario:	Existing	Invert:	19.38 ft	Invert:	16.89 ft
From Node:	NCL3280	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	629.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1946		Upstream		Downstream	
Scenario:	Existing	Invert:	19.48 ft	Invert:	17.22 ft
From Node:	NCL3270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	389.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1947		Upstream		Downstream	
Scenario:	Existing	Invert:	17.88 ft	Invert:	17.13 ft
From Node:	NCL3250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB34FT_FULL	Cross Section:	CB34FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	322.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1948		Upstream		Downstream	
Scenario:	Existing	Invert:	17.92 ft	Invert:	17.02 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_FULL	Cross Section:	V18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	350.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1949		Upstream		Downstream	
Scenario:	Existing	Invert:	17.31 ft	Invert:	16.95 ft
From Node:	NCL3740	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_HF	Cross Section:	CB22FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	305.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1950		Upstream		Downstream	
Scenario:	Existing	Invert:	18.58 ft	Invert:	17.30 ft
From Node:	NRU1010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB50FT_HF	Cross Section:	CB50FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1951		Upstream		Downstream	
Scenario:	Existing	Invert:	18.61 ft	Invert:	17.36 ft
From Node:	NRU0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB50FT_HF	Cross Section:	CB50FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1952		Upstream		Downstream	
Scenario:	Existing	Invert:	17.89 ft	Invert:	17.48 ft
From Node:	NRU0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	277.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1953		Upstream		Downstream	
Scenario:	Existing	Invert:	17.90 ft	Invert:	17.59 ft
From Node:	NRU0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0955	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	263.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1954		Upstream		Downstream	
Scenario:	Existing	Invert:	20.34 ft	Invert:	16.03 ft

From Node:	NBW2190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0785	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_HF	Cross Section:	CB24FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1155.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1955		Upstream		Downstream	
Scenario:	Existing	Invert:	20.06 ft	Invert:	15.78 ft
From Node:	NBW2210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_HF	Cross Section:	CB22FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1661.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1956		Upstream		Downstream	
Scenario:	Existing	Invert:	19.64 ft	Invert:	17.98 ft
From Node:	NBW2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_PARKLAND_HA LF	Cross Section:	CB_PARKLAND_HA LF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1055.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1957		Upstream		Downstream	
Scenario:	Existing	Invert:	19.60 ft	Invert:	17.84 ft
From Node:	NBW2310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_PARKLAND_HA	Cross Section:	CB_PARKLAND_HA
Flow Direction:	Both		LF		LF
Damping:	0.0000 ft				
Length:	966.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1958		Upstream		Downstream	
Scenario:	Existing	Invert:	20.09 ft	Invert:	19.05 ft
From Node:	NBW2190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB38FT_HF	Cross Section:	CB38FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	233.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1962		Upstream		Downstream	
Scenario:	Existing	Invert:	19.92 ft	Invert:	18.61 ft
From Node:	NBW2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2230	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	710.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1965		Upstream		Downstream	
Scenario:	Existing	Invert:	20.22 ft	Invert:	19.07 ft
From Node:	NCL3170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3280	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	289.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1966		Upstream		Downstream	
Scenario:	Existing	Invert:	20.10 ft	Invert:	19.32 ft
From Node:	NCL3170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3270	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	289.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1967		Upstream		Downstream	
Scenario:	Existing	Invert:	20.14 ft	Invert:	19.19 ft
From Node:	NCL3290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3190	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_FULL	Cross Section:	CB18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	462.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1969		Upstream		Downstream	
Scenario:	Existing	Invert:	19.94 ft	Invert:	19.08 ft
From Node:	NCL3110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	448.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1970		Upstream		Downstream	
Scenario:	Existing	Invert:	22.12 ft	Invert:	20.27 ft
From Node:	NCL2810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2580	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	894.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1971		Upstream		Downstream	
Scenario:	Existing	Invert:	22.17 ft	Invert:	21.20 ft
From Node:	NCL2790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT10	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	456.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1971B		Upstream		Downstream	
Scenario:	Existing	Invert:	21.20 ft	Invert:	20.07 ft
From Node:	JUNCT10	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2580	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	466.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1972		Upstream		Downstream	
Scenario:	Existing	Invert:	28.94 ft	Invert:	22.00 ft
From Node:	JUNCT9	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2840	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	807.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1973		Upstream		Downstream	
Scenario:	Existing	Invert:	29.07 ft	Invert:	24.66 ft
From Node:	NCL4010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2845	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_FULL	Cross Section:	V20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	439.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1974		Upstream		Downstream	
Scenario:	Existing	Invert:	20.43 ft	Invert:	18.80 ft
From Node:	NSH04	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N02	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_FULL	Cross Section:	CB40FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	535.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1975		Upstream		Downstream	
Scenario:	Existing	Invert:	20.40 ft	Invert:	19.39 ft
From Node:	NRU0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0620	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_FULL	Cross Section:	CB22FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	624.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1976		Upstream		Downstream	
Scenario:	Existing	Invert:	19.15 ft	Invert:	18.74 ft
From Node:	NRU0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	611.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1977		Upstream		Downstream	
Scenario:	Existing	Invert:	18.92 ft	Invert:	18.73 ft

From Node:	NRU0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	614.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1978		Upstream		Downstream	
Scenario:	Existing	Invert:	19.86 ft	Invert:	19.05 ft
From Node:	NRU0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0620	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	481.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1979		Upstream		Downstream	
Scenario:	Existing	Invert:	19.87 ft	Invert:	18.56 ft
From Node:	NRU0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0345	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	720.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1981		Upstream		Downstream	
Scenario:	Existing	Invert:	20.16 ft	Invert:	18.58 ft
From Node:	NRU0616	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1022.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1982		Upstream		Downstream	
Scenario:	Existing	Invert:	19.80 ft	Invert:	19.02 ft
From Node:	NRU0610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	512.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1983		Upstream		Downstream	
Scenario:	Existing	Invert:	20.50 ft	Invert:	15.51 ft
From Node:	NRU0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N08A	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1889.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1984		Upstream		Downstream	
Scenario:	Existing	Invert:	18.89 ft	Invert:	17.53 ft
From Node:	NRU1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1050	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB44FT_FULL	Cross Section:	CB44FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	449.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1985		Upstream		Downstream	
Scenario:	Existing	Invert:	14.77 ft	Invert:	14.17 ft
From Node:	JUNCT6	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_FULL	Cross Section:	CB18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	197.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1986		Upstream		Downstream	
Scenario:	Existing	Invert:	13.44 ft	Invert:	9.64 ft
From Node:	JUNCT4	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH08	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	156.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1988		Upstream		Downstream	
Scenario:	Existing	Invert:	18.08 ft	Invert:	15.60 ft
From Node:	N02	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	BC_N02	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	XOW791A	Cross Section:	XOW791A
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	668.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1989		Upstream		Downstream	
Scenario:	Existing	Invert:	18.47 ft	Invert:	17.70 ft
From Node:	NRU1040	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0970	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	360.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1990		Upstream		Downstream	
Scenario:	Existing	Invert:	18.50 ft	Invert:	17.50 ft
From Node:	NRU0960	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0970	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	360.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1991		Upstream		Downstream	
Scenario:	Existing	Invert:	17.50 ft	Invert:	15.50 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3740	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	356.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1992		Upstream		Downstream	
Scenario:	Existing	Invert:	17.57 ft	Invert:	17.27 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	356.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1993		Upstream		Downstream	
Scenario:	Existing	Invert:	19.50 ft	Invert:	17.00 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	389.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN2000		Upstream		Downstream	
Scenario:	Existing	Invert:	17.96 ft	Invert:	17.50 ft
From Node:	JUNCT7B	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN2001		Upstream		Downstream	
Scenario:	Existing	Invert:	17.90 ft	Invert:	17.20 ft
From Node:	JUNCT8B	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0965	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB42FT_FULL	Cross Section:	CB42FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN2010		Upstream		Downstream	
Scenario:	Existing	Invert:	19.91 ft	Invert:	19.08 ft
From Node:	NSH80	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH50	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	502.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Drop Structure Link: D11		Upstream Pipe		Downstream Pipe	
Scenario:	Existing	Invert:	9.40 ft	Invert:	9.63 ft

From Node:	PondB	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N06	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Solution:	Split	Default:	0.00 ft	Default:	0.00 ft
Pipe Count:	1	Op Table:		Op Table:	
Damping:	0.0000 ft	Ref Node:		Ref Node:	
Length:	110.00 ft	Manning's N:	0.0000	Manning's N:	0.0000
FHWA Code:	0	Top Clip			
Entr Loss Coef:	0.50	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.50	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy				

Pipe Comment:

Weir Component			
Weir:	1	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Sharp Crested Vertical	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	11.46 ft	Op Table:	
Control Elevation:	11.46 ft	Ref Node:	
Max Depth:	3.35 ft	Discharge Coefficients	
Max Width:	7.00 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component			
Weir:	2	Bottom Clip	
Weir Count:	1	Default:	0.00 ft
Weir Flow Direction:	Both	Op Table:	
Damping:	0.0000 ft	Ref Node:	
Weir Type:	Horizontal	Top Clip	
Geometry Type:	Rectangular	Default:	0.00 ft
Invert:	14.81 ft	Op Table:	
Control Elevation:	14.81 ft	Ref Node:	
Max Depth:	5.00 ft	Discharge Coefficients	
Max Width:	7.00 ft	Weir Default:	3.200
Fillet:	0.00 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment: Inventory

Channel Link: DM1OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.33 ft	Invert:	15.23 ft
From Node:	NSR2130	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	DM1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	1200.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: EP_ManGut		Upstream		Downstream	
Scenario:	Existing	Invert:	5.43 ft	Invert:	4.58 ft
From Node:	M5.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	ElPrad.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	40.00 ft	Bottom Width:	40.00 ft
Length:	500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: El_PradGut		Upstream		Downstream	
Scenario:	Existing	Invert:	4.58 ft	Invert:	4.93 ft
From Node:	ElPrad.1	Manning's N:	0.0200	Manning's N:	0.0200

		Upstream		Downstream	
To Node:	ElP_Hes.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	40.00 ft	Bottom Width:	40.00 ft
Length:	285.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: El_PradPip		Upstream		Downstream	
Scenario:	Existing	Invert:	1.88 ft	Invert:	1.22 ft
From Node:	ElPrad.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	ElP_Hes.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	268.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: HesBox1		Upstream		Downstream	
Scenario:	Existing	Invert:	0.33 ft	Invert:	-0.22 ft
From Node:	H2.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	828.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	

Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: HesBox2		Upstream		Downstream	
Scenario:	Existing	Invert:	0.33 ft	Invert:	-0.22 ft
From Node:	H2.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	828.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Hes_Culv		Upstream		Downstream	
Scenario:	Existing	Invert:	1.22 ft	Invert:	0.33 ft
From Node:	ElP_Hes.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: Hes_Gut		Upstream		Downstream	
Scenario:	Existing	Invert:	4.93 ft	Invert:	5.93 ft
From Node:	EIP_Hes.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	H2.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	40.00 ft	Bottom Width:	40.00 ft
Length:	135.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Link_SL28		Upstream		Downstream	
Scenario:	Existing	Invert:	7.82 ft	Invert:	6.74 ft
From Node:	Church2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G10	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	680.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Link_SL30		Upstream		Downstream	
Scenario:	Existing	Invert:	8.79 ft	Invert:	7.82 ft
From Node:	DM3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Church2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft

Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	617.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: MRSR1570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.03 ft	Invert:	14.03 ft
From Node:	NSR1570	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1220.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ManBox1		Upstream		Downstream	
Scenario:	Existing	Invert:	1.14 ft	Invert:	0.53 ft
From Node:	M5.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	ElP_con.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	489.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	

Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ManBox2		Upstream		Downstream	
Scenario:	Existing	Invert:	1.14 ft	Invert:	0.53 ft
From Node:	M5.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	ElP_con.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	489.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Rating Curve Link: Marjory_Pump

Scenario:	Existing
From Node:	NSH05
To Node:	Marjory_Pump
Link Count:	1
Flow Direction:	Both

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
Marjory_Pump	19.00	NSH05	14.50	NSH05

Comment: Added per plans provided for pump station by the City

Pipe Link: MidBox1		Upstream		Downstream	
Scenario:	Existing	Invert:	0.53 ft	Invert:	0.33 ft
From Node:	ElP_con.1	Manning's N:	0.0140	Manning's N:	0.0140

		Geometry: Rectangular		Geometry: Rectangular	
To Node:	H2.1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Link Count:	1	Max Width:	5.00 ft	Max Width:	5.00 ft
Flow Direction:	Both	Fillet:	0.00 ft	Fillet:	0.00 ft
Damping:	0.0000 ft	Bottom Clip			
Length:	268.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	0	Op Table:		Op Table:	
Entr Loss Coef:	0.00	Ref Node:		Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00	Top Clip			
Bend Location:	0.00 dec	Default:	0.00 ft	Default:	0.00 ft
Energy Switch:	Energy	Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: MidBox2		Upstream		Downstream	
Scenario:	Existing	Invert:	0.53 ft	Invert:	0.33 ft
From Node:	EIP_con.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	268.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: NRU0820			
Scenario:	Existing	Bottom Clip	
From Node:	NRU0820	Default:	0.00 ft
To Node:	NRU0810	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.16 ft	Discharge Coefficients	

Control Elevation:	16.16 ft
Max Depth:	2.00 ft
Max Width:	2.00 ft
Fillet:	0.00 ft

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: SET WEIR TO THE CONTROLLING ELEVATION PER ERP 1213

Weir Link: NSR0430OWB

Scenario:	Existing
From Node:	NSR0430
To Node:	NSR0310
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	13.14 ft
Control Elevation:	13.14 ft
Max Depth:	9999.00 ft
Max Width:	100.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: NSR2130OW

Scenario:	Existing
From Node:	NSR2130
To Node:	G2
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	775.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	16.33 ft	Invert:	14.63 ft
Manning's N:	0.0200	Manning's N:	0.0200
Geometry: Trapezoidal		Geometry: Trapezoidal	
Max Depth:	0.50 ft	Max Depth:	0.50 ft
Extrapolation:	Normal	Extrapolation:	Normal
Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: OF0165

Scenario:	Existing
From Node:	NRU0165
To Node:	NRU1390
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.00 ft
Control Elevation:	16.00 ft
Cross Section:	XOW0165

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF1078

Scenario:	Existing
From Node:	PondB
To Node:	N11
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.42 ft
Control Elevation:	16.42 ft
Cross Section:	XOW803

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF1120

Scenario:	Existing
From Node:	NRU0650
To Node:	JUNCT3
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.82 ft
Control Elevation:	19.82 ft
Cross Section:	XOW757

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW757

Weir Link: OF1887

Scenario:	Existing
From Node:	NCL2845
To Node:	NCL2830
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	23.92 ft
Control Elevation:	23.92 ft
Cross Section:	XOW386

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW386

Weir Link: OF1888

Scenario:	Existing
From Node:	NCL2840
To Node:	NCL2830
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	23.67 ft
Control Elevation:	23.67 ft
Cross Section:	XOW385

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW385

Weir Link: OF1889

Scenario:	Existing
From Node:	NCL2845
To Node:	NCL2840
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	23.90 ft
Control Elevation:	23.90 ft
Cross Section:	XOW387

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW387

Weir Link: OF1890

Scenario:	Existing
From Node:	NCL3430
To Node:	NCL3390
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.48 ft
Control Elevation:	20.48 ft
Cross Section:	XOW388

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW388

Weir Link: OF1891

Scenario:	Existing
From Node:	NCL3590
To Node:	NCL3550
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.86 ft
Control Elevation:	20.86 ft
Cross Section:	XOW389

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW389

Weir Link: OF1892

Scenario:	Existing
From Node:	NCL3520
To Node:	NCL3510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.50 ft
Control Elevation:	19.50 ft
Cross Section:	XOW390

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW390

Weir Link: OF1893

Scenario:	Existing
From Node:	NCL2580
To Node:	NCL2590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.18 ft
Control Elevation:	20.18 ft
Cross Section:	XOW391

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW391

Weir Link: OF1894

Scenario:	Existing
From Node:	NCL2770
To Node:	NCL2780
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.19 ft
Control Elevation:	22.19 ft
Cross Section:	XOW392

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW392

Weir Link: OF1895

Scenario:	Existing	Bottom Clip	
From Node:	NSH27	Default:	0.00 ft
To Node:	NSH21	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	12.67 ft	Discharge Coefficients	
Control Elevation:	12.67 ft	Weir Default:	2.600
Cross Section:	XOW395	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW395

Weir Link: OF1896

Scenario:	Existing	Bottom Clip	
From Node:	NSH35	Default:	0.00 ft
To Node:	NSH42	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	7.64 ft	Discharge Coefficients	
Control Elevation:	7.64 ft	Weir Default:	2.800
Cross Section:	XOW397	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW397

Weir Link: OF1897

Scenario:	Existing	Bottom Clip	
From Node:	NSH43	Default:	0.00 ft
To Node:	NSH35	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.67 ft
Control Elevation:	7.67 ft
Cross Section:	XOW398

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW398

Weir Link: OF1898

Scenario:	Existing
From Node:	NSH43
To Node:	NSH42
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.38 ft
Control Elevation:	7.38 ft
Cross Section:	XOW396

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW396

Weir Link: OF1899

Scenario:	Existing
From Node:	NSH42
To Node:	SH_OUTFALL
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.41 ft
Control Elevation:	7.41 ft
Cross Section:	XOW399

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW399

Weir Link: OF1901

Scenario:	Existing	**Bottom Clip**	
From Node:	PondA	Default:	0.00 ft
To Node:	N03	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.78 ft	**Discharge Coefficients**	
Control Elevation:	19.78 ft	Weir Default:	2.400
Cross Section:	XOW400	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW400

Weir Link: OF1902

Scenario:	Existing	**Bottom Clip**	
From Node:	N03	Default:	0.00 ft
To Node:	N04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.88 ft	**Discharge Coefficients**	
Control Elevation:	19.88 ft	Weir Default:	2.400
Cross Section:	XOW401	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW401

Weir Link: OF1903

Scenario:	Existing	**Bottom Clip**	
From Node:	N03	Default:	0.00 ft
To Node:	N02	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.60 ft	**Discharge Coefficients**	
Control Elevation:	19.60 ft	Weir Default:	2.400
Cross Section:	XOW402	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW402

Weir Link: OF1904

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH52	Default:	0.00 ft
To Node:	NSH54	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.49 ft	**Discharge Coefficients**	
Control Elevation:	18.49 ft	Weir Default:	2.600
Cross Section:	XOW405	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW405

Weir Link: OF1905

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1185	Default:	0.00 ft
To Node:	NRU1188	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.52 ft	**Discharge Coefficients**	
Control Elevation:	19.52 ft	Weir Default:	2.400
Cross Section:	XOW406	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW406

Weir Link: OF1907

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1234	Default:	0.00 ft
To Node:	NRU1182	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.24 ft
Control Elevation:	19.24 ft
Cross Section:	XOW410

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW410

Weir Link: OF1908

Scenario:	Existing
From Node:	NRU1188
To Node:	NRU1182
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.94 ft
Control Elevation:	19.94 ft
Cross Section:	XOW407

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW407

Weir Link: OF1910

Scenario:	Existing
From Node:	NSH57
To Node:	NRU1240
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.92 ft
Control Elevation:	17.92 ft
Cross Section:	XOW412

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW412

Weir Link: OF1911

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1234	Default:	0.00 ft
To Node:	NSH57	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.10 ft	**Discharge Coefficients**	
Control Elevation:	18.10 ft	Weir Default:	2.800
Cross Section:	XOW411	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW411

Weir Link: OF1912

Scenario:	Existing	**Bottom Clip**	
From Node:	N02	Default:	0.00 ft
To Node:	PondB	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.44 ft	**Discharge Coefficients**	
Control Elevation:	18.44 ft	Weir Default:	2.600
Cross Section:	XOW403	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW403

Weir Link: OF1913

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1030	Default:	0.00 ft
To Node:	NRU1040	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.87 ft	**Discharge Coefficients**	
Control Elevation:	17.87 ft	Weir Default:	2.800
Cross Section:	XOW413	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW413

Weir Link: OF1914

Scenario:	Existing
From Node:	NCL3390
To Node:	NCL2910
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.08 ft
Control Elevation:	20.08 ft
Cross Section:	XOW414

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW414

Weir Link: OF1916

Scenario:	Existing
From Node:	NSH29
To Node:	NSH34
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.91 ft
Control Elevation:	9.91 ft
Cross Section:	XOW417

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW417

Weir Link: OF1918

Scenario:	Existing
From Node:	NSH34
To Node:	SH_OUTFALL
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.09 ft
Control Elevation:	9.09 ft
Cross Section:	XOW416

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW416

Weir Link: OF1919

Scenario:	Existing
From Node:	NSH34
To Node:	NSH44
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.15 ft
Control Elevation:	9.15 ft
Cross Section:	XOW415

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW415

Weir Link: OF1920

Scenario:	Existing
From Node:	NSH34
To Node:	NSH35
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	8.85 ft
Control Elevation:	8.85 ft
Cross Section:	XOW420

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW420

Weir Link: OF1921

Scenario:	Existing
From Node:	NSH28
To Node:	NSH35
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	9.26 ft
Control Elevation:	9.26 ft
Cross Section:	XOW422

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW422

Weir Link: OF1922

Scenario:	Existing
From Node:	NSH08
To Node:	SH_OUTFALL
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	10.13 ft
Control Elevation:	10.13 ft
Cross Section:	XOW423

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW423

Weir Link: OF1924

Scenario:	Existing
From Node:	NSH24
To Node:	JUNCT2
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	13.57 ft
Control Elevation:	13.57 ft
Cross Section:	XOW425

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW425

Weir Link: OF1925

Scenario:	Existing	Bottom Clip	
From Node:	NSH24	Default:	0.00 ft
To Node:	NSH22	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.47 ft	Discharge Coefficients	
Control Elevation:	13.47 ft	Weir Default:	2.800
Cross Section:	XOW426	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW426

Weir Link: OF1926

Scenario:	Existing	Bottom Clip	
From Node:	NRU0230	Default:	0.00 ft
To Node:	NRU0090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	14.82 ft	Discharge Coefficients	
Control Elevation:	14.82 ft	Weir Default:	2.600
Cross Section:	XOW427	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW427

Weir Link: OF1984

Scenario:	Existing	Bottom Clip	
From Node:	NC01	Default:	0.00 ft
To Node:	NC01B	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	5.89 ft
Control Elevation:	5.89 ft
Cross Section:	XOW577

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW577

Weir Link: OF1985

Scenario:	Existing
From Node:	NC01B
To Node:	NC03
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	5.42 ft
Control Elevation:	5.42 ft
Cross Section:	XOW576

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW576

Weir Link: OF1986

Scenario:	Existing
From Node:	NC03
To Node:	NC04
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	4.46 ft
Control Elevation:	4.46 ft
Cross Section:	XOW565

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW565

Weir Link: OF1987

Scenario:	Existing
From Node:	NC04
To Node:	N10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	3.99 ft
Control Elevation:	3.99 ft
Cross Section:	XOW566

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW566

Weir Link: OF1988

Scenario:	Existing
From Node:	NSH08
To Node:	NSH09
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	10.57 ft
Control Elevation:	10.57 ft
Cross Section:	XOW581

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW581

Weir Link: OF1989

Scenario:	Existing
From Node:	NSH09
To Node:	NSH07
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	10.05 ft
Control Elevation:	10.05 ft
Cross Section:	XOW579

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW579

Weir Link: OF1990

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH09	Default:	0.00 ft
To Node:	SH_OUTFALL	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	10.31 ft	**Discharge Coefficients**	
Control Elevation:	10.31 ft	Weir Default:	2.800
Cross Section:	XOW580	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW580

Weir Link: OF1991

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH07	Default:	0.00 ft
To Node:	SH_OUTFALL	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	7.98 ft	**Discharge Coefficients**	
Control Elevation:	7.98 ft	Weir Default:	2.800
Cross Section:	XOW578	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW578

Weir Link: OF1992

Scenario:	Existing	**Bottom Clip**	
From Node:	NC05	Default:	0.00 ft
To Node:	NC04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	2.83 ft
Control Elevation:	2.83 ft
Cross Section:	XOW567

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW567

Weir Link: OF1993

Scenario:	Existing
From Node:	NC05
To Node:	N10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	3.66 ft
Control Elevation:	3.66 ft
Cross Section:	XOW575

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW575

Weir Link: OF1994

Scenario:	Existing
From Node:	NC05
To Node:	NC06
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	2.90 ft
Control Elevation:	2.90 ft
Cross Section:	XOW568

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW568

Weir Link: OF1995

Scenario:	Existing
From Node:	NC06
To Node:	N10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	3.69 ft
Control Elevation:	3.69 ft
Cross Section:	XOW574

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW574

Weir Link: OF1996

Scenario:	Existing
From Node:	NC07
To Node:	NC06
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	2.64 ft
Control Elevation:	2.64 ft
Cross Section:	XOW569

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW569

Weir Link: OF1997

Scenario:	Existing
From Node:	NC08
To Node:	NC07
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	2.79 ft
Control Elevation:	2.79 ft
Cross Section:	XOW570

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW570

Weir Link: OF1998

Scenario:	Existing	**Bottom Clip**	
From Node:	NC07	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	4.03 ft	**Discharge Coefficients**	
Control Elevation:	4.03 ft	Weir Default:	2.800
Cross Section:	XOW573	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW573

Weir Link: OF1999

Scenario:	Existing	**Bottom Clip**	
From Node:	NC08	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	3.98 ft	**Discharge Coefficients**	
Control Elevation:	3.98 ft	Weir Default:	2.800
Cross Section:	XOW572	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW572

Weir Link: OF2000

Scenario:	Existing	**Bottom Clip**	
From Node:	NC01B	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	5.74 ft
Control Elevation:	5.74 ft
Cross Section:	XOW583

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW583

Weir Link: OF2001

Scenario:	Existing
From Node:	NC01
To Node:	N10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	6.01 ft
Control Elevation:	6.01 ft
Cross Section:	XOW582

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW582

Weir Link: OF2002

Scenario:	Existing
From Node:	NSH75
To Node:	SH_OUTFALL
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.76 ft
Control Elevation:	7.76 ft
Cross Section:	XOW584

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW584

Weir Link: OF2003

Scenario:	Existing
From Node:	NSH44
To Node:	NSH35
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.01 ft
Control Elevation:	9.01 ft
Cross Section:	XOW421

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW421

Weir Link: OF2004

Scenario:	Existing
From Node:	NSH28
To Node:	NSH43
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	10.19 ft
Control Elevation:	10.19 ft
Cross Section:	XOW585

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW585

Weir Link: OF2005

Scenario:	Existing
From Node:	NSH21
To Node:	NSH28
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	10.97 ft
Control Elevation:	10.97 ft
Cross Section:	XOW587

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW587

Weir Link: OF2006

Scenario:	Existing	Bottom Clip	
From Node:	NSH25	Default:	0.00 ft
To Node:	NSH24	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	14.23 ft	Discharge Coefficients	
Control Elevation:	14.23 ft	Weir Default:	2.600
Cross Section:	XOW588	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW588

Weir Link: OF2007

Scenario:	Existing	Bottom Clip	
From Node:	NSH23	Default:	0.00 ft
To Node:	NSH48	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.10 ft	Discharge Coefficients	
Control Elevation:	18.10 ft	Weir Default:	2.800
Cross Section:	XOW590	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW590

Weir Link: OF2008

Scenario:	Existing	Bottom Clip	
From Node:	NSH11	Default:	0.00 ft
To Node:	NSH48	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.67 ft
Control Elevation:	20.67 ft
Cross Section:	XOW589

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW589

Weir Link: OF2009

Scenario:	Existing
From Node:	NSH13
To Node:	NSH37
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.11 ft
Control Elevation:	18.11 ft
Cross Section:	XOW591

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW591

Weir Link: OF2010

Scenario:	Existing
From Node:	NSH41
To Node:	JUNCT1
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.61 ft
Control Elevation:	18.61 ft
Cross Section:	XOW593

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW593

Weir Link: OF2011

Scenario:	Existing
From Node:	NSH41
To Node:	NSH12
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.08 ft
Control Elevation:	19.08 ft
Cross Section:	XOW592

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW592

Weir Link: OF2012

Scenario:	Existing
From Node:	NSH33
To Node:	NSH45
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.85 ft
Control Elevation:	16.85 ft
Cross Section:	XOW595

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW595

Weir Link: OF2013

Scenario:	Existing
From Node:	NSH33
To Node:	NSH17
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.02 ft
Control Elevation:	17.02 ft
Cross Section:	XOW594

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

Orifice Table:

Comment: XOW594

Weir Link: OF2014

Scenario:	Existing
From Node:	NSH13
To Node:	NSH45
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.42 ft
Control Elevation:	17.42 ft
Cross Section:	XOW596

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients

Weir Default: 2.600
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment: XOW596

Weir Link: OF2015

Scenario:	Existing
From Node:	NRU0495
To Node:	NRU0490
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.92 ft
Control Elevation:	20.92 ft
Cross Section:	XOW597

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients

Weir Default: 2.600
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment: XOW597

Weir Link: OF2016

Scenario:	Existing
From Node:	PondA
To Node:	NSH04
Link Count:	1
Flow Direction:	Both

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.58 ft
Control Elevation:	20.58 ft
Cross Section:	XOW598

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW598

Weir Link: OF2017

Scenario:	Existing
From Node:	PondA
To Node:	NSH50
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.18 ft
Control Elevation:	21.18 ft
Cross Section:	XOW599

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW599

Weir Link: OF2018

Scenario:	Existing
From Node:	NSH50
To Node:	NRU1185
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.03 ft
Control Elevation:	20.03 ft
Cross Section:	XOW600

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW600

Weir Link: OF2019

Scenario:	Existing
From Node:	NRU1185
To Node:	NSH52
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.80 ft
Control Elevation:	19.80 ft
Cross Section:	XOW601

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW601

Weir Link: OF2020

Scenario:	Existing
From Node:	NSH55
To Node:	NRU1185
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.06 ft
Control Elevation:	19.06 ft
Cross Section:	XOW602

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW602

Weir Link: OF2021

Scenario:	Existing
From Node:	NRU1110
To Node:	NRU0785
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.57 ft
Control Elevation:	17.57 ft
Cross Section:	XOW624

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW624

Weir Link: OF2022

Scenario:	Existing
From Node:	NRU0490
To Node:	NRU0510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.16 ft
Control Elevation:	21.16 ft
Cross Section:	XOW605

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW605

Weir Link: OF2023

Scenario:	Existing
From Node:	NRU0510
To Node:	NRU0470
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.72 ft
Control Elevation:	20.72 ft
Cross Section:	XOW606

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW606

Weir Link: OF2024

Scenario:	Existing
From Node:	NRU0495
To Node:	NRU0618
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.16 ft
Control Elevation:	21.16 ft
Cross Section:	XOW607

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW607

Weir Link: OF2025

Scenario:	Existing
From Node:	NRU0495
To Node:	NRU0510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.04 ft
Control Elevation:	21.04 ft
Cross Section:	XOW608

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW608

Weir Link: OF2026

Scenario:	Existing
From Node:	NRU0618
To Node:	NRU0616
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.24 ft
Control Elevation:	21.24 ft
Cross Section:	XOW610

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW610

Weir Link: OF2027

Scenario:	Existing
From Node:	NRU0618
To Node:	NRU0510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.24 ft
Control Elevation:	21.24 ft
Cross Section:	XOW609

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW609

Weir Link: OF2028

Scenario:	Existing
From Node:	NRU0616
To Node:	NRU0510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.90 ft
Control Elevation:	19.90 ft
Cross Section:	XOW611

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW611

Weir Link: OF2029

Scenario:	Existing
From Node:	NRU0618
To Node:	NRU1220
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.78 ft
Control Elevation:	20.78 ft
Cross Section:	XOW612

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW612

Weir Link: OF2030

Scenario:	Existing	Bottom Clip	
From Node:	NRU1220	Default:	0.00 ft
To Node:	NRU1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.02 ft	Discharge Coefficients	
Control Elevation:	20.02 ft	Weir Default:	2.600
Cross Section:	XOW613	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW613

Weir Link: OF2031

Scenario:	Existing	Bottom Clip	
From Node:	NRU1170	Default:	0.00 ft
To Node:	NRU0690	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.20 ft	Discharge Coefficients	
Control Elevation:	19.20 ft	Weir Default:	2.600
Cross Section:	XOW615	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW615

Weir Link: OF2032

Scenario:	Existing	Bottom Clip	
From Node:	NRU1150	Default:	0.00 ft
To Node:	NRU1110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.25 ft
Control Elevation:	17.25 ft
Cross Section:	XOW616

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW616

Weir Link: OF2033

Scenario:	Existing
From Node:	NRU1150
To Node:	NRU0690
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.10 ft
Control Elevation:	19.10 ft
Cross Section:	XOW617

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW617

Weir Link: OF2034

Scenario:	Existing
From Node:	NRU0690
To Node:	NRU0710
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.11 ft
Control Elevation:	18.11 ft
Cross Section:	XOW618

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW618

Weir Link: OF2035

Scenario:	Existing
From Node:	NRU0730
To Node:	NRU0710
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.96 ft
Control Elevation:	17.96 ft
Cross Section:	XOW623

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW623

Weir Link: OF2036

Scenario:	Existing
From Node:	NRU0740
To Node:	NRU0710
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.81 ft
Control Elevation:	17.81 ft
Cross Section:	XOW619

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW619

Weir Link: OF2037

Scenario:	Existing
From Node:	NRU0785
To Node:	NRU0750
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	15.70 ft
Control Elevation:	15.70 ft
Cross Section:	XOW625

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW625

Weir Link: OF2038

Scenario:	Existing	Bottom Clip	
From Node:	NRU1110	Default:	0.00 ft
To Node:	NRU0750	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.73 ft	Discharge Coefficients	
Control Elevation:	16.73 ft	Weir Default:	2.600
Cross Section:	XOW758	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW758

Weir Link: OF2039

Scenario:	Existing	Bottom Clip	
From Node:	NRU0750	Default:	0.00 ft
To Node:	NRU0745	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.53 ft	Discharge Coefficients	
Control Elevation:	16.53 ft	Weir Default:	2.600
Cross Section:	XOW620	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW620

Weir Link: OF2040

Scenario:	Existing	Bottom Clip	
From Node:	NRU0930	Default:	0.00 ft
To Node:	NRU0890	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.78 ft
Control Elevation:	20.78 ft
Cross Section:	XOW626

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW626

Weir Link: OF2041

Scenario:	Existing
From Node:	NRU0890
To Node:	NRU0830
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.73 ft
Control Elevation:	19.73 ft
Cross Section:	XOW627

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW627

Weir Link: OF2042

Scenario:	Existing
From Node:	NRU0890
To Node:	NRU0970
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	18.71 ft
Control Elevation:	18.71 ft
Cross Section:	XOW633

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW633

Weir Link: OF2043

Scenario:	Existing
From Node:	NRU0950
To Node:	NRU0955
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.60 ft
Control Elevation:	17.60 ft
Cross Section:	XOW628

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW628

Weir Link: OF2044

Scenario:	Existing
From Node:	NRU0890
To Node:	NRU0950
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.22 ft
Control Elevation:	19.22 ft
Cross Section:	XOW632

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW632

Weir Link: OF2045

Scenario:	Existing
From Node:	NRU1050
To Node:	NRU1030
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.75 ft
Control Elevation:	17.75 ft
Cross Section:	XOW634

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW634

Weir Link: OF2047

Scenario:	Existing	Bottom Clip	
From Node:	NCL3520	Default:	0.00 ft
To Node:	JUNCT7	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.92 ft	Discharge Coefficients	
Control Elevation:	18.92 ft	Weir Default:	2.800
Cross Section:	XOW635	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW635

Weir Link: OF2048

Scenario:	Existing	Bottom Clip	
From Node:	NCL3520	Default:	0.00 ft
To Node:	JUNCT8	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.96 ft	Discharge Coefficients	
Control Elevation:	18.96 ft	Weir Default:	2.800
Cross Section:	XOW636	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW636

Weir Link: OF2049

Scenario:	Existing	Bottom Clip	
From Node:	NRU0965	Default:	0.00 ft
To Node:	NRU0960	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.95 ft
Control Elevation:	17.95 ft
Cross Section:	XOW638

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW638

Weir Link: OF2050

Scenario:	Existing
From Node:	NRU0960
To Node:	NCL3470
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.68 ft
Control Elevation:	17.68 ft
Cross Section:	XOW639

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW639

Weir Link: OF2051

Scenario:	Existing
From Node:	NRU0965
To Node:	NCL3470
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.75 ft
Control Elevation:	17.75 ft
Cross Section:	XOW637

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW637

Weir Link: OF2052

Scenario:	Existing
From Node:	NRU1030
To Node:	NRU0965
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.05 ft
Control Elevation:	18.05 ft
Cross Section:	XOW640

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW640

Weir Link: OF2053

Scenario:	Existing
From Node:	NRU1040
To Node:	NRU0960
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.23 ft
Control Elevation:	18.23 ft
Cross Section:	XOW641

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW641

Weir Link: OF2054

Scenario:	Existing
From Node:	NCL2631
To Node:	NCL3630
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.35 ft
Control Elevation:	19.35 ft
Cross Section:	XOW643

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW643

Weir Link: OF2055

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3630	Default:	0.00 ft
To Node:	NCL3530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.56 ft	**Discharge Coefficients**	
Control Elevation:	19.56 ft	Weir Default:	2.600
Cross Section:	XOW642	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW642

Weir Link: OF2056

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3640	Default:	0.00 ft
To Node:	NCL3630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.75 ft	**Discharge Coefficients**	
Control Elevation:	19.75 ft	Weir Default:	2.600
Cross Section:	XOW644	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW644

Weir Link: OF2057

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2590	Default:	0.00 ft
To Node:	NCL3530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.28 ft
Control Elevation:	20.28 ft
Cross Section:	XOW681

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW681

Weir Link: OF2058

Scenario:	Existing
From Node:	NCL3530
To Node:	NCL3510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.95 ft
Control Elevation:	19.95 ft
Cross Section:	XOW654

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW654

Weir Link: OF2059

Scenario:	Existing
From Node:	NCL3510
To Node:	NCL3365
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.74 ft
Control Elevation:	19.74 ft
Cross Section:	XOW653

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW653

Weir Link: OF2060

Scenario:	Existing
From Node:	NCL3365
To Node:	NCL3350
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.51 ft
Control Elevation:	20.51 ft
Cross Section:	XOW651

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW651

Weir Link: OF2061

Scenario:	Existing
From Node:	NCL3365
To Node:	NCL3300
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.05 ft
Control Elevation:	20.05 ft
Cross Section:	XOW652

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW652

Weir Link: OF2062

Scenario:	Existing
From Node:	NCL3300
To Node:	NCL3290
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.50 ft
Control Elevation:	20.50 ft
Cross Section:	XOW670

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW670

Weir Link: OF2063

Scenario:	Existing	Bottom Clip	
From Node:	NCL3530	Default:	0.00 ft
To Node:	NCL3370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.96 ft	Discharge Coefficients	
Control Elevation:	19.96 ft	Weir Default:	2.600
Cross Section:	XOW655	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW655

Weir Link: OF2064

Scenario:	Existing	Bottom Clip	
From Node:	NCL3370	Default:	0.00 ft
To Node:	NCL3350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.45 ft	Discharge Coefficients	
Control Elevation:	20.45 ft	Weir Default:	2.600
Cross Section:	XOW650	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW650

Weir Link: OF2065

Scenario:	Existing	Bottom Clip	
From Node:	NCL3370	Default:	0.00 ft
To Node:	NCL3390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.54 ft
Control Elevation:	20.54 ft
Cross Section:	XOW649

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW649

Weir Link: OF2066

Scenario:	Existing
From Node:	NCL3350
To Node:	NCL3290
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.33 ft
Control Elevation:	20.33 ft
Cross Section:	XOW672

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW672

Weir Link: OF2067

Scenario:	Existing
From Node:	NCL3490
To Node:	NCL3300
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.37 ft
Control Elevation:	19.37 ft
Cross Section:	XOW673

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW673

Weir Link: OF2068

Scenario:	Existing
From Node:	NCL3300
To Node:	NCL3470
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.40 ft
Control Elevation:	19.40 ft
Cross Section:	XOW674

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW674

Weir Link: OF2069

Scenario:	Existing
From Node:	NRU1050
To Node:	NRU0965
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.37 ft
Control Elevation:	18.37 ft
Cross Section:	XOW675

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW675

Weir Link: OF2070

Scenario:	Existing
From Node:	NCL3290
To Node:	NCL3280
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.10 ft
Control Elevation:	20.10 ft
Cross Section:	XOW669

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW669

Weir Link: OF2071

Scenario:	Existing	Bottom Clip	
From Node:	NCL3280	Default:	0.00 ft
To Node:	NCL3270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.93 ft	Discharge Coefficients	
Control Elevation:	19.93 ft	Weir Default:	2.800
Cross Section:	XOW667	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW667

Weir Link: OF2072

Scenario:	Existing	Bottom Clip	
From Node:	NCL3170	Default:	0.00 ft
To Node:	NCL3190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.64 ft	Discharge Coefficients	
Control Elevation:	19.64 ft	Weir Default:	2.600
Cross Section:	XOW661	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW661

Weir Link: OF2073

Scenario:	Existing	Bottom Clip	
From Node:	NCL3210	Default:	0.00 ft
To Node:	NCL3190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.43 ft
Control Elevation:	19.43 ft
Cross Section:	XOW671

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW671

Weir Link: OF2074

Scenario:	Existing
From Node:	NCL3230
To Node:	NCL3210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.75 ft
Control Elevation:	19.75 ft
Cross Section:	XOW645

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW645

Weir Link: OF2075

Scenario:	Existing
From Node:	NCL3360
To Node:	NCL3230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.23 ft
Control Elevation:	20.23 ft
Cross Section:	XOW647

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW647

Weir Link: OF2076

Scenario:	Existing
From Node:	NCL3350
To Node:	NCL3360
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.52 ft
Control Elevation:	20.52 ft
Cross Section:	XOW648

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW648

Weir Link: OF2077

Scenario:	Existing
From Node:	NCL3230
To Node:	NCL3190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.73 ft
Control Elevation:	19.73 ft
Cross Section:	XOW646

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW646

Weir Link: OF2078

Scenario:	Existing
From Node:	NCL2510
To Node:	NCL3390
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.49 ft
Control Elevation:	20.49 ft
Cross Section:	XOW685

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW685

Weir Link: OF2079

Scenario:	Existing
From Node:	NCL2510
To Node:	NCL2490
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.55 ft
Control Elevation:	21.55 ft
Cross Section:	XOW691

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW691

Weir Link: OF2080

Scenario:	Existing
From Node:	NCL2490
To Node:	NCL2430
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.99 ft
Control Elevation:	21.99 ft
Cross Section:	XOW694

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW694

Weir Link: OF2081

Scenario:	Existing
From Node:	NCL2430
To Node:	NCL2410
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.45 ft
Control Elevation:	22.45 ft
Cross Section:	XOW695

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW695

Weir Link: OF2082

Scenario:	Existing
From Node:	NCL2910
To Node:	NCL2890
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.81 ft
Control Elevation:	19.81 ft
Cross Section:	XOW693

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW693

Weir Link: OF2083

Scenario:	Existing
From Node:	NCL2890
To Node:	NCL2850
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.35 ft
Control Elevation:	21.35 ft
Cross Section:	XOW659

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW659

Weir Link: OF2084

Scenario:	Existing
From Node:	NCL2910
To Node:	NCL3210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.45 ft
Control Elevation:	20.45 ft
Cross Section:	XOW658

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW658

Weir Link: OF2085

Scenario:	Existing
From Node:	NCL2910
To Node:	NCL3230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.58 ft
Control Elevation:	20.58 ft
Cross Section:	XOW656

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW656

Weir Link: OF2086

Scenario:	Existing
From Node:	NCL3390
To Node:	NCL3230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.62 ft
Control Elevation:	20.62 ft
Cross Section:	XOW657

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW657

Weir Link: OF2087

Scenario:	Existing	Bottom Clip	
From Node:	NCL2890	Default:	0.00 ft
To Node:	NCL3110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.96 ft	Discharge Coefficients	
Control Elevation:	20.96 ft	Weir Default:	2.600
Cross Section:	XOW660	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW660

Weir Link: OF2088

Scenario:	Existing	Bottom Clip	
From Node:	NCL3170	Default:	0.00 ft
To Node:	NCL3110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.55 ft	Discharge Coefficients	
Control Elevation:	21.55 ft	Weir Default:	2.600
Cross Section:	XOW664	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW664

Weir Link: OF2089

Scenario:	Existing	Bottom Clip	
From Node:	NCL3170	Default:	0.00 ft
To Node:	NCL3150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.65 ft
Control Elevation:	19.65 ft
Cross Section:	XOW668

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW668

Weir Link: OF2090

Scenario:	Existing
From Node:	NCL3150
To Node:	NCL3250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.66 ft
Control Elevation:	19.66 ft
Cross Section:	XOW754

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW754

Weir Link: OF2091

Scenario:	Existing
From Node:	NCL3150
To Node:	NCL3090
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.74 ft
Control Elevation:	19.74 ft
Cross Section:	XOW730

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW730

Weir Link: OF2092

Scenario:	Existing
From Node:	NCL3210
To Node:	NCL3110
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.13 ft
Control Elevation:	21.13 ft
Cross Section:	XOW663

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW663

Weir Link: OF2093

Scenario:	Existing
From Node:	NRU1010
To Node:	NRU0970
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.43 ft
Control Elevation:	18.43 ft
Cross Section:	XOW676

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW676

Weir Link: OF2095

Scenario:	Existing
From Node:	NCL3640
To Node:	NCL2631
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.75 ft
Control Elevation:	19.75 ft
Cross Section:	XOW677

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW677

Weir Link: OF2096

Scenario:	Existing	Bottom Clip	
From Node:	NCL2630	Default:	0.00 ft
To Node:	NCL2610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.57 ft	Discharge Coefficients	
Control Elevation:	20.57 ft	Weir Default:	2.600
Cross Section:	XOW678	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW678

Weir Link: OF2097

Scenario:	Existing	Bottom Clip	
From Node:	NCL2610	Default:	0.00 ft
To Node:	NCL3630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.55 ft	Discharge Coefficients	
Control Elevation:	20.55 ft	Weir Default:	2.600
Cross Section:	XOW679	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW679

Weir Link: OF2098

Scenario:	Existing	Bottom Clip	
From Node:	NCL2610	Default:	0.00 ft
To Node:	NCL2590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.40 ft
Control Elevation:	20.40 ft
Cross Section:	XOW680

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW680

Weir Link: OF2099

Scenario:	Existing
From Node:	NCL2550
To Node:	NCL2580
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.47 ft
Control Elevation:	20.47 ft
Cross Section:	XOW682

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW682

Weir Link: OF2100

Scenario:	Existing
From Node:	NCL2550
To Node:	NCL2590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.49 ft
Control Elevation:	20.49 ft
Cross Section:	XOW683

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW683

Weir Link: OF2101

Scenario:	Existing
From Node:	NCL2550
To Node:	NCL2530
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.49 ft
Control Elevation:	20.49 ft
Cross Section:	XOW684

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW684

Weir Link: OF2102

Scenario:	Existing
From Node:	NCL2540
To Node:	NCL2530
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.22 ft
Control Elevation:	21.22 ft
Cross Section:	XOW687

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW687

Weir Link: OF2103

Scenario:	Existing
From Node:	NCL2540
To Node:	NCL2780
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.76 ft
Control Elevation:	21.76 ft
Cross Section:	XOW689

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW689

Weir Link: OF2104

Scenario:	Existing
From Node:	NCL2540
To Node:	NCL2510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.42 ft
Control Elevation:	21.42 ft
Cross Section:	XOW688

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW688

Weir Link: OF2105

Scenario:	Existing
From Node:	NCL2530
To Node:	NCL2510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.05 ft
Control Elevation:	20.05 ft
Cross Section:	XOW686

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW686

Weir Link: OF2106

Scenario:	Existing
From Node:	NCL2790
To Node:	NCL2550
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.68 ft
Control Elevation:	21.68 ft
Cross Section:	XOW690

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW690

Weir Link: OF2107

Scenario:	Existing
From Node:	NCL2510
To Node:	NCL2910
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.49 ft
Control Elevation:	20.49 ft
Cross Section:	XOW692

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW692

Weir Link: OF2108

Scenario:	Existing
From Node:	NCL2430
To Node:	NCL2850
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.31 ft
Control Elevation:	22.31 ft
Cross Section:	XOW696

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW696

Weir Link: OF2109

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU2550	Default:	0.00 ft
To Node:	NRU0180	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.01 ft	**Discharge Coefficients**	
Control Elevation:	16.01 ft	Weir Default:	2.600
Cross Section:	XOW429	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW429

Weir Link: OF2110

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU0550	Default:	0.00 ft
To Node:	NRU2590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.47 ft	**Discharge Coefficients**	
Control Elevation:	18.47 ft	Weir Default:	2.600
Cross Section:	XOW697	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW697

Weir Link: OF2111

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU0550	Default:	0.00 ft
To Node:	NRU2570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.05 ft	**Discharge Coefficients**	
Control Elevation:	18.05 ft	Weir Default:	2.600
Cross Section:	XOW698	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW698

Weir Link: OF2112

Scenario:	Existing	Bottom Clip	
From Node:	NRU0550	Default:	0.00 ft
To Node:	NRU0570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.19 ft	Discharge Coefficients	
Control Elevation:	18.19 ft	Weir Default:	2.600
Cross Section:	XOW699	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW699

Weir Link: OF2113

Scenario:	Existing	Bottom Clip	
From Node:	NRU0570	Default:	0.00 ft
To Node:	NRU0590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.25 ft	Discharge Coefficients	
Control Elevation:	19.25 ft	Weir Default:	2.600
Cross Section:	XOW700	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW700

Weir Link: OF2114

Scenario:	Existing	Bottom Clip	
From Node:	NRU0610	Default:	0.00 ft
To Node:	NRU0590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.38 ft
Control Elevation:	19.38 ft
Cross Section:	XOW701

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW701

Weir Link: OF2115

Scenario:	Existing
From Node:	NRU0612
To Node:	NRU0610
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.28 ft
Control Elevation:	19.28 ft
Cross Section:	XOW702

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW702

Weir Link: OF2116

Scenario:	Existing
From Node:	NRU0630
To Node:	NRU0612
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.74 ft
Control Elevation:	19.74 ft
Cross Section:	XOW703

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW703

Weir Link: OF2117

Scenario:	Existing
From Node:	NRU0630
To Node:	NRU0650
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.16 ft
Control Elevation:	19.16 ft
Cross Section:	XOW704

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW704

Weir Link: OF2118

Scenario:	Existing
From Node:	NRU0690
To Node:	NRU0650
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	18.91 ft
Control Elevation:	18.91 ft
Cross Section:	XOW705

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW705

Weir Link: OF2119

Scenario:	Existing
From Node:	NRU0612
To Node:	NBW2310
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.33 ft
Control Elevation:	20.33 ft
Cross Section:	XOW706

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW706

Weir Link: OF2120

Scenario:	Existing	Bottom Clip	
From Node:	NRU0612	Default:	0.00 ft
To Node:	NRU2650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.06 ft	Discharge Coefficients	
Control Elevation:	20.06 ft	Weir Default:	2.600
Cross Section:	XOW707	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW707

Weir Link: OF2121

Scenario:	Existing	Bottom Clip	
From Node:	NBW2310	Default:	0.00 ft
To Node:	NRU2650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.40 ft	Discharge Coefficients	
Control Elevation:	19.40 ft	Weir Default:	2.600
Cross Section:	XOW724	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW724

Weir Link: OF2122

Scenario:	Existing	Bottom Clip	
From Node:	NBW2330	Default:	0.00 ft
To Node:	NBW2310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.84 ft
Control Elevation:	18.84 ft
Cross Section:	XOW723

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW723

Weir Link: OF2123

Scenario:	Existing
From Node:	NBW2230
To Node:	NBW2290
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.14 ft
Control Elevation:	19.14 ft
Cross Section:	XOW708

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW708

Weir Link: OF2124

Scenario:	Existing
From Node:	NBW2290
To Node:	NBW2310
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.62 ft
Control Elevation:	19.62 ft
Cross Section:	XOW722

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW722

Weir Link: OF2125

Scenario:	Existing
From Node:	NBW2290
To Node:	NBW2270
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.56 ft
Control Elevation:	19.56 ft
Cross Section:	XOW721

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW721

Weir Link: OF2126

Scenario:	Existing
From Node:	NBW2270
To Node:	NBW2250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.96 ft
Control Elevation:	19.96 ft
Cross Section:	XOW720

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW720

Weir Link: OF2127

Scenario:	Existing
From Node:	NBW2250
To Node:	NBW2210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.70 ft
Control Elevation:	19.70 ft
Cross Section:	XOW719

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW719

Weir Link: OF2128

Scenario:	Existing
From Node:	NBW2210
To Node:	NBW2230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.41 ft
Control Elevation:	19.41 ft
Cross Section:	XOW718

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW718

Weir Link: OF2129

Scenario:	Existing
From Node:	NBW2210
To Node:	NBW2150
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.40 ft
Control Elevation:	19.40 ft
Cross Section:	XOW717

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW717

Weir Link: OF2130

Scenario:	Existing
From Node:	NBW2150
To Node:	NBW2230
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.30 ft
Control Elevation:	19.30 ft
Cross Section:	XOW716

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW716

Weir Link: OF2131

Scenario:	Existing
From Node:	NBW2150
To Node:	NBW2070
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.29 ft
Control Elevation:	19.29 ft
Cross Section:	XOW710

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW710

Weir Link: OF2132

Scenario:	Existing
From Node:	NBW2060
To Node:	NBW2070
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.70 ft
Control Elevation:	19.70 ft
Cross Section:	XOW712

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW712

Weir Link: OF2133

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2060	Default:	0.00 ft
To Node:	NBW2050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.17 ft	**Discharge Coefficients**	
Control Elevation:	19.17 ft	Weir Default:	2.600
Cross Section:	XOW715	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW715

Weir Link: OF2134

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2060	Default:	0.00 ft
To Node:	NBW2150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.60 ft	**Discharge Coefficients**	
Control Elevation:	19.60 ft	Weir Default:	2.600
Cross Section:	XOW711	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW711

Weir Link: OF2137

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2330	Default:	0.00 ft
To Node:	NBW1860	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.08 ft	**Discharge Coefficients**	
Control Elevation:	20.08 ft	Weir Default:	2.600
Cross Section:	XOW727	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW727

Weir Link: OF2138

Scenario:	Existing	Bottom Clip	
From Node:	NBW2060	Default:	0.00 ft
To Node:	NBW2010	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.74 ft	Discharge Coefficients	
Control Elevation:	19.74 ft	Weir Default:	2.600
Cross Section:	XOW713	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW713

Weir Link: OF2139

Scenario:	Existing	Bottom Clip	
From Node:	NBW2060	Default:	0.00 ft
To Node:	NBW1990	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.51 ft	Discharge Coefficients	
Control Elevation:	19.51 ft	Weir Default:	2.600
Cross Section:	XOW714	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW714

Weir Link: OF2140

Scenario:	Existing	Bottom Clip	
From Node:	NBW2050	Default:	0.00 ft
To Node:	NBW1990	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.55 ft
Control Elevation:	19.55 ft
Cross Section:	XOW728

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW728

Weir Link: OF2141

Scenario:	Existing
From Node:	NBW2050
To Node:	NCL3090
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.16 ft
Control Elevation:	19.16 ft
Cross Section:	XOW729

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW729

Weir Link: OF2142

Scenario:	Existing
From Node:	NCL2850
To Node:	NCL3050
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.40 ft
Control Elevation:	21.40 ft
Cross Section:	XOW731

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW731

Weir Link: OF2143

Scenario:	Existing
From Node:	NCL2850
To Node:	NCL2370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.68 ft
Control Elevation:	21.68 ft
Cross Section:	XOW732

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW732

Weir Link: OF2144

Scenario:	Existing
From Node:	NCL2750
To Node:	NCL2510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.23 ft
Control Elevation:	22.23 ft
Cross Section:	XOW733

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW733

Weir Link: OF2145

Scenario:	Existing
From Node:	NCL2750
To Node:	NCL2730
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.79 ft
Control Elevation:	22.79 ft
Cross Section:	XOW734

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW734

Weir Link: OF2149

Scenario:	Existing
From Node:	NCL2770
To Node:	NCL2750
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.66 ft
Control Elevation:	22.66 ft
Cross Section:	XOW736

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW736

Weir Link: OF2150

Scenario:	Existing
From Node:	NCL2790
To Node:	NCL2780
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.04 ft
Control Elevation:	22.04 ft
Cross Section:	XOW737

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW737

Weir Link: OF2151

Scenario:	Existing
From Node:	NCL2790
To Node:	NCL2540
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.45 ft
Control Elevation:	21.45 ft
Cross Section:	XOW738

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW738

Weir Link: OF2152

Scenario:	Existing
From Node:	NCL2780
To Node:	NCL2750
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.84 ft
Control Elevation:	22.84 ft
Cross Section:	XOW739

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW739

Weir Link: OF2153

Scenario:	Existing
From Node:	NCL4010
To Node:	JUNCT9
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	29.15 ft
Control Elevation:	29.15 ft
Cross Section:	XOW741

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW741

Weir Link: OF2154

Scenario:	Existing
From Node:	NCL4000
To Node:	JUNCT9
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	29.29 ft
Control Elevation:	29.29 ft
Cross Section:	XOW740

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW740

Weir Link: OF2155

Scenario:	Existing
From Node:	NCL2830
To Node:	NCL2810
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.97 ft
Control Elevation:	22.97 ft
Cross Section:	XOW742

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW742

Weir Link: OF2156

Scenario:	Existing
From Node:	NCL2810
To Node:	NCL2790
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.44 ft
Control Elevation:	22.44 ft
Cross Section:	XOW743

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW743

Weir Link: OF2157

Scenario:	Existing	Bottom Clip	
From Node:	NCL2830	Default:	0.00 ft
To Node:	NCL2590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.07 ft	Discharge Coefficients	
Control Elevation:	23.07 ft	Weir Default:	2.600
Cross Section:	XOW744	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW744

Weir Link: OF2158

Scenario:	Existing	Bottom Clip	
From Node:	NCL2830	Default:	0.00 ft
To Node:	Outfall_NE	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.10 ft	Discharge Coefficients	
Control Elevation:	23.10 ft	Weir Default:	2.600
Cross Section:	XOW745	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW745

Weir Link: OF2159

Scenario:	Existing	Bottom Clip	
From Node:	NBW2130	Default:	0.00 ft
To Node:	NBW2110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.55 ft
Control Elevation:	17.55 ft
Cross Section:	XOW747

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW747

Weir Link: OF2160

Scenario:	Existing
From Node:	NRU0830
To Node:	NBW2130
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.96 ft
Control Elevation:	17.96 ft
Cross Section:	XOW746

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW746

Weir Link: OF2161

Scenario:	Existing
From Node:	NBW2110
To Node:	NBW2090
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.38 ft
Control Elevation:	18.38 ft
Cross Section:	XOW748

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW748

Weir Link: OF2162

Scenario:	Existing
From Node:	NBW2110
To Node:	NRU0790
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.58 ft
Control Elevation:	17.58 ft
Cross Section:	XOW749

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW749

Weir Link: OF2163

Scenario:	Existing
From Node:	NBW2090
To Node:	NBW2190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.97 ft
Control Elevation:	19.97 ft
Cross Section:	XOW750

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW750

Weir Link: OF2164

Scenario:	Existing
From Node:	NBW2090
To Node:	NBW2070
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.85 ft
Control Elevation:	19.85 ft
Cross Section:	XOW751

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW751

Weir Link: OF2165

Scenario:	Existing
From Node:	NBW2170
To Node:	NBW2150
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.04 ft
Control Elevation:	20.04 ft
Cross Section:	XOW709

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW709

Weir Link: OF2166

Scenario:	Existing
From Node:	NBW2070
To Node:	NBW2050
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.37 ft
Control Elevation:	18.37 ft
Cross Section:	XOW752

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW752

Weir Link: OF2167

Scenario:	Existing
From Node:	NCL3150
To Node:	NBW2070
Link Count:	1
Flow Direction:	Both

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.91 ft
Control Elevation:	18.91 ft
Cross Section:	XOW753

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW753

Weir Link: OF2168

Scenario:	Existing
From Node:	NCL3370
To Node:	NCL3365
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.47 ft
Control Elevation:	20.47 ft
Cross Section:	XOW756

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW756

Weir Link: OF2169

Scenario:	Existing
From Node:	NCL3530
To Node:	NCL3365
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.38 ft
Control Elevation:	20.38 ft
Cross Section:	XOW755

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW755

Weir Link: OF2170

Scenario:	Existing
From Node:	NRU0615
To Node:	JUNCT3
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.87 ft
Control Elevation:	19.87 ft
Cross Section:	XOW760

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW760

Weir Link: OF2171

Scenario:	Existing
From Node:	NRU0620
To Node:	NRU0615
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.99 ft
Control Elevation:	19.99 ft
Cross Section:	XOW759

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW759

Weir Link: OF2172

Scenario:	Existing
From Node:	NRU0345
To Node:	NRU0340
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.98 ft
Control Elevation:	18.98 ft
Cross Section:	XOW762

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW762

Weir Link: OF2173

Scenario:	Existing
From Node:	NRU0350
To Node:	NRU0340
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.40 ft
Control Elevation:	19.40 ft
Cross Section:	XOW761

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW761

Weir Link: OF2174

Scenario:	Existing
From Node:	NRU0340
To Node:	NRU0290
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.00 ft
Control Elevation:	18.00 ft
Cross Section:	XOW763

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW763

Weir Link: OF2175

Scenario:	Existing
From Node:	NRU0290
To Node:	NRU0270
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.86 ft
Control Elevation:	17.86 ft
Cross Section:	XOW764

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW764

Weir Link: OF2176

Scenario:	Existing
From Node:	NRU0270
To Node:	JUNCT6
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	14.87 ft
Control Elevation:	14.87 ft
Cross Section:	XOW767

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW767

Weir Link: OF2177

Scenario:	Existing
From Node:	NRU0250
To Node:	NRU0170
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	14.22 ft
Control Elevation:	14.22 ft
Cross Section:	XOW768

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW768

Weir Link: OF2178

Scenario:	Existing
From Node:	NRU0170
To Node:	NRU0190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	16.10 ft
Control Elevation:	16.10 ft
Cross Section:	XOW769

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW769

Weir Link: OF2179

Scenario:	Existing
From Node:	NRU0180
To Node:	NRU1510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.45 ft
Control Elevation:	16.45 ft
Cross Section:	XOW770

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW770

Weir Link: OF2180

Scenario:	Existing
From Node:	NRU0310
To Node:	NRU0270
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	17.85 ft
Control Elevation:	17.85 ft
Cross Section:	XOW766

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW766

Weir Link: OF2181

Scenario:	Existing	Bottom Clip	
From Node:	NC08	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	2.73 ft	Discharge Coefficients	
Control Elevation:	2.73 ft	Weir Default:	2.600
Cross Section:	XOW571	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW571

Weir Link: OF2182

Scenario:	Existing	Bottom Clip	
From Node:	NRU1170	Default:	0.00 ft
To Node:	NRU1150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.31 ft	Discharge Coefficients	
Control Elevation:	18.31 ft	Weir Default:	2.600
Cross Section:	XOW614	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW614

Weir Link: OF2185

Scenario:	Existing	Bottom Clip	
From Node:	NRU0710	Default:	0.00 ft
To Node:	NRU0750	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.86 ft
Control Elevation:	18.86 ft
Cross Section:	XOW771

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW771

Weir Link: OF2186

Scenario:	Existing
From Node:	NCL3630
To Node:	NCL3520
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.61 ft
Control Elevation:	19.61 ft
Cross Section:	XOW773

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW773

Weir Link: OF2187

Scenario:	Existing
From Node:	JUNCT7
To Node:	JUNCT8
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.13 ft
Control Elevation:	19.13 ft
Cross Section:	XOW774

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW774

Weir Link: OF2188

Scenario:	Existing
From Node:	NCL3510
To Node:	JUNCT7
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.42 ft
Control Elevation:	19.42 ft
Cross Section:	XOW775

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW775

Weir Link: OF2550

Scenario:	Existing
From Node:	NCL2550
To Node:	NCL3370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	21.50 ft
Control Elevation:	21.50 ft
Cross Section:	XOW2550

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3000

Scenario:	Existing
From Node:	NCL2840
To Node:	NCL2810
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	23.35 ft
Control Elevation:	23.35 ft
Cross Section:	XOW781

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF3001

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2840	Default:	0.00 ft
To Node:	NCL2790	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.26 ft	**Discharge Coefficients**	
Control Elevation:	23.26 ft	Weir Default:	3.200
Cross Section:	XOW782	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3002

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH26	Default:	0.00 ft
To Node:	NSH44	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.35 ft	**Discharge Coefficients**	
Control Elevation:	13.35 ft	Weir Default:	3.200
Cross Section:	XOW784	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3003

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH26	Default:	0.00 ft
To Node:	NSH34	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	13.62 ft
Control Elevation:	13.62 ft
Cross Section:	XOW783

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3004

Scenario:	Existing
From Node:	NSH14
To Node:	NSH22
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.75 ft
Control Elevation:	17.75 ft
Cross Section:	XOW796

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3005

Scenario:	Existing
From Node:	N08A
To Node:	N09
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	15.55 ft
Control Elevation:	15.55 ft
Cross Section:	XOW776

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3006

Scenario:	Existing
From Node:	N09
To Node:	NC02
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	13.56 ft
Control Elevation:	13.56 ft
Cross Section:	XOW787

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3007

Scenario:	Existing
From Node:	N08A
To Node:	NC02
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.04 ft
Control Elevation:	16.04 ft
Cross Section:	XOW786

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3008

Scenario:	Existing
From Node:	NCL3640
To Node:	NRU1070
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.34 ft
Control Elevation:	20.34 ft
Cross Section:	XOW788

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF3009

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3670	Default:	0.00 ft
To Node:	NCL3450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.38 ft	**Discharge Coefficients**	
Control Elevation:	19.38 ft	Weir Default:	3.200
Cross Section:	XOW801	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3010

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU2630	Default:	0.00 ft
To Node:	NRU2610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.83 ft	**Discharge Coefficients**	
Control Elevation:	18.83 ft	Weir Default:	3.200
Cross Section:	XOW785	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3011

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU0176	Default:	0.00 ft
To Node:	NRU0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	15.99 ft
Control Elevation:	15.99 ft
Cross Section:	XOW792

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3012

Scenario:	Existing
From Node:	NRU0176
To Node:	NRU1390
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.16 ft
Control Elevation:	16.16 ft
Cross Section:	XOW799

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3013

Scenario:	Existing
From Node:	NRU0176
To Node:	NRU1390
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.49 ft
Control Elevation:	16.49 ft
Cross Section:	XOW797

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3014

Scenario:	Existing
From Node:	NRU0165
To Node:	NRU0190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.63 ft
Control Elevation:	17.63 ft
Cross Section:	XOW795

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3015

Scenario:	Existing
From Node:	NRU0165
To Node:	NRU0170
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.81 ft
Control Elevation:	17.81 ft
Cross Section:	XOW793

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3016

Scenario:	Existing
From Node:	NRU0345
To Node:	NRU0335
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.68 ft
Control Elevation:	19.68 ft
Cross Section:	XOW798

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF3017

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1220	Default:	0.00 ft
To Node:	NRU0650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.19 ft	**Discharge Coefficients**	
Control Elevation:	20.19 ft	Weir Default:	3.200
Cross Section:	XOW790	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3018

Scenario:	Existing	**Bottom Clip**	
From Node:	N01	Default:	0.00 ft
To Node:	N04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.22 ft	**Discharge Coefficients**	
Control Elevation:	20.22 ft	Weir Default:	3.200
Cross Section:	XOW794	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3019

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU0370	Default:	0.00 ft
To Node:	NRU0350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.05 ft
Control Elevation:	19.05 ft
Cross Section:	XOW779

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3020

Scenario:	Existing
From Node:	NSH51
To Node:	E_Outlet2
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.53 ft
Control Elevation:	19.53 ft
Cross Section:	XOW780

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3021

Scenario:	Existing
From Node:	NRU1070
To Node:	E_Outlet2
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.90 ft
Control Elevation:	19.90 ft
Cross Section:	XOW777

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3022

Scenario:	Existing
From Node:	N11
To Node:	E_Outlet
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.83 ft
Control Elevation:	16.83 ft
Cross Section:	XOW778

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4000

Scenario:	Existing
From Node:	NRU0740
To Node:	NRU0745
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	16.93 ft
Control Elevation:	16.93 ft
Cross Section:	OF4000

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4001

Scenario:	Existing
From Node:	NBW2145
To Node:	NBW2130
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.13 ft
Control Elevation:	19.13 ft
Cross Section:	OF4001

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4002

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2145	Default:	0.00 ft
To Node:	NRU0790	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.24 ft	**Discharge Coefficients**	
Control Elevation:	19.24 ft	Weir Default:	2.600
Cross Section:	OF4002	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4003

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU0830	Default:	0.00 ft
To Node:	NRU1010	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.04 ft	**Discharge Coefficients**	
Control Elevation:	20.04 ft	Weir Default:	2.600
Cross Section:	OF4003	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4004

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1010	Default:	0.00 ft
To Node:	NRU1240	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.28 ft
Control Elevation:	20.28 ft
Cross Section:	OF4004

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4005

Scenario:	Existing
From Node:	NRU1010
To Node:	NSH57
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.23 ft
Control Elevation:	20.23 ft
Cross Section:	OF4005

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4006

Scenario:	Existing
From Node:	NRU0830
To Node:	NRU1240
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.94 ft
Control Elevation:	19.94 ft
Cross Section:	OF4006

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4007

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3740	Default:	0.00 ft
To Node:	NCL3730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.78 ft	**Discharge Coefficients**	
Control Elevation:	17.78 ft	Weir Default:	2.600
Cross Section:	OF4007	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4008

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NRU0950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.55 ft	**Discharge Coefficients**	
Control Elevation:	17.55 ft	Weir Default:	2.600
Cross Section:	OF4008	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4009

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NRU0850	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.03 ft	**Discharge Coefficients**	
Control Elevation:	17.03 ft	Weir Default:	2.600
Cross Section:	OF4009	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4010

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NBW2130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.10 ft	**Discharge Coefficients**	
Control Elevation:	18.10 ft	Weir Default:	2.600
Cross Section:	OF4010	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4011

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NCL3450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.07 ft	**Discharge Coefficients**	
Control Elevation:	18.07 ft	Weir Default:	2.600
Cross Section:	OF4011	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4012

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3450	Default:	0.00 ft
To Node:	NBW2110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	17.94 ft
Control Elevation:	17.94 ft
Cross Section:	OF4012

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4013

Scenario:	Existing
From Node:	NCL3740
To Node:	NRU0955
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	17.59 ft
Control Elevation:	17.59 ft
Cross Section:	OF4013

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4014

Scenario:	Existing
From Node:	NCL3250
To Node:	NBW2110
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	18.79 ft
Control Elevation:	18.79 ft
Cross Section:	OF4014

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4015

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3350	Default:	0.00 ft
To Node:	NCL3190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.33 ft	**Discharge Coefficients**	
Control Elevation:	20.33 ft	Weir Default:	2.600
Cross Section:	OF4015	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4016

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2510	Default:	0.00 ft
To Node:	NCL2910	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.36 ft	**Discharge Coefficients**	
Control Elevation:	21.36 ft	Weir Default:	2.600
Cross Section:	OF4016	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4017

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2530	Default:	0.00 ft
To Node:	NCL3390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.85 ft	**Discharge Coefficients**	
Control Elevation:	20.85 ft	Weir Default:	2.600
Cross Section:	OF4017	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4018

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2530	Default:	0.00 ft
To Node:	NCL3370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.92 ft	**Discharge Coefficients**	
Control Elevation:	20.92 ft	Weir Default:	2.600
Cross Section:	OF4018	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4019

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL3520	Default:	0.00 ft
To Node:	NRU1050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.18 ft	**Discharge Coefficients**	
Control Elevation:	19.18 ft	Weir Default:	2.600
Cross Section:	OF4019	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4020

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1070	Default:	0.00 ft
To Node:	NRU1050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	19.21 ft
Control Elevation:	19.21 ft
Cross Section:	OF4020

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4021

Scenario:	Existing
From Node:	JUNCT7B
To Node:	NCL3490
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	18.25 ft
Control Elevation:	18.25 ft
Cross Section:	OF4021

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4022

Scenario:	Existing
From Node:	JUNCT8B
To Node:	JUNCT7B
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	18.26 ft
Control Elevation:	18.26 ft
Cross Section:	OF4022

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4023

Scenario:	Existing
From Node:	NCL2590
To Node:	NCL3630
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.89 ft
Control Elevation:	20.89 ft
Cross Section:	OF4023

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4024

Scenario:	Existing
From Node:	NCL2630
To Node:	NCL3640
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.38 ft
Control Elevation:	20.38 ft
Cross Section:	OF4024

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4025

Scenario:	Existing
From Node:	NRU0790
To Node:	NRU0785
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	16.23 ft
Control Elevation:	16.23 ft
Cross Section:	XOW800

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4026

Scenario:	Existing
From Node:	NCL3670
To Node:	NBW2110
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.95 ft
Control Elevation:	18.95 ft
Cross Section:	XOW802

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4029

Scenario:	Existing
From Node:	NSH43
To Node:	NSH75
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	7.68 ft
Control Elevation:	7.68 ft
Cross Section:	XOW853

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4050

Scenario:	Existing
From Node:	NSH37
To Node:	NSH17
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	17.87 ft
Control Elevation:	17.87 ft
Cross Section:	XOW910

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4051

Scenario:	Existing
From Node:	NSH14
To Node:	NSH17
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	17.73 ft
Control Elevation:	17.73 ft
Cross Section:	XOW911

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4060

Scenario:	Existing
From Node:	NCL2790
To Node:	JUNCT10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.35 ft
Control Elevation:	21.35 ft
Cross Section:	XOW920

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4061

Scenario:	Existing
From Node:	NRU0180
To Node:	NRU1510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	15.72 ft
Control Elevation:	15.72 ft
Cross Section:	XOW921

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4062

Scenario:	Existing
From Node:	NSH26
To Node:	NSH27
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	13.42 ft
Control Elevation:	13.42 ft
Cross Section:	XOW922

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF4070

Scenario:	Existing
From Node:	NCL3450
To Node:	NCL3730
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	17.34 ft
Control Elevation:	17.34 ft
Cross Section:	XOW930

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

Orifice Table:

Comment:

Pipe Link: OutBox1		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.12 ft	Invert:	-1.23 ft
From Node:	Shamrock2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Outfall	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	334.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: OutBox2		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.12 ft	Invert:	-1.23 ft
From Node:	Shamrock2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Outfall	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	334.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: P01A		Upstream		Downstream	
Scenario:	Existing	Invert:	15.08 ft	Invert:	14.80 ft
From Node:	N01A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	PondA	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	92.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment: Field					

Pipe Link: P02		Upstream		Downstream	
Scenario:	Existing	Invert:	12.71 ft	Invert:	10.97 ft
From Node:	N02	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N05	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	70.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment: CityPlans					

Pipe Link: P03		Upstream		Downstream	
Scenario:	Existing	Invert:	16.00 ft	Invert:	12.71 ft
From Node:	N03	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N02	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: P04		Upstream		Downstream	
Scenario:	Existing	Invert:	16.60 ft	Invert:	15.14 ft
From Node:	N04	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N05	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	171.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Selmon Plans, CityPlans, Field

Pipe Link: P05		Upstream		Downstream	
Scenario:	Existing	Invert:	10.71 ft	Invert:	10.55 ft
From Node:	N05	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	PondB	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	120.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: P06		Upstream		Downstream	
Scenario:	Existing	Invert:	9.63 ft	Invert:	5.59 ft

From Node:	N06	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N07A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P07C		Upstream		Downstream	
Scenario:	Existing	Invert:	5.59 ft	Invert:	2.99 ft
From Node:	N07A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N08A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	610.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P08C		Upstream		Downstream	
Scenario:	Existing	Invert:	2.99 ft	Invert:	1.88 ft
From Node:	N08A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N09A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P09A		Upstream		Downstream	
Scenario:	Existing	Invert:	7.50 ft	Invert:	7.14 ft
From Node:	N09	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N09A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	32.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P09B		Upstream		Downstream	
Scenario:	Existing	Invert:	1.88 ft	Invert:	0.38 ft
From Node:	N09A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NC02	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC01		Upstream		Downstream	
Scenario:	Existing	Invert:	2.65 ft	Invert:	0.25 ft
From Node:	NC01	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	148.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC01B		Upstream		Downstream	
Scenario:	Existing	Invert:	4.18 ft	Invert:	1.93 ft
From Node:	NC01B	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NC03	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	333.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC02		Upstream		Downstream	
Scenario:	Existing	Invert:	0.38 ft	Invert:	-1.91 ft
From Node:	NC02	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NC03	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	458.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC03		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.91 ft	Invert:	-2.62 ft
From Node:	NC03	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC04		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.31 ft	Invert:	-1.50 ft
From Node:	NC04	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC05		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.11 ft	Invert:	-1.50 ft
From Node:	NC05	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	49.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC06		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.83 ft	Invert:	-2.00 ft
From Node:	NC06	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC07		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.01 ft	Invert:	-1.50 ft
From Node:	NC07	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC08		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.21 ft	Invert:	-1.50 ft
From Node:	NC08	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	54.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Rating Curve Link: PSCL3730

Scenario: Existing
From Node: NCL3730
To Node: NCL3460
Link Count: 1
Flow Direction: None

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
PSCL3730	13.00	NCL3730	9.50	NCL3730
PSCL3730B	13.00	NCL3730	9.50	NCL3730

Comment: Pump station added per ERP 6550

Pipe Link: PSH06		Upstream		Downstream	
Scenario:	Existing	Invert:	15.78 ft	Invert:	18.10 ft
From Node:	Marjory_Pump	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU0490	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	380.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: PSH31		Upstream		Downstream	
Scenario:	Existing	Invert:	4.54 ft	Invert:	4.29 ft
From Node:	NSH31	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH35	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	88.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: PSH51		Upstream		Downstream	
Scenario:	Existing	Invert:	14.41 ft	Invert:	13.37 ft
From Node:	NSH51	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH53	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	345.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: R11		Upstream		Downstream	
Scenario:	Existing	Invert:	11.14 ft	Invert:	9.17 ft
From Node:	N11	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	E_Outlet	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	691.16 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RBB0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.17 ft	Invert:	-3.37 ft
From Node:	NBB0030	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBB0010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	900.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0050		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.77 ft	Invert:	-3.17 ft
From Node:	NBB0050	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBB0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	900.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0070		Upstream		Downstream	
Scenario:	Existing	Invert:	0.13 ft	Invert:	-1.77 ft
From Node:	NBB0070	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBB0050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	506.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0090		Upstream		Downstream	
Scenario:	Existing	Invert:	1.33 ft	Invert:	0.13 ft
From Node:	NBB0090	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	456.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	13.12 ft
From Node:	NBB0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0050	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0090OW	Cross Section:	RBB0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBB0110		Upstream		Downstream	
Scenario:	Existing	Invert:	2.33 ft	Invert:	1.33 ft
From Node:	NBB0110	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.10 ft	Invert:	16.09 ft
From Node:	NBB0130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0110	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0110OW	Cross Section:	RBB0110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0130		Upstream		Downstream	
Scenario:	Existing	Invert:	9.83 ft	Invert:	9.33 ft

From Node:	NBB0130	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	200.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0150		Upstream		Downstream	
Scenario:	Existing	Invert:	4.13 ft	Invert:	2.36 ft
From Node:	NBB0150	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	450.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0170		Upstream		Downstream	
Scenario:	Existing	Invert:	4.18 ft	Invert:	4.13 ft
From Node:	NBB0170	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NBB0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	250.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0190		Upstream		Downstream	
Scenario:	Existing	Invert:	4.42 ft	Invert:	4.18 ft
From Node:	NBB0190	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0210		Upstream		Downstream	
Scenario:	Existing	Invert:	4.66 ft	Invert:	4.42 ft
From Node:	NBB0210	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0230		Upstream		Downstream	
Scenario:	Existing	Invert:	4.99 ft	Invert:	4.66 ft
From Node:	NBB0230	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0210	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0230OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.45 ft	Invert:	16.44 ft
From Node:	NBB0230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0190	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0230OW	Cross Section:	RBB0230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0250		Upstream		Downstream	
Scenario:	Existing	Invert:	5.16 ft	Invert:	4.99 ft
From Node:	NBB0250	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0270		Upstream		Downstream	
Scenario:	Existing	Invert:	5.38 ft	Invert:	5.16 ft
From Node:	NBB0270	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.77 ft	Invert:	15.76 ft
From Node:	NBB0270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0310	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0270OW	Cross Section:	RBB0270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0290		Upstream		Downstream	
Scenario:	Existing	Invert:	5.73 ft	Invert:	5.38 ft
From Node:	NBB0290	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NBB0270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	230.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0310		Upstream		Downstream	
Scenario:	Existing	Invert:	5.97 ft	Invert:	5.73 ft
From Node:	NBB0310	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0330		Upstream		Downstream	
Scenario:	Existing	Invert:	6.24 ft	Invert:	5.97 ft
From Node:	NBB0330	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	380.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.99 ft	Invert:	15.98 ft
From Node:	NBB0330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0330OW	Cross Section:	RBB0330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBB0350		Upstream		Downstream	
Scenario:	Existing	Invert:	6.65 ft	Invert:	6.24 ft
From Node:	NBB0350	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBB0370		Upstream		Downstream	
Scenario:	Existing	Invert:	6.99 ft	Invert:	6.65 ft
From Node:	NBB0370	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	250.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0390		Upstream		Downstream	
Scenario:	Existing	Invert:	7.48 ft	Invert:	6.99 ft
From Node:	NBB0390	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0410		Upstream		Downstream	
Scenario:	Existing	Invert:	9.00 ft	Invert:	7.48 ft
From Node:	NBB0410	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	520.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0410OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.09 ft	Invert:	15.08 ft

From Node:	NBB0410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0410OW	Cross Section:	RBB0410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0430		Upstream		Downstream	
Scenario:	Existing	Invert:	9.32 ft	Invert:	9.00 ft
From Node:	NBB0430	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NBB0410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	190.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.93 ft	Invert:	14.03 ft
From Node:	NBB0430	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	491.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0430OWa		Upstream		Downstream	
Scenario:	Existing	Invert:	15.13 ft	Invert:	14.63 ft
From Node:	NBB0430	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	520.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_001		Upstream		Downstream	
Scenario:	Existing	Invert:	6.40 ft	Invert:	5.72 ft
From Node:	NBW2690	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0881	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	720.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.90	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_003		Upstream		Downstream	
Scenario:	Existing	Invert:	5.72 ft	Invert:	4.49 ft
From Node:	NSR0881	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2380	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	1260.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.70	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_004		Upstream		Downstream	
Scenario:	Existing	Invert:	4.49 ft	Invert:	3.84 ft
From Node:	NBW2380	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1353	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	660.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_005	Upstream	Downstream

Scenario:	Existing	Invert:	3.84 ft	Invert:	3.21 ft
From Node:	NBW1353	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1352	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	640.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_006		Upstream		Downstream	
Scenario:	Existing	Invert:	3.21 ft	Invert:	2.60 ft
From Node:	NBW1352	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1351	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	620.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_007		Upstream		Downstream	
Scenario:	Existing	Invert:	2.60 ft	Invert:	1.60 ft
From Node:	NBW1351	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0790	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	670.00 ft	Bottom Clip			

FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.90	Op Table:		Op Table:	
Exit Loss Coef:	0.90	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_008		Upstream		Downstream	
Scenario:	Existing	Invert:	1.60 ft	Invert:	1.60 ft
From Node:	NSR0790	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0791	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	603.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.90	Op Table:		Op Table:	
Exit Loss Coef:	0.90	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_009		Upstream		Downstream	
Scenario:	Existing	Invert:	1.60 ft	Invert:	-1.74 ft
From Node:	NSR0791	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0281	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	687.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	0.70	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: RBC_010		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.74 ft	Invert:	-3.70 ft
From Node:	NSR0281	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0280	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	385.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_011		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.70 ft	Invert:	-5.00 ft
From Node:	NSR0280	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0550	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	265.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	0.70	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_012		Upstream		Downstream	
Scenario:	Existing	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0550	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0160	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	650.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBC_013		Upstream		Downstream	
Scenario:	Existing	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0160	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0140	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	57.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBC_014		Upstream		Downstream	
Scenario:	Existing	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0140	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0120	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft

Length:	356.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_015		Upstream		Downstream	
Scenario:	Existing	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0120	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0112	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	76.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_016		Upstream		Downstream	
Scenario:	Existing	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0112	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0105	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	135.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft

		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_017		Upstream		Downstream	
Scenario:	Existing	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0105	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0000	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	174.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_100		Upstream		Downstream	
Scenario:	Existing	Invert:	4.60 ft	Invert:	0.52 ft
From Node:	NBW1351	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1330	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	355.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_101		Upstream		Downstream	
Scenario:	Existing	Invert:	2.60 ft	Invert:	0.80 ft
From Node:	NBW1351	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.10 ft	Invert:	-4.67 ft
From Node:	NBW0030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0010	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0030	Cross Section:	RBW0030
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	700.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0050		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	1.13 ft
From Node:	NBW0050	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	58.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0050OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW0050	Default:	0.00 ft
To Node:	NBW0030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.00 ft	**Discharge Coefficients**	
Control Elevation:	4.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW0050OWA

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW0050	Default:	0.00 ft
To Node:	NSR0140	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.60 ft	**Discharge Coefficients**	
Control Elevation:	5.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	43.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW0070		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.83 ft	Invert:	-2.07 ft
From Node:	NBW0070	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Rectangular		Geometry: Rectangular	

Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	15.00 ft	Max Width:	15.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0090OW

Scenario:	Existing	Bottom Clip	
From Node:	NBW0090	Default:	0.00 ft
To Node:	NBW0030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	3.60 ft	Discharge Coefficients	
Control Elevation:	3.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW0130

		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.42 ft	Invert:	-1.83 ft
From Node:	NBW0130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0130	Cross Section:	RBW0130
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	600.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RBW0150		Upstream		Downstream	
Scenario:	Existing	Invert:	0.21 ft	Invert:	0.15 ft
From Node:	NBW0150	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0130	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	64.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0150OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW0150	Default:	0.00 ft
To Node:	NBW0130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.70 ft	Discharge Coefficients	
Control Elevation:	4.70 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW0170		Upstream		Downstream	
Scenario:	Existing	Invert:	0.61 ft	Invert:	0.21 ft
From Node:	NBW0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0170OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.40 ft	Invert:	3.40 ft
From Node:	NBW0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0090	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	496.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0170OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	4.10 ft	Invert:	4.50 ft
From Node:	NBW0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	208.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0190		Upstream		Downstream	
Scenario:	Existing	Invert:	0.28 ft	Invert:	-0.37 ft
From Node:	NBW0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0130	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0190	Cross Section:	RBW0190
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	350.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RBW0210OW			
Scenario:	Existing	Bottom Clip	
From Node:	NBW0210	Default:	0.00 ft
To Node:	NBW0190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.00 ft	Discharge Coefficients	
Control Elevation:	6.00 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RBW0230		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.34 ft	Invert:	-0.42 ft
From Node:	NBW0230	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0190	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	45.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000

Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0230A		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.34 ft	Invert:	-0.42 ft
From Node:	NBW0230	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0190	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	45.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0250		Upstream		Downstream	
Scenario:	Existing	Invert:	0.39 ft	Invert:	0.28 ft
From Node:	NBW0250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0230	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0250	Cross Section:	RBW0250
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	304.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0270		Upstream		Downstream	
Scenario:	Existing	Invert:	0.51 ft	Invert:	0.39 ft
From Node:	NBW0270	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	61.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0270OW			
Scenario:	Existing	Bottom Clip	
From Node:	NBW0270	Default:	0.00 ft
To Node:	NBW0250	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.00 ft	Discharge Coefficients	
Control Elevation:	5.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW0290		Upstream		Downstream	
Scenario:	Existing	Invert:	1.05 ft	Invert:	0.51 ft
From Node:	NBW0290	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	218.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0290OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.50 ft	Invert:	5.20 ft
From Node:	NBW0290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0270	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_30FT_FULL	Cross Section:	CURB_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	220.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0310		Upstream		Downstream	
Scenario:	Existing	Invert:	1.67 ft	Invert:	1.05 ft
From Node:	NBW0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0290	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	311.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0310OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.50 ft	Invert:	5.30 ft
From Node:	NBW0310	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NBW1230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	1042.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Geometry: Irregular		Geometry: Irregular	
Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL

Comment:

Channel Link: RBW0310OWA	
Scenario:	Existing
From Node:	NBW0310
To Node:	NBW0290
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	290.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	7.40 ft	Invert:	6.00 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry: Irregular		Geometry: Irregular	
Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL

Comment:

Channel Link: RBW0330	
Scenario:	Existing
From Node:	NBW0330
To Node:	NBW0250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	446.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec

Upstream		Downstream	
Invert:	0.55 ft	Invert:	0.39 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry: Irregular		Geometry: Irregular	
Cross Section:	RBW0330	Cross Section:	RBW0330

Energy Switch:	Energy
Comment:	

Channel Link: RBW0350OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.73 ft	Invert:	4.72 ft
From Node:	NBW0350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0350OW	Cross Section:	RBW0350OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0370		Upstream		Downstream	
Scenario:	Existing	Invert:	1.20 ft	Invert:	0.68 ft
From Node:	NBW0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0330	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBW0390		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.86 ft	Invert:	1.20 ft
From Node:	NBW0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0370	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	141.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.55 ft	Invert:	4.54 ft
From Node:	NBW0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0390OW	Cross Section:	RBW0390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0410		Upstream		Downstream	
Scenario:	Existing	Invert:	0.46 ft	Invert:	0.45 ft
From Node:	NBW0410	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0330	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	14.00 ft	Max Width:	14.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: RBW0430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.65 ft	Invert:	3.64 ft
From Node:	NBW0430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0430OW	Cross Section:	RBW0430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0450		Upstream		Downstream	
Scenario:	Existing	Invert:	0.55 ft	Invert:	0.46 ft
From Node:	NBW0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0410	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0450	Cross Section:	RBW0450
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0470OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.68 ft	Invert:	3.67 ft
From Node:	NBW0470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0470OW	Cross Section:	RBW0470OW

Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW0490		Upstream		Downstream	
Scenario:	Existing	Invert:	0.46 ft	Invert:	0.45 ft
From Node:	NBW0490	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0450	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	14.00 ft	Max Width:	14.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0510OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.35 ft	Invert:	6.34 ft
From Node:	NBW0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0510OW	Cross Section:	RBW0510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch:	Energy
Comment:	

Channel Link: RBW0530		Upstream		Downstream	
Scenario:	Existing	Invert:	1.20 ft	Invert:	0.46 ft
From Node:	NBW0530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0530	Cross Section:	RBW0530
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	310.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0550		Upstream		Downstream	
Scenario:	Existing	Invert:	3.57 ft	Invert:	1.39 ft
From Node:	NBW0550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0530	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	942.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW0550AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.72 ft	Invert:	5.71 ft
From Node:	NBW0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0550AOW	Cross Section:	RBW0550AOW

Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW0550OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.18 ft	Invert:	5.17 ft
From Node:	NBW0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0550OW	Cross Section:	RBW0550OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0570		Upstream		Downstream	
Scenario:	Existing	Invert:	4.03 ft	Invert:	3.77 ft
From Node:	NBW0570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0550	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	262.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.68 ft	Invert:	5.67 ft
From Node:	NBW0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0570OW	Cross Section:	RBW0570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0590		Upstream		Downstream	
Scenario:	Existing	Invert:	5.33 ft	Invert:	4.44 ft
From Node:	NBW0590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0570	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	314.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW0590OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.50 ft	Invert:	5.50 ft
From Node:	NBW0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1048.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW0590OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	9.40 ft	Invert:	8.60 ft
From Node:	NBW0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	303.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0610		Upstream		Downstream	
Scenario:	Existing	Invert:	2.09 ft	Invert:	1.20 ft
From Node:	NBW0610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0610	Cross Section:	RBW0610
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	190.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0630OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.08 ft	Invert:	5.07 ft

From Node:	NBW0630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0630OW	Cross Section:	RBW0630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0650		Upstream		Downstream	
Scenario:	Existing	Invert:	1.25 ft	Invert:	1.24 ft
From Node:	NBW0650	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0610	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	95.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.48 ft	Invert:	4.47 ft
From Node:	NBW0670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0670OW	Cross Section:	RBW0670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW0690		Upstream		Downstream	
Scenario:	Existing	Invert:	1.31 ft	Invert:	1.25 ft
From Node:	NBW0690	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NBW0650	Geometry:	Trapezoidal	Geometry:	Trapezoidal
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	0.00 ft	Bottom Width:	0.00 ft
Length:	373.00 ft	Left Slope:	3.000 (h:v)	Left Slope:	3.000 (h:v)
Contraction Coef:	0.00	Right Slope:	3.000 (h:v)	Right Slope:	3.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0710OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.96 ft	Invert:	4.95 ft
From Node:	NBW0710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0710OW	Cross Section:	RBW0710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0730		Upstream		Downstream	
Scenario:	Existing	Invert:	1.32 ft	Invert:	1.31 ft
From Node:	NBW0730	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0690	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	95.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0730OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.74 ft	Invert:	3.73 ft
From Node:	NBW0730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0730OW	Cross Section:	RBW0730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0750		Upstream		Downstream	
Scenario:	Existing	Invert:	1.43 ft	Invert:	1.32 ft
From Node:	NBW0750	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	670.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0750AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.97 ft	Invert:	4.96 ft
From Node:	NBW0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0750AOW	Cross Section:	RBW0750AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0750OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.10 ft	Invert:	6.09 ft
From Node:	NBW0750	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0750OW	Cross Section:	RBW0750OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0770		Upstream		Downstream	
Scenario:	Existing	Invert:	2.59 ft	Invert:	1.93 ft
From Node:	NBW0770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0750	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	78.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.45 ft	Invert:	5.44 ft
From Node:	NBW0770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0770OW	Cross Section:	RBW0770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0790		Upstream		Downstream	
Scenario:	Existing	Invert:	5.03 ft	Invert:	2.87 ft
From Node:	NBW0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0770	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	277.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0790OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.51 ft	Invert:	7.50 ft
From Node:	NBW0790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0770	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0790OW	Cross Section:	RBW0790OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0810		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	1.33 ft
From Node:	NBW0810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0750	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	244.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0830		Upstream		Downstream	
Scenario:	Existing	Invert:	3.39 ft	Invert:	1.91 ft
From Node:	NBW0830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0810	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	392.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0830OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.45 ft	Invert:	7.44 ft
From Node:	NBW0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0830OW	Cross Section:	RBW0830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0850		Upstream		Downstream	
Scenario:	Existing	Invert:	4.23 ft	Invert:	3.34 ft
From Node:	NBW0850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0830	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	208.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0850OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.54 ft	Invert:	9.53 ft
From Node:	NBW0850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0850OW	Cross Section:	RBW0850OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0870		Upstream		Downstream	
Scenario:	Existing	Invert:	1.89 ft	Invert:	1.63 ft
From Node:	NBW0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0810	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	484.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0870OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.33 ft	Invert:	6.32 ft
From Node:	NBW0870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0870OW	Cross Section:	RBW0870OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0890		Upstream		Downstream	
Scenario:	Existing	Invert:	1.50 ft	Invert:	1.43 ft
From Node:	NBW0890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0750	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBW0910		Upstream		Downstream	
Scenario:	Existing	Invert:	1.78 ft	Invert:	1.50 ft
From Node:	NBW0910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0890	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0910OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.28 ft	Invert:	5.27 ft
From Node:	NBW0910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0910OW	Cross Section:	RBW0910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0930		Upstream		Downstream	
Scenario:	Existing	Invert:	2.09 ft	Invert:	1.78 ft
From Node:	NBW0930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0910	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	177.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0950		Upstream		Downstream	
Scenario:	Existing	Invert:	2.32 ft	Invert:	2.09 ft

From Node:	NBW0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0930	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.41 ft	Max Depth:	2.41 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	171.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0950OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.93 ft	Invert:	6.92 ft
From Node:	NBW0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0950	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0950OW	Cross Section:	RBW0950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0970		Upstream		Downstream	
Scenario:	Existing	Invert:	2.68 ft	Invert:	2.68 ft
From Node:	NBW0970	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW0950	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.41 ft	Max Depth:	2.41 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0990		Upstream		Downstream	
Scenario:	Existing	Invert:	2.81 ft	Invert:	2.68 ft
From Node:	NBW0990	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW0970	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1010		Upstream		Downstream	
Scenario:	Existing	Invert:	3.36 ft	Invert:	2.81 ft
From Node:	NBW1010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	256.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1010OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.90 ft	Invert:	7.89 ft
From Node:	NBW1010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0970	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RBW1010OW	Cross Section:	RBW1010OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1030		Upstream		Downstream	
Scenario:	Existing	Invert:	4.22 ft	Invert:	3.45 ft
From Node:	NBW1030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1010	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	302.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1030OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.30 ft	Invert:	11.29 ft
From Node:	NBW1030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1030OW	Cross Section:	RBW1030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1050		Upstream		Downstream	
Scenario:	Existing	Invert:	4.67 ft	Invert:	4.22 ft
From Node:	NBW1050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1030	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1070		Upstream		Downstream	
Scenario:	Existing	Invert:	4.90 ft	Invert:	4.70 ft
From Node:	NBW1070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1050	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Max Width:	3.16 ft	Max Width:	3.16 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	105.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1070AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.85 ft	Invert:	8.84 ft
From Node:	NBW1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1030	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RBW1070AOW	Cross Section:	RBW1070AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1070OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.78 ft	Invert:	8.77 ft
From Node:	NBW1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0870	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1070OW	Cross Section:	RBW1070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1090A		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.00 ft	Invert:	-2.10 ft
From Node:	NBW1090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	56.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

		Ref Node:	
		Manning's N:	0.0000

Comment:

Pipe Link: RBW1090B		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.00 ft	Invert:	-2.10 ft
From Node:	NBW1090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	56.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1130		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.56 ft	Invert:	-1.50 ft
From Node:	NBW1130	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1130OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.90 ft	Invert:	4.00 ft

From Node:	NBW1130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_30FT_HALF	Cross Section:	LOCAL_30FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	130.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1130OWA

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW1130	Default:	0.00 ft
To Node:	NBW0030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.00 ft	**Discharge Coefficients**	
Control Elevation:	5.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1150		Upstream		Downstream	
Scenario:	Existing	Invert:	0.18 ft	Invert:	-0.14 ft
From Node:	NBW1150	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1130	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	**Bottom Clip**			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	129.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	**Top Clip**			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Weir Link: RBW1150OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1150	Default:	0.00 ft
To Node:	NSR0180	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.10 ft	Discharge Coefficients	
Control Elevation:	5.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	23.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1150OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	4.10 ft	Invert:	4.00 ft
From Node:	NBW1150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1130	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	266.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1169		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.74 ft	Invert:	-2.00 ft
From Node:	NBW1169	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1090	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1169	Cross Section:	RBW1169
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	800.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1170B		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.80 ft	Invert:	-0.74 ft
From Node:	NBW1170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1169	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1169	Cross Section:	RBW1169
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	374.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1190		Upstream		Downstream	
Scenario:	Existing	Invert:	0.50 ft	Invert:	0.25 ft
From Node:	NBW1190	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	125.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1190OW			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1190	Default:	0.00 ft
To Node:	NBW1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.00 ft	Discharge Coefficients	
Control Elevation:	7.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RBW1210		Upstream		Downstream	
Scenario:	Existing	Invert:	0.01 ft	Invert:	-0.35 ft
From Node:	NBW1210	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RBW1210OW			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1210	Default:	0.00 ft
To Node:	NBW1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.50 ft	Discharge Coefficients	
Control Elevation:	7.50 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	10.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Channel Link: RBW1210OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	7.00 ft	Invert:	3.90 ft
From Node:	NBW1210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1150	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	604.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1230		Upstream		Downstream	
Scenario:	Existing	Invert:	0.59 ft	Invert:	0.01 ft
From Node:	NBW1230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	265.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1230OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.00 ft	Invert:	5.00 ft
From Node:	NBW1230	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NBW1210	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	396.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1250A		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.75 ft	Invert:	-0.80 ft
From Node:	NBW1250	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	50.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1250B		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.75 ft	Invert:	-0.80 ft
From Node:	NBW1250	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	50.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000

Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1250OW

Scenario:	Existing	Bottom Clip	
From Node:	NBW1250	Default:	0.00 ft
To Node:	NBW1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.40 ft	Discharge Coefficients	
Control Elevation:	7.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW1250OWB

Scenario:	Existing	Bottom Clip	
From Node:	NBW1250	Default:	0.00 ft
To Node:	NBW1190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.70 ft	Discharge Coefficients	
Control Elevation:	6.70 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW1250OWC

Scenario:	Existing	Bottom Clip	
From Node:	NBW1250	Default:	0.00 ft

To Node:	NBW1210		
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	6.70 ft	Ref Node:	
Control Elevation:	6.70 ft	**Discharge Coefficients**	
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	10.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW1270		Upstream		Downstream	
Scenario:	Existing	Invert:	1.20 ft	Invert:	0.50 ft
From Node:	NBW1270	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	172.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.50 ft	Invert:	5.00 ft
From Node:	NBW1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1190	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	300.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Weir Link: RBW1270OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1270	Default:	0.00 ft
To Node:	NBW1310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	8.40 ft	Discharge Coefficients	
Control Elevation:	8.40 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1270OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	6.40 ft	Invert:	5.50 ft
From Node:	NBW1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0580	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	663.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1310B		Upstream		Downstream	
Scenario:	Existing	Invert:	0.26 ft	Invert:	-0.75 ft
From Node:	NBW1310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1310B	Cross Section:	RBW1310B
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	676.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1330A		Upstream		Downstream	
Scenario:	Existing	Invert:	0.52 ft	Invert:	0.26 ft
From Node:	NBW1330	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1310	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	27.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1350A		Upstream		Downstream	
Scenario:	Existing	Invert:	6.04 ft	Invert:	5.25 ft
From Node:	NBW1350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	1.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1350B		Upstream		Downstream	
Scenario:	Existing	Invert:	7.00 ft	Invert:	1.50 ft
From Node:	NBW1350	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1330	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	62.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	1.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1350OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.50 ft	Invert:	10.50 ft
From Node:	NBW1350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1350OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1350	Default:	0.00 ft
To Node:	NBW1310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	11.60 ft	Ref Node:	
Control Elevation:	11.60 ft	**Discharge Coefficients**	
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	150.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Channel Link: RBW1351OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	10.80 ft	Invert:	11.70 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1351OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	10.60 ft	Invert:	6.10 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1270	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	426.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1351OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	10.40 ft	Invert:	6.80 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0780	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	598.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1351OWD		Upstream		Downstream	
Scenario:	Existing	Invert:	11.20 ft	Invert:	9.90 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	543.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1352OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	14.40 ft	Invert:	10.80 ft
From Node:	NBW1352	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1351	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	652.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1353OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	15.70 ft	Invert:	14.40 ft
From Node:	NBW1353	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1352	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1370		Upstream		Downstream	
Scenario:	Existing	Invert:	3.80 ft	Invert:	0.52 ft
From Node:	NBW1370	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1330	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	325.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1370OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.70 ft	Invert:	5.00 ft
From Node:	NBW1370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	768.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RBW1370OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1370	Default:	0.00 ft
To Node:	NBW1310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	10.90 ft	Discharge Coefficients	
Control Elevation:	10.90 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	120.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RBW1370OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	10.90 ft	Invert:	7.80 ft
From Node:	NBW1370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	325.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1390		Upstream		Downstream	
Scenario:	Existing	Invert:	7.87 ft	Invert:	3.80 ft
From Node:	NBW1390	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1370	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	1324.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.70 ft	Invert:	10.70 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	983.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1390OWA	Upstream	Downstream

			Upstream		Downstream
Scenario:	Existing	Invert:	15.00 ft	Invert:	13.80 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	390.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1390OWB			Upstream		Downstream
Scenario:	Existing	Invert:	14.80 ft	Invert:	10.00 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_HALF	Cross Section:	CURB_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	995.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1390OWC			Upstream		Downstream
Scenario:	Existing	Invert:	15.40 ft	Invert:	11.80 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1285.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1390OWD		Upstream		Downstream	
Scenario:	Existing	Invert:	15.00 ft	Invert:	14.30 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	224.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1410		Upstream		Downstream	
Scenario:	Existing	Invert:	8.55 ft	Invert:	7.87 ft
From Node:	NBW1410	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1390	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	350.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1410OW	Upstream	Downstream

Scenario:	Existing	Invert:	15.20 ft	Invert:	14.30 ft
From Node:	NBW1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	274.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1430		Upstream		Downstream	
Scenario:	Existing	Invert:	8.84 ft	Invert:	8.55 ft
From Node:	NBW1430	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1410	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	412.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.20 ft	Invert:	14.30 ft
From Node:	NBW1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	274.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				

Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1430OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	15.90 ft	Invert:	16.10 ft
From Node:	NBW1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	175.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1450		Upstream		Downstream	
Scenario:	Existing	Invert:	9.10 ft	Invert:	8.97 ft
From Node:	NBW1450	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1460	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	395.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.30 ft	Invert:	14.30 ft
From Node:	NBW1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	665.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1450OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	16.60 ft	Invert:	16.50 ft
From Node:	NBW1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	117.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1460OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.00 ft	Invert:	15.30 ft
From Node:	NBW1460	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	300.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1460OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	17.00 ft	Invert:	9.60 ft
From Node:	NBW1460	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1470		Upstream		Downstream	
Scenario:	Existing	Invert:	9.22 ft	Invert:	9.10 ft
From Node:	NBW1470	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBW1450	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	425.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1470OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	16.30 ft	Invert:	15.50 ft
From Node:	NBW1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	554.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1470OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	16.90 ft	Invert:	15.40 ft
From Node:	NBW1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	778.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1470OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	16.80 ft	Invert:	15.40 ft
From Node:	NBW1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	495.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1480		Upstream		Downstream	
Scenario:	Existing	Invert:	10.52 ft	Invert:	8.97 ft
From Node:	NBW1480	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1460	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	776.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1480OW			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1480	Default:	0.00 ft
To Node:	NBW1460	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.10 ft	Discharge Coefficients	
Control Elevation:	18.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	190.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1490		Upstream		Downstream	
Scenario:	Existing	Invert:	9.97 ft	Invert:	9.42 ft
From Node:	NBW1490	Manning's N:	0.0160	Manning's N:	0.0160

		Geometry: Rectangular		Geometry: Rectangular	
To Node:	NBW1470	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Link Count:	1	Max Width:	6.00 ft	Max Width:	6.00 ft
Flow Direction:	Both	Fillet:	0.00 ft	Fillet:	0.00 ft
Damping:	0.0000 ft	Bottom Clip			
Length:	700.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	0	Op Table:		Op Table:	
Entr Loss Coef:	0.00	Ref Node:		Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00	Top Clip			
Bend Location:	0.00 dec	Default:	0.00 ft	Default:	0.00 ft
Energy Switch:	Energy	Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.34 ft	Invert:	17.33 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1590	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1490OW	Cross Section:	RBW1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1490OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.60 ft	Invert:	16.80 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1470	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	590.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1490OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	17.80 ft	Invert:	17.60 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	728.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1490OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	18.30 ft	Invert:	17.40 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1480	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	375.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1510		Upstream		Downstream	
Scenario:	Existing	Invert:	10.36 ft	Invert:	9.97 ft
From Node:	NBW1510	Manning's N:	0.0160	Manning's N:	0.0160

		Geometry: Rectangular		Geometry: Rectangular	
To Node:	NBW1490	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Link Count:	1	Max Width:	6.00 ft	Max Width:	6.00 ft
Flow Direction:	Both	Fillet:	0.00 ft	Fillet:	0.00 ft
Damping:	0.0000 ft	Bottom Clip			
Length:	650.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	0	Op Table:		Op Table:	
Entr Loss Coef:	0.00	Ref Node:		Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00	Top Clip			
Bend Location:	0.00 dec	Default:	0.00 ft	Default:	0.00 ft
Energy Switch:	Energy	Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1510A		Upstream		Downstream	
Scenario:	Existing	Invert:	12.02 ft	Invert:	11.99 ft
From Node:	NBW1510	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2590	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	32.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1510OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.50 ft	Invert:	17.50 ft
From Node:	NBW1510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1590	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1510OW	Cross Section:	RBW1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1530		Upstream		Downstream	
Scenario:	Existing	Invert:	13.60 ft	Invert:	13.20 ft
From Node:	NBW1530	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	255.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1530A		Upstream		Downstream	
Scenario:	Existing	Invert:	13.60 ft	Invert:	13.50 ft
From Node:	NBW1530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1550		Upstream		Downstream	
Scenario:	Existing	Invert:	14.23 ft	Invert:	13.50 ft
From Node:	NBW1550	Manning's N:	0.0140	Manning's N:	0.0140

		Geometry: Circular		Geometry: Circular	
To Node:	NBW1530	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	330.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.20	Top Clip			
Exit Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1550OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.20 ft	Invert:	17.10 ft
From Node:	NBW1550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2490	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL L	Cross Section:	DALE_MABRY_FUL L
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	321.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1570		Upstream		Downstream	
Scenario:	Existing	Invert:	10.46 ft	Invert:	10.36 ft
From Node:	NBW1570	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1510	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	52.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft

		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1590		Upstream		Downstream	
Scenario:	Existing	Invert:	12.10 ft	Invert:	12.07 ft
From Node:	NBW1590	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBW1570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1610		Upstream		Downstream	
Scenario:	Existing	Invert:	12.55 ft	Invert:	12.09 ft
From Node:	NBW1610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	434.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1610OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.34 ft	Invert:	17.33 ft
From Node:	NBW1610	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NBW1590	Cross Section:	RBW1610OW	Cross Section:	RBW1610OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1630		Upstream		Downstream	
Scenario:	Existing	Invert:	13.61 ft	Invert:	12.55 ft
From Node:	NBW1630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	207.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1630OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.72 ft	Invert:	17.71 ft
From Node:	NBW1630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1490	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1630OW	Cross Section:	RBW1630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RBW1650		Upstream		Downstream	
Scenario:	Existing	Invert:	14.23 ft	Invert:	13.61 ft
From Node:	NBW1650	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1630	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	576.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1650OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.20 ft	Invert:	18.19 ft
From Node:	NBW1650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1650OW	Cross Section:	RBW1650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1670		Upstream		Downstream	
Scenario:	Existing	Invert:	14.55 ft	Invert:	14.23 ft
From Node:	NBW1670	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBW1650	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	85.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.14 ft	Invert:	18.13 ft
From Node:	NBW1670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1670OW	Cross Section:	RBW1670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1690		Upstream		Downstream	
Scenario:	Existing	Invert:	15.09 ft	Invert:	14.55 ft
From Node:	NBW1690	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	322.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.82 ft	Invert:	18.81 ft
From Node:	NBW1690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1670	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1690OW	Cross Section:	RBW1690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1710		Upstream		Downstream	
Scenario:	Existing	Invert:	15.36 ft	Invert:	15.19 ft
From Node:	NBW1710	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1690	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	563.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBW1730		Upstream		Downstream	
Scenario:	Existing	Invert:	11.05 ft	Invert:	10.46 ft
From Node:	NBW1730	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBW1570	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	650.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1730OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.29 ft	Invert:	17.28 ft
From Node:	NBW1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1730OW	Cross Section:	RBW1730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1730OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1730	Default:	0.00 ft
To Node:	NBW2610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.00 ft	Discharge Coefficients	
Control Elevation:	19.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	220.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1750	Upstream	Downstream

Scenario:	Existing	Invert:	11.87 ft	Invert:	10.94 ft
From Node:	NBW1750	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1730	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1050.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1750OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.55 ft	Invert:	17.54 ft
From Node:	NBW1750	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1750OW	Cross Section:	RBW1750OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1770		Upstream		Downstream	
Scenario:	Existing	Invert:	12.36 ft	Invert:	11.89 ft
From Node:	NBW1770	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1750	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	350.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.98 ft	Invert:	17.97 ft
From Node:	NBW1770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1770OW	Cross Section:	RBW1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1790		Upstream		Downstream	
Scenario:	Existing	Invert:	14.79 ft	Invert:	12.50 ft
From Node:	NBW1790	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1770	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1200.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1790OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.33 ft	Invert:	18.32 ft
From Node:	NBW1790	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NBW1770	Cross Section:	RBW1790OW	Cross Section:	RBW1790OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1820A		Upstream		Downstream	
Scenario:	Existing	Invert:	13.90 ft	Invert:	13.10 ft
From Node:	NBW1820	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	400.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1820B		Upstream		Downstream	
Scenario:	Existing	Invert:	13.90 ft	Invert:	13.90 ft
From Node:	NBW1820	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1840	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Weir Link: RBW1820OW			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1820	Default:	0.00 ft
To Node:	NBW1840	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.10 ft	Discharge Coefficients	
Control Elevation:	18.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1820OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.80 ft	Invert:	17.60 ft
From Node:	NBW1820	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1870	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	380.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1820OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NBW1820	Default:	0.00 ft
To Node:	NBW2610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	19.10 ft	Ref Node:	
Control Elevation:	19.10 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	100.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW1830		Upstream		Downstream	
Scenario:	Existing	Invert:	11.49 ft	Invert:	10.88 ft
From Node:	NBW1830	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	600.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1830OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.56 ft	Invert:	18.55 ft
From Node:	NBW1850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1830	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1830OW	Cross Section:	RBW1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1830OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	19.10 ft	Invert:	16.60 ft
From Node:	NBW1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_FULL	Cross Section:	HENDERSON_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1027.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1840		Upstream		Downstream	
Scenario:	Existing	Invert:	13.90 ft	Invert:	13.27 ft
From Node:	NBW1840	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2790	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	312.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW1840OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.30 ft	Invert:	16.80 ft
From Node:	NBW1840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	215.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1840OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	18.50 ft	Invert:	17.90 ft
From Node:	NBW1840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	290.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1850		Upstream		Downstream	
Scenario:	Existing	Invert:	11.43 ft	Invert:	11.38 ft
From Node:	NBW1850	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1830	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	85.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1850OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.00 ft	Invert:	17.70 ft

From Node:	NBW1850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_30FT_FULL	Cross Section:	CURB_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	528.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1860		Upstream		Downstream	
Scenario:	Existing	Invert:	14.23 ft	Invert:	13.64 ft
From Node:	NBW1860	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2810	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1860OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.60 ft	Invert:	17.10 ft
From Node:	NBW1860	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	298.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1870		Upstream		Downstream	
Scenario:	Existing	Invert:	13.06 ft	Invert:	12.26 ft
From Node:	NBW1870	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1850	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	250.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1870OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.84 ft	Invert:	18.83 ft
From Node:	NBW1870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1870OW	Cross Section:	RBW1870OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1890		Upstream		Downstream	
Scenario:	Existing	Invert:	11.67 ft	Invert:	11.59 ft
From Node:	NBW1890	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1850	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	615.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1910		Upstream		Downstream	
Scenario:	Existing	Invert:	11.74 ft	Invert:	11.67 ft
From Node:	NBW1910	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	353.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1910OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.83 ft	Invert:	17.82 ft
From Node:	NBW1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3010	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1910OW	Cross Section:	RBW1910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1930		Upstream		Downstream	
Scenario:	Existing	Invert:	11.74 ft	Invert:	11.59 ft
From Node:	NBW1930	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1910	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1930OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.91 ft	Invert:	17.90 ft
From Node:	NBW1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1930OW	Cross Section:	RBW1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1950		Upstream		Downstream	
Scenario:	Existing	Invert:	14.13 ft	Invert:	13.63 ft
From Node:	NBW1950	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NBW1930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	42.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1970

Scenario:	Existing	Bottom Clip	
From Node:	NBW1970	Default:	0.00 ft
To Node:	NBW1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.56 ft	Discharge Coefficients	
Control Elevation:	17.56 ft	Weir Default:	3.200
Max Depth:	18.22 ft	Weir Table:	
Max Width:	1.05 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW1970A

Scenario:	Existing	Bottom Clip	
From Node:	NBW1970	Default:	0.00 ft
To Node:	NBW1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.22 ft	Discharge Coefficients	
Control Elevation:	18.22 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1970OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.64 ft	Invert:	18.63 ft
From Node:	NBW1970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1970OW	Cross Section:	RBW1970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1990		Upstream		Downstream	
Scenario:	Existing	Invert:	11.88 ft	Invert:	11.74 ft
From Node:	NBW1990	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1930	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	371.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW1990OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.65 ft	Invert:	18.64 ft
From Node:	NBW1990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1990OW	Cross Section:	RBW1990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW2010		Upstream		Downstream	
Scenario:	Existing	Invert:	13.84 ft	Invert:	13.25 ft
From Node:	NBW2010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	421.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2010OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.48 ft	Invert:	18.47 ft
From Node:	NBW2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2010	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW2010OW	Cross Section:	RBW2010OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2030		Upstream		Downstream	
Scenario:	Existing	Invert:	14.34 ft	Invert:	14.75 ft

From Node:	NBW2030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	218.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2030OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.50 ft	Invert:	17.40 ft
From Node:	NBW2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1820	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	982.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2050		Upstream		Downstream	
Scenario:	Existing	Invert:	12.39 ft	Invert:	11.88 ft
From Node:	NBW2050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	684.62 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2060		Upstream		Downstream	
Scenario:	Existing	Invert:	16.73 ft	Invert:	15.53 ft
From Node:	NBW2060	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	401.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RBW2070		Upstream		Downstream	
Scenario:	Existing	Invert:	12.45 ft	Invert:	12.39 ft
From Node:	NBW2070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	647.03 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2090		Upstream		Downstream	
Scenario:	Existing	Invert:	12.79 ft	Invert:	12.37 ft
From Node:	NBW2090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2070	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	671.64 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2110		Upstream		Downstream	
Scenario:	Existing	Invert:	13.01 ft	Invert:	12.61 ft
From Node:	NBW2110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	677.62 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2130		Upstream		Downstream	
Scenario:	Existing	Invert:	13.18 ft	Invert:	12.98 ft
From Node:	NBW2130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	321.22 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RBW2140		Upstream		Downstream	
Scenario:	Existing	Invert:	13.92 ft	Invert:	13.57 ft
From Node:	NBW2140	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	145.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 9599

Weir Link: RBW2145			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2145	Default:	0.00 ft
To Node:	NBW2140	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.93 ft	Discharge Coefficients	
Control Elevation:	15.93 ft	Weir Default:	3.200
Max Depth:	2.11 ft	Weir Table:	
Max Width:	0.71 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Added per ERP 9599

Weir Link: RBW2145B			
Scenario:	Existing	Bottom Clip	
From Node:	STORAGE4	Default:	0.00 ft
To Node:	NBW2145	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft

Weir Type:	Broad Crested Vertical		
Geometry Type:	Rectangular	Op Table:	
Invert:	14.64 ft	Ref Node:	
Control Elevation:	14.64 ft	Discharge Coefficients	
Max Depth:	4.00 ft	Weir Default:	3.200
Max Width:	64.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: Added per ERP 9599

Pipe Link: RBW2150		Upstream		Downstream	
Scenario:	Existing	Invert:	12.68 ft	Invert:	12.43 ft
From Node:	NBW2150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2070	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	428.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2170		Upstream		Downstream	
Scenario:	Existing	Invert:	14.58 ft	Invert:	14.27 ft
From Node:	NBW2170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	361.13 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2190		Upstream		Downstream	
Scenario:	Existing	Invert:	15.55 ft	Invert:	-0.86 ft
From Node:	NBW2190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2170	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	104.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2210		Upstream		Downstream	
Scenario:	Existing	Invert:	12.93 ft	Invert:	12.68 ft
From Node:	NBW2210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	212.63 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2230		Upstream		Downstream	
Scenario:	Existing	Invert:	14.20 ft	Invert:	13.59 ft
From Node:	NBW2230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	319.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2250		Upstream		Downstream	
Scenario:	Existing	Invert:	13.53 ft	Invert:	12.93 ft
From Node:	NBW2250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2210	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	302.75 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2270		Upstream		Downstream	
Scenario:	Existing	Invert:	14.25 ft	Invert:	13.53 ft
From Node:	NBW2270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2250	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	582.53 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2290		Upstream		Downstream	
Scenario:	Existing	Invert:	14.68 ft	Invert:	14.13 ft

From Node:	NBW2290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2270	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	387.08 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2310		Upstream		Downstream	
Scenario:	Existing	Invert:	14.98 ft	Invert:	14.25 ft
From Node:	NBW2310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2270	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	228.38 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2330		Upstream		Downstream	
Scenario:	Existing	Invert:	15.28 ft	Invert:	14.64 ft
From Node:	NBW2330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2310	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	435.16 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2350		Upstream		Downstream	
Scenario:	Existing	Invert:	9.03 ft	Invert:	8.55 ft
From Node:	NBW2350	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	285.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2350OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	15.80 ft	Invert:	15.00 ft
From Node:	NBW2350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1410	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	310.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2370		Upstream		Downstream	
Scenario:	Existing	Invert:	12.10 ft	Invert:	10.03 ft
From Node:	NBW2370	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2350	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	628.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2370OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	16.10 ft	Invert:	15.70 ft
From Node:	NBW2380	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1353	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	200.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW2370OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	15.40 ft	Invert:	15.90 ft
From Node:	NBW2370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	630.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW2380OWA

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2380	Default:	0.00 ft
To Node:	NBW2370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.20 ft	**Discharge Coefficients**	
Control Elevation:	16.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW2385A

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2385	Default:	0.00 ft
To Node:	NBW2387	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.43 ft	**Discharge Coefficients**	
Control Elevation:	18.43 ft	Weir Default:	3.200
Max Depth:	0.25 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW2385B

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2385	Default:	0.00 ft
To Node:	NBW2387	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	

Geometry Type:	Rectangular
Invert:	18.63 ft
Control Elevation:	18.63 ft
Max Depth:	9999.00 ft
Max Width:	15.50 ft
Fillet:	0.00 ft

Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RBW2385OWA

Scenario:	Existing
From Node:	NBW2385
To Node:	NBW2380
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.70 ft
Control Elevation:	18.70 ft
Max Depth:	9999.00 ft
Max Width:	130.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RBW2385OWB

Scenario:	Existing
From Node:	NBW2385
To Node:	NSR0881
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.45 ft
Control Elevation:	18.45 ft
Max Depth:	9999.00 ft
Max Width:	150.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW2387	Upstream	Downstream

Scenario:	Existing	Invert:	15.37 ft	Invert:	15.30 ft
From Node:	NBW2387	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2380	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2390		Upstream		Downstream	
Scenario:	Existing	Invert:	9.74 ft	Invert:	9.03 ft
From Node:	NBW2390	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	644.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.40 ft	Invert:	16.00 ft
From Node:	NBW2390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	638.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW2410		Upstream		Downstream	
Scenario:	Existing	Invert:	10.18 ft	Invert:	9.74 ft
From Node:	NBW2410	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	640.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2410OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.80 ft	Invert:	17.30 ft
From Node:	NBW2410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	255.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW2410OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2410	Default:	0.00 ft

To Node:	NBW1480
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.30 ft
Control Elevation:	18.30 ft
Max Depth:	9999.00 ft
Max Width:	45.00 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW2430		Upstream		Downstream	
Scenario:	Existing	Invert:	10.59 ft	Invert:	10.18 ft
From Node:	NBW2430	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	655.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2430OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	18.00 ft	Invert:	17.00 ft
From Node:	NBW2430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0881	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	HENDERSON_FULL	Cross Section:	HENDERSON_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch:	Energy
Comment:	

Channel Link: RBW2430OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	17.00 ft	Invert:	16.50 ft
From Node:	NBW2430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2410	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	275.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW2450		Upstream		Downstream	
Scenario:	Existing	Invert:	10.99 ft	Invert:	10.59 ft
From Node:	NBW2450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBW2470		Upstream		Downstream	
Scenario:	Existing	Invert:	10.61 ft	Invert:	10.11 ft
From Node:	NBW2470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2450	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2470OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2470	Default:	0.00 ft
To Node:	NBW2430	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.10 ft	Discharge Coefficients	
Control Elevation:	16.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2490		Upstream		Downstream	
Scenario:	Existing	Invert:	11.10 ft	Invert:	10.57 ft
From Node:	NBW2490	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2470	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	203.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.60 ft	Invert:	14.60 ft
From Node:	NBW2490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2470	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL L	Cross Section:	DALE_MABRY_FUL L
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	213.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW2510		Upstream		Downstream	
Scenario:	Existing	Invert:	11.33 ft	Invert:	11.10 ft
From Node:	NBW2510	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2490	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RBW2510OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2510	Default:	0.00 ft
To Node:	NBW1550	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.20 ft	Discharge Coefficients	
Control Elevation:	17.20 ft	Weir Default:	2.600

Max Depth:	9999.00 ft		
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW2530		Upstream		Downstream	
Scenario:	Existing	Invert:	11.73 ft	Invert:	11.33 ft
From Node:	NBW2530	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2510	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	394.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2550		Upstream		Downstream	
Scenario:	Existing	Invert:	16.13 ft	Invert:	13.93 ft
From Node:	NBW2550	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NBW2530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2570		
Scenario:	Existing	Bottom Clip

From Node:	NBW2570
To Node:	NBW2550
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.51 ft
Control Elevation:	17.51 ft
Max Depth:	9999.00 ft
Max Width:	10.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RBW2570OW

Scenario:	Existing
From Node:	NBW2570
To Node:	NBW1510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	18.50 ft	Invert:	18.49 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry:	Irregular	Geometry:	Irregular
Cross Section:	RBW2570OW	Cross Section:	RBW2570OW

Comment:

Pipe Link: RBW2590

Scenario:	Existing
From Node:	NBW2590
To Node:	NBW2530
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	236.00 ft
FHWA Code:	0
Entr Loss Coef:	0.00
Exit Loss Coef:	1.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec

Upstream		Downstream	
Invert:	12.02 ft	Invert:	11.73 ft
Manning's N:	0.0130	Manning's N:	0.0130
Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Max Depth:	3.17 ft	Max Depth:	3.17 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2610		Upstream		Downstream	
Scenario:	Existing	Invert:	9.65 ft	Invert:	9.75 ft
From Node:	NBW2610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	97.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2610OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2610	Default:	0.00 ft
To Node:	NBW2470	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.90 ft	Discharge Coefficients	
Control Elevation:	16.90 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	130.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2630		Upstream		Downstream	
Scenario:	Existing	Invert:	11.46 ft	Invert:	11.14 ft
From Node:	NBW2630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	405.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2630OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.30 ft	Invert:	16.60 ft
From Node:	NBW2630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	374.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2650		Upstream		Downstream	
Scenario:	Existing	Invert:	11.32 ft	Invert:	11.14 ft
From Node:	NBW2650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	37.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2670		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	11.32 ft
From Node:	NBW2670	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	330.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW2670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.30 ft	Invert:	16.60 ft
From Node:	NBW2670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2650	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_HALF	Cross Section:	DALE_MABRY_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	360.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW2680		Upstream		Downstream	
Scenario:	Existing	Invert:	12.41 ft	Invert:	11.41 ft
From Node:	NBW2680	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2690	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	425.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2680OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.50 ft	Invert:	16.50 ft
From Node:	NBW2680	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	425.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2690		Upstream		Downstream	
Scenario:	Existing	Invert:	11.97 ft	Invert:	11.63 ft
From Node:	NBW2690	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2670	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	315.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2690B		Upstream		Downstream	
Scenario:	Existing	Invert:	6.70 ft	Invert:	6.50 ft

From Node:	NBW2450	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2690	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	660.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.80 ft	Invert:	16.20 ft
From Node:	NBW2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2430	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_HALF	Cross Section:	DALE_MABRY_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	419.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW27090OC			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2790	Default:	0.00 ft
To Node:	NBW2780	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.40 ft	Discharge Coefficients	
Control Elevation:	18.40 ft	Weir Default:	2.600

Max Depth:	9999.00 ft		
Max Width:	40.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW2710		Upstream		Downstream	
Scenario:	Existing	Invert:	13.43 ft	Invert:	13.02 ft
From Node:	NBW2710	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2680	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	80.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2730			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2730	Default:	0.00 ft
To Node:	NBW2710	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.60 ft	Discharge Coefficients	
Control Elevation:	18.60 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW2730A			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2730	Default:	0.00 ft

To Node:	NBW2710		
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	17.70 ft	Ref Node:	
Control Elevation:	17.70 ft	Discharge Coefficients	
Max Depth:	0.90 ft	Weir Default:	3.200
Max Width:	0.35 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW2770		Upstream		Downstream	
Scenario:	Existing	Invert:	12.24 ft	Invert:	11.46 ft
From Node:	NBW2770	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	214.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2775		Upstream		Downstream	
Scenario:	Existing	Invert:	3.50 ft	Invert:	3.40 ft
From Node:	NBW2775	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Pipe Link: RBW2780		Upstream		Downstream	
Scenario:	Existing	Invert:	12.61 ft	Invert:	12.41 ft
From Node:	NBW2780	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2680	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2780OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.20 ft	Invert:	17.50 ft
From Node:	NBW2780	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2680	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	176.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW2780OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2780	Default:	0.00 ft
To Node:	NBW2670	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.20 ft
Control Elevation:	18.20 ft
Max Depth:	9999.00 ft
Max Width:	40.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW2790		Upstream		Downstream	
Scenario:	Existing	Invert:	13.27 ft	Invert:	12.24 ft
From Node:	NBW2790	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	663.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2790OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.20 ft	Invert:	17.00 ft
From Node:	NBW2810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2790	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	300.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW2790OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.70 ft	Invert:	17.40 ft
From Node:	NBW2790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	205.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RBW2790OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2790	Default:	0.00 ft
To Node:	NBW2780	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.40 ft	Discharge Coefficients	
Control Elevation:	18.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RBW2790OWD			
Scenario:	Existing	Bottom Clip	
From Node:	NBW2790	Default:	0.00 ft
To Node:	NBW2780	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.20 ft	Discharge Coefficients	
Control Elevation:	18.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	180.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW2810		Upstream		Downstream	
Scenario:	Existing	Invert:	13.64 ft	Invert:	13.27 ft
From Node:	NBW2810	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2790	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	314.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2830.1		Upstream		Downstream	
Scenario:	Existing	Invert:	14.52 ft	Invert:	13.64 ft
From Node:	NBW2830	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2810	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2830OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.20 ft	Invert:	17.00 ft
From Node:	NBW2830	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NBW2810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	650.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.68 ft	Invert:	-3.77 ft
From Node:	NCL0030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0010	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	165.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0050		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.55 ft	Invert:	-1.87 ft
From Node:	NCL0050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	155.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0070		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.67 ft	Invert:	-1.87 ft
From Node:	NCL0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0030	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0070OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.04 ft	Invert:	4.03 ft
From Node:	NCL0070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0010	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0070OW	Cross Section:	RCL0070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0090		Upstream		Downstream	
Scenario:	Existing	Invert:	0.93 ft	Invert:	-0.37 ft
From Node:	NCL0090	Manning's N:	0.0120	Manning's N:	0.0120

		Geometry: Circular		Geometry: Circular	
To Node:	NCL0070	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip		Bottom Clip	
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	495.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.20	Top Clip		Top Clip	
Exit Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.12 ft	Invert:	5.11 ft
From Node:	NCL0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0010	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0090OW	Cross Section:	RCL0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0110		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.47 ft	Invert:	-3.68 ft
From Node:	NCL0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	585.00 ft	Bottom Clip		Bottom Clip	
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip		Top Clip	
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft

		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0130		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.43 ft	Invert:	-3.47 ft
From Node:	NCL0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	165.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0150		Upstream		Downstream	
Scenario:	Existing	Invert:	0.13 ft	Invert:	-3.43 ft
From Node:	NCL0150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0130	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	573.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0150A		Upstream		Downstream	
Scenario:	Existing	Invert:	0.13 ft	Invert:	-0.86 ft
From Node:	NCL0150	Manning's N:	0.0120	Manning's N:	0.0120

		Geometry: Circular		Geometry: Circular	
To Node:	NOC0290	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	142.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.00	Top Clip			
Exit Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0150OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.12 ft	Invert:	5.11 ft
From Node:	NCL0150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0150OW	Cross Section:	RCL0150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0170		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.27 ft	Invert:	-1.07 ft
From Node:	NCL0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	142.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: RCL0170OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.66 ft	Invert:	4.65 ft
From Node:	NCL0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0170OW	Cross Section:	RCL0170OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0190		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.07 ft	Invert:	-0.27 ft
From Node:	NCL0190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0170	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	136.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0190OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.75 ft	Invert:	5.74 ft
From Node:	NCL0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0190OW	Cross Section:	RCL0190OW

Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0210		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.97 ft	Invert:	-1.27 ft
From Node:	NCL0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0170	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	408.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0210OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.36 ft	Invert:	3.35 ft
From Node:	NCL0210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0330	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0210OW	Cross Section:	RCL0210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0230		Upstream		Downstream	
Scenario:	Existing	Invert:	0.63 ft	Invert:	-0.17 ft
From Node:	NCL0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	121.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL0230OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.22 ft	Invert:	5.21 ft
From Node:	NCL0230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0230OW	Cross Section:	RCL0230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL0250		Upstream		Downstream	
Scenario:	Existing	Invert:	4.13 ft	Invert:	3.63 ft
From Node:	NCL0250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	154.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL0270

Scenario:	Existing
From Node:	NCL0270
To Node:	NCL0250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	5.93 ft
Control Elevation:	5.93 ft
Max Depth:	9999.00 ft
Max Width:	5.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RCL0270OW

		Upstream		Downstream	
Scenario:	Existing	Invert:	5.42 ft	Invert:	5.41 ft
From Node:	NCL0270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0270OW	Cross Section:	RCL0270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0290

		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.86 ft	Invert:	-0.97 ft
From Node:	NCL0290	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL0210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	65.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0310		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.57 ft	Invert:	-0.86 ft
From Node:	NCL0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0330		Upstream		Downstream	
Scenario:	Existing	Invert:	0.33 ft	Invert:	-0.57 ft
From Node:	NCL0330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	75.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.09 ft	Invert:	5.08 ft
From Node:	NCL0330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0330	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0330OW	Cross Section:	RCL0330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0350		Upstream		Downstream	
Scenario:	Existing	Invert:	0.63 ft	Invert:	-0.57 ft
From Node:	NCL0350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0310	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	121.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0370		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	0.63 ft
From Node:	NCL0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0350	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	615.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0370OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.78 ft	Invert:	6.77 ft
From Node:	NCL0370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0370OW	Cross Section:	RCL0370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0390		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.06 ft	Invert:	-3.47 ft
From Node:	NCL0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0110	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	460.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.83 ft	Invert:	4.82 ft
From Node:	NCL0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0110	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0390OW	Cross Section:	RCL0390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0410		Upstream		Downstream	
Scenario:	Existing	Invert:	1.23 ft	Invert:	0.83 ft
From Node:	NCL0410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	183.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0430		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	1.23 ft
From Node:	NCL0430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	204.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.15 ft	Invert:	5.14 ft
From Node:	NCL0430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0390	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0430OW	Cross Section:	RCL0430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0450		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.72 ft	Invert:	-3.04 ft
From Node:	NCL0450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0390	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	367.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.34 ft	Invert:	6.33 ft
From Node:	NCL0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0450OW	Cross Section:	RCL0450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0470		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.41 ft	Invert:	-2.72 ft
From Node:	NCL0470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0450	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	353.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0470OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.79 ft	Invert:	7.78 ft
From Node:	NCL0470	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NCL0450	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0470OW	Cross Section:	RCL0470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0490		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.17 ft	Invert:	-2.41 ft
From Node:	NCL0490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0470	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	314.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.79 ft	Invert:	5.78 ft
From Node:	NCL0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0490OW	Cross Section:	RCL0490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0510		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.57 ft	Invert:	-1.60 ft
From Node:	NCL0510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0490	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0510OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.41 ft	Invert:	7.40 ft
From Node:	NCL0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0510OW	Cross Section:	RCL0510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0530		Upstream		Downstream	
Scenario:	Existing	Invert:	2.03 ft	Invert:	0.33 ft
From Node:	NCL0530	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL0510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	593.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0550		Upstream		Downstream	
Scenario:	Existing	Invert:	2.63 ft	Invert:	2.03 ft
From Node:	NCL0550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0550OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.17 ft	Invert:	8.16 ft
From Node:	NCL0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0510	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0550OW	Cross Section:	RCL0550OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RCL0570		Upstream		Downstream	
Scenario:	Existing	Invert:	3.83 ft	Invert:	2.63 ft
From Node:	NCL0570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.78 ft	Invert:	8.77 ft
From Node:	NCL0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0550	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0570OW	Cross Section:	RCL0570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0590		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.72 ft	Invert:	-2.17 ft
From Node:	NCL0590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0490	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft

Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	313.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0590OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.60 ft	Invert:	6.59 ft
From Node:	NCL0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0490	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0590OW	Cross Section:	RCL0590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0610		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.22 ft	Invert:	-1.72 ft
From Node:	NCL0610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0590	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	344.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft

	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Channel Link: RCL0610OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.55 ft	Invert:	7.54 ft
From Node:	NCL0610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0610OW	Cross Section:	RCL0610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0630		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.70 ft	Invert:	-1.22 ft
From Node:	NCL0630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0610	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	368.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0630OW	Upstream	Downstream

Scenario:	Existing	Invert:	8.76 ft	Invert:	8.75 ft
From Node:	NCL0630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0630OW	Cross Section:	RCL0630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0650		Upstream		Downstream	
Scenario:	Existing	Invert:	1.33 ft	Invert:	0.83 ft
From Node:	NCL0650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0630	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0670		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	1.33 ft
From Node:	NCL0670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0650	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	577.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0690		Upstream		Downstream	
Scenario:	Existing	Invert:	4.03 ft	Invert:	1.63 ft
From Node:	NCL0690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0670	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	43.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.96 ft	Invert:	10.95 ft
From Node:	NCL0690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0690OW	Cross Section:	RCL0690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0710		Upstream		Downstream	
Scenario:	Existing	Invert:	4.13 ft	Invert:	4.03 ft
From Node:	NCL0710	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL0690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0730		Upstream		Downstream	
Scenario:	Existing	Invert:	5.13 ft	Invert:	4.13 ft
From Node:	NCL0730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	48.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0730OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.58 ft	Invert:	10.57 ft
From Node:	NCL0730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0730OW	Cross Section:	RCL0730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch:	Energy
Comment:	

Pipe Link: RCL0750		Upstream		Downstream	
Scenario:	Existing	Invert:	6.43 ft	Invert:	6.33 ft
From Node:	NCL0750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0730	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL0750OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.38 ft	Invert:	8.37 ft
From Node:	NCL0750	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0750OW	Cross Section:	RCL0750OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL0770		Upstream		Downstream	
Scenario:	Existing	Invert:	6.53 ft	Invert:	6.43 ft
From Node:	NCL0770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	173.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.51 ft	Invert:	9.50 ft
From Node:	NCL0770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0770OW	Cross Section:	RCL0770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0790		Upstream		Downstream	
Scenario:	Existing	Invert:	2.23 ft	Invert:	1.63 ft
From Node:	NCL0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	31.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0810		Upstream		Downstream	
Scenario:	Existing	Invert:	2.43 ft	Invert:	2.23 ft
From Node:	NCL0810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0790	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	232.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL0810OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.00 ft	Invert:	9.99 ft
From Node:	NCL0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0910	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0810OW	Cross Section:	RCL0810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL0830		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.22 ft	Invert:	-0.52 ft
From Node:	NCL0830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0630	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	623.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0850		Upstream		Downstream	
Scenario:	Existing	Invert:	1.49 ft	Invert:	0.81 ft
From Node:	NCL0850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0850OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.17 ft	Invert:	8.16 ft
From Node:	NCL0850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0830	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0850OW	Cross Section:	RCL0850OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0870		Upstream		Downstream	
Scenario:	Existing	Invert:	3.33 ft	Invert:	2.43 ft
From Node:	NCL0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0810	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RCL0870A		Upstream		Downstream	
Scenario:	Existing	Invert:	2.09 ft	Invert:	1.49 ft
From Node:	NCL0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	293.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RCL0890		Upstream		Downstream	
Scenario:	Existing	Invert:	2.31 ft	Invert:	2.09 ft
From Node:	NCL0890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	102.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0910		Upstream		Downstream	
Scenario:	Existing	Invert:	5.03 ft	Invert:	4.98 ft
From Node:	NCL0910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0930		Upstream		Downstream	
Scenario:	Existing	Invert:	2.85 ft	Invert:	2.09 ft
From Node:	NCL0930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	352.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0930OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.87 ft	Invert:	9.86 ft

From Node:	NCL0930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0930OW	Cross Section:	RCL0930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0950		Upstream		Downstream	
Scenario:	Existing	Invert:	7.19 ft	Invert:	6.53 ft
From Node:	NCL0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0770	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	677.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0950A		Upstream		Downstream	
Scenario:	Existing	Invert:	4.27 ft	Invert:	3.35 ft
From Node:	NCL0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0950OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.13 ft	Invert:	10.12 ft
From Node:	NCL0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0950OW	Cross Section:	RCL0950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0970		Upstream		Downstream	
Scenario:	Existing	Invert:	5.86 ft	Invert:	4.77 ft
From Node:	NCL0970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0950	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	666.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0970OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.68 ft	Invert:	11.67 ft
From Node:	NCL0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0950	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RCL0970OW	Cross Section:	RCL0970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0990		Upstream		Downstream	
Scenario:	Existing	Invert:	7.42 ft	Invert:	6.92 ft
From Node:	NCL0990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0970	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	339.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0990OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.94 ft	Invert:	10.93 ft
From Node:	NCL0990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0950	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0990OW	Cross Section:	RCL0990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1010		Upstream		Downstream	
Scenario:	Existing	Invert:	8.13 ft	Invert:	7.92 ft
From Node:	NCL1010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	160.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1030		Upstream		Downstream	
Scenario:	Existing	Invert:	3.53 ft	Invert:	3.33 ft
From Node:	NCL1030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1030OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.11 ft	Invert:	11.10 ft
From Node:	NCL1030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0850	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1030OW	Cross Section:	RCL1030OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL1050		Upstream		Downstream	
Scenario:	Existing	Invert:	4.83 ft	Invert:	4.63 ft
From Node:	NCL1050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.30 ft	Max Depth:	2.30 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	93.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1050OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.04 ft	Invert:	11.03 ft
From Node:	NCL1050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0930	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1050OW	Cross Section:	RCL1050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1070		Upstream		Downstream	
Scenario:	Existing	Invert:	5.63 ft	Invert:	3.75 ft
From Node:	NCL1070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	369.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1090			
Scenario:	Existing	Bottom Clip	
From Node:	NCL1090	Default:	0.00 ft
To Node:	NCL1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.63 ft	Discharge Coefficients	
Control Elevation:	11.63 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RCL1090A			
Scenario:	Existing	Bottom Clip	
From Node:	NCL1090	Default:	0.00 ft
To Node:	NCL1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.50 ft	Discharge Coefficients	
Control Elevation:	9.50 ft	Weir Default:	3.200
Max Depth:	11.63 ft	Weir Table:	

Max Width:	3.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Channel Link: RCL1090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.91 ft	Invert:	7.90 ft
From Node:	NCL1090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1090OW	Cross Section:	RCL1090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1110		Upstream		Downstream	
Scenario:	Existing	Invert:	4.63 ft	Invert:	4.03 ft
From Node:	NCL1110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1030	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	602.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.38 ft	Invert:	11.37 ft
From Node:	NCL1130	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NCL1110	Cross Section:	RCL1110OW	Cross Section:	RCL1110OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1130		Upstream		Downstream	
Scenario:	Existing	Invert:	4.93 ft	Invert:	3.53 ft
From Node:	NCL1130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	338.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1130OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.86 ft	Invert:	7.85 ft
From Node:	NCL1130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1150	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1130OW	Cross Section:	RCL1130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RCL1150		Upstream		Downstream	
Scenario:	Existing	Invert:	1.13 ft	Invert:	-0.22 ft
From Node:	NCL1150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0830	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	677.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1150OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.10 ft	Invert:	9.09 ft
From Node:	NCL1150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1150OW	Cross Section:	RCL1150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1170		Upstream		Downstream	
Scenario:	Existing	Invert:	1.96 ft	Invert:	1.13 ft
From Node:	NCL1170	Manning's N:	0.0120	Manning's N:	0.0120

		Geometry: Rectangular		Geometry: Rectangular	
To Node:	NCL1150	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Link Count:	1	Max Width:	8.00 ft	Max Width:	8.00 ft
Flow Direction:	Both	Fillet:	0.00 ft	Fillet:	0.00 ft
Damping:	0.0000 ft	Bottom Clip			
Length:	663.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	0	Op Table:		Op Table:	
Entr Loss Coef:	0.00	Ref Node:		Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00	Top Clip			
Bend Location:	0.00 dec	Default:	0.00 ft	Default:	0.00 ft
Energy Switch:	Energy	Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1190		Upstream		Downstream	
Scenario:	Existing	Invert:	3.50 ft	Invert:	2.40 ft
From Node:	NCL1190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	332.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1210		Upstream		Downstream	
Scenario:	Existing	Invert:	5.41 ft	Invert:	5.31 ft
From Node:	NCL1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	64.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1210OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.51 ft	Invert:	9.50 ft
From Node:	NCL1210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1210OW	Cross Section:	RCL1210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1230		Upstream		Downstream	
Scenario:	Existing	Invert:	4.30 ft	Invert:	3.50 ft
From Node:	NCL1230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1190	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	280.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1250		Upstream		Downstream	
Scenario:	Existing	Invert:	4.78 ft	Invert:	4.30 ft
From Node:	NCL1250	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL1230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	165.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1270		Upstream		Downstream	
Scenario:	Existing	Invert:	5.44 ft	Invert:	4.78 ft
From Node:	NCL1270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	190.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.94 ft	Invert:	10.93 ft
From Node:	NCL1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1410	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1270OW	Cross Section:	RCL1270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RCL1290		Upstream		Downstream	
Scenario:	Existing	Invert:	8.63 ft	Invert:	7.44 ft
From Node:	NCL1290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	292.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1290OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.37 ft	Invert:	12.36 ft
From Node:	NCL1290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1290OW	Cross Section:	RCL1290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1310		Upstream		Downstream	
Scenario:	Existing	Invert:	10.22 ft	Invert:	9.13 ft
From Node:	NCL1310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1310OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.06 ft	Invert:	14.05 ft
From Node:	NCL1310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1290	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1310OW	Cross Section:	RCL1310OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1330		Upstream		Downstream	
Scenario:	Existing	Invert:	3.03 ft	Invert:	2.83 ft
From Node:	NCL1330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	17.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1330AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.31 ft	Invert:	8.30 ft
From Node:	NCL1330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1330AOW	Cross Section:	RCL1330AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RCL1330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.60 ft	Invert:	9.59 ft
From Node:	NCL1330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1330OW	Cross Section:	RCL1330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL1350		Upstream		Downstream	
Scenario:	Existing	Invert:	5.93 ft	Invert:	3.03 ft
From Node:	NCL1350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1330	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	557.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1350OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.94 ft	Invert:	8.93 ft
From Node:	NCL1350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1330	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1350OW	Cross Section:	RCL1350OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1370		Upstream		Downstream	
Scenario:	Existing	Invert:	6.03 ft	Invert:	5.93 ft
From Node:	NCL1370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1350	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1370OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.94 ft	Invert:	9.93 ft

From Node:	NCL1370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1370OW	Cross Section:	RCL1370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1390		Upstream		Downstream	
Scenario:	Existing	Invert:	6.13 ft	Invert:	6.03 ft
From Node:	NCL1390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1370	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	92.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1410		Upstream		Downstream	
Scenario:	Existing	Invert:	4.93 ft	Invert:	4.83 ft
From Node:	NCL1410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1410OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.47 ft	Invert:	10.46 ft
From Node:	NCL1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1410OW	Cross Section:	RCL1410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1430		Upstream		Downstream	
Scenario:	Existing	Invert:	2.32 ft	Invert:	1.96 ft
From Node:	NCL1430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1170	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	325.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1430AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.70 ft	Invert:	9.69 ft

From Node:	NCL1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1430AOW	Cross Section:	RCL1430AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RCL1430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	8.80 ft	Invert:	8.79 ft
From Node:	NCL1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1430OW	Cross Section:	RCL1430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1450		Upstream		Downstream	
Scenario:	Existing	Invert:	2.67 ft	Invert:	2.32 ft
From Node:	NCL1450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1430	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	325.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			

Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.07 ft	Invert:	14.06 ft
From Node:	NCL1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1450OW	Cross Section:	RCL1450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1470		Upstream		Downstream	
Scenario:	Existing	Invert:	4.01 ft	Invert:	3.67 ft
From Node:	NCL1470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1450	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1490		Upstream		Downstream	
Scenario:	Existing	Invert:	13.63 ft	Invert:	13.13 ft

From Node:	NCL1490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.74 ft	Invert:	16.73 ft
From Node:	NCL1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1490OW	Cross Section:	RCL1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1510		Upstream		Downstream	
Scenario:	Existing	Invert:	4.33 ft	Invert:	4.23 ft
From Node:	NCL1510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1510OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.18 ft	Invert:	12.17 ft
From Node:	NCL1530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1510	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1510OW	Cross Section:	RCL1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1530		Upstream		Downstream	
Scenario:	Existing	Invert:	6.73 ft	Invert:	5.73 ft
From Node:	NCL1530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1510	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	272.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1530OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.00 ft	Invert:	11.99 ft
From Node:	NCL1530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1430	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RCL1530OW	Cross Section:	RCL1530OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1550		Upstream		Downstream	
Scenario:	Existing	Invert:	8.09 ft	Invert:	6.73 ft
From Node:	NCL1550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	195.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1570		Upstream		Downstream	
Scenario:	Existing	Invert:	8.76 ft	Invert:	8.42 ft
From Node:	NCL1570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	67.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1590			
Scenario:	Existing	Bottom Clip	
From Node:	NCL1590	Default:	0.00 ft
To Node:	NCL1570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.56 ft	Discharge Coefficients	
Control Elevation:	13.56 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.16 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RCL1590OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.79 ft	Invert:	14.78 ft
From Node:	NCL1590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1530	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1590OW	Cross Section:	RCL1590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1610		Upstream		Downstream	
Scenario:	Existing	Invert:	10.56 ft	Invert:	9.16 ft
From Node:	NCL1610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	55.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1610OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.65 ft	Invert:	15.64 ft
From Node:	NCL1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1630	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1610OW	Cross Section:	RCL1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1630		Upstream		Downstream	
Scenario:	Existing	Invert:	8.33 ft	Invert:	8.09 ft
From Node:	NCL1630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	173.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1630OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.03 ft	Invert:	13.02 ft
From Node:	NCL1630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1630OW	Cross Section:	RCL1630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL1650		Upstream		Downstream	
Scenario:	Existing	Invert:	8.43 ft	Invert:	8.33 ft
From Node:	NCL1650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1630	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	16.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL1650OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.37 ft	Invert:	13.36 ft
From Node:	NCL1650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1650OW	Cross Section:	RCL1650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL1670		Upstream		Downstream	
Scenario:	Existing	Invert:	9.13 ft	Invert:	8.93 ft
From Node:	NCL1670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	95.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.01 ft	Invert:	13.00 ft
From Node:	NCL1670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1670OW	Cross Section:	RCL1670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1690		Upstream		Downstream	
Scenario:	Existing	Invert:	12.43 ft	Invert:	8.93 ft

From Node:	NCL1690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	593.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.82 ft	Invert:	16.81 ft
From Node:	NCL1690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1650	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1690OW	Cross Section:	RCL1690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1710		Upstream		Downstream	
Scenario:	Existing	Invert:	12.53 ft	Invert:	12.43 ft
From Node:	NCL1710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	65.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1710OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.69 ft	Invert:	17.68 ft
From Node:	NCL1710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1710OW	Cross Section:	RCL1710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1730		Upstream		Downstream	
Scenario:	Existing	Invert:	12.63 ft	Invert:	12.53 ft
From Node:	NCL1730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1710	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	78.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1730OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.01 ft	Invert:	18.00 ft
From Node:	NCL1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1670	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RCL1730OW	Cross Section:	RCL1730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1750		Upstream		Downstream	
Scenario:	Existing	Invert:	12.73 ft	Invert:	12.63 ft
From Node:	NCL1750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1770		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.93 ft
From Node:	NCL1770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.24 ft	Invert:	17.23 ft
From Node:	NCL1770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1670	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1770OW	Cross Section:	RCL1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1790		Upstream		Downstream	
Scenario:	Existing	Invert:	4.59 ft	Invert:	4.01 ft
From Node:	NCL1790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1470	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	630.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1810		Upstream		Downstream	
Scenario:	Existing	Invert:	13.35 ft	Invert:	12.09 ft
From Node:	NCL1810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	342.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1810OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.41 ft	Invert:	17.40 ft
From Node:	NCL1810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1450	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1810OW	Cross Section:	RCL1810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1830		Upstream		Downstream	
Scenario:	Existing	Invert:	5.65 ft	Invert:	4.95 ft
From Node:	NCL1830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1790	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	697.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1830OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.01 ft	Invert:	19.00 ft
From Node:	NCL1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2030	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1830OW	Cross Section:	RCL1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL1850		Upstream		Downstream	
Scenario:	Existing	Invert:	6.83 ft	Invert:	6.03 ft
From Node:	NCL1850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RCL1870		Upstream		Downstream	
Scenario:	Existing	Invert:	9.23 ft	Invert:	6.83 ft
From Node:	NCL1870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	253.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.10	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.10	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1890		Upstream		Downstream	
Scenario:	Existing	Invert:	9.33 ft	Invert:	9.23 ft
From Node:	NCL1890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	75.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1910		Upstream		Downstream	
Scenario:	Existing	Invert:	16.63 ft	Invert:	16.62 ft
From Node:	NCL1910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1930		
Scenario:	Existing	Bottom Clip

From Node:	NCL1930
To Node:	NCL1910
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	19.93 ft
Control Elevation:	19.93 ft
Max Depth:	833.25 ft
Max Width:	12.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RCL1930OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.06 ft	Invert:	19.05 ft
From Node:	NCL1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1930OW	Cross Section:	RCL1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1950		Upstream		Downstream	
Scenario:	Existing	Invert:	17.77 ft	Invert:	16.63 ft
From Node:	NCL1950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1910	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	0.83 ft	Max Depth:	0.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	188.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1970

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL1970	Default:	0.00 ft
To Node:	NCL1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	22.13 ft	**Discharge Coefficients**	
Control Elevation:	22.13 ft	Weir Default:	3.200
Max Depth:	22.79 ft	Weir Table:	
Max Width:	2.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RCL1970A

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL1970	Default:	0.00 ft
To Node:	NCL1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	23.83 ft	**Discharge Coefficients**	
Control Elevation:	23.83 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	12.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RCL1970OW

		Upstream		Downstream	
Scenario:	Existing	Invert:	21.45 ft	Invert:	21.44 ft
From Node:	NCL1970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1970OW	Cross Section:	RCL1970OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL1990		Upstream		Downstream	
Scenario:	Existing	Invert:	12.23 ft	Invert:	9.33 ft
From Node:	NCL1990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	243.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2010		Upstream		Downstream	
Scenario:	Existing	Invert:	11.44 ft	Invert:	11.23 ft
From Node:	NCL2010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	62.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2030		Upstream		Downstream	
Scenario:	Existing	Invert:	13.67 ft	Invert:	12.21 ft
From Node:	NCL2030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	270.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2050		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	11.23 ft
From Node:	NCL2050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	210.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2070		Upstream		Downstream	
Scenario:	Existing	Invert:	14.90 ft	Invert:	14.13 ft
From Node:	NCL2070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2070OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.90 ft	Invert:	18.89 ft
From Node:	NCL2070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2070OW	Cross Section:	RCL2070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2090		Upstream		Downstream	
Scenario:	Existing	Invert:	12.13 ft	Invert:	11.63 ft
From Node:	NCL2090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2050	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	394.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2110		Upstream		Downstream	
Scenario:	Existing	Invert:	12.63 ft	Invert:	12.13 ft

From Node:	NCL2110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.77 ft	Invert:	19.76 ft
From Node:	NCL2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2170	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2110OW	Cross Section:	RCL2110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2130		Upstream		Downstream	
Scenario:	Existing	Invert:	12.43 ft	Invert:	12.13 ft
From Node:	NCL2130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	210.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2130OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.92 ft	Invert:	18.91 ft
From Node:	NCL2130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2130OW	Cross Section:	RCL2130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2150		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.43 ft
From Node:	NCL2150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2130	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	720.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2150OW		Upstream		Downstream	
Scenario:	Existing	Invert:	20.03 ft	Invert:	20.02 ft
From Node:	NCL2150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2130	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RCL2150OW	Cross Section:	RCL2150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2170		Upstream		Downstream	
Scenario:	Existing	Invert:	11.23 ft	Invert:	11.08 ft
From Node:	NCL2170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	47.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2170OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.81 ft	Invert:	18.80 ft
From Node:	NCL2170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1730	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2170OW	Cross Section:	RCL2170OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2230		Upstream		Downstream	
Scenario:	Existing	Invert:	6.63 ft	Invert:	5.65 ft
From Node:	NCL2230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1830	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	715.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2230OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.47 ft	Invert:	18.46 ft
From Node:	NCL2230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2230OW	Cross Section:	RCL2230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2250		Upstream		Downstream	
Scenario:	Existing	Invert:	7.13 ft	Invert:	6.63 ft
From Node:	NCL2250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2230	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	597.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2270		Upstream		Downstream	
Scenario:	Existing	Invert:	10.43 ft	Invert:	7.13 ft
From Node:	NCL2270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	641.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.62 ft	Invert:	19.61 ft
From Node:	NCL2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2930	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2270OW	Cross Section:	RCL2270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2290		Upstream		Downstream	
Scenario:	Existing	Invert:	14.83 ft	Invert:	11.43 ft
From Node:	NCL2290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	371.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2290OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.30 ft	Invert:	19.29 ft
From Node:	NCL2290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2170	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2290OW	Cross Section:	RCL2290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2310		Upstream		Downstream	
Scenario:	Existing	Invert:	10.73 ft	Invert:	10.43 ft
From Node:	NCL2310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	180.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2330		Upstream		Downstream	
Scenario:	Existing	Invert:	11.23 ft	Invert:	10.73 ft
From Node:	NCL2330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	460.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	20.06 ft	Invert:	20.05 ft
From Node:	NCL2330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2330OW	Cross Section:	RCL2330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2350		Upstream		Downstream	
Scenario:	Existing	Invert:	12.53 ft	Invert:	11.23 ft

From Node:	NCL2350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	397.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2370		Upstream		Downstream	
Scenario:	Existing	Invert:	12.63 ft	Invert:	12.53 ft
From Node:	NCL2370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	251.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2390		Upstream		Downstream	
Scenario:	Existing	Invert:	14.43 ft	Invert:	12.63 ft
From Node:	NCL2390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	426.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	20.11 ft	Invert:	20.10 ft
From Node:	NCL2390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2330	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2390OW	Cross Section:	RCL2390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2410		Upstream		Downstream	
Scenario:	Existing	Invert:	14.58 ft	Invert:	14.43 ft
From Node:	NCL2410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2410OW		Upstream		Downstream	
Scenario:	Existing	Invert:	20.86 ft	Invert:	20.85 ft
From Node:	NCL2410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2390	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RCL2410OW	Cross Section:	RCL2410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2430		Upstream		Downstream	
Scenario:	Existing	Invert:	14.74 ft	Invert:	14.58 ft
From Node:	NCL2430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	334.57 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2450		Upstream		Downstream	
Scenario:	Existing	Invert:	17.64 ft	Invert:	16.95 ft
From Node:	NCL2450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2430	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	58.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 2903

Weir Link: RCL2470

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2470	Default:	0.00 ft
To Node:	NCL2450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.98 ft	**Discharge Coefficients**	
Control Elevation:	19.98 ft	Weir Default:	3.200
Max Depth:	2.16 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Added per ERP 2903

Weir Link: RCL2470B

Scenario:	Existing	**Bottom Clip**	
From Node:	NCL2470	Default:	0.00 ft
To Node:	NCL2450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	22.14 ft	**Discharge Coefficients**	
Control Elevation:	22.14 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.17 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Added per ERP 2903

Weir Link: RCL2470C

Scenario:	Existing	**Bottom Clip**	
From Node:	STORAGE5	Default:	0.00 ft
To Node:	NCL2470	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	

Geometry Type:	Rectangular
Invert:	19.14 ft
Control Elevation:	19.14 ft
Max Depth:	3.69 ft
Max Width:	136.00 ft
Fillet:	0.00 ft

Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: WEIR TO CONNECT TO UNDERGROUND VAULT STORAGE

Channel Link: RCL2470OW		Upstream		Downstream	
Scenario:	Existing	Invert:	20.00 ft	Invert:	19.99 ft
From Node:	NCL2470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2470OW	Cross Section:	RCL2470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2490		Upstream		Downstream	
Scenario:	Existing	Invert:	14.90 ft	Invert:	14.74 ft
From Node:	NCL2490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	333.67 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2510		Upstream		Downstream	
Scenario:	Existing	Invert:	15.09 ft	Invert:	14.90 ft
From Node:	NCL2510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2490	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	392.26 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2530		Upstream		Downstream	
Scenario:	Existing	Invert:	15.22 ft	Invert:	15.09 ft
From Node:	NCL2530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	275.73 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2550		Upstream		Downstream	
Scenario:	Existing	Invert:	15.38 ft	Invert:	15.22 ft
From Node:	NCL2550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	324.95 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2570		Upstream		Downstream	
Scenario:	Existing	Invert:	15.54 ft	Invert:	15.38 ft
From Node:	NCL2570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.29 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2580		Upstream		Downstream	
Scenario:	Existing	Invert:	16.46 ft	Invert:	15.54 ft
From Node:	NCL2580	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	29.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2590		Upstream		Downstream	
Scenario:	Existing	Invert:	15.72 ft	Invert:	15.54 ft

From Node:	NCL2590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	371.47 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2610		Upstream		Downstream	
Scenario:	Existing	Invert:	15.92 ft	Invert:	15.72 ft
From Node:	NCL2610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	454.09 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2630		Upstream		Downstream	
Scenario:	Existing	Invert:	15.87 ft	Invert:	15.92 ft
From Node:	NCL2630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	392.39 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2631		Upstream		Downstream	
Scenario:	Existing	Invert:	14.93 ft	Invert:	14.60 ft
From Node:	NCL2631	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3635	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	68.57 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL2650		Upstream		Downstream	
Scenario:	Existing	Invert:	15.67 ft	Invert:	14.43 ft
From Node:	NCL2650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2650OW		Upstream		Downstream	
Scenario:	Existing	Invert:	20.64 ft	Invert:	20.63 ft
From Node:	NCL2650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2390	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RCL2650OW	Cross Section:	RCL2650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2670		Upstream		Downstream	
Scenario:	Existing	Invert:	16.43 ft	Invert:	15.67 ft
From Node:	NCL2670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	456.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	21.31 ft	Invert:	21.30 ft
From Node:	NCL2670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2650	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2670OW	Cross Section:	RCL2670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2690		Upstream		Downstream	
Scenario:	Existing	Invert:	16.60 ft	Invert:	16.43 ft
From Node:	NCL2690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2670	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	306.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	21.23 ft	Invert:	21.22 ft
From Node:	NCL2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2670	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2690OW	Cross Section:	RCL2690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2710		Upstream		Downstream	
Scenario:	Existing	Invert:	16.77 ft	Invert:	16.60 ft
From Node:	NCL2710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2690	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	310.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2710OW		Upstream		Downstream	
Scenario:	Existing	Invert:	21.33 ft	Invert:	21.32 ft
From Node:	NCL2710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2690	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2710OW	Cross Section:	RCL2710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2730		Upstream		Downstream	
Scenario:	Existing	Invert:	17.00 ft	Invert:	16.77 ft
From Node:	NCL2730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	406.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2730OW		Upstream		Downstream	
Scenario:	Existing	Invert:	21.56 ft	Invert:	21.55 ft
From Node:	NCL2730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2710	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2730OW	Cross Section:	RCL2730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL2750		Upstream		Downstream	
Scenario:	Existing	Invert:	17.18 ft	Invert:	17.00 ft
From Node:	NCL2750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	326.31 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment: Inventory, DM Model					

Pipe Link: RCL2770		Upstream		Downstream	
Scenario:	Existing	Invert:	17.39 ft	Invert:	17.18 ft
From Node:	NCL2770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	362.56 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2780		Upstream		Downstream	
Scenario:	Existing	Invert:	18.09 ft	Invert:	18.01 ft
From Node:	NCL2780	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	28.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2790		Upstream		Downstream	
Scenario:	Existing	Invert:	17.54 ft	Invert:	17.39 ft
From Node:	NCL2790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	259.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2810		Upstream		Downstream	
Scenario:	Existing	Invert:	17.74 ft	Invert:	17.54 ft

From Node:	NCL2810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	368.94 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2830		Upstream		Downstream	
Scenario:	Existing	Invert:	17.93 ft	Invert:	17.74 ft
From Node:	NCL2830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2810	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.71 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.50	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2830B		Upstream		Downstream	
Scenario:	Existing	Invert:	20.06 ft	Invert:	17.88 ft
From Node:	NCL2830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	Outfall_NE	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	218.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2835		Upstream		Downstream	
Scenario:	Existing	Invert:	19.79 ft	Invert:	18.53 ft
From Node:	NCL2835	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	420.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2840		Upstream		Downstream	
Scenario:	Existing	Invert:	20.06 ft	Invert:	19.90 ft
From Node:	NCL2840	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2835	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2845		Upstream		Downstream	
Scenario:	Existing	Invert:	20.19 ft	Invert:	19.79 ft
From Node:	NCL2845	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2835	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	90.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2850		Upstream		Downstream	
Scenario:	Existing	Invert:	12.83 ft	Invert:	12.63 ft
From Node:	NCL2850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2870		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.83 ft
From Node:	NCL2870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	357.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2890		Upstream		Downstream	
Scenario:	Existing	Invert:	14.74 ft	Invert:	13.13 ft
From Node:	NCL2890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	299.76 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model; US invert from Kennedy ERP

Pipe Link: RCL2910		Upstream		Downstream	
Scenario:	Existing	Invert:	14.91 ft	Invert:	14.50 ft
From Node:	NCL2910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2890	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	313.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL2930		Upstream		Downstream	
Scenario:	Existing	Invert:	7.40 ft	Invert:	7.38 ft
From Node:	NCL2930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2250	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.50 ft	Max Depth:	6.50 ft
Flow Direction:	Both	Max Width:	4.75 ft	Max Width:	4.75 ft

Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	55.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2930OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.04 ft	Invert:	19.03 ft
From Node:	NCL2930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2230	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2930OW	Cross Section:	RCL2930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2950		Upstream		Downstream	
Scenario:	Existing	Invert:	7.47 ft	Invert:	7.40 ft
From Node:	NCL2950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2930	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	573.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2950OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.33 ft	Invert:	19.32 ft
From Node:	NCL2950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2950OW	Cross Section:	RCL2950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2970		Upstream		Downstream	
Scenario:	Existing	Invert:	14.13 ft	Invert:	9.13 ft
From Node:	NCL2970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2950	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	450.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2970OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.52 ft	Invert:	19.51 ft
From Node:	NCL2970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2970OW	Cross Section:	RCL2970OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL2990		Upstream		Downstream	
Scenario:	Existing	Invert:	7.92 ft	Invert:	7.47 ft
From Node:	NCL2990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2950	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	575.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2990OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.35 ft	Invert:	19.34 ft
From Node:	NCL2990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2990OW	Cross Section:	RCL2990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL3010		Upstream		Downstream	
Scenario:	Existing	Invert:	8.26 ft	Invert:	7.92 ft
From Node:	NCL3010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2990	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	663.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3030		Upstream		Downstream	
Scenario:	Existing	Invert:	8.58 ft	Invert:	8.26 ft
From Node:	NCL3030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3010	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	655.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3050		Upstream		Downstream	
Scenario:	Existing	Invert:	10.64 ft	Invert:	10.11 ft
From Node:	NCL3050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	423.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3050OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.26 ft	Invert:	19.25 ft
From Node:	NCL3050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL3050OW	Cross Section:	RCL3050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL3070		Upstream		Downstream	
Scenario:	Existing	Invert:	16.14 ft	Invert:	15.73 ft
From Node:	NCL3070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3050	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	289.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3070OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.51 ft	Invert:	19.50 ft

From Node:	NCL3070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3050	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL3070OW	Cross Section:	RCL3070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL3090		Upstream		Downstream	
Scenario:	Existing	Invert:	8.92 ft	Invert:	8.58 ft
From Node:	NCL3090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3030	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	673.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.30 ft	Invert:	18.29 ft
From Node:	NCL3110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3090	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL3090OW	Cross Section:	RCL3090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL3110		Upstream		Downstream	
Scenario:	Existing	Invert:	11.77 ft	Invert:	10.78 ft
From Node:	NCL3110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	448.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3130		Upstream		Downstream	
Scenario:	Existing	Invert:	14.77 ft	Invert:	14.33 ft
From Node:	NCL3130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3130OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.37 ft	Invert:	18.36 ft
From Node:	NCL3130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3110	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RCL3130OW	Cross Section:	RCL3130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL3150		Upstream		Downstream	
Scenario:	Existing	Invert:	9.64 ft	Invert:	9.34 ft
From Node:	NCL3150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3090	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	670.86 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3170		Upstream		Downstream	
Scenario:	Existing	Invert:	11.48 ft	Invert:	10.78 ft
From Node:	NCL3170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	407.47 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3190		Upstream		Downstream	
Scenario:	Existing	Invert:	12.29 ft	Invert:	11.48 ft
From Node:	NCL3190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	452.43 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3210		Upstream		Downstream	
Scenario:	Existing	Invert:	12.70 ft	Invert:	12.29 ft
From Node:	NCL3210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	212.21 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3230		Upstream		Downstream	
Scenario:	Existing	Invert:	13.32 ft	Invert:	12.85 ft
From Node:	NCL3230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.59 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3250		Upstream		Downstream	
Scenario:	Existing	Invert:	10.53 ft	Invert:	10.17 ft
From Node:	NCL3250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.42 ft	Max Depth:	4.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3270		Upstream		Downstream	
Scenario:	Existing	Invert:	13.95 ft	Invert:	13.13 ft
From Node:	NCL3270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	409.82 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3280		Upstream		Downstream	
Scenario:	Existing	Invert:	14.06 ft	Invert:	13.95 ft
From Node:	NCL3280	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	53.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3290		Upstream		Downstream	
Scenario:	Existing	Invert:	14.83 ft	Invert:	14.06 ft
From Node:	NCL3290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3280	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	388.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3300		Upstream		Downstream	
Scenario:	Existing	Invert:	16.39 ft	Invert:	15.48 ft
From Node:	NCL3300	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	303.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3310		Upstream		Downstream	
Scenario:	Existing	Invert:	17.14 ft	Invert:	16.38 ft
From Node:	NCL3310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.97 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19405

Weir Link: RCL3330			
Scenario:	Existing	Bottom Clip	
From Node:	NCL3330	Default:	0.00 ft
To Node:	NCL3310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.14 ft	Discharge Coefficients	
Control Elevation:	19.14 ft	Weir Default:	3.200
Max Depth:	1.50 ft	Weir Table:	
Max Width:	0.11 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: UPDATED PER ERP 19405

Weir Link: RCL3330A			
Scenario:	Existing	Bottom Clip	
From Node:	NCL3330	Default:	0.00 ft

To Node:	NCL3310
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	20.64 ft
Control Elevation:	20.64 ft
Max Depth:	9999.00 ft
Max Width:	14.00 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: UPDATED PER ERP 19405

Pipe Link: RCL3330B		Upstream		Downstream	
Scenario:	Existing	Invert:	17.14 ft	Invert:	17.14 ft
From Node:	NCL3330	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NCL3310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	5.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19405

Weir Link: RCL3330C	
Scenario:	Existing
From Node:	NCL3330
To Node:	STORAGE1
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.14 ft
Control Elevation:	18.14 ft
Max Depth:	3.00 ft
Max Width:	7.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: SET WEIR TO BOTTOM OF STORAGE. SEE ERP 19405

Pipe Link: RCL3350		Upstream		Downstream	
Scenario:	Existing	Invert:	15.71 ft	Invert:	14.83 ft
From Node:	NCL3350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	441.13 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3360		Upstream		Downstream	
Scenario:	Existing	Invert:	18.95 ft	Invert:	18.23 ft
From Node:	NCL3360	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	241.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3360B		Upstream		Downstream	
Scenario:	Existing	Invert:	19.25 ft	Invert:	19.25 ft
From Node:	NCL3360	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3365		Upstream		Downstream	
Scenario:	Existing	Invert:	17.26 ft	Invert:	16.16 ft
From Node:	NCL3365	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	366.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3390		Upstream		Downstream	
Scenario:	Existing	Invert:	15.01 ft	Invert:	15.40 ft
From Node:	NCL3390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3370	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	591.37 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3390B		Upstream		Downstream	
Scenario:	Existing	Invert:	15.07 ft	Invert:	14.75 ft
From Node:	NCL3390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2910	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	121.03 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3410		Upstream		Downstream	
Scenario:	Existing	Invert:	15.50 ft	Invert:	16.06 ft
From Node:	NCL3410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	36.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Weir Link: RCL3430			
Scenario:	Existing	Bottom Clip	
From Node:	NCL3430	Default:	0.00 ft
To Node:	NCL3410	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.14 ft	Discharge Coefficients	
Control Elevation:	19.14 ft	Weir Default:	3.200

Max Depth:	0.50 ft
Max Width:	0.40 ft
Fillet:	0.00 ft

Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 21651

Weir Link: RCL3430A

Scenario:	Existing
From Node:	NCL3430
To Node:	NCL3410
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	19.64 ft
Control Elevation:	19.64 ft
Max Depth:	9999.00 ft
Max Width:	10.47 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 21651

Pipe Link: RCL3450A

Scenario:	Existing
From Node:	NCL3460
To Node:	NCL3250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	679.82 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	11.13 ft	Invert:	10.93 ft
Manning's N:	0.0120	Manning's N:	0.0120
Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Max Depth:	4.00 ft	Max Depth:	4.00 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 6550

Weir Link: RCL3460

Scenario:	Existing
From Node:	NCL3450

Bottom Clip	
Default:	0.00 ft

To Node:	NCL3460		
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	11.38 ft	Ref Node:	
Control Elevation:	11.38 ft	Discharge Coefficients	
Max Depth:	4.75 ft	Weir Default:	3.200
Max Width:	7.33 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: Added per ERP 6550

Pipe Link: RCL3470		Upstream		Downstream	
Scenario:	Existing	Invert:	11.74 ft	Invert:	11.24 ft
From Node:	NCL3470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	414.97 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3490		Upstream		Downstream	
Scenario:	Existing	Invert:	11.93 ft	Invert:	11.74 ft
From Node:	NCL3490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3470	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	459.06 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3510		Upstream		Downstream	
Scenario:	Existing	Invert:	12.90 ft	Invert:	12.30 ft
From Node:	NCL3510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3490	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	408.65 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3520		Upstream		Downstream	
Scenario:	Existing	Invert:	15.19 ft	Invert:	14.61 ft
From Node:	NCL3520	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	195.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3530		Upstream		Downstream	
Scenario:	Existing	Invert:	13.42 ft	Invert:	12.90 ft
From Node:	NCL3530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	421.87 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model; US inv from Kennedy ERP

Pipe Link: RCL3540		Upstream		Downstream	
Scenario:	Existing	Invert:	20.25 ft	Invert:	19.98 ft
From Node:	NCL2540	Manning's N:	0.0100	Manning's N:	0.0240
To Node:	NCL2780	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	90.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RCL3550		Upstream		Downstream	
Scenario:	Existing	Invert:	14.01 ft	Invert:	13.26 ft
From Node:	NCL3550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	112.76 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3570		Upstream		Downstream	
Scenario:	Existing	Invert:	16.00 ft	Invert:	13.63 ft
From Node:	NCL3570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3550	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	273.29 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Weir Link: RCL3590			
Scenario:	Existing	Bottom Clip	
From Node:	NCL3590	Default:	0.00 ft
To Node:	NCL3570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	20.75 ft	Discharge Coefficients	
Control Elevation:	20.75 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.67 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated size per field visit; maintained controlling invert

Weir Link: RCL3590A			
Scenario:	Existing	Bottom Clip	
From Node:	NCL3590	Default:	0.00 ft
To Node:	NCL3570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.92 ft	Discharge Coefficients	
Control Elevation:	18.92 ft	Weir Default:	3.200
Max Depth:	1.83 ft	Weir Table:	

Max Width:	0.50 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: Updated size per field visit

Pipe Link: RCL3610		Upstream		Downstream	
Scenario:	Existing	Invert:	13.15 ft	Invert:	13.51 ft
From Node:	NCL3610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3530	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	53.66 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3630		Upstream		Downstream	
Scenario:	Existing	Invert:	13.28 ft	Invert:	13.21 ft
From Node:	NCL3630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3610	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	375.70 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3635		Upstream		Downstream	
Scenario:	Existing	Invert:	14.54 ft	Invert:	13.95 ft
From Node:	NCL3635	Manning's N:	0.0120	Manning's N:	0.0120

		Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
To Node:	NCL3630	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	445.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.50	Top Clip			
Exit Loss Coef:	0.50	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3640		Upstream		Downstream	
Scenario:	Existing	Invert:	16.03 ft	Invert:	14.58 ft
From Node:	NCL3640	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3635	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	440.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3650		Upstream		Downstream	
Scenario:	Existing	Invert:	14.54 ft	Invert:	13.04 ft
From Node:	NCL3650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	107.90 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000
		Manning's N:	0.0000

Comment: Added per ERP 18948

Weir Link: RCL3670

Scenario:	Existing
From Node:	NCL3670
To Node:	NCL3650
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	16.84 ft
Control Elevation:	16.84 ft
Max Depth:	1.10 ft
Max Width:	0.90 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 18948

Weir Link: RCL3670A

Scenario:	Existing
From Node:	NCL3670
To Node:	NCL3650
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.94 ft
Control Elevation:	17.94 ft
Max Depth:	9999.00 ft
Max Width:	14.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 18948

Weir Link: RCL3670C

Scenario:	Existing
From Node:	STORAGE2
To Node:	NCL3670
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft

Weir Type:	Broad Crested Vertical		
Geometry Type:	Rectangular	Op Table:	
Invert:	16.64 ft	Ref Node:	
Control Elevation:	16.64 ft	Discharge Coefficients	
Max Depth:	2.00 ft	Weir Default:	3.200
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: SET WEIR AT NWL OF UNDERGROUND VAULT TO ALLOW EQUALIZATION

Pipe Link: RCL3690		Upstream		Downstream	
Scenario:	Existing	Invert:	10.80 ft	Invert:	10.33 ft
From Node:	NCL3690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3730	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	270.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 6550

Pipe Link: RCL3710		Upstream		Downstream	
Scenario:	Existing	Invert:	11.13 ft	Invert:	10.90 ft
From Node:	NCL3450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3690	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	152.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 6550

Pipe Link: RCL3740		Upstream		Downstream	
Scenario:	Existing	Invert:	15.30 ft	Invert:	15.20 ft
From Node:	NCL3740	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	46.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3750		Upstream		Downstream	
Scenario:	Existing	Invert:	10.78 ft	Invert:	10.26 ft
From Node:	NCL3750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3770		Upstream		Downstream	
Scenario:	Existing	Invert:	11.47 ft	Invert:	10.78 ft
From Node:	NCL3770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	361.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.20 ft	Invert:	16.19 ft
From Node:	NCL3770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL3770OW	Cross Section:	RCL3770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: REF1357B			
Scenario:	Existing	Bottom Clip	
From Node:	NSH27	Default:	0.00 ft
To Node:	NSH27AA	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.74 ft	Discharge Coefficients	
Control Elevation:	12.74 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	8.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 10835. Difficult to read

Weir Link: REF1357C			
Scenario:	Existing	**Bottom Clip**	
From Node:	NSH27	Default:	0.00 ft
To Node:	NSH27AA	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.74 ft	**Discharge Coefficients**	
Control Elevation:	9.74 ft	Weir Default:	3.200
Max Depth:	1.67 ft	Weir Table:	
Max Width:	1.67 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 10835. Difficult to read

Pipe Link: ROC0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-4.25 ft	Invert:	-4.46 ft
From Node:	NOC0030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0010	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	178.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0030OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.22 ft	Invert:	3.21 ft
From Node:	NOC0030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0030	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0030OW	Cross Section:	ROC0030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				

Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0050		Upstream		Downstream	
Scenario:	Existing	Invert:	-4.05 ft	Invert:	-4.25 ft
From Node:	NOC0050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	135.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0050OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.40 ft	Invert:	3.39 ft
From Node:	NOC0050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0030	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0050OW	Cross Section:	ROC0050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0070		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.37 ft	Invert:	-3.57 ft
From Node:	NOC0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0090	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0070A		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.57 ft	Invert:	-4.05 ft
From Node:	NOC0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	540.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0070OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.92 ft	Invert:	3.91 ft
From Node:	NOC0070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0110	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0070OW	Cross Section:	ROC0070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0090		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.37 ft	Invert:	-3.47 ft
From Node:	NOC0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0110	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	123.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0110		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.34 ft	Invert:	-3.57 ft
From Node:	NOC0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0070	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0130		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.13 ft	Invert:	-3.34 ft
From Node:	NOC0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0150		Upstream		Downstream	
Scenario:	Existing	Invert:	1.95 ft	Invert:	1.85 ft
From Node:	NOC0150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0130	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0170		Upstream		Downstream	
Scenario:	Existing	Invert:	4.13 ft	Invert:	1.95 ft
From Node:	NOC0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0170OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.30 ft	Invert:	4.29 ft
From Node:	NOC0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0170OW	Cross Section:	ROC0170OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0190		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.80 ft	Invert:	-3.13 ft
From Node:	NOC0190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0130	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	370.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0190OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.63 ft	Invert:	5.62 ft

From Node:	NOC0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0190OW	Cross Section:	ROC0190OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0210		Upstream		Downstream	
Scenario:	Existing	Invert:	0.21 ft	Invert:	-0.37 ft
From Node:	NOC0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0190	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	335.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0210OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.60 ft	Invert:	5.59 ft
From Node:	NOC0210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0210OW	Cross Section:	ROC0210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0230		Upstream		Downstream	
Scenario:	Existing	Invert:	0.33 ft	Invert:	0.23 ft
From Node:	NOC0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0250		Upstream		Downstream	
Scenario:	Existing	Invert:	1.03 ft	Invert:	0.33 ft
From Node:	NOC0250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0270		Upstream		Downstream	
Scenario:	Existing	Invert:	1.82 ft	Invert:	1.03 ft
From Node:	NOC0270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0250	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0290		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.72 ft	Invert:	-2.80 ft
From Node:	NOC0290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0190	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Max Width:	7.58 ft	Max Width:	7.58 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	90.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0310		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.27 ft	Invert:	-1.39 ft
From Node:	NOC0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	48.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0330		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.21 ft	Invert:	-2.72 ft
From Node:	NOC0330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0290	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	271.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0350		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.43 ft	Invert:	-2.21 ft
From Node:	NOC0350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0330	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	370.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0350OW		Upstream		Downstream	
Scenario:	Existing	Invert:	2.77 ft	Invert:	2.76 ft
From Node:	NOC0350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0330	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	ROC0350OW	Cross Section:	ROC0350OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0370		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.24 ft	Invert:	-1.43 ft
From Node:	NOC0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0350	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	619.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0370OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.69 ft	Invert:	5.68 ft
From Node:	NOC0370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0370OW	Cross Section:	ROC0370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0390		Upstream		Downstream	
Scenario:	Existing	Invert:	0.27 ft	Invert:	-0.22 ft
From Node:	NOC0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0370	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.33 ft	Invert:	5.32 ft
From Node:	NOC0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0390OW	Cross Section:	ROC0390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0410		Upstream		Downstream	
Scenario:	Existing	Invert:	0.89 ft	Invert:	0.27 ft
From Node:	NOC0410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0390	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	553.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0410OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.38 ft	Invert:	6.37 ft
From Node:	NOC0410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0390	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0410OW	Cross Section:	ROC0410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0430		Upstream		Downstream	
Scenario:	Existing	Invert:	1.93 ft	Invert:	1.29 ft
From Node:	NOC0430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0410	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	326.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.39 ft	Invert:	6.38 ft
From Node:	NOC0430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0430OW	Cross Section:	ROC0430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: ROC0450		Upstream		Downstream	
Scenario:	Existing	Invert:	3.48 ft	Invert:	2.70 ft
From Node:	NOC0450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0430	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	342.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: ROC0450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.08 ft	Invert:	7.07 ft
From Node:	NOC0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0450OW	Cross Section:	ROC0450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0470		Upstream		Downstream	
Scenario:	Existing	Invert:	4.37 ft	Invert:	3.48 ft
From Node:	NOC0470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	236.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0470OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.36 ft	Invert:	7.35 ft
From Node:	NOC0470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0450	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0470OW	Cross Section:	ROC0470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0490		Upstream		Downstream	
Scenario:	Existing	Invert:	4.81 ft	Invert:	3.43 ft

From Node:	NOC0490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	336.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	7.79 ft	Invert:	7.78 ft
From Node:	NOC0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0490OW	Cross Section:	ROC0490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RPondA		Upstream		Downstream	
Scenario:	Existing	Invert:	16.56 ft	Invert:	14.50 ft
From Node:	NSH03	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	PondA	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	368.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 9274

Pipe Link: RRU0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.40 ft	Invert:	-1.42 ft
From Node:	NRU0030	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU0010	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	144.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0050		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.35 ft	Invert:	-0.40 ft
From Node:	NRU0050	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU0030	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	220.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0070		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.29 ft	Invert:	-0.35 ft
From Node:	NRU0070	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	180.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0090		Upstream		Downstream	
Scenario:	Existing	Invert:	0.15 ft	Invert:	0.04 ft
From Node:	NRU0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	182.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU0090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.65 ft	Invert:	4.64 ft
From Node:	NRU0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU0090OW	Cross Section:	RRU0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU0110		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.05 ft	Invert:	-0.29 ft
From Node:	NRU0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0070	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	283.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU0110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.42 ft	Invert:	5.41 ft
From Node:	NRU0110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU0110OW	Cross Section:	RRU0110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU0130		Upstream		Downstream	
Scenario:	Existing	Invert:	0.84 ft	Invert:	-0.05 ft
From Node:	NRU0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0110	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	530.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0150		Upstream		Downstream	
Scenario:	Existing	Invert:	0.85 ft	Invert:	0.84 ft
From Node:	NRU0150	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU0130	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	15.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0160		Upstream		Downstream	
Scenario:	Existing	Invert:	5.54 ft	Invert:	5.03 ft
From Node:	NRU0160	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	776.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0165		Upstream		Downstream	
Scenario:	Existing	Invert:	11.74 ft	Invert:	11.65 ft
From Node:	NRU0165	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0160	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	31.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0170		Upstream		Downstream	
Scenario:	Existing	Invert:	5.73 ft	Invert:	5.54 ft
From Node:	NRU0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0160	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	283.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0172		Upstream		Downstream	
Scenario:	Existing	Invert:	6.99 ft	Invert:	6.86 ft
From Node:	NRU0172	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0174		Upstream		Downstream	
Scenario:	Existing	Invert:	8.24 ft	Invert:	6.99 ft
From Node:	NRU0174	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0172	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.75 ft	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	417.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0176		Upstream		Downstream	
Scenario:	Existing	Invert:	8.32 ft	Invert:	8.24 ft
From Node:	NRU0176	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0174	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	26.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0178		Upstream		Downstream	
Scenario:	Existing	Invert:	9.59 ft	Invert:	8.32 ft
From Node:	NRU0178	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0176	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	422.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0180		Upstream		Downstream	
Scenario:	Existing	Invert:	10.32 ft	Invert:	9.59 ft
From Node:	NRU0180	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0178	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.75 ft	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	245.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0190		Upstream		Downstream	
Scenario:	Existing	Invert:	9.93 ft	Invert:	7.73 ft

From Node:	NRU0190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	29.78 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0210		Upstream		Downstream	
Scenario:	Existing	Invert:	10.28 ft	Invert:	9.93 ft
From Node:	NRU0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	52.03 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0230		Upstream		Downstream	
Scenario:	Existing	Invert:	11.28 ft	Invert:	10.28 ft
From Node:	NRU0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0250		Upstream		Downstream	
Scenario:	Existing	Invert:	5.84 ft	Invert:	5.73 ft
From Node:	NRU0250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	100.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0270		Upstream		Downstream	
Scenario:	Existing	Invert:	6.21 ft	Invert:	5.84 ft
From Node:	NRU0270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	332.48 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: RRU0290		Upstream		Downstream	
Scenario:	Existing	Invert:	12.07 ft	Invert:	10.03 ft
From Node:	NRU0290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0270	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0310		Upstream		Downstream	
Scenario:	Existing	Invert:	6.74 ft	Invert:	6.22 ft
From Node:	NRU0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	475.68 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: RRU0330		Upstream		Downstream	
Scenario:	Existing	Invert:	11.30 ft	Invert:	10.82 ft
From Node:	NRU0330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	249.09 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0335		Upstream		Downstream	
Scenario:	Existing	Invert:	15.46 ft	Invert:	14.44 ft
From Node:	NRU0335	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	342.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0340		Upstream		Downstream	
Scenario:	Existing	Invert:	11.77 ft	Invert:	11.30 ft
From Node:	NRU0340	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0343		Upstream		Downstream	
Scenario:	Existing	Invert:	13.14 ft	Invert:	12.93 ft
From Node:	NRU0343	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0340	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	71.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0345		Upstream		Downstream	
Scenario:	Existing	Invert:	14.35 ft	Invert:	13.14 ft
From Node:	NRU0345	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0343	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	404.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0350		Upstream		Downstream	
Scenario:	Existing	Invert:	12.53 ft	Invert:	11.77 ft
From Node:	NRU0350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0340	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	391.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0370		Upstream		Downstream	
Scenario:	Existing	Invert:	12.63 ft	Invert:	12.53 ft
From Node:	NRU0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.99 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0380		Upstream		Downstream	
Scenario:	Existing	Invert:	13.33 ft	Invert:	13.03 ft
From Node:	NRU0380	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	34.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0410		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.63 ft
From Node:	NRU0410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	373.88 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0430		Upstream		Downstream	
Scenario:	Existing	Invert:	13.63 ft	Invert:	13.13 ft
From Node:	NRU0430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	291.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0450		Upstream		Downstream	
Scenario:	Existing	Invert:	14.13 ft	Invert:	13.63 ft
From Node:	NRU0450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0430	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	350.11 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0470		Upstream		Downstream	
Scenario:	Existing	Invert:	14.62 ft	Invert:	14.13 ft

From Node:	NRU0470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	349.20 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0490		Upstream		Downstream	
Scenario:	Existing	Invert:	15.14 ft	Invert:	14.65 ft
From Node:	NRU0490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	115.76 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0495		Upstream		Downstream	
Scenario:	Existing	Invert:	16.00 ft	Invert:	15.14 ft
From Node:	NRU0495	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0490	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	288.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0510A		Upstream		Downstream	
Scenario:	Existing	Invert:	14.93 ft	Invert:	14.60 ft
From Node:	NRU0510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.63 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0530		Upstream		Downstream	
Scenario:	Existing	Invert:	7.23 ft	Invert:	6.74 ft
From Node:	NRU0530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	442.09 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0550		Upstream		Downstream	
Scenario:	Existing	Invert:	7.75 ft	Invert:	7.24 ft
From Node:	NRU0550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0530	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	466.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0570		Upstream		Downstream	
Scenario:	Existing	Invert:	7.96 ft	Invert:	7.76 ft
From Node:	NRU0570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	183.55 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0590		Upstream		Downstream	
Scenario:	Existing	Invert:	8.34 ft	Invert:	7.97 ft
From Node:	NRU0590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	337.99 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0610		Upstream		Downstream	
Scenario:	Existing	Invert:	8.69 ft	Invert:	8.34 ft
From Node:	NRU0610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	316.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0612		Upstream		Downstream	
Scenario:	Existing	Invert:	8.98 ft	Invert:	8.70 ft
From Node:	NRU0612	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	258.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0615		Upstream		Downstream	
Scenario:	Existing	Invert:	13.74 ft	Invert:	10.95 ft
From Node:	NRU0615	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	930.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0616		Upstream		Downstream	
Scenario:	Existing	Invert:	17.46 ft	Invert:	16.56 ft
From Node:	NRU0616	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0615	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	849.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0618		Upstream		Downstream	
Scenario:	Existing	Invert:	16.29 ft	Invert:	13.74 ft
From Node:	NRU0618	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0616	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	193.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0620		Upstream		Downstream	
Scenario:	Existing	Invert:	15.49 ft	Invert:	14.61 ft
From Node:	NRU0620	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0615	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0630		Upstream		Downstream	
Scenario:	Existing	Invert:	9.28 ft	Invert:	8.98 ft
From Node:	NRU0630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0612	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	270.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0630A		Upstream		Downstream	
Scenario:	Existing	Invert:	9.50 ft	Invert:	9.28 ft
From Node:	NRU0630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0650	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	385.40 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0670		Upstream		Downstream	
Scenario:	Existing	Invert:	9.53 ft	Invert:	9.50 ft
From Node:	NRU0670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0650	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.25 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0690		Upstream		Downstream	
Scenario:	Existing	Invert:	9.67 ft	Invert:	9.53 ft
From Node:	NRU0690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0670	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	263.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0710		Upstream		Downstream	
Scenario:	Existing	Invert:	9.80 ft	Invert:	9.67 ft

From Node:	NRU0710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0690	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	217.04 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU0730		Upstream		Downstream	
Scenario:	Existing	Invert:	13.53 ft	Invert:	11.68 ft
From Node:	NRU0730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.95 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0740		Upstream		Downstream	
Scenario:	Existing	Invert:	9.98 ft	Invert:	9.80 ft
From Node:	NRU0740	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0710	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU0745		Upstream		Downstream	
Scenario:	Existing	Invert:	10.20 ft	Invert:	9.98 ft
From Node:	NRU0745	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0740	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	420.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU0750		Upstream		Downstream	
Scenario:	Existing	Invert:	10.41 ft	Invert:	10.20 ft
From Node:	NRU0750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0745	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	324.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0770		Upstream		Downstream	
Scenario:	Existing	Invert:	10.68 ft	Invert:	10.41 ft
From Node:	NRU0770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0750	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	151.36 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0785		Upstream		Downstream	
Scenario:	Existing	Invert:	11.11 ft	Invert:	10.68 ft
From Node:	NRU0785	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0785B		Upstream		Downstream	
Scenario:	Existing	Invert:	12.56 ft	Invert:	12.39 ft
From Node:	NRU0785	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0790		Upstream		Downstream	
Scenario:	Existing	Invert:	11.20 ft	Invert:	11.11 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0790B		Upstream		Downstream	
Scenario:	Existing	Invert:	12.75 ft	Invert:	12.61 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	22.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: City Plans

Pipe Link: RRU0790C		Upstream		Downstream	
Scenario:	Existing	Invert:	12.81 ft	Invert:	12.67 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: City Plans

Pipe Link: RRU0790D		Upstream		Downstream	
Scenario:	Existing	Invert:	13.85 ft	Invert:	12.09 ft
From Node:	NRU0790	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: City Plans

Pipe Link: RRU0810		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	11.28 ft
From Node:	NRU0810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	301.49 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0820B		Upstream		Downstream	
Scenario:	Existing	Invert:	15.84 ft	Invert:	15.74 ft
From Node:	STORAGE8	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU0820	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 12131

Pipe Link: RRU0830		Upstream		Downstream	
Scenario:	Existing	Invert:	11.68 ft	Invert:	11.45 ft
From Node:	NRU0830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	424.56 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0850		Upstream		Downstream	
Scenario:	Existing	Invert:	11.77 ft	Invert:	11.68 ft
From Node:	NRU0850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	292.55 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0870		Upstream		Downstream	
Scenario:	Existing	Invert:	12.04 ft	Invert:	11.64 ft
From Node:	NRU0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0850	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	80.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Weir Link: RRU0890			
Scenario:	Existing	Bottom Clip	
From Node:	NRU0890	Default:	0.00 ft
To Node:	NRU0870	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.04 ft	Discharge Coefficients	
Control Elevation:	16.04 ft	Weir Default:	3.200
Max Depth:	1.50 ft	Weir Table:	
Max Width:	15.17 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 20724

Weir Link: RRU0890B			
Scenario:	Existing	Bottom Clip	
From Node:	NRU0890	Default:	0.00 ft

To Node:	NRU0870
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.39 ft
Control Elevation:	17.39 ft
Max Depth:	9999.00 ft
Max Width:	25.33 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RRU0910

		Upstream		Downstream	
Scenario:	Existing	Invert:	16.66 ft	Invert:	15.26 ft
From Node:	NRU0910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	244.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 24539

Weir Link: RRU0930

Scenario:	Existing
From Node:	NRU0930
To Node:	NRU0910
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	19.14 ft
Control Elevation:	19.14 ft
Max Depth:	1.10 ft
Max Width:	2.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 24539

Weir Link: RRU0930A			
Scenario:	Existing	Bottom Clip	
From Node:	NRU0930	Default:	0.00 ft
To Node:	NRU0910	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	20.24 ft	Discharge Coefficients	
Control Elevation:	20.24 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 24539

Pipe Link: RRU0950		Upstream		Downstream	
Scenario:	Existing	Invert:	10.89 ft	Invert:	11.29 ft
From Node:	NRU0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	137.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0955		Upstream		Downstream	
Scenario:	Existing	Invert:	12.41 ft	Invert:	12.33 ft
From Node:	NRU0955	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0950	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	29.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0960		Upstream		Downstream	
Scenario:	Existing	Invert:	13.64 ft	Invert:	12.41 ft
From Node:	NRU0960	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0955	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	409.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0965		Upstream		Downstream	
Scenario:	Existing	Invert:	13.82 ft	Invert:	13.64 ft
From Node:	NRU0965	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0960	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	61.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0970		Upstream		Downstream	
Scenario:	Existing	Invert:	12.54 ft	Invert:	11.22 ft
From Node:	NRU0970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0950	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	287.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU0990		Upstream		Downstream	
Scenario:	Existing	Invert:	12.24 ft	Invert:	11.64 ft
From Node:	NRU0990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU0990A		Upstream		Downstream	
Scenario:	Existing	Invert:	12.24 ft	Invert:	12.54 ft
From Node:	NRU0980	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0970	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.67 ft	Max Depth:	2.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	318.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU1010		Upstream		Downstream	
Scenario:	Existing	Invert:	12.77 ft	Invert:	12.24 ft
From Node:	NRU1010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0990	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.67 ft	Max Depth:	2.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	66.82 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU1015		Upstream		Downstream	
Scenario:	Existing	Invert:	13.54 ft	Invert:	13.20 ft
From Node:	NRU1015	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1010	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	317.25 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1025		Upstream		Downstream	
Scenario:	Existing	Invert:	14.33 ft	Invert:	13.95 ft

From Node:	NRU1025	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1015	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	318.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1030		Upstream		Downstream	
Scenario:	Existing	Invert:	13.12 ft	Invert:	13.08 ft
From Node:	NRU1030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1040	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 20364; interpolated DS invert

Pipe Link: RRU1037		Upstream		Downstream	
Scenario:	Existing	Invert:	16.52 ft	Invert:	14.56 ft
From Node:	NRU1037	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1050	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	284.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20364

Pipe Link: RRU1040		Upstream		Downstream	
Scenario:	Existing	Invert:	13.08 ft	Invert:	12.77 ft
From Node:	NRU1040	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1010	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.66 ft	Max Depth:	2.66 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	415.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Size from ERP 20724; interpolated US inv

Pipe Link: RRU1045		Upstream		Downstream	
Scenario:	Existing	Invert:	16.08 ft	Invert:	16.02 ft
From Node:	NRU1045	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1046	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1046		Upstream		Downstream	
Scenario:	Existing	Invert:	14.38 ft	Invert:	14.14 ft
From Node:	NRU1046	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1020	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	287.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1050		Upstream		Downstream	
Scenario:	Existing	Invert:	13.53 ft	Invert:	13.04 ft
From Node:	NRU1050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1030	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	293.72 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 20364

Pipe Link: RRU1070		Upstream		Downstream	
Scenario:	Existing	Invert:	15.18 ft	Invert:	13.59 ft
From Node:	NRU1070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1050	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	481.88 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU1090		Upstream		Downstream	
Scenario:	Existing	Invert:	10.76 ft	Invert:	10.41 ft
From Node:	NRU1090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	180.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1110		Upstream		Downstream	
Scenario:	Existing	Invert:	11.08 ft	Invert:	10.76 ft
From Node:	NRU1110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	143.16 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU1130		Upstream		Downstream	
Scenario:	Existing	Invert:	11.96 ft	Invert:	10.97 ft
From Node:	NRU1130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	164.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1150		Upstream		Downstream	
Scenario:	Existing	Invert:	11.99 ft	Invert:	11.71 ft
From Node:	NRU1150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1130	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	111.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1170		Upstream		Downstream	
Scenario:	Existing	Invert:	13.67 ft	Invert:	12.03 ft
From Node:	NRU1170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	428.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1182		Upstream		Downstream	
Scenario:	Existing	Invert:	12.90 ft	Invert:	12.22 ft
From Node:	NRU1182	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1232	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	319.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU1184		Upstream		Downstream	
Scenario:	Existing	Invert:	13.10 ft	Invert:	12.90 ft
From Node:	NRU1184	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1182	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	87.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1185		Upstream		Downstream	
Scenario:	Existing	Invert:	14.79 ft	Invert:	13.10 ft
From Node:	NRU1185	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1184	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	301.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: RRU1186		Upstream		Downstream	
Scenario:	Existing	Invert:	13.30 ft	Invert:	13.10 ft
From Node:	NRU1186	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1184	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.75 ft	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	145.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1188		Upstream		Downstream	
Scenario:	Existing	Invert:	13.42 ft	Invert:	13.30 ft
From Node:	NRU1188	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1186	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	None	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	37.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU1190		Upstream		Downstream	
Scenario:	Existing	Invert:	13.93 ft	Invert:	13.73 ft

From Node:	NRU1190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	144.01 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1210		Upstream		Downstream	
Scenario:	Existing	Invert:	14.00 ft	Invert:	13.94 ft
From Node:	NRU1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1190	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.97 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU1210B		Upstream		Downstream	
Scenario:	Existing	Invert:	14.52 ft	Invert:	13.30 ft
From Node:	NRU1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1186	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	306.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1220		Upstream		Downstream	
Scenario:	Existing	Invert:	16.79 ft	Invert:	14.79 ft
From Node:	NRU1220	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU1210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	312.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1230		Upstream		Downstream	
Scenario:	Existing	Invert:	11.59 ft	Invert:	11.08 ft
From Node:	NRU1230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.55 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU1232		Upstream		Downstream	
Scenario:	Existing	Invert:	13.00 ft	Invert:	12.90 ft
From Node:	NRU1232	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1230	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	49.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1234		Upstream		Downstream	
Scenario:	Existing	Invert:	14.00 ft	Invert:	13.10 ft
From Node:	NRU1234	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1232	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	24.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU1240		Upstream		Downstream	
Scenario:	Existing	Invert:	14.79 ft	Invert:	14.25 ft
From Node:	NRU1240	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	26.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 2417, Field

Pipe Link: RRU1250		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.40 ft	Invert:	-1.42 ft
From Node:	NRU1250	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NRU0010	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	144.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1270		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.19 ft	Invert:	-0.40 ft
From Node:	NRU1270	Manning's N:	0.0270	Manning's N:	0.0270
To Node:	NRU1250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1270A		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.19 ft	Invert:	-0.40 ft
From Node:	NRU1270	Manning's N:	0.0270	Manning's N:	0.0270
To Node:	NRU1250	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.66 ft	Invert:	5.65 ft
From Node:	NRU1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1250	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1270OW	Cross Section:	RRU1270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1290		Upstream		Downstream	
Scenario:	Existing	Invert:	0.11 ft	Invert:	-0.19 ft
From Node:	NRU1290	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NRU1270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1290A		Upstream		Downstream	
Scenario:	Existing	Invert:	0.11 ft	Invert:	-0.19 ft
From Node:	NRU1290	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NRU1270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1310		Upstream		Downstream	
Scenario:	Existing	Invert:	0.83 ft	Invert:	0.11 ft
From Node:	NRU1310	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NRU1290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	355.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1310A		Upstream		Downstream	
Scenario:	Existing	Invert:	0.83 ft	Invert:	0.11 ft
From Node:	NRU1310	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NRU1290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	355.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU1330

Scenario:	Existing	Bottom Clip	
From Node:	NRU1330	Default:	0.00 ft
To Node:	NRU0150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.37 ft	Discharge Coefficients	
Control Elevation:	7.37 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	11.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RRU1330A

		Upstream		Downstream	
Scenario:	Existing	Invert:	3.87 ft	Invert:	1.33 ft
From Node:	NRU1330	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	535.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1330B		Upstream		Downstream	
Scenario:	Existing	Invert:	3.87 ft	Invert:	1.33 ft
From Node:	NRU1330	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	535.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.35 ft	Invert:	11.34 ft
From Node:	NRU1350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1330OW	Cross Section:	RRU1330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1350		Upstream		Downstream	
Scenario:	Existing	Invert:	3.95 ft	Invert:	3.87 ft
From Node:	NRU1350	Manning's N:	0.0330	Manning's N:	0.0330
To Node:	NRU1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1350A		Upstream		Downstream	
Scenario:	Existing	Invert:	3.95 ft	Invert:	3.87 ft
From Node:	NRU1350	Manning's N:	0.0330	Manning's N:	0.0330
To Node:	NRU1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1370		Upstream		Downstream	
Scenario:	Existing	Invert:	4.37 ft	Invert:	3.95 ft
From Node:	NRU1370	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	345.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1370A		Upstream		Downstream	
Scenario:	Existing	Invert:	4.37 ft	Invert:	3.95 ft

From Node:	NRU1370	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	345.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1370OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.18 ft	Invert:	12.17 ft
From Node:	NRU1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1370OW	Cross Section:	RRU1370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1390		Upstream		Downstream	
Scenario:	Existing	Invert:	5.29 ft	Invert:	4.59 ft
From Node:	NRU1390	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	460.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1410		Upstream		Downstream	
Scenario:	Existing	Invert:	4.88 ft	Invert:	4.41 ft
From Node:	NRU1410	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	475.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1410A		Upstream		Downstream	
Scenario:	Existing	Invert:	4.88 ft	Invert:	4.41 ft
From Node:	NRU1410	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	475.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1410OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.10 ft	Invert:	14.09 ft
From Node:	NRU1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1370	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RRU1410OW	Cross Section:	RRU1410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1430		Upstream		Downstream	
Scenario:	Existing	Invert:	10.20 ft	Invert:	9.10 ft
From Node:	NRU1430	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU1410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	730.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.96 ft	Invert:	13.95 ft
From Node:	NRU1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0425	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1430OW	Cross Section:	RRU1430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1450		Upstream		Downstream	
Scenario:	Existing	Invert:	10.20 ft	Invert:	9.89 ft
From Node:	NRU1450	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU1430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	238.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.68 ft	Invert:	15.67 ft
From Node:	NRU1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1450OW	Cross Section:	RRU1450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1470		Upstream		Downstream	
Scenario:	Existing	Invert:	10.58 ft	Invert:	10.20 ft
From Node:	NRU1470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1450	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	232.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1490		Upstream		Downstream	
Scenario:	Existing	Invert:	11.65 ft	Invert:	11.08 ft
From Node:	NRU1490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	268.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.28 ft	Invert:	16.27 ft
From Node:	NRU1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1490OW	Cross Section:	RRU1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1510		Upstream		Downstream	
Scenario:	Existing	Invert:	7.60 ft	Invert:	7.10 ft
From Node:	NRU1510	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1000.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1510A		Upstream		Downstream	
Scenario:	Existing	Invert:	7.60 ft	Invert:	7.10 ft
From Node:	NRU1510	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1000.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1510OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.06 ft	Invert:	14.05 ft
From Node:	NRU1510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1550	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1510OW	Cross Section:	RRU1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1530		Upstream		Downstream	
Scenario:	Existing	Invert:	7.50 ft	Invert:	7.53 ft
From Node:	NRU1530	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	280.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1550		Upstream		Downstream	
Scenario:	Existing	Invert:	8.01 ft	Invert:	7.50 ft
From Node:	NRU1550	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	390.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1550OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.35 ft	Invert:	16.34 ft

From Node:	NRU1550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1550OW	Cross Section:	RRU1550OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1570		Upstream		Downstream	
Scenario:	Existing	Invert:	8.23 ft	Invert:	8.01 ft
From Node:	NRU1570	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1550	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.64 ft	Invert:	16.63 ft
From Node:	NRU1590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1570OW	Cross Section:	RRU1570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1590		Upstream		Downstream	
Scenario:	Existing	Invert:	13.14 ft	Invert:	12.56 ft
From Node:	NRU1590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1570	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	452.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1610		Upstream		Downstream	
Scenario:	Existing	Invert:	8.39 ft	Invert:	8.23 ft
From Node:	NRU1610	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1570	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	230.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1610OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.22 ft	Invert:	17.21 ft
From Node:	NRU1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1650	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RRU1610OW	Cross Section:	RRU1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1630		Upstream		Downstream	
Scenario:	Existing	Invert:	8.67 ft	Invert:	8.39 ft
From Node:	NRU1630	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	420.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1650		Upstream		Downstream	
Scenario:	Existing	Invert:	8.81 ft	Invert:	8.67 ft
From Node:	NRU1650	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NRU1630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	210.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1670		Upstream		Downstream	
Scenario:	Existing	Invert:	8.92 ft	Invert:	8.81 ft
From Node:	NRU1670	Manning's N:	0.0190	Manning's N:	0.0190
To Node:	NRU1650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1690		Upstream		Downstream	
Scenario:	Existing	Invert:	9.39 ft	Invert:	8.92 ft
From Node:	NRU1690	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	700.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.31 ft	Invert:	17.30 ft
From Node:	NRU1690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2210	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1690OW	Cross Section:	RRU1690OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1710		Upstream		Downstream	
Scenario:	Existing	Invert:	11.04 ft	Invert:	10.31 ft
From Node:	NRU1710	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	365.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU1730			
Scenario:	Existing	Bottom Clip	
From Node:	NRU1730	Default:	0.00 ft
To Node:	NRU1710	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.95 ft	Discharge Coefficients	
Control Elevation:	12.95 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RRU1750		Upstream		Downstream	
Scenario:	Existing	Invert:	12.97 ft	Invert:	12.88 ft
From Node:	NRU1750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1730	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	16.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1770		Upstream		Downstream	
Scenario:	Existing	Invert:	12.88 ft	Invert:	12.90 ft
From Node:	NRU1770	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1750	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	215.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.67 ft	Invert:	15.66 ft
From Node:	NRU1770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1730	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1770OW	Cross Section:	RRU1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1790		Upstream		Downstream	
Scenario:	Existing	Invert:	14.16 ft	Invert:	13.37 ft
From Node:	NRU1790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1790OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.91 ft	Invert:	17.90 ft
From Node:	NRU1790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1790OW	Cross Section:	RRU1790OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1810		Upstream		Downstream	
Scenario:	Existing	Invert:	15.84 ft	Invert:	14.16 ft

From Node:	NRU1810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	430.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1810OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.87 ft	Invert:	14.86 ft
From Node:	NRU1810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1730	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1810OW	Cross Section:	RRU1810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1830		Upstream		Downstream	
Scenario:	Existing	Invert:	13.23 ft	Invert:	12.88 ft
From Node:	NRU1830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	167.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1830OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.98 ft	Invert:	17.97 ft
From Node:	NRU1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1910	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1830OW	Cross Section:	RRU1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1850		Upstream		Downstream	
Scenario:	Existing	Invert:	10.80 ft	Invert:	10.15 ft
From Node:	NRU1850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1690	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	220.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1870		Upstream		Downstream	
Scenario:	Existing	Invert:	10.93 ft	Invert:	10.33 ft
From Node:	NRU1870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1850	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	140.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1890		Upstream		Downstream	
Scenario:	Existing	Invert:	11.14 ft	Invert:	10.93 ft
From Node:	NRU1890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1910		Upstream		Downstream	
Scenario:	Existing	Invert:	12.56 ft	Invert:	11.14 ft
From Node:	NRU1910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1011.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1910OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.16 ft	Invert:	17.15 ft
From Node:	NRU1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1890	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1910OW	Cross Section:	RRU1910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1930		Upstream		Downstream	
Scenario:	Existing	Invert:	7.79 ft	Invert:	7.66 ft
From Node:	NRU1930	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1530	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	106.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1930OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.82 ft	Invert:	13.81 ft
From Node:	NRU1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1930OW	Cross Section:	RRU1930OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1950		Upstream		Downstream	
Scenario:	Existing	Invert:	8.41 ft	Invert:	7.79 ft
From Node:	NRU1950	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	520.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1970		Upstream		Downstream	
Scenario:	Existing	Invert:	8.62 ft	Invert:	8.61 ft
From Node:	NRU1970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1950	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1990		Upstream		Downstream	
Scenario:	Existing	Invert:	8.82 ft	Invert:	8.62 ft
From Node:	NRU1990	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1970	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	168.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RRU1990OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.67 ft	Invert:	17.66 ft
From Node:	NRU1990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1550	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1990OW	Cross Section:	RRU1990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU2010		Upstream		Downstream	
Scenario:	Existing	Invert:	9.79 ft	Invert:	8.96 ft
From Node:	NRU2010	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	822.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2010OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.73 ft	Invert:	18.72 ft
From Node:	NRU2010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2010OW	Cross Section:	RRU2010OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2030		Upstream		Downstream	
Scenario:	Existing	Invert:	10.63 ft	Invert:	10.29 ft
From Node:	NRU2030	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2010	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	172.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2030OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.35 ft	Invert:	18.34 ft

From Node:	NRU2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2030OW	Cross Section:	RRU2030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2050		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.78 ft
From Node:	NRU2050	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2030	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2070			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2070	Default:	0.00 ft
To Node:	NRU2050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.43 ft	Discharge Coefficients	
Control Elevation:	18.43 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment:

Weir Link: RRU2070A			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2070	Default:	0.00 ft
To Node:	NRU2050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.31 ft	Discharge Coefficients	
Control Elevation:	17.31 ft	Weir Default:	3.200
Max Depth:	18.43 ft	Weir Table:	
Max Width:	3.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RRU2070OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.95 ft	Invert:	19.94 ft
From Node:	NRU2070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2070OW	Cross Section:	RRU2070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2090		Upstream		Downstream	
Scenario:	Existing	Invert:	8.95 ft	Invert:	8.82 ft
From Node:	NRU2090	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1990	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	109.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.80 ft	Invert:	18.79 ft
From Node:	NRU2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2090	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2090OW	Cross Section:	RRU2090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2110		Upstream		Downstream	
Scenario:	Existing	Invert:	9.20 ft	Invert:	8.95 ft
From Node:	NRU2110	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	204.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.02 ft	Invert:	18.01 ft
From Node:	NRU2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2110OW	Cross Section:	RRU2110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU2130		Upstream		Downstream	
Scenario:	Existing	Invert:	9.73 ft	Invert:	9.20 ft
From Node:	NRU2130	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2110	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	442.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RRU2130OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.54 ft	Invert:	18.53 ft
From Node:	NRU2130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2130OW	Cross Section:	RRU2130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2150		Upstream		Downstream	
Scenario:	Existing	Invert:	10.48 ft	Invert:	9.75 ft
From Node:	NRU2150	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	367.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2150OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.45 ft	Invert:	18.44 ft
From Node:	NRU2150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2190	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2150OW	Cross Section:	RRU2150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2170		Upstream		Downstream	
Scenario:	Existing	Invert:	13.23 ft	Invert:	10.48 ft

From Node:	NRU2170	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	684.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2190

Scenario:	Existing	Bottom Clip	
From Node:	NRU2190	Default:	0.00 ft
To Node:	NRU2170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.23 ft	Discharge Coefficients	
Control Elevation:	18.23 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RRU2190A

Scenario:	Existing	Bottom Clip	
From Node:	NRU2190	Default:	0.00 ft
To Node:	NRU2170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.96 ft	Discharge Coefficients	
Control Elevation:	15.96 ft	Weir Default:	3.200
Max Depth:	16.46 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RRU2190OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.29 ft	Invert:	18.28 ft
From Node:	NRU2190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2190OW	Cross Section:	RRU2190OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2210		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.46 ft
From Node:	NRU2210	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2130	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	140.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2230			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2230	Default:	0.00 ft
To Node:	NRU2210	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	18.73 ft
Control Elevation:	18.73 ft
Max Depth:	9999.00 ft
Max Width:	14.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RRU2230A

Scenario:	Existing
From Node:	NRU2230
To Node:	NRU2210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	16.63 ft
Control Elevation:	16.63 ft
Max Depth:	17.13 ft
Max Width:	3.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RRU2230OW

Scenario:	Existing
From Node:	NRU2230
To Node:	NRU2410
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	16.99 ft	Invert:	16.98 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry:	Irregular	Geometry:	Irregular
Cross Section:	RRU2230OW	Cross Section:	RRU2230OW

Comment:

Weir Link: RRU2250			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2250	Default:	0.00 ft
To Node:	NRU2530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.53 ft	Discharge Coefficients	
Control Elevation:	18.53 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RRU2250A		Upstream		Downstream	
Scenario:	Existing	Invert:	14.13 ft	Invert:	13.99 ft
From Node:	NRU2250	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RRU2250B			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2250	Default:	0.00 ft
To Node:	NRU2530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.63 ft	Discharge Coefficients	
Control Elevation:	16.63 ft	Weir Default:	3.200
Max Depth:	18.53 ft	Weir Table:	

Max Width:	1.90 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Channel Link: RRU2250OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.71 ft	Invert:	17.70 ft
From Node:	NRU2250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2430	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2250OW	Cross Section:	RRU2250OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2270		Upstream		Downstream	
Scenario:	Existing	Invert:	9.89 ft	Invert:	9.73 ft
From Node:	NRU2270	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.33 ft	Invert:	18.32 ft
From Node:	NRU2270	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NRU2230	Cross Section:	RRU2270OW	Cross Section:	RRU2270OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2290		Upstream		Downstream	
Scenario:	Existing	Invert:	10.27 ft	Invert:	9.89 ft
From Node:	NRU2290	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	233.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2290OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.40 ft	Invert:	18.39 ft
From Node:	NRU2310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2290	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2290OW	Cross Section:	RRU2290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RRU2310		Upstream		Downstream	
Scenario:	Existing	Invert:	10.89 ft	Invert:	10.62 ft
From Node:	NRU2310	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2290	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	180.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2330		Upstream		Downstream	
Scenario:	Existing	Invert:	11.21 ft	Invert:	10.89 ft
From Node:	NRU2330	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2310	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	160.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.06 ft	Invert:	19.05 ft
From Node:	NRU2330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2330OW	Cross Section:	RRU2330OW

Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2350		Upstream		Downstream	
Scenario:	Existing	Invert:	12.36 ft	Invert:	11.81 ft
From Node:	NRU2350	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	110.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2370		Upstream		Downstream	
Scenario:	Existing	Invert:	13.28 ft	Invert:	12.36 ft
From Node:	NRU2370	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	184.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2390			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2390	Default:	0.00 ft
To Node:	NRU2370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.53 ft	Discharge Coefficients	
Control Elevation:	18.53 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RRU2390A			
Scenario:	Existing	Bottom Clip	
From Node:	NRU2390	Default:	0.00 ft
To Node:	NRU2370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.48 ft	Discharge Coefficients	
Control Elevation:	15.48 ft	Weir Default:	3.200
Max Depth:	16.46 ft	Weir Table:	
Max Width:	1.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RRU2390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.27 ft	Invert:	19.26 ft
From Node:	NRU2390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2330	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2390OW	Cross Section:	RRU2390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2410		Upstream		Downstream	
Scenario:	Existing	Invert:	11.48 ft	Invert:	10.96 ft
From Node:	NRU2410	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2310	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	261.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2430		Upstream		Downstream	
Scenario:	Existing	Invert:	12.03 ft	Invert:	11.48 ft
From Node:	NRU2430	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	275.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.61 ft	Invert:	17.60 ft
From Node:	NRU2430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RRU2430OW	Cross Section:	RRU2430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2450		Upstream		Downstream	
Scenario:	Existing	Invert:	12.43 ft	Invert:	12.03 ft
From Node:	NRU2450	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	205.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.83 ft	Invert:	17.82 ft
From Node:	NRU2450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2450OW	Cross Section:	RRU2450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2470		Upstream		Downstream	
Scenario:	Existing	Invert:	9.77 ft	Invert:	7.50 ft
From Node:	NRU2470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1530	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	282.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2490		Upstream		Downstream	
Scenario:	Existing	Invert:	10.96 ft	Invert:	10.04 ft
From Node:	NRU2490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU2470	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	400.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.29 ft	Invert:	17.28 ft
From Node:	NRU2490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2490OW	Cross Section:	RRU2490OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2510		Upstream		Downstream	
Scenario:	Existing	Invert:	14.17 ft	Invert:	11.15 ft
From Node:	NRU2510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU2490	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	290.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2530		Upstream		Downstream	
Scenario:	Existing	Invert:	14.06 ft	Invert:	13.17 ft
From Node:	NRU2530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU2510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2550		Upstream		Downstream	
Scenario:	Existing	Invert:	8.59 ft	Invert:	8.08 ft
From Node:	NRU2550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	517.06 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU2570		Upstream		Downstream	
Scenario:	Existing	Invert:	9.87 ft	Invert:	9.09 ft
From Node:	NRU2570	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	550.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.26 ft	Invert:	17.25 ft
From Node:	NRU2570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2550	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2570OW	Cross Section:	RRU2570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2590		Upstream		Downstream	
Scenario:	Existing	Invert:	11.03 ft	Invert:	10.37 ft
From Node:	NRU2590	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	389.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2590OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.15 ft	Invert:	18.14 ft
From Node:	NRU2590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2570	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2590OW	Cross Section:	RRU2590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2610		Upstream		Downstream	
Scenario:	Existing	Invert:	11.40 ft	Invert:	11.03 ft

From Node:	NRU2610	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU2590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	235.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2610OW		Upstream		Downstream	
Scenario:	Existing	Invert:	18.11 ft	Invert:	18.10 ft
From Node:	NRU2610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2570	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2610OW	Cross Section:	RRU2610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2630		Upstream		Downstream	
Scenario:	Existing	Invert:	12.23 ft	Invert:	11.90 ft
From Node:	NRU2630	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	307.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2650		Upstream		Downstream	
Scenario:	Existing	Invert:	13.39 ft	Invert:	12.89 ft
From Node:	NRU2650	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2630	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	315.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2650OW		Upstream		Downstream	
Scenario:	Existing	Invert:	19.04 ft	Invert:	19.03 ft
From Node:	NRU2650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2650OW	Cross Section:	RRU2650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2670		Upstream		Downstream	
Scenario:	Existing	Invert:	9.59 ft	Invert:	8.52 ft
From Node:	NRU2670	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU1410	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	535.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.41 ft	Invert:	16.40 ft
From Node:	NRU2670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1430	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2670OW	Cross Section:	RRU2670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2690		Upstream		Downstream	
Scenario:	Existing	Invert:	10.69 ft	Invert:	9.59 ft
From Node:	NRU2690	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU2670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	550.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2690OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.74 ft	Invert:	15.73 ft
From Node:	NRU2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0310	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2690OW	Cross Section:	RRU2690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSH04		Upstream		Downstream	
Scenario:	Existing	Invert:	11.89 ft	Invert:	10.71 ft
From Node:	NSH04	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N05	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1233.90 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH07		Upstream		Downstream	
Scenario:	Existing	Invert:	2.29 ft	Invert:	0.50 ft
From Node:	NSH07	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	163.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH08		Upstream		Downstream	
Scenario:	Existing	Invert:	5.75 ft	Invert:	0.50 ft
From Node:	NSH08	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.80 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH09		Upstream		Downstream	
Scenario:	Existing	Invert:	5.45 ft	Invert:	0.50 ft
From Node:	NSH09	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	161.80 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH21		Upstream		Downstream	
Scenario:	Existing	Invert:	7.78 ft	Invert:	4.89 ft
From Node:	NSH21	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NSH75	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	255.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans - Stormwater Map As-builts page 131

Pipe Link: RSH22		Upstream		Downstream	
Scenario:	Existing	Invert:	9.89 ft	Invert:	8.93 ft
From Node:	NSH22	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH26	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	321.20 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH24		Upstream		Downstream	
Scenario:	Existing	Invert:	9.96 ft	Invert:	9.89 ft
From Node:	NSH24	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH22	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH25		Upstream		Downstream	
Scenario:	Existing	Invert:	10.17 ft	Invert:	8.24 ft
From Node:	NSH25	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH26	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	193.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH26		Upstream		Downstream	
Scenario:	Existing	Invert:	8.24 ft	Invert:	7.36 ft
From Node:	NSH26	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH27A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	291.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH27A		Upstream		Downstream	
Scenario:	Existing	Invert:	7.36 ft	Invert:	6.78 ft

From Node:	NSH27A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH27B	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	194.40 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH27AA		Upstream		Downstream	
Scenario:	Existing	Invert:	9.74 ft	Invert:	9.74 ft
From Node:	NSH27AA	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NSH27A	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.83 ft	Max Depth:	1.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 10835

Pipe Link: RSH27B		Upstream		Downstream	
Scenario:	Existing	Invert:	6.78 ft	Invert:	3.74 ft
From Node:	NSH27B	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH27C	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	404.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RSH27C		Upstream		Downstream	
Scenario:	Existing	Invert:	3.74 ft	Invert:	2.39 ft
From Node:	NSH27C	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH36	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	197.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RSH29		Upstream		Downstream	
Scenario:	Existing	Invert:	6.51 ft	Invert:	0.50 ft
From Node:	NSH29	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	138.40 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSH34		Upstream		Downstream	
Scenario:	Existing	Invert:	6.05 ft	Invert:	0.50 ft
From Node:	NSH34	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	172.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH35		Upstream		Downstream	
Scenario:	Existing	Invert:	4.29 ft	Invert:	2.39 ft
From Node:	NSH35	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH36	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	63.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH36		Upstream		Downstream	
Scenario:	Existing	Invert:	2.39 ft	Invert:	0.50 ft
From Node:	NSH36	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	66.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH42		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.00 ft	Invert:	-3.94 ft
From Node:	NSH42	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	107.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH43		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.57 ft	Invert:	-1.00 ft
From Node:	NSH43	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH42	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.20 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH44		Upstream		Downstream	
Scenario:	Existing	Invert:	5.49 ft	Invert:	0.50 ft
From Node:	NSH44	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	159.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH50		Upstream		Downstream	
Scenario:	Existing	Invert:	12.32 ft	Invert:	12.16 ft
From Node:	NSH50	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH52	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	288.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH52		Upstream		Downstream	
Scenario:	Existing	Invert:	12.22 ft	Invert:	12.15 ft
From Node:	NSH52	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH54	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	61.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH53		Upstream		Downstream	
Scenario:	Existing	Invert:	13.37 ft	Invert:	12.35 ft
From Node:	NSH53	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH52	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	48.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH54		Upstream		Downstream	
Scenario:	Existing	Invert:	12.15 ft	Invert:	11.89 ft
From Node:	NSH54	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH04	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	263.80 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH55		Upstream		Downstream	
Scenario:	Existing	Invert:	12.56 ft	Invert:	12.22 ft
From Node:	NSH55	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH52	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	337.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH56		Upstream		Downstream	
Scenario:	Existing	Invert:	13.10 ft	Invert:	12.56 ft
From Node:	NSH56	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH55	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	270.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH57		Upstream		Downstream	
Scenario:	Existing	Invert:	13.14 ft	Invert:	13.10 ft
From Node:	NSH57	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH56	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	24.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 2417, Field

Pipe Link: RSH61		Upstream		Downstream	
Scenario:	Existing	Invert:	13.40 ft	Invert:	13.30 ft

From Node:	NSH61	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH50	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	8.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 31682

Pipe Link: RSH65		Upstream		Downstream	
Scenario:	Existing	Invert:	20.49 ft	Invert:	19.94 ft
From Node:	NSH65	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH50	Geometry: Circular		Geometry: Circular	
Link Count:	4	Max Depth:	0.33 ft	Max Depth:	0.33 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	19.83 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 28940

Pipe Link: RSH65B		Upstream		Downstream	
Scenario:	Existing	Invert:	20.49 ft	Invert:	20.41 ft
From Node:	NSH65	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH50	Geometry: Circular		Geometry: Circular	
Link Count:	4	Max Depth:	0.33 ft	Max Depth:	0.33 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	16.17 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 28940

Pipe Link: RSH75		Upstream		Downstream	
Scenario:	Existing	Invert:	1.42 ft	Invert:	-0.57 ft
From Node:	NSH75	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH43	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	56.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans - Stormwater Map As-builts page 131

Channel Link: RSR0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.52 ft	Invert:	-1.57 ft
From Node:	NSR0030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0010	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0030	Cross Section:	RSR0030
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1200.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0032OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.06 ft	Invert:	4.05 ft
From Node:	NSR0032	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0030	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RSR0032OW	Cross Section:	RSR0032OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0034OW		Upstream		Downstream	
Scenario:	Existing	Invert:	1.77 ft	Invert:	1.76 ft
From Node:	NSR0034	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0034OW	Cross Section:	RSR0034OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0050		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.47 ft	Invert:	-1.52 ft
From Node:	NSR0050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0050	Cross Section:	RSR0050
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1200.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0070		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.86 ft	Invert:	-0.97 ft
From Node:	NSR0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0090		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.37 ft	Invert:	-0.86 ft
From Node:	NSR0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0070	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	384.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0090A		Upstream		Downstream	
Scenario:	Existing	Invert:	0.50 ft	Invert:	0.40 ft
From Node:	NBW0090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0090OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.06 ft	Invert:	3.05 ft
From Node:	NSR0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0034	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0090OW	Cross Section:	RSR0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0100		Upstream		Downstream	
Scenario:	Existing	Invert:	1.00 ft	Invert:	0.50 ft
From Node:	NSR0100	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0005	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	95.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0100OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0100	Default:	0.00 ft
To Node:	NSR0005	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.60 ft	**Discharge Coefficients**	
Control Elevation:	5.60 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0102OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0102	Default:	0.00 ft
To Node:	NSR0100	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.50 ft	**Discharge Coefficients**	
Control Elevation:	5.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0102OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0102	Default:	0.00 ft
To Node:	NSR0105	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.70 ft	**Discharge Coefficients**	
Control Elevation:	4.70 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600

Fillet: 0.00 ft

Orifice Table:

Comment:

Channel Link: RSR0105		Upstream		Downstream	
Scenario:	Existing	Invert:	3.40 ft	Invert:	-0.01 ft
From Node:	NSR0105	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0000	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	146.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0110		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.37 ft	Invert:	-1.87 ft
From Node:	NSR0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0050	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	256.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.84 ft	Invert:	3.83 ft
From Node:	NSR0110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0050	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RSR0110OW	Cross Section:	RSR0110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0112		Upstream		Downstream	
Scenario:	Existing	Invert:	3.06 ft	Invert:	2.97 ft
From Node:	NSR0112	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0102	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0112OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0112	Default:	0.00 ft
To Node:	NSR0102	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.60 ft	Discharge Coefficients	
Control Elevation:	4.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0112OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	4.10 ft	Invert:	3.60 ft
From Node:	NSR0112	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0105	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	117.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0115		Upstream		Downstream	
Scenario:	Existing	Invert:	1.80 ft	Invert:	1.60 ft
From Node:	NSR0115	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NSR0102	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RSR0115OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0115	Default:	0.00 ft
To Node:	NSR0102	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.75 ft	Discharge Coefficients	
Control Elevation:	4.75 ft	Weir Default:	2.600

Max Depth:	9999.00 ft		
Max Width:	25.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0120

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0120	Default:	0.00 ft
To Node:	NSR0112	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.20 ft	**Discharge Coefficients**	
Control Elevation:	4.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	120.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0120OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.20 ft	Invert:	3.90 ft
From Node:	NSR0120	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0115	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	170.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0130		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.86 ft	Invert:	-1.37 ft
From Node:	NSR0130	Manning's N:	0.0120	Manning's N:	0.0120

		Geometry: Circular		Geometry: Circular	
To Node:	NSR0110	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	365.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.20	Top Clip			
Exit Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0130OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.70 ft	Invert:	4.00 ft
From Node:	NSR0130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0110	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	362.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0135		Upstream		Downstream	
Scenario:	Existing	Invert:	0.50 ft	Invert:	0.24 ft
From Node:	NSR0135	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: RSR0135OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.00 ft	Invert:	4.60 ft
From Node:	NSR0135	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0130	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	316.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0135OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	5.50 ft	Invert:	4.20 ft
From Node:	NSR0135	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0100	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	323.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0135OWB		Bottom Clip	
Scenario:	Existing	Default:	0.00 ft
From Node:	NSR0135	Op Table:	
To Node:	NSR0115	Ref Node:	
Link Count:	1		

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.60 ft
Control Elevation:	5.60 ft
Max Depth:	9999.00 ft
Max Width:	25.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR0140OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	5.20 ft	Invert:	4.70 ft
From Node:	NSR0140	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0135	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	298.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0140OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	5.20 ft	Invert:	4.20 ft
From Node:	NSR0140	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0120	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	214.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0150		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.11 ft	Invert:	-3.77 ft
From Node:	NSR0150	Manning's N:	0.0260	Manning's N:	0.0260
To Node:	NSR0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	150.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0150A		Upstream		Downstream	
Scenario:	Existing	Invert:	-3.20 ft	Invert:	-3.80 ft
From Node:	NSR0150	Manning's N:	0.0260	Manning's N:	0.0260
To Node:	NSR0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	150.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0160OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0160	Default:	0.00 ft
To Node:	NSR0140	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft

Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.40 ft
Control Elevation:	5.40 ft
Max Depth:	9999.00 ft
Max Width:	164.00 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR0160OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	5.20 ft	Invert:	4.70 ft
From Node:	NSR0160	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0165	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	304.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0160OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	5.00 ft	Invert:	4.10 ft
From Node:	NSR0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0160	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0160OWD			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0160	Default:	0.00 ft
To Node:	NSR0140	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.60 ft	Discharge Coefficients	
Control Elevation:	5.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	300.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0165		Upstream		Downstream	
Scenario:	Existing	Invert:	0.75 ft	Invert:	-0.01 ft
From Node:	NSR0165	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	380.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RSR0165OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0165	Default:	0.00 ft
To Node:	NSR0135	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.30 ft	Discharge Coefficients	
Control Elevation:	5.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	130.00 ft
Fillet:	0.00 ft

Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR0165OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	5.00 ft	Invert:	4.10 ft
From Node:	NSR0165	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	504.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0165OWC		Bottom Clip	
Scenario:	Existing	Default:	0.00 ft
From Node:	NSR0165	Op Table:	
To Node:	NSR0135	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	5.60 ft	Weir Default:	2.600
Control Elevation:	5.60 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	200.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Pipe Link: RSR0170		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.87 ft	Invert:	-1.97 ft
From Node:	NSR0170	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0150	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	38.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0170OWA

Scenario:	Existing	Bottom Clip	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.10 ft	Discharge Coefficients	
Control Elevation:	5.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0170OWB

Scenario:	Existing	Bottom Clip	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	Discharge Coefficients	
Control Elevation:	5.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	125.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0170OWC			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.00 ft	Discharge Coefficients	
Control Elevation:	5.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RSR0170OWD			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.30 ft	Discharge Coefficients	
Control Elevation:	5.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	100.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0180		Upstream		Downstream	
Scenario:	Existing	Invert:	0.50 ft	Invert:	-0.70 ft
From Node:	NSR0180	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0180OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW1090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.60 ft	**Discharge Coefficients**	
Control Elevation:	4.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0180OWA

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.10 ft	**Discharge Coefficients**	
Control Elevation:	5.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	300.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0180OWC

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.50 ft
Control Elevation:	5.50 ft
Max Depth:	9999.00 ft
Max Width:	300.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0180OWD

Scenario:	Existing
From Node:	NSR0180
To Node:	NSR0160
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.40 ft
Control Elevation:	5.40 ft
Max Depth:	9999.00 ft
Max Width:	36.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0190

Scenario:	Existing
From Node:	NSR0190
To Node:	NSR0150
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	42.00 ft
FHWA Code:	0
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	-1.32 ft	Invert:	-1.48 ft
Manning's N:	0.0160	Manning's N:	0.0160
Geometry: Horizontal Ellipse		**Geometry: Horizontal Ellipse**	
Max Depth:	2.00 ft	Max Depth:	2.00 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0190OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.98 ft	Invert:	3.97 ft
From Node:	NSR0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0890	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0190OW	Cross Section:	RSR0190OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0210		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.03 ft	Invert:	-1.32 ft
From Node:	NSR0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0190	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RSR0230		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.58 ft	Invert:	-1.03 ft
From Node:	NSR0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0210	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	118.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0230OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.46 ft	Invert:	3.45 ft
From Node:	NSR0230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0230OW	Cross Section:	RSR0230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0250		Upstream		Downstream	
Scenario:	Existing	Invert:	-2.40 ft	Invert:	-3.20 ft
From Node:	NSR0250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0250	Cross Section:	RSR0250
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	600.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	2.80 ft	Invert:	2.79 ft

From Node:	NSR0270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0270OW	Cross Section:	RSR0270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0280OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.50 ft	Invert:	3.90 ft
From Node:	NSR0280	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	266.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0280OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	6.30 ft	Invert:	4.50 ft
From Node:	NSR0280	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	417.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location: 0.00 dec
Energy Switch: Energy
Comment:

Weir Link: RSR0280OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0280	Default:	0.00 ft
To Node:	NSR0560	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.50 ft	**Discharge Coefficients**	
Control Elevation:	6.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	25.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0280OWC

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0280	Default:	0.00 ft
To Node:	NSR0540	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.70 ft	**Discharge Coefficients**	
Control Elevation:	5.70 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	180.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0280OWD

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0280	Default:	0.00 ft
To Node:	NSR0540	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.00 ft
Control Elevation:	6.00 ft
Max Depth:	9999.00 ft
Max Width:	270.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR0281OWA

Scenario:	Existing
From Node:	NSR0281
To Node:	NSR0280
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	385.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	6.00 ft	Invert:	5.50 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry: Irregular		Geometry: Irregular	
Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF

Comment:

Pipe Link: RSR0290

Scenario:	Existing
From Node:	NSR0290
To Node:	NSR0490
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	670.00 ft
FHWA Code:	0
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	0.13 ft	Invert:	-1.32 ft
Manning's N:	0.0120	Manning's N:	0.0120
Geometry: Circular		Geometry: Circular	
Max Depth:	3.50 ft	Max Depth:	3.50 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0290OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.23 ft	Invert:	6.22 ft
From Node:	NSR0290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0290OW	Cross Section:	RSR0290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RSR0290OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	6.70 ft	Invert:	3.50 ft
From Node:	NSR0290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	645.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0310		Upstream		Downstream	
Scenario:	Existing	Invert:	2.97 ft	Invert:	0.63 ft
From Node:	NSR0310	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0290	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0310OW		Upstream		Downstream	
Scenario:	Existing	Invert:	9.00 ft	Invert:	6.60 ft
From Node:	NSR0310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	458.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0310OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	10.00 ft	Invert:	9.40 ft
From Node:	NSR0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0310	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	666.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0330		Upstream		Downstream	
Scenario:	Existing	Invert:	4.52 ft	Invert:	3.98 ft

From Node:	NSR0330	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	32.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0350		Upstream		Downstream	
Scenario:	Existing	Invert:	5.23 ft	Invert:	4.52 ft
From Node:	NSR0350	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	17.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0370			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0370	Default:	0.00 ft
To Node:	NSR0350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.83 ft	Discharge Coefficients	
Control Elevation:	9.83 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment:

Weir Link: RSR0370A			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0370	Default:	0.00 ft
To Node:	NSR0350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.45 ft	Discharge Coefficients	
Control Elevation:	9.45 ft	Weir Default:	3.200
Max Depth:	0.38 ft	Weir Table:	
Max Width:	0.25 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0390		Upstream		Downstream	
Scenario:	Existing	Invert:	5.48 ft	Invert:	3.47 ft
From Node:	NSR0390	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	664.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0390OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.10 ft	Invert:	10.00 ft
From Node:	NSR0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0790	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL

Flow Direction:	Both
Damping:	0.0000 ft
Length:	628.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0390OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	12.00 ft	Invert:	8.80 ft
From Node:	NSR0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0310	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	606.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0390OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	12.60 ft	Invert:	6.00 ft
From Node:	NSR0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0281	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	620.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0410		Upstream		Downstream	
Scenario:	Existing	Invert:	7.06 ft	Invert:	6.72 ft
From Node:	NSR0410	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0430			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0410	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.83 ft	Discharge Coefficients	
Control Elevation:	11.83 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0430A			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0410	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.53 ft	Discharge Coefficients	
Control Elevation:	11.53 ft	Weir Default:	3.200
Max Depth:	0.25 ft	Weir Table:	

Max Width:	0.25 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0430OWD			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.14 ft	Discharge Coefficients	
Control Elevation:	13.14 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0450		Upstream		Downstream	
Scenario:	Existing	Invert:	8.24 ft	Invert:	5.55 ft
From Node:	NSR0450	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	632.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.80 ft	Invert:	11.60 ft
From Node:	NSR0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0390	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	628.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0470		Upstream		Downstream	
Scenario:	Existing	Invert:	7.83 ft	Invert:	8.24 ft
From Node:	NSR0470	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0470OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0470	Default:	0.00 ft
To Node:	NSR0390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	14.30 ft	Discharge Coefficients	
Control Elevation:	14.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	68.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0490		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.33 ft	Invert:	-2.40 ft
From Node:	NSR0490	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR0890	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	200.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	3.82 ft	Invert:	3.81 ft
From Node:	NSR0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0270	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0490OW	Cross Section:	RSR0490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0510		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.45 ft	Invert:	-1.54 ft
From Node:	NSR0510	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR0490	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	339.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0510OWB

Scenario:	Existing	Bottom Clip	
From Node:	NSR0510	Default:	0.00 ft
To Node:	NSR0490	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.20 ft	Discharge Coefficients	
Control Elevation:	4.20 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0530

		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.27 ft	Invert:	-0.37 ft
From Node:	NSR0530	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	47.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0530OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0530	Default:	0.00 ft
To Node:	NSR0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.10 ft	**Discharge Coefficients**	
Control Elevation:	5.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0530OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0530	Default:	0.00 ft
To Node:	NSR0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.30 ft	**Discharge Coefficients**	
Control Elevation:	5.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0530OWC

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0530	Default:	0.00 ft
To Node:	NSR0170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	**Discharge Coefficients**	
Control Elevation:	5.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	30.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0540		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.38 ft	Invert:	-1.45 ft
From Node:	NSR0540	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0510	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	230.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0540OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.50 ft	Discharge Coefficients	
Control Elevation:	4.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0540OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft

To Node:	NSR0165		
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	5.00 ft	Ref Node:	
Control Elevation:	5.00 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	20.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0540OWB

Scenario:	Existing	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.40 ft	Discharge Coefficients	
Control Elevation:	5.40 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	60.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0540OWC

Scenario:	Existing	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	Discharge Coefficients	
Control Elevation:	5.20 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0540OWD			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.90 ft	Discharge Coefficients	
Control Elevation:	5.90 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	70.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0550		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.29 ft	Invert:	-1.38 ft
From Node:	NSR0550	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0540	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	60.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RSR0550OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0550	Default:	0.00 ft
To Node:	NSR0540	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.20 ft	Discharge Coefficients	

Control Elevation:	4.20 ft
Max Depth:	9999.00 ft
Max Width:	70.00 ft
Fillet:	0.00 ft

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0550OWB

Scenario:	Existing
From Node:	NSR0550
To Node:	NSR0165
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.20 ft
Control Elevation:	5.20 ft
Max Depth:	9999.00 ft
Max Width:	115.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0560

Scenario:	Existing
From Node:	NSR0560
To Node:	NSR0550
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	150.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream	
Invert:	-1.06 ft
Manning's N:	0.0130
Geometry: Rectangular	
Max Depth:	3.50 ft
Max Width:	6.00 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream	
Invert:	-1.29 ft
Manning's N:	0.0130
Geometry: Rectangular	
Max Depth:	3.50 ft
Max Width:	6.00 ft
Fillet:	0.00 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Comment:

Weir Link: RSR0560OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0560	Default:	0.00 ft
To Node:	NSR0550	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.20 ft	**Discharge Coefficients**	
Control Elevation:	4.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	65.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0560OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0560	Default:	0.00 ft
To Node:	NSR0550	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.50 ft	**Discharge Coefficients**	
Control Elevation:	4.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	70.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0560OWC

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0560	Default:	0.00 ft
To Node:	NSR0160	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.80 ft	**Discharge Coefficients**	
Control Elevation:	5.80 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	75.00 ft	Orifice Default:	0.600

Fillet: 0.00 ft

Orifice Table:

Comment:

Pipe Link: RSR0570		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.80 ft	Invert:	-1.06 ft
From Node:	NSR0570	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0560	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	480.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.00 ft	Invert:	3.90 ft
From Node:	NSR0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0560	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	328.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0570OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	5.40 ft	Invert:	4.90 ft

From Node:	NSR0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0180	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	131.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0570OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.30 ft	**Discharge Coefficients**	
Control Elevation:	5.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	300.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0570OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	6.40 ft	Invert:	5.50 ft
From Node:	NSR0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	562.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RSR0580		Upstream		Downstream	
Scenario:	Existing	Invert:	0.86 ft	Invert:	0.28 ft
From Node:	NSR0580	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	290.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0580OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0580	Default:	0.00 ft
To Node:	NSR0650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.40 ft	Discharge Coefficients	
Control Elevation:	7.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0580OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	5.80 ft	Invert:	4.70 ft
From Node:	NSR0580	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1190	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	220.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Weir Link: RSR0580OWC

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0580	Default:	0.00 ft
To Node:	NSR0610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.70 ft	**Discharge Coefficients**	
Control Elevation:	7.70 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0590

		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.70 ft	Invert:	-0.80 ft
From Node:	NSR0590	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0570	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	631.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0590AOW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0590	Default:	0.00 ft
To Node:	NSR0570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.00 ft	Discharge Coefficients	
Control Elevation:	7.00 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RSR0590OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0590	Default:	0.00 ft
To Node:	NSR0560	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.80 ft	Discharge Coefficients	
Control Elevation:	6.80 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0610		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.40 ft	Invert:	-0.70 ft
From Node:	NSR0610	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0610OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0610	Default:	0.00 ft
To Node:	NSR0590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.70 ft	**Discharge Coefficients**	
Control Elevation:	6.70 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0610OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR0610	Default:	0.00 ft
To Node:	NSR0730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.00 ft	**Discharge Coefficients**	
Control Elevation:	6.00 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	60.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0630

		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.29 ft	Invert:	-0.40 ft
From Node:	NSR0630	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0610	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	**Bottom Clip**			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	52.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0650		Upstream		Downstream	
Scenario:	Existing	Invert:	0.28 ft	Invert:	-0.29 ft
From Node:	NSR0650	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0650OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.80 ft	Invert:	5.50 ft
From Node:	NSR0650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	183.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0650OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0650	Default:	0.00 ft
To Node:	NBW1190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.00 ft	Discharge Coefficients	
Control Elevation:	6.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RSR0650OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0650	Default:	0.00 ft
To Node:	NSR0660	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.30 ft	Discharge Coefficients	
Control Elevation:	6.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0660		Upstream		Downstream	
Scenario:	Existing	Invert:	1.10 ft	Invert:	0.00 ft
From Node:	NSR0660	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1169	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0660OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	5.70 ft	Invert:	4.70 ft
From Node:	NSR0660	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1190	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	268.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0660OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0660	Default:	0.00 ft
To Node:	NBW1169	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.50 ft	Discharge Coefficients	
Control Elevation:	6.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0660OWC			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0660	Default:	0.00 ft
To Node:	NSR0680	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.00 ft
Control Elevation:	6.00 ft
Max Depth:	9999.00 ft
Max Width:	80.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0670		Upstream		Downstream	
Scenario:	Existing	Invert:	0.35 ft	Invert:	0.28 ft
From Node:	NSR0670	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	34.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0680		Upstream		Downstream	
Scenario:	Existing	Invert:	1.72 ft	Invert:	0.72 ft
From Node:	NSR0680	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0680OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	6.10 ft	Invert:	4.20 ft
From Node:	NSR0680	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0570	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	575.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSR0680OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0680	Default:	0.00 ft
To Node:	NSR0650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.50 ft	Discharge Coefficients	
Control Elevation:	6.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	60.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0690		Upstream		Downstream	
Scenario:	Existing	Invert:	0.50 ft	Invert:	0.35 ft
From Node:	NSR0690	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	75.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0710		Upstream		Downstream	
Scenario:	Existing	Invert:	0.72 ft	Invert:	0.50 ft
From Node:	NSR0710	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	112.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0730		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.57 ft	Invert:	-0.70 ft
From Node:	NSR0730	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0590	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	361.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0730OW

Scenario:	Existing
From Node:	NSR0730
To Node:	NSR0590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.80 ft
Control Elevation:	5.80 ft
Max Depth:	9999.00 ft
Max Width:	25.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0730OWA

Scenario:	Existing
From Node:	NSR0730
To Node:	NSR0281
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.50 ft
Control Elevation:	6.50 ft
Max Depth:	9999.00 ft
Max Width:	30.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0730OWB

Scenario:	Existing
From Node:	NSR0730
To Node:	NSR0590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.00 ft
Control Elevation:	6.00 ft
Max Depth:	9999.00 ft
Max Width:	40.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600

Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0770		Upstream		Downstream	
Scenario:	Existing	Invert:	1.26 ft	Invert:	-0.57 ft
From Node:	NSR0770	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	305.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0770OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0770	Default:	0.00 ft
To Node:	NSR0730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.50 ft	Discharge Coefficients	
Control Elevation:	7.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0770OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0770	Default:	0.00 ft

To Node:	NSR0610
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	7.20 ft
Control Elevation:	7.20 ft
Max Depth:	9999.00 ft
Max Width:	20.00 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0780A		Upstream		Downstream	
Scenario:	Existing	Invert:	2.65 ft	Invert:	2.50 ft
From Node:	NSR0780	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	190.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0780OW		Upstream		Downstream	
Scenario:	Existing	Invert:	6.40 ft	Invert:	5.40 ft
From Node:	NSR0780	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	698.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Weir Link: RSR0780OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0780	Default:	0.00 ft
To Node:	NSR0770	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	8.30 ft	Discharge Coefficients	
Control Elevation:	8.30 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0790		Upstream		Downstream	
Scenario:	Existing	Invert:	5.01 ft	Invert:	1.26 ft
From Node:	NSR0790	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0770	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	400.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0790OW		Upstream		Downstream	
Scenario:	Existing	Invert:	10.40 ft	Invert:	6.40 ft
From Node:	NSR0790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0770	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	322.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0790OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	11.00 ft	Invert:	6.00 ft
From Node:	NSR0790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0730	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	630.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0809.1		Upstream		Downstream	
Scenario:	Existing	Invert:	7.46 ft	Invert:	2.35 ft
From Node:	NSR0809	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0790	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	600.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0810B		Upstream		Downstream	
Scenario:	Existing	Invert:	8.70 ft	Invert:	8.65 ft
From Node:	NSR0810	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0809	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0810OW		Upstream		Downstream	
Scenario:	Existing	Invert:	13.00 ft	Invert:	9.40 ft
From Node:	NSR0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	647.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0830B		Upstream		Downstream	
Scenario:	Existing	Invert:	9.41 ft	Invert:	8.05 ft
From Node:	NSR0830	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0810	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	610.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0830OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	15.10 ft	Invert:	13.70 ft
From Node:	NSR0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	408.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0830OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	14.80 ft	Invert:	14.20 ft
From Node:	NSR0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	650.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR083OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.70 ft	Invert:	13.00 ft
From Node:	NSR0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	636.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0840		Upstream		Downstream	
Scenario:	Existing	Invert:	11.86 ft	Invert:	10.69 ft
From Node:	NSR0840	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0850	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	584.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RSR0840OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.80 ft	Invert:	15.20 ft
From Node:	NSR0840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	384.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0840OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	16.10 ft	Invert:	14.60 ft
From Node:	NSR0840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	332.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0850B		Upstream		Downstream	
Scenario:	Existing	Invert:	10.69 ft	Invert:	9.41 ft
From Node:	NSR0850	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0830	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	640.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0850OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.20 ft	Invert:	14.30 ft

From Node:	NSR0850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	643.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0860		Upstream		Downstream	
Scenario:	Existing	Invert:	13.84 ft	Invert:	12.29 ft
From Node:	NSR0860	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2380	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	280.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0860OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.30 ft	Invert:	15.30 ft
From Node:	NSR0860	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2380	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	160.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0860OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	16.40 ft	Invert:	15.20 ft
From Node:	NSR0860	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	272.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0869		Upstream		Downstream	
Scenario:	Existing	Invert:	11.39 ft	Invert:	10.69 ft
From Node:	NSR0869	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0850	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	425.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0870B.1		Upstream		Downstream	
Scenario:	Existing	Invert:	11.74 ft	Invert:	11.50 ft
From Node:	NSR0870	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0869	Geometry:	Rectangular	Geometry:	Rectangular

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	3.50 ft	Max Width:	3.50 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	186.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0870OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.90 ft	Invert:	15.20 ft
From Node:	NSR0870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	500.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0870OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	16.40 ft	Invert:	15.50 ft
From Node:	NSR0870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0840	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	333.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0880		Upstream		Downstream	
Scenario:	Existing	Invert:	11.97 ft	Invert:	11.74 ft
From Node:	NSR0880	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0870	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	115.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0880OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.40 ft	Invert:	15.20 ft
From Node:	NSR0880	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0870	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	120.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0881OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.50 ft	Invert:	17.00 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2410	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	LOCAL_30FT_FULL	Cross Section:	LOCAL_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	616.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0881OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	17.00 ft	Invert:	15.70 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0880	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	828.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0881OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	17.00 ft	Invert:	15.90 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2380	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1217.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0890		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.33 ft	Invert:	-2.40 ft
From Node:	NSR0890	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR0250	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	2	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0890OW		Upstream		Downstream	
Scenario:	Existing	Invert:	2.79 ft	Invert:	2.78 ft
From Node:	NSR0890	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0890OW	Cross Section:	RSR0890OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0910		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.27 ft	Invert:	-2.40 ft
From Node:	NSR0910	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0890	Geometry:	Rectangular	Geometry:	Rectangular

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0910A		Upstream		Downstream	
Scenario:	Existing	Invert:	-1.27 ft	Invert:	-2.40 ft
From Node:	NSR0910	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0890	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0910OW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.57 ft	Invert:	4.56 ft
From Node:	NSR0910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0230	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0910OW	Cross Section:	RSR0910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0930		Upstream		Downstream	
Scenario:	Existing	Invert:	1.02 ft	Invert:	0.92 ft
From Node:	NSR0930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0910	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0950		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.55 ft	Invert:	-1.27 ft
From Node:	NSR0950	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0910	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	700.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0950A		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.55 ft	Invert:	-1.27 ft
From Node:	NSR0950	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0910	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	700.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0950AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.21 ft	Invert:	5.20 ft
From Node:	NSR0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0950AOW	Cross Section:	RSR0950AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0950OW		Upstream		Downstream	
Scenario:	Existing	Invert:	5.16 ft	Invert:	5.15 ft
From Node:	NSR0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0990	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0950OW	Cross Section:	RSR0950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0970		Upstream		Downstream	
Scenario:	Existing	Invert:	0.46 ft	Invert:	-0.55 ft
From Node:	NSR0970	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0950	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0970A		Upstream		Downstream	
Scenario:	Existing	Invert:	0.46 ft	Invert:	-0.55 ft
From Node:	NSR0970	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0950	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0990		Upstream		Downstream	
Scenario:	Existing	Invert:	0.58 ft	Invert:	0.46 ft
From Node:	NSR0990	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR0970	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1010OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1010	Default:	0.00 ft
To Node:	NSR0990	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.50 ft	Discharge Coefficients	
Control Elevation:	5.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR1030		Upstream		Downstream	
Scenario:	Existing	Invert:	4.26 ft	Invert:	0.58 ft
From Node:	NSR1030	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NSR0990	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	4.00 ft	Bottom Width:	4.00 ft
Length:	616.00 ft	Left Slope:	0.520 (h:v)	Left Slope:	0.520 (h:v)
Contraction Coef:	0.00	Right Slope:	0.570 (h:v)	Right Slope:	0.570 (h:v)
Expansion Coef:	0.00	Bottom Clip			

Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1050OW

Scenario:	Existing	Bottom Clip	
From Node:	NSR1050	Default:	0.00 ft
To Node:	NSR1030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.20 ft	Discharge Coefficients	
Control Elevation:	6.20 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR1070

		Upstream		Downstream	
Scenario:	Existing	Invert:	4.76 ft	Invert:	4.37 ft
From Node:	NSR1070	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	70.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1070OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	9.60 ft	Invert:	6.50 ft
From Node:	NSR1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSR1070OWB			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1070	Default:	0.00 ft
To Node:	NSR1010	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.10 ft	Discharge Coefficients	
Control Elevation:	9.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	35.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RSR1070OWC			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1070	Default:	0.00 ft
To Node:	NSR1050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.40 ft	Discharge Coefficients	
Control Elevation:	9.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	176.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RSR1090		Upstream		Downstream	
Scenario:	Existing	Invert:	5.71 ft	Invert:	4.76 ft
From Node:	NSR1090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1070	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	205.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1090OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1090	Default:	0.00 ft
To Node:	NSR1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.20 ft	Discharge Coefficients	
Control Elevation:	11.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	100.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1110OW			
Scenario:	Existing	Bottom Clip	

From Node:	NSR1110		
To Node:	NSR1090	Default:	0.00 ft
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	11.50 ft	Ref Node:	
Control Elevation:	11.50 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	2.400
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR1130OW

Scenario:	Existing	Bottom Clip	
From Node:	NSR1130	Default:	0.00 ft
To Node:	NSR1090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	10.48 ft	Discharge Coefficients	
Control Elevation:	10.48 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1130OWA

Scenario:	Existing	Bottom Clip	
From Node:	NSR1130	Default:	0.00 ft
To Node:	NSR1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.20 ft	Discharge Coefficients	
Control Elevation:	11.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1150			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1150	Default:	0.00 ft
To Node:	NSR1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	10.63 ft	Discharge Coefficients	
Control Elevation:	10.63 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR1150OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.31 ft	Invert:	11.30 ft
From Node:	NSR1150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1130	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1150OW	Cross Section:	RSR1150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1170		Upstream		Downstream	
Scenario:	Existing	Invert:	8.13 ft	Invert:	7.63 ft
From Node:	NSR1170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1190		Upstream		Downstream	
Scenario:	Existing	Invert:	8.80 ft	Invert:	5.87 ft
From Node:	NSR1190	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NSR1090	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	4.00 ft	Bottom Width:	4.00 ft
Length:	436.00 ft	Left Slope:	0.540 (h:v)	Left Slope:	0.540 (h:v)
Contraction Coef:	0.00	Right Slope:	0.550 (h:v)	Right Slope:	0.550 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1210		Upstream		Downstream	
Scenario:	Existing	Invert:	8.68 ft	Invert:	8.58 ft
From Node:	NSR1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Weir Link: RSR1210OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1210	Default:	0.00 ft
To Node:	NSR1190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.30 ft	Discharge Coefficients	
Control Elevation:	12.30 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	45.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR1230		Upstream		Downstream	
Scenario:	Existing	Invert:	9.10 ft	Invert:	8.80 ft
From Node:	NSR1230	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NSR1190	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	4.00 ft	Bottom Width:	4.00 ft
Length:	660.00 ft	Left Slope:	0.520 (h:v)	Left Slope:	0.520 (h:v)
Contraction Coef:	0.00	Right Slope:	0.570 (h:v)	Right Slope:	0.570 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1270		Upstream		Downstream	
Scenario:	Existing	Invert:	9.65 ft	Invert:	9.10 ft

From Node:	NSR1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1270	Cross Section:	RSR1270
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	467.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR1290OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR1290	Default:	0.00 ft
To Node:	NSR1270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.00 ft	**Discharge Coefficients**	
Control Elevation:	13.00 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1310OW

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR1310	Default:	0.00 ft
To Node:	NSR1270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.00 ft	**Discharge Coefficients**	
Control Elevation:	13.00 ft	Weir Default:	2.600
Max Depth:	833.25 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR1330		Upstream		Downstream	
Scenario:	Existing	Invert:	10.06 ft	Invert:	9.98 ft
From Node:	NSR1330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1270	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	5.50 ft	Max Width:	5.50 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	55.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1350		Upstream		Downstream	
Scenario:	Existing	Invert:	11.33 ft	Invert:	11.23 ft
From Node:	NSR1350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	38.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1350OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1350	Default:	0.00 ft
To Node:	NSR1330	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	14.60 ft
Control Elevation:	14.60 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR1370

Scenario:	Existing
From Node:	NSR1370
To Node:	NSR1330
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	640.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream	
Invert:	10.11 ft
Manning's N:	0.0000
Geometry:	Irregular
Cross Section:	RSR1370

Downstream	
Invert:	9.98 ft
Manning's N:	0.0000
Geometry:	Irregular
Cross Section:	RSR1370

Comment:

Weir Link: RSR1390OW

Scenario:	Existing
From Node:	NSR1390
To Node:	NSR1370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	14.50 ft
Control Elevation:	14.50 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR1410		Upstream		Downstream	
Scenario:	Existing	Invert:	12.13 ft	Invert:	11.23 ft
From Node:	NSR1410	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	303.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RSR1410OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.87 ft	Invert:	11.86 ft
From Node:	NSR1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1410OW	Cross Section:	RSR1410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR1430		Upstream		Downstream	
Scenario:	Existing	Invert:	12.49 ft	Invert:	11.23 ft
From Node:	NSR1430	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	619.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1430OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.88 ft	Invert:	14.87 ft
From Node:	NSR1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1430OW	Cross Section:	RSR1430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1450		Upstream		Downstream	
Scenario:	Existing	Invert:	13.63 ft	Invert:	12.49 ft
From Node:	NSR1450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	380.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1450OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.82 ft	Invert:	14.81 ft

From Node:	NSR1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1450OW	Cross Section:	RSR1450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1460		Upstream		Downstream	
Scenario:	Existing	Invert:	8.97 ft	Invert:	8.84 ft
From Node:	NBW1460	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1430	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	442.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1470		Upstream		Downstream	
Scenario:	Existing	Invert:	13.16 ft	Invert:	12.40 ft
From Node:	NSR1470	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	350.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1470OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.13 ft	Invert:	15.12 ft
From Node:	NSR1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1470OW	Cross Section:	RSR1470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1490		Upstream		Downstream	
Scenario:	Existing	Invert:	13.15 ft	Invert:	12.97 ft
From Node:	NSR1490	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1470	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1490OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.64 ft	Invert:	15.63 ft

From Node:	NSR1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1490OW	Cross Section:	RSR1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1510		Upstream		Downstream	
Scenario:	Existing	Invert:	10.95 ft	Invert:	10.43 ft
From Node:	NSR1510	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1490	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	258.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1510OW		Upstream		Downstream	
Scenario:	Existing	Invert:	14.95 ft	Invert:	14.94 ft
From Node:	NSR1510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1510OW	Cross Section:	RSR1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR1530OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.58 ft	Invert:	12.57 ft
From Node:	NSR1530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1530OW	Cross Section:	RSR1530OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1550		Upstream		Downstream	
Scenario:	Existing	Invert:	10.81 ft	Invert:	10.11 ft
From Node:	NSR1550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1550	Cross Section:	RSR1550
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	694.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1570OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.84 ft	Invert:	12.83 ft
From Node:	NSR1570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1550	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RSR1570OW	Cross Section:	RSR1570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1590OW		Upstream		Downstream	
Scenario:	Existing	Invert:	12.38 ft	Invert:	12.37 ft
From Node:	NSR1590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1590OW	Cross Section:	RSR1590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1610		Upstream		Downstream	
Scenario:	Existing	Invert:	12.18 ft	Invert:	10.63 ft
From Node:	NSR1610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1550	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1610OW		Upstream		Downstream	
Scenario:	Existing	Invert:	11.76 ft	Invert:	11.75 ft
From Node:	NSR1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1610OW	Cross Section:	RSR1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1630		Upstream		Downstream	
Scenario:	Existing	Invert:	11.43 ft	Invert:	10.81 ft
From Node:	NSR1630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1630	Cross Section:	RSR1630
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	606.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR1650OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1650	Default:	0.00 ft
To Node:	NSR1630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	17.00 ft	Ref Node:	
Control Elevation:	17.00 ft	**Discharge Coefficients**	
Max Depth:	9999.00 ft	Weir Default:	2.400
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RSR1670		Upstream		Downstream	
Scenario:	Existing	Invert:	13.13 ft	Invert:	12.63 ft
From Node:	NSR1670	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR1630	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	1.41 ft	Max Depth:	1.41 ft
Flow Direction:	Both	Max Width:	1.83 ft	Max Width:	1.83 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1690		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	11.51 ft
From Node:	NSR1690	Manning's N:	0.0230	Manning's N:	0.0230
To Node:	NSR1630	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	100.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: RSR1710		Upstream		Downstream	
Scenario:	Existing	Invert:	12.78 ft	Invert:	12.28 ft
From Node:	NSR1710	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NSR1690	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1710OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.05 ft	Invert:	16.04 ft
From Node:	NSR1710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1710OW	Cross Section:	RSR1710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1730		Upstream		Downstream	
Scenario:	Existing	Invert:	11.58 ft	Invert:	10.82 ft
From Node:	NSR1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1690	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RSR1730	Cross Section:	RSR1730
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	600.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1730OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.43 ft	Invert:	16.42 ft
From Node:	NSR1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1730OW	Cross Section:	RSR1730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR1750OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR1750	Default:	0.00 ft
To Node:	NSR1730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.60 ft	Discharge Coefficients	
Control Elevation:	16.60 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR1770		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	11.36 ft
From Node:	NSR1770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	346.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1770OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.35 ft	Invert:	16.34 ft
From Node:	NSR1790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1770OW	Cross Section:	RSR1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1790		Upstream		Downstream	
Scenario:	Existing	Invert:	11.82 ft	Invert:	11.63 ft
From Node:	NSR1790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	341.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1810		Upstream		Downstream	
Scenario:	Existing	Invert:	12.02 ft	Invert:	11.82 ft
From Node:	NSR1810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	325.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1810OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.76 ft	Invert:	16.75 ft
From Node:	NSR1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1810OW	Cross Section:	RSR1810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1830		Upstream		Downstream	
Scenario:	Existing	Invert:	12.22 ft	Invert:	12.02 ft

From Node:	NSR1830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1810	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	326.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1830AOW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.11 ft	Invert:	17.10 ft
From Node:	NSR1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1670	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1830AOW	Cross Section:	RSR1830AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1830OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.72 ft	Invert:	16.71 ft
From Node:	NSR1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1790	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1830OW	Cross Section:	RSR1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR1850		Upstream		Downstream	
Scenario:	Existing	Invert:	12.42 ft	Invert:	12.22 ft
From Node:	NSR1850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1850OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.60 ft	Invert:	16.20 ft
From Node:	NSR1870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1850	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL	Cross Section:	DALE_MABRY_FUL
Flow Direction:	Both		L		L
Damping:	0.0000 ft				
Length:	334.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1870		Upstream		Downstream	
Scenario:	Existing	Invert:	12.62 ft	Invert:	12.42 ft
From Node:	NSR1870	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1850	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1870OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.70 ft	Invert:	16.10 ft
From Node:	NSR1870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL	Cross Section:	DALE_MABRY_FUL
Flow Direction:	Both		L		L
Damping:	0.0000 ft				
Length:	203.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1890		Upstream		Downstream	
Scenario:	Existing	Invert:	12.79 ft	Invert:	12.62 ft
From Node:	NSR1890	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1910		Upstream		Downstream	
Scenario:	Existing	Invert:	12.97 ft	Invert:	12.79 ft
From Node:	NSR1910	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1890	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1910B		Upstream		Downstream	
Scenario:	Existing	Invert:	6.70 ft	Invert:	6.50 ft
From Node:	NSR1910	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2690	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	730.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1910OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.70 ft	Invert:	16.50 ft
From Node:	NSR1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2690	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	DALE_MABRY_FUL L	Cross Section:	DALE_MABRY_FUL L
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	275.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1910OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.50 ft	Invert:	16.30 ft
From Node:	NSR1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3020	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	311.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1930		Upstream		Downstream	
Scenario:	Existing	Invert:	10.87 ft	Invert:	11.13 ft
From Node:	NSR1930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	71.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Channel Link: RSR1930OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.55 ft	Invert:	16.54 ft
From Node:	NSR1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1930OW	Cross Section:	RSR1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1950		Upstream		Downstream	
Scenario:	Existing	Invert:	11.11 ft	Invert:	10.93 ft
From Node:	NSR1950	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NSR1930	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	117.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1970		Upstream		Downstream	
Scenario:	Existing	Invert:	11.21 ft	Invert:	11.11 ft
From Node:	NSR1970	Manning's N:	0.0210	Manning's N:	0.0210
To Node:	NSR1950	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	67.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1970OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.65 ft	Invert:	16.64 ft
From Node:	NSR1970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0310	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1970OW	Cross Section:	RSR1970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1990		Upstream		Downstream	
Scenario:	Existing	Invert:	11.71 ft	Invert:	11.49 ft
From Node:	NSR1990	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NSR2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	178.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1990A		Upstream		Downstream	
Scenario:	Existing	Invert:	11.49 ft	Invert:	11.21 ft
From Node:	NSR1990	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR1970	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	235.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2030		Upstream		Downstream	
Scenario:	Existing	Invert:	11.98 ft	Invert:	11.80 ft
From Node:	NSR2030	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	184.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2030A		Upstream		Downstream	
Scenario:	Existing	Invert:	11.80 ft	Invert:	11.71 ft
From Node:	NSR2030	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	69.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2050OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.39 ft	Invert:	16.38 ft
From Node:	NSR2050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2050OW	Cross Section:	RSR2050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2070		Upstream		Downstream	
Scenario:	Existing	Invert:	12.22 ft	Invert:	11.98 ft
From Node:	NSR2070	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2090		Upstream		Downstream	
Scenario:	Existing	Invert:	12.86 ft	Invert:	12.72 ft
From Node:	NSR2090	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR2070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2110		Upstream		Downstream	
Scenario:	Existing	Invert:	13.05 ft	Invert:	12.86 ft
From Node:	NSR2110	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	178.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2110OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.16 ft	Invert:	16.15 ft
From Node:	NSR2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2110OW	Cross Section:	RSR2110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR2130		Upstream		Downstream	
Scenario:	Existing	Invert:	13.30 ft	Invert:	13.05 ft
From Node:	NSR2130	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR2110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	247.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2150		Upstream		Downstream	
Scenario:	Existing	Invert:	11.46 ft	Invert:	11.03 ft
From Node:	NSR2150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1930	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	442.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2150OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.86 ft	Invert:	16.85 ft

From Node:	NSR2150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2210	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2150OW	Cross Section:	RSR2150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2170		Upstream		Downstream	
Scenario:	Existing	Invert:	11.98 ft	Invert:	11.46 ft
From Node:	NSR2170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	494.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2190		Upstream		Downstream	
Scenario:	Existing	Invert:	12.17 ft	Invert:	11.98 ft
From Node:	NSR2190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2170	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	178.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2210		Upstream		Downstream	
Scenario:	Existing	Invert:	12.23 ft	Invert:	12.21 ft
From Node:	NSR2210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2210OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.39 ft	Invert:	16.38 ft
From Node:	NSR2210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2250	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2210OW	Cross Section:	RSR2210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2230		Upstream		Downstream	
Scenario:	Existing	Invert:	12.21 ft	Invert:	12.17 ft
From Node:	NSR2230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2190	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	42.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2250		Upstream		Downstream	
Scenario:	Existing	Invert:	12.31 ft	Invert:	12.21 ft
From Node:	NSR2250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2230	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	85.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2270		Upstream		Downstream	
Scenario:	Existing	Invert:	12.64 ft	Invert:	12.31 ft
From Node:	NSR2270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2250	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	105.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2270OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.02 ft	Invert:	16.01 ft
From Node:	NSR2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR2270OW	Cross Section:	RSR2270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2290		Upstream		Downstream	
Scenario:	Existing	Invert:	12.75 ft	Invert:	12.64 ft
From Node:	NSR2290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2270	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2310		Upstream		Downstream	
Scenario:	Existing	Invert:	12.75 ft	Invert:	12.64 ft
From Node:	NSR2310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2290	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	105.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2310OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.93 ft	Invert:	16.92 ft
From Node:	NSR2310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2310OW	Cross Section:	RSR2310OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2330		Upstream		Downstream	
Scenario:	Existing	Invert:	13.61 ft	Invert:	13.15 ft
From Node:	NSR2330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2310	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	287.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2330OW		Upstream		Downstream	
Scenario:	Existing	Invert:	16.80 ft	Invert:	16.79 ft
From Node:	NSR2350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2330OW	Cross Section:	RSR2330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR2350		Upstream		Downstream	
Scenario:	Existing	Invert:	14.12 ft	Invert:	13.61 ft
From Node:	NSR2350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2330	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	319.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RSR2370		Upstream		Downstream	
Scenario:	Existing	Invert:	10.82 ft	Invert:	10.82 ft
From Node:	NSR2370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR2390OW

Scenario:	Existing
From Node:	NSR2390
To Node:	NSR2370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	17.90 ft
Control Elevation:	17.90 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR2410

Scenario:	Existing
From Node:	NSR2410
To Node:	NSR2370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	560.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	14.13 ft	Invert:	10.73 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry:	Irregular	Geometry:	Irregular
Cross Section:	RSR2410	Cross Section:	RSR2410

Comment:

Channel Link: RSR2430OW

Scenario:	Existing
From Node:	NSR2430

Upstream		Downstream	
Invert:	17.74 ft	Invert:	17.73 ft
Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NSR2410	Cross Section:	RSR2430OW	Cross Section:	RSR2430OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR2450OW

		Bottom Clip	
Scenario:	Existing	Default:	0.00 ft
From Node:	NSR2450	Op Table:	
To Node:	NSR2410	Ref Node:	
Link Count:	1	**Top Clip**	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	**Discharge Coefficients**	
Invert:	17.70 ft	Weir Default:	2.600
Control Elevation:	17.70 ft	Weir Table:	
Max Depth:	833.25 ft	Orifice Default:	0.600
Max Width:	50.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Channel Link: RSR2775OW

		Upstream		Downstream	
Scenario:	Existing	Invert:	6.80 ft	Invert:	5.10 ft
From Node:	NBW2775	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	288.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR2775OWB

Scenario:	Existing	**Bottom Clip**	
From Node:	NBW2775	Default:	0.00 ft
To Node:	NBW0330	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.50 ft	**Discharge Coefficients**	
Control Elevation:	6.50 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	70.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR3000

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR3000	Default:	0.00 ft
To Node:	NSR3005	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	14.42 ft	**Discharge Coefficients**	
Control Elevation:	14.42 ft	Weir Default:	3.200
Max Depth:	3.28 ft	Weir Table:	
Max Width:	1.75 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR3000A

Scenario:	Existing	**Bottom Clip**	
From Node:	NSR3000	Default:	0.00 ft
To Node:	NSR3005	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	

Geometry Type:	Rectangular
Invert:	15.08 ft
Control Elevation:	15.08 ft
Max Depth:	2.62 ft
Max Width:	3.08 ft
Fillet:	0.00 ft

Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR3000OWA

Scenario:	Existing
From Node:	NSR3000
To Node:	NSR1870
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	17.00 ft
Control Elevation:	17.00 ft
Max Depth:	9999.00 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR3001

Scenario:	Existing
From Node:	NSR3005
To Node:	NSR1870
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	144.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	14.05 ft	Invert:	12.62 ft
Manning's N:	0.0130	Manning's N:	0.0130
Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Max Depth:	1.17 ft	Max Depth:	1.17 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR3020		Upstream		Downstream	
Scenario:	Existing	Invert:	13.17 ft	Invert:	11.94 ft
From Node:	NSR3020	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR3040	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	615.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR3020OW		Upstream		Downstream	
Scenario:	Existing	Invert:	17.50 ft	Invert:	15.50 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	420.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR3020OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.60 ft	Invert:	16.50 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	870.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR3020OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	17.60 ft	Invert:	17.40 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0881	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_30FT_FULL	Cross Section:	LOCAL_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	150.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR3020OWC		Upstream		Downstream	
Scenario:	Existing	Invert:	17.90 ft	Invert:	16.00 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1870	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	847.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR3040		Upstream		Downstream	
Scenario:	Existing	Invert:	11.94 ft	Invert:	11.74 ft

From Node:	NSR3040	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	98.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR3040OW

Scenario:	Existing	Bottom Clip	
From Node:	NSR3040	Default:	0.00 ft
To Node:	NSR0870	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.80 ft	Discharge Coefficients	
Control Elevation:	15.80 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR3040OWA

		Upstream		Downstream	
Scenario:	Existing	Invert:	16.40 ft	Invert:	15.30 ft
From Node:	NSR3040	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3060	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	579.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Channel Link: RSR3040OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	16.50 ft	Invert:	15.50 ft
From Node:	NSR3040	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3060	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	311.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR3040OWC			
Scenario:	Existing	Bottom Clip	
From Node:	NSR3040	Default:	0.00 ft
To Node:	NSR0880	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.20 ft	Discharge Coefficients	
Control Elevation:	16.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR3041OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	17.60 ft	Invert:	16.30 ft
From Node:	NBW2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0881	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	530.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR3041OWB		Upstream		Downstream	
Scenario:	Existing	Invert:	17.10 ft	Invert:	16.00 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	895.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR3060		Upstream		Downstream	
Scenario:	Existing	Invert:	11.95 ft	Invert:	11.86 ft
From Node:	NSR3060	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0840	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	43.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR3060OW			
Scenario:	Existing	Bottom Clip	
From Node:	NSR3060	Default:	0.00 ft
To Node:	NSR0840	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.80 ft	Discharge Coefficients	
Control Elevation:	15.80 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RSR3060OWA		Upstream		Downstream	
Scenario:	Existing	Invert:	15.60 ft	Invert:	14.30 ft
From Node:	NSR3060	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1510	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	332.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSRS0430OWA			
Scenario:	Existing	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.14 ft	Discharge Coefficients	
Control Elevation:	13.14 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	80.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RSW0030		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.69 ft	Invert:	-0.97 ft
From Node:	NSW0030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSW0010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSW0050		Upstream		Downstream	
Scenario:	Existing	Invert:	0.39 ft	Invert:	-0.69 ft
From Node:	NSW0050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSW0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	507.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: SL15(2)		Upstream		Downstream	
Scenario:	Existing	Invert:	3.63 ft	Invert:	1.63 ft
From Node:	Lois	Manning's N:	0.0140	Manning's N:	0.0140

		Geometry: Rectangular		Geometry: Rectangular	
To Node:	Hubert	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Link Count:	1	Max Width:	4.00 ft	Max Width:	4.00 ft
Flow Direction:	Both	Fillet:	0.00 ft	Fillet:	0.00 ft
Damping:	0.0000 ft	Bottom Clip			
Length:	636.00 ft	Default:	0.00 ft	Default:	0.00 ft
FHWA Code:	0	Op Table:		Op Table:	
Entr Loss Coef:	0.00	Ref Node:		Ref Node:	
Exit Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Loss Coef:	0.00	Top Clip			
Bend Location:	0.00 dec	Default:	0.00 ft	Default:	0.00 ft
Energy Switch:	Energy	Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: SR1670OW		Upstream		Downstream	
Scenario:	Existing	Invert:	15.83 ft	Invert:	14.93 ft
From Node:	NSR1670	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBB0430	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1220.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ShamBox1.1		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.22 ft	Invert:	-0.64 ft
From Node:	Shmrck1.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	326.00 ft	Bottom Clip			

FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ShamBox1.2		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.64 ft	Invert:	-1.12 ft
From Node:	Shmrck1.2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shamrock2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	288.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ShamBox2.1		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.22 ft	Invert:	-0.64 ft
From Node:	Shmrck1.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	326.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: ShamBox2.2		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.64 ft	Invert:	-1.12 ft
From Node:	Shmrck1.2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shamrock2	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	288.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Sl14(2)		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	1.14 ft
From Node:	Hubert	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	597.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: VascOW		Upstream		Downstream	
Scenario:	Existing	Invert:	4.63 ft	Invert:	4.23 ft
From Node:	M4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	H1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	850.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: W01			
Scenario:	Existing	Bottom Clip	
From Node:	N01	Default:	0.00 ft
To Node:	N01A	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.30 ft	Discharge Coefficients	
Control Elevation:	18.30 ft	Weir Default:	3.200
Max Depth:	1.00 ft	Weir Table:	
Max Width:	0.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Estimated from field observations; fence prevented measurements

Weir Link: W01B			
Scenario:	Existing	Bottom Clip	
From Node:	N01	Default:	0.00 ft
To Node:	N01A	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	

Geometry Type:	Rectangular		
Invert:	19.30 ft	Ref Node:	
Control Elevation:	19.30 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	3.200
Max Width:	12.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: Estimated from field observations; fence prevented measurements

Weir Link: WCypEast

Scenario:	Existing	Bottom Clip	
From Node:	NCL4010	Default:	0.00 ft
To Node:	NCypEast	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	29.00 ft	Discharge Coefficients	
Control Elevation:	29.00 ft	Weir Default:	2.800
Cross Section:	XCypEast	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WCypWest

Scenario:	Existing	Bottom Clip	
From Node:	NCL4000	Default:	0.00 ft
To Node:	NCypWest	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	29.93 ft	Discharge Coefficients	
Control Elevation:	29.93 ft	Weir Default:	2.800
Cross Section:	XCypWest	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WRU0390

Scenario:	Existing
From Node:	NRU0390
To Node:	NRU0380
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.28 ft
Control Elevation:	17.28 ft
Max Depth:	1.22 ft
Max Width:	3.67 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Added per ERP 21192 (page 18, 35)

Weir Link: WRU0390B

Scenario:	Existing
From Node:	NRU0390
To Node:	NRU0380
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	18.50 ft
Control Elevation:	18.50 ft
Max Depth:	9999.00 ft
Max Width:	14.17 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Added per ERP 21192 (page 18, 35)

Weir Link: WRU0990

Scenario:	Existing
From Node:	NRU0990
To Node:	NRU0980
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	16.04 ft
Control Elevation:	16.04 ft
Max Depth:	2.10 ft
Max Width:	5.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment:

Weir Link: WRU1020

Scenario:	Existing	**Bottom Clip**	
From Node:	STORAGE12	Default:	0.00 ft
To Node:	NRU1020	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.14 ft	**Discharge Coefficients**	
Control Elevation:	15.14 ft	Weir Default:	3.200
Max Depth:	4.10 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP1978

Weir Link: WRU1020B

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1020	Default:	0.00 ft
To Node:	NRU1025	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.14 ft	**Discharge Coefficients**	
Control Elevation:	16.14 ft	Weir Default:	3.200
Max Depth:	0.67 ft	Weir Table:	
Max Width:	1.75 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 19758

Weir Link: WRU1020C

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1020	Default:	0.00 ft
To Node:	NRU1025	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	19.34 ft
Control Elevation:	19.34 ft
Max Depth:	0.70 ft
Max Width:	3.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 19758

Weir Link: WRU1035

Scenario:	Existing
From Node:	STORAGE13
To Node:	NRU1035
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	16.24 ft
Control Elevation:	16.24 ft
Max Depth:	3.70 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 20364

Weir Link: WRU1035B

Scenario:	Existing
From Node:	NRU1035
To Node:	NRU1037
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Circular
Invert:	16.91 ft
Control Elevation:	16.91 ft
Max Depth:	0.58 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 20364

Weir Link: WRU1035C

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1035	Default:	0.00 ft
To Node:	NRU1037	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.94 ft	**Discharge Coefficients**	
Control Elevation:	19.94 ft	Weir Default:	3.200
Max Depth:	2.20 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 20364

Weir Link: WRU1188

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1188	Default:	0.00 ft
To Node:	NRU1184	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.00 ft	**Discharge Coefficients**	
Control Elevation:	18.00 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WRU1225

Scenario:	Existing	**Bottom Clip**	
From Node:	STORAGE14	Default:	0.00 ft
To Node:	NRU1225	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.44 ft	**Discharge Coefficients**	
Control Elevation:	19.44 ft	Weir Default:	3.200
Max Depth:	4.00 ft	Weir Table:	
Max Width:	27.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment: See ERP 11814

Weir Link: WRU1225B

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1225	Default:	0.00 ft
To Node:	NRU1220	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	22.98 ft	**Discharge Coefficients**	
Control Elevation:	22.98 ft	Weir Default:	2.600
Cross Section:	XOW850	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WRU1225C

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1225	Default:	0.00 ft
To Node:	NRU1220	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.17 ft	**Discharge Coefficients**	
Control Elevation:	23.17 ft	Weir Default:	2.600
Cross Section:	XOW851	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WRU1225D

Scenario:	Existing	**Bottom Clip**	
From Node:	NRU1225	Default:	0.00 ft
To Node:	NSH80	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	23.10 ft
Control Elevation:	23.10 ft
Cross Section:	XOW852

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH02

Scenario:	Existing
From Node:	STORAGE11
To Node:	NSH02
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	16.54 ft
Control Elevation:	16.54 ft
Max Depth:	4.00 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: WinnDixie vault per ERP 9274

Weir Link: WSH02B

Scenario:	Existing
From Node:	NSH02
To Node:	NSH60
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.12 ft
Control Elevation:	21.12 ft
Cross Section:	XOW809

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH02C

Scenario:	Existing
From Node:	NSH02
To Node:	NSH04
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.19 ft
Control Elevation:	21.19 ft
Cross Section:	XOW807

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH02D

Scenario:	Existing
From Node:	NSH02
To Node:	PondA
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.12 ft
Control Elevation:	21.12 ft
Cross Section:	XOW808

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH02E

Scenario:	Existing
From Node:	NSH02
To Node:	NSH03
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	20.63 ft
Control Elevation:	20.63 ft
Max Depth:	1.41 ft
Max Width:	2.99 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment: ERP 9274

Weir Link: WSH28

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH28	Default:	0.00 ft
To Node:	NSH31	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	8.00 ft	**Discharge Coefficients**	
Control Elevation:	8.00 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	8.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WSH49

Scenario:	Existing	**Bottom Clip**	
From Node:	NSH49	Default:	0.00 ft
To Node:	NSH83	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.25 ft	**Discharge Coefficients**	
Control Elevation:	20.25 ft	Weir Default:	2.600
Cross Section:	XOW900	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WSH60

Scenario:	Existing	**Bottom Clip**	
From Node:	STORAGE9	Default:	0.00 ft
To Node:	NSH60	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	16.14 ft
Control Elevation:	16.14 ft
Max Depth:	2.50 ft
Max Width:	2.50 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 31682

Weir Link: WSH60B

Scenario:	Existing
From Node:	NSH60
To Node:	NSH61
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.25 ft
Control Elevation:	17.25 ft
Max Depth:	3.11 ft
Max Width:	2.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 31682

Weir Link: WSH60C

Scenario:	Existing
From Node:	NSH60
To Node:	NSH50
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.56 ft
Control Elevation:	20.56 ft
Cross Section:	XOW804

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH60D

Scenario:	Existing
From Node:	NSH60
To Node:	NSH04
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.02 ft
Control Elevation:	21.02 ft
Cross Section:	XOW805

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH65

Scenario:	Existing
From Node:	STORAGE10
To Node:	NSH65
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.59 ft
Control Elevation:	18.59 ft
Max Depth:	2.50 ft
Max Width:	2.50 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 28940

Weir Link: WSH65B

Scenario:	Existing
From Node:	NSH65
To Node:	NSH50
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	22.61 ft
Control Elevation:	22.61 ft
Cross Section:	XOW806

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

Orifice Table:	

Comment: Updated per ERP 28940

Weir Link: WSH81

Scenario:	Existing
From Node:	NSH81
To Node:	NSH49
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.76 ft
Control Elevation:	20.76 ft
Cross Section:	XOW902

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH82

Scenario:	Existing
From Node:	NSH82
To Node:	NSH49
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.74 ft
Control Elevation:	20.74 ft
Cross Section:	XOW901

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: gutter11.1

Scenario:	Existing
From Node:	L6
To Node:	V3
Link Count:	1
Flow Direction:	Both

Upstream	
Invert:	6.93 ft
Manning's N:	0.0200
Geometry: Trapezoidal	
Max Depth:	0.50 ft
Extrapolation:	Normal

Downstream	
Invert:	6.53 ft
Manning's N:	0.0200
Geometry: Trapezoidal	
Max Depth:	0.50 ft
Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	292.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter12.1		Upstream		Downstream	
Scenario:	Existing	Invert:	7.63 ft	Invert:	6.93 ft
From Node:	L5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L6	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	286.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter12.2		Upstream		Downstream	
Scenario:	Existing	Invert:	8.43 ft	Invert:	7.63 ft
From Node:	L4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L5	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	286.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.1		Upstream		Downstream	
Scenario:	Existing	Invert:	6.33 ft	Invert:	6.13 ft
From Node:	M1.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	250.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.2		Upstream		Downstream	
Scenario:	Existing	Invert:	7.03 ft	Invert:	6.33 ft
From Node:	M1.2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	214.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.3		Upstream		Downstream	
Scenario:	Existing	Invert:	7.13 ft	Invert:	7.03 ft
From Node:	M1.3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	236.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.4		Upstream		Downstream	
Scenario:	Existing	Invert:	10.43 ft	Invert:	8.43 ft
From Node:	L3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			

	Default: 0.00 ft		Default: 0.00 ft
	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutter13.5		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	10.43 ft
From Node:	L2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	252.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.6		Upstream		Downstream	
Scenario:	Existing	Invert:	11.53 ft	Invert:	11.63 ft
From Node:	L1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	212.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter19.1		Upstream		Downstream	
Scenario:	Existing	Invert:	12.83 ft	Invert:	6.53 ft
From Node:	G9	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	V3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter19.2		Upstream		Downstream	
Scenario:	Existing	Invert:	12.83 ft	Invert:	7.93 ft
From Node:	G9	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Clark2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	940.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter20.1		Upstream		Downstream	
Scenario:	Existing	Invert:	12.93 ft	Invert:	6.93 ft
From Node:	G8	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L6	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter21.1		Upstream		Downstream	
Scenario:	Existing	Invert:	13.83 ft	Invert:	8.43 ft
From Node:	G7	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter23.1		Upstream		Downstream	
Scenario:	Existing	Invert:	13.43 ft	Invert:	10.43 ft
From Node:	G5	Manning's N:	0.0200	Manning's N:	0.0200

To Node:	L3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter24.1		Upstream		Downstream	
Scenario:	Existing	Invert:	14.23 ft	Invert:	11.53 ft
From Node:	G4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter31.2		Upstream		Downstream	
Scenario:	Existing	Invert:	14.73 ft	Invert:	12.93 ft
From Node:	DM2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G8	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1400.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter32.1		Upstream		Downstream	
Scenario:	Existing	Invert:	15.23 ft	Invert:	13.43 ft
From Node:	DM1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G5	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1400.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter32.2		Upstream		Downstream	
Scenario:	Existing	Invert:	15.23 ft	Invert:	12.73 ft
From Node:	DM1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G6	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1050.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL1		Upstream		Downstream	
Scenario:	Existing	Invert:	11.53 ft	Invert:	7.13 ft
From Node:	L1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL2		Upstream		Downstream	
Scenario:	Existing	Invert:	11.63 ft	Invert:	7.03 ft
From Node:	L2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL3		Upstream		Downstream	
Scenario:	Existing	Invert:	10.43 ft	Invert:	6.33 ft
From Node:	L3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL4		Upstream		Downstream	
Scenario:	Existing	Invert:	8.43 ft	Invert:	5.53 ft
From Node:	L4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1580.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			

	Default: 0.00 ft		Default: 0.00 ft
	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutterL5		Upstream		Downstream	
Scenario:	Existing	Invert:	7.63 ft	Invert:	5.53 ft
From Node:	L5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL6		Upstream		Downstream	
Scenario:	Existing	Invert:	6.93 ft	Invert:	5.13 ft
From Node:	L6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

	Manning's N: 0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL10		Upstream		Downstream	
Scenario:	Existing	Invert:	4.63 ft	Invert:	5.43 ft
From Node:	M4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M5.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	175.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL11		Upstream		Downstream	
Scenario:	Existing	Invert:	5.13 ft	Invert:	4.63 ft
From Node:	M3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL12		Upstream		Downstream	
Scenario:	Existing	Invert:	5.53 ft	Invert:	5.13 ft
From Node:	M2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	292.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL13		Upstream		Downstream	
Scenario:	Existing	Invert:	6.13 ft	Invert:	5.53 ft
From Node:	M1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	360.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL14		Upstream		Downstream	
Scenario:	Existing	Invert:	5.33 ft	Invert:	5.43 ft
From Node:	Hubert	Manning's N:	0.0200	Manning's N:	0.0200

To Node:	M5.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	597.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL15		Upstream		Downstream	
Scenario:	Existing	Invert:	6.73 ft	Invert:	5.33 ft
From Node:	Lois	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Hubert	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	636.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL16		Upstream		Downstream	
Scenario:	Existing	Invert:	7.93 ft	Invert:	6.73 ft
From Node:	Clark2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Lois	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	642.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL17		Upstream		Downstream	
Scenario:	Existing	Invert:	8.93 ft	Invert:	7.93 ft
From Node:	Clark1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Clark2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	445.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL19		Upstream		Downstream	
Scenario:	Existing	Invert:	12.83 ft	Invert:	11.93 ft
From Node:	G9	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G10	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	164.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL20		Upstream		Downstream	
Scenario:	Existing	Invert:	12.93 ft	Invert:	12.83 ft
From Node:	G8	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G9	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	295.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL21		Upstream		Downstream	
Scenario:	Existing	Invert:	13.83 ft	Invert:	12.93 ft
From Node:	G7	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G8	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	559.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL22		Upstream		Downstream	
Scenario:	Existing	Invert:	12.73 ft	Invert:	13.83 ft
From Node:	G6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G7	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	646.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL23		Upstream		Downstream	
Scenario:	Existing	Invert:	13.43 ft	Invert:	13.83 ft
From Node:	G5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G7	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	304.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			

	Default: 0.00 ft		Default: 0.00 ft
	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutterSL24		Upstream		Downstream	
Scenario:	Existing	Invert:	14.23 ft	Invert:	13.43 ft
From Node:	G4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G5	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	513.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL25		Upstream		Downstream	
Scenario:	Existing	Invert:	14.53 ft	Invert:	14.23 ft
From Node:	G3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	497.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL26		Upstream		Downstream	
Scenario:	Existing	Invert:	14.63 ft	Invert:	13.83 ft
From Node:	G2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	630.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL27		Upstream		Downstream	
Scenario:	Existing	Invert:	14.03 ft	Invert:	13.83 ft
From Node:	G1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	468.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL29		Upstream		Downstream	
Scenario:	Existing	Invert:	12.63 ft	Invert:	12.63 ft
From Node:	Church1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Church2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	130.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL31		Upstream		Downstream	
Scenario:	Existing	Invert:	14.73 ft	Invert:	13.83 ft
From Node:	DM2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	DM3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	525.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL32		Upstream		Downstream	
Scenario:	Existing	Invert:	15.23 ft	Invert:	14.73 ft
From Node:	DM1	Manning's N:	0.0200	Manning's N:	0.0200

To Node:	DM2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	785.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL4		Upstream		Downstream	
Scenario:	Existing	Invert:	4.48 ft	Invert:	5.47 ft
From Node:	Sevilla1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Sevilla3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	275.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL6		Upstream		Downstream	
Scenario:	Existing	Invert:	4.23 ft	Invert:	4.73 ft
From Node:	H1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	H2.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	175.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL9		Upstream		Downstream	
Scenario:	Existing	Invert:	5.56 ft	Invert:	4.65 ft
From Node:	M6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M5.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	150.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterV3		Upstream		Downstream	
Scenario:	Existing	Invert:	6.53 ft	Invert:	4.63 ft
From Node:	V3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL10		Upstream		Downstream	
Scenario:	Existing	Invert:	1.58 ft	Invert:	1.14 ft
From Node:	M4	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL11		Upstream		Downstream	
Scenario:	Existing	Invert:	1.74 ft	Invert:	1.58 ft
From Node:	M3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M4	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL12		Upstream		Downstream	
Scenario:	Existing	Invert:	2.13 ft	Invert:	1.74 ft
From Node:	M2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	292.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL13		Upstream		Downstream	
Scenario:	Existing	Invert:	2.46 ft	Invert:	2.01 ft
From Node:	M1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL14		Upstream		Downstream	
Scenario:	Existing	Invert:	1.63 ft	Invert:	1.14 ft
From Node:	Hubert	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	597.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL15		Upstream		Downstream	
Scenario:	Existing	Invert:	3.63 ft	Invert:	1.63 ft
From Node:	Lois	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Hubert	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	636.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL16		Upstream		Downstream	
Scenario:	Existing	Invert:	4.77 ft	Invert:	3.63 ft
From Node:	Clark2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Lois	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	642.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL17		Upstream		Downstream	
Scenario:	Existing	Invert:	6.44 ft	Invert:	5.23 ft
From Node:	Clark1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Clark2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	445.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL18		Upstream		Downstream	
Scenario:	Existing	Invert:	6.74 ft	Invert:	4.77 ft
From Node:	G10	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Clark2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	681.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL19		Upstream		Downstream	
Scenario:	Existing	Invert:	6.95 ft	Invert:	6.74 ft
From Node:	G9	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	164.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	

Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL20		Upstream		Downstream	
Scenario:	Existing	Invert:	7.33 ft	Invert:	6.95 ft
From Node:	G8	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G9	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL21		Upstream		Downstream	
Scenario:	Existing	Invert:	8.07 ft	Invert:	7.33 ft
From Node:	G7	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G8	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	559.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL22		Upstream		Downstream	
Scenario:	Existing	Invert:	9.24 ft	Invert:	8.51 ft
From Node:	G6	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G7	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	646.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: pipeSL23		Upstream		Downstream	
Scenario:	Existing	Invert:	8.47 ft	Invert:	8.07 ft
From Node:	G5	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G7	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	304.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: pipeSL24		Upstream		Downstream	
Scenario:	Existing	Invert:	9.15 ft	Invert:	8.47 ft
From Node:	G4	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G5	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	513.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL25		Upstream		Downstream	
Scenario:	Existing	Invert:	9.79 ft	Invert:	9.15 ft
From Node:	G3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G4	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	497.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL26		Upstream		Downstream	
Scenario:	Existing	Invert:	12.37 ft	Invert:	10.53 ft
From Node:	G2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	630.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL27		Upstream		Downstream	
Scenario:	Existing	Invert:	10.39 ft	Invert:	9.79 ft

From Node:	G1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	468.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL29		Upstream		Downstream	
Scenario:	Existing	Invert:	8.63 ft	Invert:	8.33 ft
From Node:	Church1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Church2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL3		Upstream		Downstream	
Scenario:	Existing	Invert:	1.23 ft	Invert:	0.83 ft
From Node:	Sevilla2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shamrock2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL31		Upstream		Downstream	
Scenario:	Existing	Invert:	9.36 ft	Invert:	8.79 ft
From Node:	DM2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	DM3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	525.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL32		Upstream		Downstream	
Scenario:	Existing	Invert:	10.66 ft	Invert:	9.36 ft
From Node:	DM1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	DM2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	785.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL4		Upstream		Downstream	
Scenario:	Existing	Invert:	1.13 ft	Invert:	0.75 ft
From Node:	Sevilla1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Sevilla3	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	237.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL4.1		Upstream		Downstream	
Scenario:	Existing	Invert:	0.72 ft	Invert:	-0.09 ft
From Node:	Sevilla3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Sevilla4	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	362.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL4.2		Upstream		Downstream	
Scenario:	Existing	Invert:	-0.11 ft	Invert:	-0.64 ft
From Node:	Sevilla4	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	296.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL6		Upstream		Downstream	
Scenario:	Existing	Invert:	1.73 ft	Invert:	1.43 ft
From Node:	H1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	105.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL9		Upstream		Downstream	
Scenario:	Existing	Invert:	1.34 ft	Invert:	1.14 ft
From Node:	M6	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	123.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

O.2 Existing Model Results

Node Max Conditions [Existing]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
BC_N02	FEX100YR1DAY	0.00	18.00	0.0000	31.76	0.00	0
Church1	FEX100YR1DAY	8.77	10.78	0.0000	1.08	0.40	533
Church2	FEX100YR1DAY	8.77	10.78	0.0000	10.77	10.62	4390
Clark1	FEX100YR1DAY	7.21	8.28	0.0000	1.32	0.56	743
Clark2	FEX100YR1DAY	7.21	8.28	-0.0001	68.99	70.30	23073
DM1	FEX100YR1DAY	11.42	12.35	0.0000	12.44	12.40	1416
DM2	FEX100YR1DAY	10.30	11.12	0.0000	12.40	12.55	2201
DM3	FEX100YR1DAY	9.16	10.83	0.0000	12.55	10.77	2975
E_Outlet	FEX100YR1DAY	0.00	16.94	-0.0016	178.19	44.98	0
E_Outlet2	FEX100YR1DAY	0.00	17.00	0.0000	36.55	0.00	0
ElP_Hes.1	FEX100YR1DAY	1.99	4.77	0.0001	2.96	1.76	763
ElP_con.1	FEX100YR1DAY	2.18	5.03	0.0014	97.65	95.73	4221
ElPrad.1	FEX100YR1DAY	1.99	4.82	0.0000	2.37	1.68	18278
G1	FEX100YR1DAY	14.98	16.42	-0.0071	182.91	130.32	40657
G10	FEX100YR1DAY	8.77	10.73	-0.0001	69.01	68.99	4603
G2	FEX100YR1DAY	14.99	16.38	-0.0003	63.29	59.33	32943
G3	FEX100YR1DAY	14.86	16.35	-0.0004	186.71	186.40	27806
G4	FEX100YR1DAY	12.82	15.27	-0.0005	186.40	185.86	57268
G5	FEX100YR1DAY	11.69	14.13	-0.0003	116.46	110.87	48883
G6	FEX100YR1DAY	11.00	9.24	0.0000	15.96	0.00	0
G7	FEX100YR1DAY	11.00	12.68	0.0000	76.26	75.45	3601
G8	FEX100YR1DAY	10.07	11.61	0.0000	61.70	60.89	2143
G9	FEX100YR1DAY	9.41	11.04	0.0001	60.89	59.97	1353

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
H1	FEX100YR1DAY	1.99	5.43	-0.0002	48.49	48.40	16497
H2.1	FEX100YR1DAY	1.99	4.77	-0.0010	142.97	147.53	6105
Hubert	FEX100YR1DAY	3.16	5.75	-0.0001	68.64	73.55	19863
JUNCT1	FEX100YR1DAY	0.00	19.24	0.0000	15.02	14.70	5485
JUNCT10	FEX100YR1DAY	0.00	22.28	0.0000	86.45	86.36	11102
JUNCT2	FEX100YR1DAY	0.00	14.51	0.0000	45.63	45.62	3176
JUNCT3	FEX100YR1DAY	0.00	20.11	0.0000	18.71	18.17	10385
JUNCT4	FEX100YR1DAY	0.00	13.75	0.0000	10.62	10.62	5550
JUNCT6	FEX100YR1DAY	0.00	17.88	-0.0007	213.05	821.59	10288
JUNCT7	FEX100YR1DAY	0.00	20.28	0.0016	227.12	159.68	8392
JUNCT7B	FEX100YR1DAY	0.00	20.27	-0.0002	166.86	157.94	18405
JUNCT8	FEX100YR1DAY	0.00	20.28	0.0010	255.56	254.45	11638
JUNCT8B	FEX100YR1DAY	0.00	20.28	0.0001	254.45	242.29	26051
JUNCT9	FEX100YR1DAY	0.00	29.68	0.0000	87.41	87.55	9985
L1	FEX100YR1DAY	11.53	12.19	0.0000	70.05	72.13	51706
L2	FEX100YR1DAY	11.63	11.83	0.0000	19.49	19.80	39236
L3	FEX100YR1DAY	10.43	10.77	0.0000	45.22	44.90	46104
L4	FEX100YR1DAY	8.43	8.72	0.0000	22.40	22.40	50838
L5	FEX100YR1DAY	7.63	7.81	0.0000	9.71	9.47	43662
L6	FEX100YR1DAY	6.93	7.05	0.0000	4.24	3.96	43812
Lois	FEX100YR1DAY	4.82	6.23	0.0001	70.30	68.64	6808
M1	FEX100YR1DAY	2.58	6.81	0.0003	81.41	83.63	24883
M1.1	FEX100YR1DAY	6.33	7.14	0.0000	81.98	81.41	35352
M1.2	FEX100YR1D	7.03	7.49	0.0000	61.28	60.84	28678

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
M1.3	FEX100YR1DAY	7.13	7.80	0.0000	53.32	52.46	28491
M2	FEX100YR1DAY	2.58	6.29	-0.0006	100.85	95.14	60799
M3	FEX100YR1DAY	2.58	5.92	-0.0005	96.89	99.11	39437
M4	FEX100YR1DAY	2.58	5.75	-0.0006	99.31	86.15	53013
M5.1	FEX100YR1DAY	2.57	5.51	0.0003	102.06	97.96	29829
M6	FEX100YR1DAY	2.58	5.51	0.0001	1.61	0.44	558
Marjory_Pump	FEX100YR1DAY	0.00	37.95	0.0102	3.62	3.23	496
N01	FEX100YR1DAY	0.00	20.98	0.0000	36.99	25.87	39283
N01A	FEX100YR1DAY	0.00	20.96	0.0000	7.23	7.10	437
N02	FEX100YR1DAY	0.00	18.83	-0.0002	64.43	55.19	65768
N03	FEX100YR1DAY	0.00	20.07	0.0001	42.36	38.39	27839
N04	FEX100YR1DAY	0.00	20.08	0.0000	26.89	19.61	24907
N05	FEX100YR1DAY	0.00	18.64	0.0000	120.84	119.31	4390
N06	FEX100YR1DAY	0.00	17.66	0.0002	80.25	80.28	3292
N07A	FEX100YR1DAY	0.00	17.34	0.0002	82.91	82.92	4249
N08A	FEX100YR1DAY	0.00	16.25	0.0004	158.90	153.54	34900
N09	FEX100YR1DAY	0.00	14.20	0.0001	41.05	41.02	3054
N09A	FEX100YR1DAY	0.00	13.63	0.0003	144.14	144.15	1358
N10	FEX100YR1DAY	2.00	2.00	0.0000	417.08	0.00	0
N11	FEX100YR1DAY	0.00	17.85	-0.0008	265.97	178.19	523709
NBB0010	FEX100YR1DAY	2.00	2.00	0.0000	142.48	0.00	0
NBB0030	FEX100YR1DAY	5.03	7.97	0.0003	142.48	142.48	557
NBB0050	FEX100YR1DAY	9.15	13.94	-0.0004	250.51	142.48	145218

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBB0070	FEX100YR1DAY	11.30	14.37	-0.0002	114.18	113.06	2549
NBB0090	FEX100YR1DAY	12.67	14.37	-0.0001	137.35	137.27	4467
NBB0110	FEX100YR1DAY	13.46	16.03	0.0001	125.13	125.06	1982
NBB0130	FEX100YR1DAY	15.26	16.97	-0.0001	69.04	57.55	55692
NBB0150	FEX100YR1DAY	14.01	16.37	0.0001	73.23	73.36	1935
NBB0170	FEX100YR1DAY	14.74	16.85	0.0001	73.15	73.23	1452
NBB0190	FEX100YR1DAY	15.42	17.38	0.0001	88.61	73.15	98606
NBB0210	FEX100YR1DAY	15.70	17.38	0.0001	70.47	70.54	1556
NBB0230	FEX100YR1DAY	16.02	17.39	0.0001	70.41	70.47	18758
NBB0250	FEX100YR1DAY	16.31	17.68	0.0001	69.65	69.72	2035
NBB0270	FEX100YR1DAY	17.05	18.14	0.0001	68.52	69.65	44670
NBB0290	FEX100YR1DAY	17.06	18.14	-0.0001	53.38	54.38	1258
NBB0310	FEX100YR1DAY	17.07	18.14	-0.0002	247.36	112.45	628426
NBB0330	FEX100YR1DAY	16.57	17.39	-0.0001	52.58	46.30	49052
NBB0350	FEX100YR1DAY	16.45	17.38	0.0001	28.68	29.51	1397
NBB0370	FEX100YR1DAY	16.33	17.38	-0.0001	101.88	59.62	80882
NBB0390	FEX100YR1DAY	16.32	17.38	-0.0001	21.66	22.32	1832
NBB0410	FEX100YR1DAY	16.30	17.38	-0.0002	79.64	56.35	67719
NBB0430	FEX100YR1DAY	15.45	16.44	-0.0003	170.80	207.02	67696
NBW0010	FEX100YR1DAY	2.00	2.00	0.0000	1080.44	0.00	0
NBW0030	FEX100YR1DAY	3.39	5.13	0.0001	1081.83	1080.44	77838
NBW0050	FEX100YR1DAY	3.92	5.63	0.0000	121.71	114.94	79371
NBW0070	FEX100YR1DAY	3.57	5.45	-0.0004	330.56	519.20	75189
NBW0090	FEX100YR1D	3.66	5.32	0.0000	50.41	54.89	54222

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW0130	FEX100YR1DAY	3.73	5.53	0.0000	335.86	336.96	14687
NBW0150	FEX100YR1DAY	3.93	5.36	0.0001	47.53	46.18	23869
NBW0170	FEX100YR1DAY	3.98	5.35	0.0001	47.19	48.94	52595
NBW0190	FEX100YR1DAY	3.89	5.63	-0.0001	335.51	335.86	5986
NBW0210	FEX100YR1DAY	6.25	6.46	0.0000	15.54	15.18	7808
NBW0230	FEX100YR1DAY	4.01	5.91	0.0001	334.31	334.67	8136
NBW0250	FEX100YR1DAY	4.88	6.68	0.0000	332.83	332.96	5687
NBW0270	FEX100YR1DAY	5.49	6.77	0.0001	70.55	61.63	60637
NBW0290	FEX100YR1DAY	5.91	6.77	0.0000	55.52	52.54	61556
NBW0310	FEX100YR1DAY	6.38	7.69	0.0000	36.96	26.60	95246
NBW0330	FEX100YR1DAY	5.50	7.28	0.0000	322.10	322.12	24909
NBW0350	FEX100YR1DAY	4.97	5.91	0.0000	15.74	15.72	16128
NBW0370	FEX100YR1DAY	5.52	7.29	0.0000	11.02	9.44	20924
NBW0390	FEX100YR1DAY	5.52	7.29	0.0001	19.29	8.08	72060
NBW0410	FEX100YR1DAY	5.54	7.42	-0.0001	320.12	320.27	3446
NBW0430	FEX100YR1DAY	5.89	7.86	0.0000	12.66	10.88	58052
NBW0450	FEX100YR1DAY	5.89	7.86	0.0001	320.64	320.12	12762
NBW0470	FEX100YR1DAY	5.89	7.86	0.0000	9.23	7.68	45582
NBW0490	FEX100YR1DAY	5.92	8.00	-0.0001	318.74	318.58	3184
NBW0510	FEX100YR1DAY	6.72	8.00	0.0000	8.57	8.56	30467
NBW0530	FEX100YR1DAY	6.22	8.39	0.0001	318.39	318.30	4802
NBW0550	FEX100YR1DAY	6.72	9.63	0.0000	299.91	293.39	401582
NBW0570	FEX100YR1DAY	7.09	9.60	0.0000	281.83	267.86	161665

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0590	FEX100YR1DAY	10.03	10.38	0.0002	481.53	480.24	90387
NBW0610	FEX100YR1DAY	6.45	8.62	0.0000	291.07	290.99	10923
NBW0630	FEX100YR1DAY	6.22	8.39	0.0000	19.68	8.34	91047
NBW0650	FEX100YR1DAY	6.66	9.60	-0.0001	300.99	292.54	23491
NBW0670	FEX100YR1DAY	6.66	9.60	0.0000	26.49	6.17	41024
NBW0690	FEX100YR1DAY	6.71	9.62	-0.0001	238.76	237.21	11956
NBW0710	FEX100YR1DAY	6.71	9.62	0.0000	33.80	11.82	104785
NBW0730	FEX100YR1DAY	6.72	9.63	-0.0001	266.06	234.78	292948
NBW0750	FEX100YR1DAY	7.06	9.64	0.0002	322.84	297.86	150408
NBW0770	FEX100YR1DAY	7.06	9.64	-0.0004	49.11	40.06	35510
NBW0790	FEX100YR1DAY	8.11	9.64	0.0000	42.42	42.10	26300
NBW0810	FEX100YR1DAY	7.06	9.64	0.0000	82.06	68.41	76148
NBW0830	FEX100YR1DAY	8.41	9.64	0.0001	65.38	65.04	13705
NBW0850	FEX100YR1DAY	10.17	10.20	-0.0001	65.03	60.28	24179
NBW0870	FEX100YR1DAY	7.06	9.65	0.0000	360.09	316.45	312272
NBW0890	FEX100YR1DAY	7.06	9.64	0.0004	16.45	17.00	1027
NBW0910	FEX100YR1DAY	7.06	9.64	-0.0001	314.26	286.75	182831
NBW0930	FEX100YR1DAY	8.03	9.60	-0.0001	45.81	45.59	1301
NBW0950	FEX100YR1DAY	8.82	9.53	-0.0001	91.72	51.74	199494
NBW0970	FEX100YR1DAY	8.82	9.54	0.0001	41.39	39.38	40685
NBW0990	FEX100YR1DAY	8.82	9.54	-0.0002	15.20	14.73	785
NBW1010	FEX100YR1DAY	8.83	9.54	0.0000	39.30	39.28	2522
NBW1030	FEX100YR1DAY	9.19	11.61	0.0000	101.25	41.86	78013
NBW1050	FEX100YR1D	9.30	11.61	0.0000	16.41	15.77	900

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW1070	FEX100YR1DAY	9.34	11.61	0.0000	397.37	397.75	76677
NBW1090	FEX100YR1DAY	3.78	5.61	0.0000	487.95	476.00	22341
NBW1130	FEX100YR1DAY	4.51	5.68	0.0000	296.81	296.40	39611
NBW1150	FEX100YR1DAY	4.53	5.79	0.0000	327.21	325.54	79314
NBW1169	FEX100YR1DAY	4.09	5.74	0.0000	464.19	455.57	25991
NBW1170	FEX100YR1DAY	4.30	5.87	0.0001	458.20	455.14	10448
NBW1190	FEX100YR1DAY	6.13	6.91	-0.0001	95.38	80.75	82182
NBW1210	FEX100YR1DAY	7.17	7.89	-0.0002	392.20	387.61	176403
NBW1230	FEX100YR1DAY	7.17	7.95	-0.0001	404.88	383.88	259317
NBW1250	FEX100YR1DAY	4.74	6.41	-0.0001	417.75	414.54	9387
NBW1270	FEX100YR1DAY	6.14	6.92	-0.0001	45.28	38.53	57175
NBW1310	FEX100YR1DAY	5.21	6.59	0.0002	439.21	411.30	8703
NBW1330	FEX100YR1DAY	7.56	8.97	-0.0021	329.18	374.76	3074
NBW1350	FEX100YR1DAY	10.95	11.76	0.0001	62.50	62.34	17132
NBW1351	FEX100YR1DAY	8.89	11.12	0.0003	319.51	319.06	31897
NBW1352	FEX100YR1DAY	9.96	13.12	0.0006	311.35	311.34	7956
NBW1353	FEX100YR1DAY	11.01	15.07	0.0005	304.52	304.38	8196
NBW1370	FEX100YR1DAY	10.02	11.05	-0.0005	239.20	236.63	47267
NBW1390	FEX100YR1DAY	15.24	15.58	0.0002	411.15	409.36	224496
NBW1410	FEX100YR1DAY	15.58	15.86	0.0002	227.00	226.83	33683
NBW1430	FEX100YR1DAY	15.79	15.97	-0.0002	214.52	214.17	32592
NBW1450	FEX100YR1DAY	16.94	17.23	-0.0003	355.08	353.68	127239
NBW1460	FEX100YR1DAY	16.43	16.78	-0.0002	153.90	154.46	4273

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1470	FEX100YR1DAY	17.14	17.55	-0.0005	437.25	428.46	265616
NBW1480	FEX100YR1DAY	18.11	18.21	0.0001	21.54	21.42	18466
NBW1490	FEX100YR1DAY	17.86	18.41	-0.0001	265.43	262.02	156605
NBW1510	FEX100YR1DAY	18.12	18.73	-0.0002	161.77	161.90	41338
NBW1530	FEX100YR1DAY	17.92	18.78	0.0001	13.05	12.23	1171
NBW1550	FEX100YR1DAY	17.75	18.87	0.0000	69.57	60.03	59478
NBW1570	FEX100YR1DAY	18.21	18.91	-0.0002	160.32	160.44	2604
NBW1590	FEX100YR1DAY	18.12	18.72	0.0000	78.40	77.14	24288
NBW1610	FEX100YR1DAY	18.13	18.72	0.0000	45.21	37.71	31800
NBW1630	FEX100YR1DAY	18.13	18.47	0.0000	35.46	35.27	1801
NBW1650	FEX100YR1DAY	18.81	19.79	0.0000	22.10	12.46	53983
NBW1670	FEX100YR1DAY	18.89	19.80	0.0000	50.91	42.18	48864
NBW1690	FEX100YR1DAY	19.03	19.80	0.0000	33.39	28.47	33803
NBW1710	FEX100YR1DAY	19.26	19.80	0.0000	1.85	0.92	998
NBW1730	FEX100YR1DAY	18.65	19.66	-0.0002	434.55	429.88	351665
NBW1750	FEX100YR1DAY	18.82	19.76	-0.0001	228.72	220.45	97393
NBW1770	FEX100YR1DAY	18.82	19.80	0.0000	198.49	143.54	205145
NBW1790	FEX100YR1DAY	18.91	19.80	0.0000	45.04	38.15	54197
NBW1820	FEX100YR1DAY	18.72	19.43	0.0000	137.86	131.93	185085
NBW1830	FEX100YR1DAY	18.74	19.66	0.0000	80.56	80.75	95388
NBW1840	FEX100YR1DAY	18.39	19.00	0.0000	174.27	150.84	155287
NBW1850	FEX100YR1DAY	18.74	19.70	-0.0001	219.50	201.93	161299
NBW1860	FEX100YR1DAY	18.39	19.00	-0.0001	21.94	16.16	25240
NBW1870	FEX100YR1D	18.72	19.43	-0.0001	49.52	50.40	41805

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW1890	FEX100YR1DAY	19.06	20.05	0.0000	65.32	65.44	2613
NBW1910	FEX100YR1DAY	19.27	20.28	0.0000	84.86	83.12	14350
NBW1930	FEX100YR1DAY	19.27	20.28	0.0000	64.66	64.79	49828
NBW1950	FEX100YR1DAY	18.97	19.70	0.0000	2.40	1.84	450
NBW1970	FEX100YR1DAY	18.96	19.70	0.0000	19.51	17.71	17687
NBW1990	FEX100YR1DAY	19.27	20.08	0.0000	140.95	133.84	161853
NBW2010	FEX100YR1DAY	19.65	20.03	-0.0001	19.65	21.83	12858
NBW2030	FEX100YR1DAY	19.65	20.03	0.0000	44.70	42.63	100644
NBW2050	FEX100YR1DAY	19.26	20.30	0.0000	128.86	114.23	139373
NBW2060	FEX100YR1DAY	0.00	20.30	0.0000	37.47	31.46	75391
NBW2070	FEX100YR1DAY	19.26	20.30	0.0000	166.52	109.05	211112
NBW2090	FEX100YR1DAY	19.10	20.26	0.0000	66.02	65.35	91297
NBW2110	FEX100YR1DAY	18.92	20.27	0.0000	218.46	163.15	250332
NBW2130	FEX100YR1DAY	18.92	20.27	-0.0001	49.98	32.92	40808
NBW2140	FEX100YR1DAY	20.00	20.27	-0.0001	5.36	5.26	607
NBW2145	FEX100YR1DAY	0.00	20.26	-0.0007	31.13	63.74	110433
NBW2150	FEX100YR1DAY	19.26	20.30	0.0000	117.36	102.14	33994
NBW2170	FEX100YR1DAY	19.12	20.30	0.0000	5.39	5.22	798
NBW2190	FEX100YR1DAY	19.10	20.29	0.0000	12.08	6.77	31508
NBW2210	FEX100YR1DAY	19.47	20.30	0.0000	37.90	33.43	53988
NBW2230	FEX100YR1DAY	19.47	20.29	0.0000	95.17	89.22	92410
NBW2250	FEX100YR1DAY	19.51	20.29	0.0000	15.16	14.97	12496
NBW2270	FEX100YR1DAY	19.57	20.29	0.0000	22.43	17.15	45789

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2290	FEX100YR1DAY	19.65	20.29	0.0000	124.62	113.33	218554
NBW2310	FEX100YR1DAY	19.82	20.18	0.0000	120.26	115.95	161324
NBW2330	FEX100YR1DAY	19.82	20.19	0.0000	46.59	31.56	91738
NBW2350	FEX100YR1DAY	16.05	16.64	0.0001	217.26	216.07	78964
NBW2370	FEX100YR1DAY	16.11	16.66	-0.0001	52.09	48.78	56304
NBW2380	FEX100YR1DAY	12.29	16.66	0.0004	335.97	327.85	97541
NBW2385	FEX100YR1DAY	18.49	18.51	0.0000	7.07	7.05	6894
NBW2387	FEX100YR1DAY	16.11	16.67	0.0000	0.78	0.80	482
NBW2390	FEX100YR1DAY	16.42	18.05	0.0001	167.66	171.64	76027
NBW2410	FEX100YR1DAY	16.59	18.47	-0.0002	291.55	289.31	189512
NBW2430	FEX100YR1DAY	16.23	18.53	0.0001	409.89	409.15	124759
NBW2450	FEX100YR1DAY	16.15	18.62	0.0002	162.29	161.12	4396
NBW2470	FEX100YR1DAY	16.43	18.87	0.0002	424.36	425.31	47393
NBW2490	FEX100YR1DAY	16.90	18.87	-0.0004	89.50	314.37	23754
NBW2510	FEX100YR1DAY	17.74	18.86	0.0001	72.05	71.09	9846
NBW2530	FEX100YR1DAY	17.92	18.78	-0.0001	66.08	66.37	2010
NBW2550	FEX100YR1DAY	17.95	18.76	0.0000	2.42	2.55	450
NBW2570	FEX100YR1DAY	17.96	18.75	0.0000	5.45	3.44	12798
NBW2590	FEX100YR1DAY	18.06	18.75	-0.0001	54.16	54.35	1098
NBW2610	FEX100YR1DAY	17.00	18.98	-0.0007	485.60	483.68	139150
NBW2630	FEX100YR1DAY	17.98	18.99	0.0000	223.04	197.83	43793
NBW2650	FEX100YR1DAY	16.97	18.96	-0.0003	27.74	28.73	47982
NBW2670	FEX100YR1DAY	16.42	18.96	0.0001	57.02	36.16	51910
NBW2680	FEX100YR1D	17.73	18.60	-0.0001	205.57	205.37	27944

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW2690	FEX100YR1DAY	15.40	18.39	0.0002	420.41	417.21	120607
NBW2710	FEX100YR1DAY	17.73	18.64	0.0001	4.09	2.58	529
NBW2730	FEX100YR1DAY	18.29	18.75	0.0000	3.67	2.76	6334
NBW2770	FEX100YR1DAY	18.09	18.99	0.0001	13.27	13.29	1310
NBW2775	FEX100YR1DAY	6.59	7.25	0.0000	45.62	45.57	67521
NBW2780	FEX100YR1DAY	18.38	18.96	0.0001	205.58	202.15	206803
NBW2790	FEX100YR1DAY	18.38	19.00	0.0000	317.51	292.13	179997
NBW2810	FEX100YR1DAY	18.39	19.00	-0.0002	116.59	102.44	88947
NBW2830	FEX100YR1DAY	18.40	19.01	0.0000	93.23	63.59	211841
NC01	FEX100YR1DAY	0.00	6.36	0.0001	49.89	49.60	5440
NC01B	FEX100YR1DAY	0.00	5.98	0.0000	38.41	38.37	7455
NC02	FEX100YR1DAY	0.00	9.02	-0.0001	184.52	184.47	12924
NC03	FEX100YR1DAY	0.00	5.03	0.0002	215.59	215.50	16962
NC04	FEX100YR1DAY	0.00	4.15	0.0000	151.30	147.50	64731
NC05	FEX100YR1DAY	0.00	4.13	-0.0001	165.50	163.83	71309
NC06	FEX100YR1DAY	0.00	4.09	0.0000	175.95	175.68	31498
NC07	FEX100YR1DAY	0.00	4.08	-0.0001	160.28	160.36	28845
NC08	FEX100YR1DAY	0.00	4.04	0.0000	184.29	184.12	21138
NCL0010	FEX100YR1DAY	2.00	2.00	0.0000	929.57	0.00	0
NCL0030	FEX100YR1DAY	2.36	3.21	-0.0001	611.47	611.44	6856
NCL0050	FEX100YR1DAY	2.36	3.21	0.0000	0.84	0.60	439
NCL0070	FEX100YR1DAY	5.20	5.88	0.0000	288.03	284.31	89989
NCL0090	FEX100YR1DAY	6.06	6.44	0.0000	102.04	83.98	106395

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0110	FEX100YR1DAY	3.04	4.07	-0.0009	639.61	639.33	6623
NCL0130	FEX100YR1DAY	4.05	4.22	0.0002	160.81	160.86	565
NCL0150	FEX100YR1DAY	4.95	5.54	-0.0001	162.55	162.62	2802
NCL0170	FEX100YR1DAY	5.08	5.60	0.0000	106.98	107.04	1472
NCL0190	FEX100YR1DAY	5.08	5.62	0.0000	4.55	4.38	438
NCL0210	FEX100YR1DAY	5.85	7.13	-0.0001	112.31	102.58	52890
NCL0230	FEX100YR1DAY	6.60	7.95	-0.0002	79.84	33.19	103791
NCL0250	FEX100YR1DAY	6.60	7.95	-0.0001	3.93	4.13	608
NCL0270	FEX100YR1DAY	6.60	7.95	0.0000	8.19	5.80	4006
NCL0290	FEX100YR1DAY	5.90	7.17	0.0001	65.07	65.72	924
NCL0310	FEX100YR1DAY	6.10	7.37	0.0013	64.69	65.08	1045
NCL0330	FEX100YR1DAY	5.95	7.13	-0.0001	24.16	30.46	16464
NCL0350	FEX100YR1DAY	6.60	7.95	-0.0005	266.36	208.25	131607
NCL0370	FEX100YR1DAY	7.36	8.17	0.0002	247.97	244.81	44903
NCL0390	FEX100YR1DAY	4.02	5.06	-0.0022	461.27	484.55	4339
NCL0410	FEX100YR1DAY	4.09	5.33	-0.0002	9.33	9.30	819
NCL0430	FEX100YR1DAY	4.23	5.65	-0.0001	10.66	10.07	2058
NCL0450	FEX100YR1DAY	4.75	5.74	-0.0022	451.63	451.65	3676
NCL0470	FEX100YR1DAY	5.43	6.34	-0.0010	450.13	450.16	3437
NCL0490	FEX100YR1DAY	6.48	7.21	-0.0010	584.41	586.41	79945
NCL0510	FEX100YR1DAY	6.67	7.55	-0.0002	44.90	42.55	7851
NCL0530	FEX100YR1DAY	8.10	8.70	0.0003	38.53	21.71	1170
NCL0550	FEX100YR1DAY	8.17	8.75	-0.0002	45.17	38.53	81354
NCL0570	FEX100YR1D	8.66	9.16	-0.0001	24.93	21.09	11786

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL0590	FEX100YR1DAY	7.00	7.76	0.0011	490.13	490.72	19131
NCL0610	FEX100YR1DAY	7.52	8.31	0.0015	475.63	475.88	4853
NCL0630	FEX100YR1DAY	8.06	9.08	-0.0004	472.44	472.55	8202
NCL0650	FEX100YR1DAY	8.12	9.15	-0.0005	57.19	102.61	1613
NCL0670	FEX100YR1DAY	8.67	9.91	0.0004	116.85	57.19	1693
NCL0690	FEX100YR1DAY	8.76	9.95	0.0004	24.46	35.15	605
NCL0710	FEX100YR1DAY	8.95	10.03	-0.0002	25.22	24.13	601
NCL0730	FEX100YR1DAY	9.26	10.20	-0.0001	26.56	25.22	554
NCL0750	FEX100YR1DAY	9.56	10.31	0.0000	249.75	230.08	98014
NCL0770	FEX100YR1DAY	10.12	10.55	0.0001	117.72	117.65	2178
NCL0790	FEX100YR1DAY	8.69	9.97	-0.0003	49.99	101.59	895
NCL0810	FEX100YR1DAY	8.84	10.39	0.0000	55.76	49.99	50093
NCL0830	FEX100YR1DAY	8.93	10.39	0.0009	398.51	399.43	59459
NCL0850	FEX100YR1DAY	9.01	10.40	-0.0001	117.44	103.81	39981
NCL0870	FEX100YR1DAY	9.37	10.57	0.0001	131.23	130.86	2022
NCL0890	FEX100YR1DAY	9.65	10.67	-0.0002	118.49	118.30	1586
NCL0910	FEX100YR1DAY	9.71	10.54	0.0000	27.93	27.61	21600
NCL0930	FEX100YR1DAY	9.57	11.16	-0.0001	191.22	188.14	18707
NCL0950	FEX100YR1DAY	9.89	11.34	-0.0001	173.38	170.78	18773
NCL0970	FEX100YR1DAY	10.41	11.80	0.0001	46.02	44.96	2256
NCL0990	FEX100YR1DAY	11.00	11.91	0.0001	67.47	66.15	13239
NCL1010	FEX100YR1DAY	11.14	12.51	0.0001	14.43	14.19	904
NCL1030	FEX100YR1DAY	9.67	10.60	-0.0002	25.09	29.84	2212

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1050	FEX100YR1DAY	10.46	10.62	0.0000	11.61	10.08	6738
NCL1070	FEX100YR1DAY	9.30	11.67	0.0000	4.29	4.32	612
NCL1090	FEX100YR1DAY	9.76	11.71	0.0000	26.02	6.68	32592
NCL1110	FEX100YR1DAY	9.85	11.39	0.0000	19.85	19.46	36220
NCL1130	FEX100YR1DAY	9.76	11.71	0.0000	45.91	19.32	127027
NCL1150	FEX100YR1DAY	9.76	11.71	0.0001	793.80	782.49	304500
NCL1170	FEX100YR1DAY	10.59	12.79	-0.0009	464.37	395.78	162938
NCL1190	FEX100YR1DAY	10.72	13.34	-0.0001	109.25	109.30	1850
NCL1210	FEX100YR1DAY	10.63	12.81	-0.0001	58.95	28.65	59164
NCL1230	FEX100YR1DAY	10.94	14.06	-0.0001	109.21	109.25	1432
NCL1250	FEX100YR1DAY	11.11	14.49	-0.0002	109.18	109.21	1231
NCL1270	FEX100YR1DAY	11.34	14.99	-0.0001	289.24	187.55	239703
NCL1290	FEX100YR1DAY	13.06	15.01	0.0001	262.00	244.71	78618
NCL1310	FEX100YR1DAY	14.77	16.00	0.0001	258.84	256.57	67027
NCL1330	FEX100YR1DAY	10.60	12.79	-0.0001	449.45	439.41	95321
NCL1350	FEX100YR1DAY	10.63	12.81	0.0001	422.06	413.30	72627
NCL1370	FEX100YR1DAY	10.63	12.84	-0.0001	266.09	263.52	21504
NCL1390	FEX100YR1DAY	10.63	14.98	0.0000	81.47	68.95	37621
NCL1410	FEX100YR1DAY	10.63	14.99	-0.0002	82.39	80.75	10467
NCL1430	FEX100YR1DAY	10.70	12.82	-0.0006	630.14	480.82	272862
NCL1450	FEX100YR1DAY	10.93	13.29	0.0016	498.66	498.15	3036
NCL1470	FEX100YR1DAY	12.72	14.77	0.0001	349.08	348.23	4445
NCL1490	FEX100YR1DAY	14.45	14.94	0.0000	9.03	9.12	783
NCL1510	FEX100YR1D	11.06	13.28	0.0027	67.93	72.39	19445

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL1530	FEX100YR1DAY	12.54	13.27	-0.0001	112.78	111.93	22867
NCL1550	FEX100YR1DAY	13.13	13.58	-0.0001	42.58	41.44	1021
NCL1570	FEX100YR1DAY	13.31	14.26	0.0001	7.31	7.23	504
NCL1590	FEX100YR1DAY	13.70	14.28	0.0000	3.61	3.11	1307
NCL1610	FEX100YR1DAY	13.37	14.50	0.0001	4.76	4.44	468
NCL1630	FEX100YR1DAY	13.57	13.80	0.0003	98.30	98.25	2982
NCL1650	FEX100YR1DAY	13.68	14.07	0.0002	105.22	105.19	2238
NCL1670	FEX100YR1DAY	14.02	15.18	0.0001	228.49	228.45	17318
NCL1690	FEX100YR1DAY	17.47	18.00	0.0001	72.50	72.38	7472
NCL1710	FEX100YR1DAY	17.89	18.24	0.0001	64.74	64.78	3578
NCL1730	FEX100YR1DAY	18.27	19.50	0.0007	270.89	270.38	50520
NCL1750	FEX100YR1DAY	18.24	19.36	-0.0006	33.04	33.06	513
NCL1770	FEX100YR1DAY	18.07	18.34	0.0001	60.71	60.67	3363
NCL1790	FEX100YR1DAY	15.78	16.81	0.0001	341.27	340.55	5863
NCL1810	FEX100YR1DAY	18.13	18.53	0.0001	94.55	86.40	59256
NCL1830	FEX100YR1DAY	18.39	18.87	-0.0001	322.07	321.87	6250
NCL1850	FEX100YR1DAY	18.50	19.01	-0.0004	63.56	79.05	909
NCL1870	FEX100YR1DAY	19.01	19.68	0.0001	63.44	63.56	996
NCL1890	FEX100YR1DAY	19.15	19.85	0.0003	67.49	66.30	985
NCL1910	FEX100YR1DAY	19.15	19.86	0.0001	4.50	1.13	527
NCL1930	FEX100YR1DAY	19.91	20.03	0.0000	7.78	7.67	1631
NCL1950	FEX100YR1DAY	19.15	19.86	0.0000	1.01	0.15	502
NCL1970	FEX100YR1DAY	21.67	21.69	0.0000	4.29	4.27	3382

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1990	FEX100YR1DAY	19.58	20.41	-0.0002	69.54	67.49	915
NCL2010	FEX100YR1DAY	19.74	20.45	0.0001	37.15	33.90	1104
NCL2030	FEX100YR1DAY	19.76	20.02	0.0001	30.93	26.55	44903
NCL2050	FEX100YR1DAY	19.76	20.49	0.0001	38.70	34.93	1411
NCL2070	FEX100YR1DAY	19.76	20.03	-0.0001	7.46	8.59	1202
NCL2090	FEX100YR1DAY	19.87	20.88	0.0002	42.79	38.70	1414
NCL2110	FEX100YR1DAY	20.03	20.92	-0.0003	47.92	43.11	48944
NCL2130	FEX100YR1DAY	19.87	20.94	0.0001	168.82	180.36	146007
NCL2150	FEX100YR1DAY	20.75	21.64	-0.0003	176.36	158.72	276086
NCL2170	FEX100YR1DAY	19.85	20.92	0.0002	286.31	283.24	116300
NCL2230	FEX100YR1DAY	19.13	19.99	0.0001	323.76	321.07	68056
NCL2250	FEX100YR1DAY	19.55	20.49	0.0002	265.34	250.29	4443
NCL2270	FEX100YR1DAY	20.05	21.07	0.0001	371.79	370.64	72490
NCL2290	FEX100YR1DAY	19.88	20.92	0.0001	18.26	15.53	25275
NCL2310	FEX100YR1DAY	20.45	21.30	0.0001	94.55	94.17	1779
NCL2330	FEX100YR1DAY	20.74	21.47	0.0001	211.78	200.39	141628
NCL2350	FEX100YR1DAY	20.78	21.50	0.0001	90.43	89.17	16950
NCL2370	FEX100YR1DAY	20.81	21.50	0.0001	88.42	87.80	2298
NCL2390	FEX100YR1DAY	20.84	21.53	0.0000	217.39	177.65	236667
NCL2410	FEX100YR1DAY	21.07	21.55	0.0000	31.08	30.71	1380
NCL2430	FEX100YR1DAY	21.32	21.68	0.0000	29.50	29.25	1472
NCL2450	FEX100YR1DAY	21.25	21.63	0.0000	6.64	6.48	493
NCL2470	FEX100YR1DAY	20.93	21.53	0.0000	30.65	30.30	846
NCL2490	FEX100YR1D	21.54	21.69	0.0000	26.04	25.86	2460

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL2510	FEX100YR1DAY	21.70	21.63	0.0000	226.40	226.86	139622
NCL2530	FEX100YR1DAY	21.70	21.62	0.0000	100.53	102.27	65112
NCL2540	FEX100YR1DAY	0.00	22.32	0.0000	139.90	137.37	62507
NCL2550	FEX100YR1DAY	21.70	21.62	0.0000	111.11	111.60	24320
NCL2570	FEX100YR1DAY	21.51	21.57	0.0001	13.18	13.03	1503
NCL2580	FEX100YR1DAY	0.00	21.55	-0.0001	199.97	199.08	46102
NCL2590	FEX100YR1DAY	21.17	21.55	0.0000	344.20	339.21	183318
NCL2610	FEX100YR1DAY	21.14	21.54	0.0000	236.87	236.64	37864
NCL2630	FEX100YR1DAY	20.86	21.13	-0.0001	135.40	129.71	60073
NCL2631	FEX100YR1DAY	0.00	21.01	0.0000	118.57	109.61	52357
NCL2650	FEX100YR1DAY	21.17	21.71	0.0000	134.36	114.07	171129
NCL2670	FEX100YR1DAY	21.93	22.34	-0.0004	143.40	168.77	82471
NCL2690	FEX100YR1DAY	21.96	22.59	0.0000	99.30	104.26	68125
NCL2710	FEX100YR1DAY	21.96	22.71	0.0000	88.71	78.20	91489
NCL2730	FEX100YR1DAY	21.95	22.83	0.0000	54.98	53.53	34951
NCL2750	FEX100YR1DAY	21.84	23.19	0.0000	174.50	173.41	54762
NCL2770	FEX100YR1DAY	21.71	22.52	0.0000	43.97	43.98	1389
NCL2780	FEX100YR1DAY	0.00	22.46	0.0000	46.57	46.83	34125
NCL2790	FEX100YR1DAY	21.84	22.46	0.0000	254.98	239.08	172626
NCL2810	FEX100YR1DAY	22.11	22.94	0.0001	170.69	169.82	34228
NCL2830	FEX100YR1DAY	23.09	23.27	-0.0002	37.33	36.21	18154
NCL2835	FEX100YR1DAY	0.00	23.94	0.0000	7.94	7.96	1074
NCL2840	FEX100YR1DAY	0.00	23.86	0.0000	169.93	169.64	30289

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2845	FEX100YR1DAY	0.00	24.39	-0.0001	95.39	95.14	20186
NCL2850	FEX100YR1DAY	20.82	21.50	0.0000	15.92	16.07	6860
NCL2870	FEX100YR1DAY	20.83	21.39	0.0001	15.05	15.20	1246
NCL2890	FEX100YR1DAY	20.83	21.29	-0.0002	18.77	17.49	28485
NCL2910	FEX100YR1DAY	20.83	21.29	0.0001	133.75	133.19	48092
NCL2930	FEX100YR1DAY	19.55	20.52	-0.0004	311.41	314.16	41391
NCL2950	FEX100YR1DAY	19.53	20.51	0.0001	195.54	195.65	44565
NCL2970	FEX100YR1DAY	20.49	20.81	0.0002	95.71	92.80	31210
NCL2990	FEX100YR1DAY	19.33	20.30	0.0001	192.30	192.37	12754
NCL3010	FEX100YR1DAY	19.35	20.30	0.0001	207.70	189.80	327511
NCL3030	FEX100YR1DAY	19.58	20.34	0.0001	187.42	187.51	131319
NCL3050	FEX100YR1DAY	19.94	20.40	0.0001	125.69	115.05	74832
NCL3070	FEX100YR1DAY	20.14	20.44	0.0001	70.72	62.76	43908
NCL3090	FEX100YR1DAY	19.59	20.32	0.0001	182.17	182.24	124719
NCL3110	FEX100YR1DAY	19.59	20.32	0.0003	121.27	85.94	155636
NCL3130	FEX100YR1DAY	19.59	20.32	0.0001	45.58	21.34	81686
NCL3150	FEX100YR1DAY	19.54	20.30	0.0001	200.07	185.01	88351
NCL3170	FEX100YR1DAY	19.71	20.49	0.0001	161.33	160.54	55226
NCL3190	FEX100YR1DAY	20.31	20.81	0.0001	183.39	170.17	167634
NCL3210	FEX100YR1DAY	20.32	20.82	0.0002	141.08	133.60	84573
NCL3230	FEX100YR1DAY	20.32	20.83	0.0002	115.76	113.09	39059
NCL3250	FEX100YR1DAY	19.11	20.27	0.0001	209.42	181.64	226874
NCL3270	FEX100YR1DAY	19.11	20.27	0.0001	38.59	34.87	24315
NCL3280	FEX100YR1D	0.00	20.27	0.0001	60.74	57.39	29470

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL3290	FEX100YR1DAY	20.16	20.69	0.0001	60.60	58.64	37575
NCL3300	FEX100YR1DAY	0.00	20.27	0.0001	22.92	22.91	14674
NCL3310	FEX100YR1DAY	20.19	20.88	0.0001	3.15	2.87	755
NCL3330	FEX100YR1DAY	20.75	20.90	0.0000	8.09	7.50	437
NCL3350	FEX100YR1DAY	20.51	20.86	0.0001	68.05	64.44	58680
NCL3360	FEX100YR1DAY	0.00	20.86	0.0000	23.22	20.84	26769
NCL3365	FEX100YR1DAY	0.00	20.49	0.0001	68.33	67.57	37145
NCL3370	FEX100YR1DAY	20.64	21.26	0.0001	224.09	221.57	115381
NCL3390	FEX100YR1DAY	20.83	21.29	0.0000	227.64	227.01	44731
NCL3410	FEX100YR1DAY	20.83	21.29	0.0000	2.41	1.80	475
NCL3430	FEX100YR1DAY	20.83	21.29	0.0000	5.96	1.48	6406
NCL3450	FEX100YR1DAY	18.92	20.27	0.0007	481.51	264.69	259379
NCL3460	FEX100YR1DAY	18.92	20.27	-0.0008	127.11	127.20	2956
NCL3470	FEX100YR1DAY	19.11	20.27	0.0001	755.75	397.19	390517
NCL3490	FEX100YR1DAY	19.15	20.27	-0.0002	211.26	540.56	90690
NCL3510	FEX100YR1DAY	20.64	20.28	0.0001	188.43	190.04	40129
NCL3520	FEX100YR1DAY	0.00	20.28	-0.0001	471.88	464.28	124709
NCL3530	FEX100YR1DAY	20.66	21.02	0.0001	255.87	254.07	79909
NCL3550	FEX100YR1DAY	20.66	21.04	0.0001	5.08	2.40	736
NCL3570	FEX100YR1DAY	20.66	21.06	0.0001	2.82	1.44	624
NCL3590	FEX100YR1DAY	20.66	21.06	0.0000	4.90	2.35	8213
NCL3610	FEX100YR1DAY	20.66	21.02	-0.0001	20.22	19.06	1245
NCL3630	FEX100YR1DAY	20.64	21.01	0.0001	416.75	413.09	134784

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3635	FEX100YR1DAY	0.00	21.01	0.0000	15.77	14.36	1726
NCL3640	FEX100YR1DAY	0.00	21.01	0.0001	56.56	51.67	65199
NCL3650	FEX100YR1DAY	18.92	20.27	0.0001	4.92	3.66	502
NCL3670	FEX100YR1DAY	18.92	20.27	0.0000	139.04	116.83	108900
NCL3690	FEX100YR1DAY	18.92	20.27	-0.0003	182.96	179.77	3204
NCL3730	FEX100YR1DAY	18.92	20.27	0.0000	453.49	98.20	151611
NCL3740	FEX100YR1DAY	0.00	20.27	0.0001	269.86	116.55	43386
NCL3750	FEX100YR1DAY	18.93	19.74	0.0001	280.54	259.03	304476
NCL3770	FEX100YR1DAY	18.93	19.74	0.0001	80.12	19.09	115479
NCL4000	FEX100YR1DAY	0.00	29.91	0.0000	87.46	87.41	9334
NCL4010	FEX100YR1DAY	0.00	29.67	0.0000	77.71	77.38	15901
NCypEast	FEX100YR1DAY	32.00	29.00	0.0000	19.05	0.00	0
NCypWest	FEX100YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX100YR1DAY	2.00	2.00	0.0000	597.89	63.78	0
NOC0030	FEX100YR1DAY	1.14	2.51	0.0220	597.94	597.89	1916
NOC0050	FEX100YR1DAY	1.20	2.80	0.0231	513.26	513.45	3069
NOC0070	FEX100YR1DAY	1.45	3.84	0.0229	496.11	496.26	8938
NOC0090	FEX100YR1DAY	2.91	3.97	0.0055	127.69	127.78	446
NOC0110	FEX100YR1DAY	1.65	3.93	0.0179	296.69	296.84	455
NOC0130	FEX100YR1DAY	3.06	4.74	0.0054	296.63	296.69	528
NOC0150	FEX100YR1DAY	3.08	4.76	0.0000	4.44	4.22	500
NOC0170	FEX100YR1DAY	4.56	4.94	0.0000	25.08	25.06	1913
NOC0190	FEX100YR1DAY	5.09	6.05	-0.0010	299.82	300.08	2803
NOC0210	FEX100YR1D	5.68	6.17	-0.0001	49.83	48.69	9978

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NOC0230	FEX100YR1DAY	5.12	6.12	-0.0001	10.98	10.64	742
NOC0250	FEX100YR1DAY	5.30	6.63	-0.0001	11.50	10.98	1988
NOC0270	FEX100YR1DAY	5.57	7.23	0.0000	9.11	5.32	13313
NOC0290	FEX100YR1DAY	5.11	6.26	0.0003	402.53	402.56	1836
NOC0310	FEX100YR1DAY	5.27	6.72	-0.0002	100.24	84.38	60440
NOC0330	FEX100YR1DAY	5.85	7.13	-0.0001	409.92	411.43	225036
NOC0350	FEX100YR1DAY	5.89	7.21	-0.0001	394.25	360.46	226035
NOC0370	FEX100YR1DAY	6.47	7.50	-0.0001	312.59	310.54	97278
NOC0390	FEX100YR1DAY	6.60	7.95	-0.0001	137.79	117.72	69505
NOC0410	FEX100YR1DAY	6.95	7.94	0.0001	65.52	41.98	96578
NOC0430	FEX100YR1DAY	7.01	7.57	0.0001	70.31	67.30	41530
NOC0450	FEX100YR1DAY	7.62	7.76	0.0001	46.49	45.45	25367
NOC0470	FEX100YR1DAY	8.12	8.30	0.0001	32.10	30.33	29957
NOC0490	FEX100YR1DAY	7.67	7.79	0.0001	7.28	6.95	1051
NRU0010	FEX100YR1DAY	2.00	2.00	0.0000	697.43	0.00	0
NRU0030	FEX100YR1DAY	2.84	3.70	0.0005	438.14	393.63	2468
NRU0050	FEX100YR1DAY	4.36	6.01	-0.0020	393.64	438.14	2036
NRU0070	FEX100YR1DAY	5.61	7.90	-0.0009	422.11	393.64	50880
NRU0090	FEX100YR1DAY	5.66	7.90	0.0002	141.61	92.28	52725
NRU0110	FEX100YR1DAY	6.23	7.94	-0.0001	333.94	302.85	39157
NRU0130	FEX100YR1DAY	7.66	9.62	-0.0003	280.15	279.62	2616
NRU0150	FEX100YR1DAY	7.71	9.68	0.0005	257.27	257.41	1426
NRU0160	FEX100YR1DAY	0.00	15.20	-0.0001	195.66	195.55	4959

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0165	FEX100YR1DAY	0.00	16.23	0.0000	9.39	8.67	8931
NRU0170	FEX100YR1DAY	14.45	17.87	0.0006	267.91	202.89	133798
NRU0172	FEX100YR1DAY	0.00	17.87	0.0000	9.31	10.24	830
NRU0174	FEX100YR1DAY	0.00	17.88	-0.0001	17.92	9.31	10645
NRU0176	FEX100YR1DAY	0.00	16.33	0.0000	11.71	11.71	761
NRU0178	FEX100YR1DAY	0.00	17.53	0.0000	6.17	6.20	956
NRU0180	FEX100YR1DAY	0.00	17.89	0.0000	281.88	214.73	265543
NRU0190	FEX100YR1DAY	14.45	17.87	-0.0004	19.94	17.40	29662
NRU0210	FEX100YR1DAY	14.45	17.63	0.0001	26.67	19.93	23126
NRU0230	FEX100YR1DAY	13.39	15.25	0.0001	40.75	40.03	24487
NRU0250	FEX100YR1DAY	14.62	17.87	0.0001	881.58	242.91	84841
NRU0270	FEX100YR1DAY	15.05	17.88	-0.0002	189.45	207.77	24514
NRU0290	FEX100YR1DAY	16.30	19.20	-0.0002	110.27	94.12	117469
NRU0310	FEX100YR1DAY	16.13	18.08	0.0000	98.14	98.31	9189
NRU0330	FEX100YR1DAY	18.25	18.74	0.0000	26.34	25.12	1352
NRU0335	FEX100YR1DAY	0.00	19.52	0.0001	14.51	12.93	20301
NRU0340	FEX100YR1DAY	0.00	19.22	0.0000	117.49	102.67	93773
NRU0343	FEX100YR1DAY	0.00	19.78	0.0000	8.40	8.34	903
NRU0345	FEX100YR1DAY	0.00	19.99	0.0000	108.97	98.93	112608
NRU0350	FEX100YR1DAY	19.50	19.79	0.0000	30.03	21.80	56018
NRU0370	FEX100YR1DAY	19.51	19.79	0.0000	19.86	16.41	31560
NRU0380	FEX100YR1DAY	23.33	20.05	-0.0001	11.22	11.19	470
NRU0390	FEX100YR1DAY	27.00	20.07	0.0000	31.64	11.22	39915
NRU0410	FEX100YR1D	19.56	19.88	0.0000	9.01	9.19	1100

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU0425	FEX100YR1DAY	15.53	16.89	0.0001	7.68	2.80	4982
NRU0430	FEX100YR1DAY	19.61	19.95	0.0000	8.83	9.01	1077
NRU0450	FEX100YR1DAY	19.66	20.04	0.0000	8.66	8.83	1038
NRU0470	FEX100YR1DAY	19.72	20.45	0.0000	8.51	8.66	799
NRU0490	FEX100YR1DAY	20.36	20.78	0.0001	18.17	17.58	51957
NRU0495	FEX100YR1DAY	0.00	21.24	-0.0001	16.92	16.29	19795
NRU0500	FEX100YR1DAY	0.00	21.31	0.0000	4.58	4.20	9589
NRU0510	FEX100YR1DAY	19.67	20.44	0.0000	50.99	37.53	122335
NRU0530	FEX100YR1DAY	16.95	18.41	0.0000	72.66	72.79	2252
NRU0550	FEX100YR1DAY	17.92	18.78	0.0000	180.34	169.56	100801
NRU0570	FEX100YR1DAY	18.16	19.23	0.0000	134.26	133.01	23824
NRU0590	FEX100YR1DAY	18.51	19.79	0.0000	86.94	86.50	39100
NRU0610	FEX100YR1DAY	18.78	20.01	0.0000	86.95	83.73	102608
NRU0612	FEX100YR1DAY	0.00	20.03	0.0000	61.00	61.06	74976
NRU0615	FEX100YR1DAY	0.00	20.12	0.0000	9.00	8.03	1921
NRU0616	FEX100YR1DAY	0.00	20.45	0.0000	11.28	8.36	28577
NRU0618	FEX100YR1DAY	0.00	20.81	0.0000	23.78	19.74	33923
NRU0620	FEX100YR1DAY	0.00	20.22	0.0000	47.25	42.29	37628
NRU0630	FEX100YR1DAY	18.79	20.19	0.0000	59.22	59.28	66599
NRU0650	FEX100YR1DAY	18.79	20.21	0.0000	98.37	88.10	90453
NRU0670	FEX100YR1DAY	18.78	20.22	0.0001	59.43	59.30	1429
NRU0690	FEX100YR1DAY	18.84	20.25	0.0000	110.46	100.28	94999
NRU0710	FEX100YR1DAY	18.86	20.25	0.0000	187.19	171.84	90489

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0730	FEX100YR1DAY	18.85	20.25	0.0000	71.41	55.23	135047
NRU0740	FEX100YR1DAY	0.00	20.26	0.0000	181.74	155.11	53029
NRU0745	FEX100YR1DAY	0.00	20.26	0.0000	167.33	134.78	74831
NRU0750	FEX100YR1DAY	18.87	20.26	0.0000	202.25	52.10	341867
NRU0770	FEX100YR1DAY	18.88	20.26	0.0001	29.58	30.00	1008
NRU0785	FEX100YR1DAY	0.00	20.26	0.0000	141.95	126.45	90975
NRU0790	FEX100YR1DAY	18.88	20.26	0.0002	466.24	191.60	202390
NRU0810	FEX100YR1DAY	18.88	20.26	-0.0001	57.21	53.86	10755
NRU0820	FEX100YR1DAY	0.00	20.25	0.0001	5.74	3.04	442
NRU0830	FEX100YR1DAY	18.99	20.27	-0.0006	112.44	451.39	67904
NRU0850	FEX100YR1DAY	19.11	20.27	-0.0002	70.76	70.47	1188
NRU0870	FEX100YR1DAY	19.32	20.27	-0.0007	18.03	17.57	560
NRU0890	FEX100YR1DAY	19.35	20.27	0.0000	112.39	19.94	90674
NRU0910	FEX100YR1DAY	19.35	20.28	0.0003	3.73	3.25	568
NRU0930	FEX100YR1DAY	19.35	20.28	0.0000	3.92	3.73	2178
NRU0950	FEX100YR1DAY	19.11	20.27	-0.0001	128.49	112.33	45952
NRU0955	FEX100YR1DAY	0.00	20.27	0.0000	167.38	124.33	74309
NRU0960	FEX100YR1DAY	0.00	20.27	0.0000	229.30	207.10	49287
NRU0965	FEX100YR1DAY	0.00	20.27	0.0000	273.66	235.38	166476
NRU0970	FEX100YR1DAY	19.34	20.27	0.0000	137.57	78.66	102528
NRU0980	FEX100YR1DAY	0.00	20.27	-0.0009	13.78	8.43	1097
NRU0990	FEX100YR1DAY	19.39	20.27	0.0005	31.45	37.49	440
NRU1010	FEX100YR1DAY	19.70	20.27	0.0001	46.99	32.00	50179
NRU1015	FEX100YR1D	0.00	20.77	-0.0001	27.17	12.46	61914

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU1020	FEX100YR1DAY	0.00	21.94	-0.0060	16.90	91.99	866
NRU1025	FEX100YR1DAY	0.00	21.40	-0.0001	12.35	12.20	724
NRU1030	FEX100YR1DAY	19.70	20.27	0.0001	177.13	118.85	168800
NRU1035	FEX100YR1DAY	0.00	20.29	-0.0007	7.91	56.00	436
NRU1037	FEX100YR1DAY	0.00	20.29	0.0000	6.06	5.53	643
NRU1040	FEX100YR1DAY	0.00	20.27	0.0001	118.70	84.18	108692
NRU1045	FEX100YR1DAY	0.00	22.02	0.0001	25.97	12.06	44291
NRU1046	FEX100YR1DAY	0.00	21.99	0.0060	12.06	10.72	935
NRU1050	FEX100YR1DAY	19.70	20.28	0.0000	199.56	140.19	211289
NRU1070	FEX100YR1DAY	19.83	20.27	0.0000	77.86	70.55	61979
NRU1090	FEX100YR1DAY	18.86	20.26	0.0000	12.34	13.20	919
NRU1110	FEX100YR1DAY	18.86	20.26	0.0001	74.40	40.78	96102
NRU1130	FEX100YR1DAY	18.86	20.26	-0.0002	6.50	6.39	769
NRU1150	FEX100YR1DAY	18.86	20.26	0.0001	91.91	57.72	152417
NRU1170	FEX100YR1DAY	18.86	20.26	-0.0001	71.21	64.00	202489
NRU1182	FEX100YR1DAY	0.00	20.25	0.0000	29.70	10.17	34643
NRU1184	FEX100YR1DAY	0.00	20.23	0.0000	16.83	16.63	872
NRU1185	FEX100YR1DAY	0.00	20.22	0.0000	43.58	31.60	109900
NRU1186	FEX100YR1DAY	0.00	20.23	0.0000	4.76	4.63	786
NRU1188	FEX100YR1DAY	0.00	20.22	0.0000	43.40	7.10	78171
NRU1190	FEX100YR1DAY	18.86	20.25	0.0001	2.91	2.84	576
NRU1210	FEX100YR1DAY	18.86	20.25	0.0000	7.07	6.93	892
NRU1220	FEX100YR1DAY	0.00	20.52	0.0000	31.44	27.26	43712

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1225	FEX100YR1DAY	0.00	23.04	0.0000	8.41	8.08	8973
NRU1230	FEX100YR1DAY	18.88	20.26	-0.0001	10.76	10.45	873
NRU1232	FEX100YR1DAY	0.00	20.25	-0.0001	8.31	8.02	861
NRU1234	FEX100YR1DAY	0.00	20.25	0.0000	92.77	91.57	13383
NRU1240	FEX100YR1DAY	0.00	20.26	0.0000	52.43	47.96	39728
NRU1250	FEX100YR1DAY	4.07	4.88	-0.0004	303.58	304.37	2104
NRU1270	FEX100YR1DAY	4.78	5.64	0.0002	297.95	297.97	1667
NRU1290	FEX100YR1DAY	5.41	6.41	0.0001	281.55	281.63	3103
NRU1310	FEX100YR1DAY	6.42	7.60	0.0001	281.46	281.55	5051
NRU1330	FEX100YR1DAY	8.29	9.96	0.0001	350.22	349.95	3357
NRU1350	FEX100YR1DAY	9.32	11.34	0.0001	343.83	341.40	8087
NRU1370	FEX100YR1DAY	11.03	13.77	0.0001	348.40	334.49	26261
NRU1390	FEX100YR1DAY	11.84	13.80	0.0001	105.10	71.06	64293
NRU1410	FEX100YR1DAY	12.56	14.89	0.0002	273.55	273.60	7219
NRU1430	FEX100YR1DAY	15.53	16.89	0.0001	91.59	41.09	129424
NRU1450	FEX100YR1DAY	15.94	16.40	0.0001	64.19	63.67	13940
NRU1470	FEX100YR1DAY	15.97	16.45	0.0001	6.65	6.69	980
NRU1490	FEX100YR1DAY	16.09	16.65	0.0001	15.18	12.30	24399
NRU1510	FEX100YR1DAY	15.12	17.88	0.0001	238.75	235.17	183628
NRU1530	FEX100YR1DAY	15.71	17.89	-0.0001	93.38	99.89	53511
NRU1550	FEX100YR1DAY	15.40	17.89	0.0000	104.70	108.88	48637
NRU1570	FEX100YR1DAY	16.20	18.17	0.0000	58.27	50.73	42352
NRU1590	FEX100YR1DAY	16.40	18.17	0.0000	13.50	8.40	19358
NRU1610	FEX100YR1D	16.56	18.38	0.0000	55.72	43.71	54973

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU1630	FEX100YR1DAY	16.69	18.38	-0.0002	37.43	37.50	1538
NRU1650	FEX100YR1DAY	16.84	18.38	0.0000	49.01	37.43	53751
NRU1670	FEX100YR1DAY	16.89	18.39	0.0000	125.05	35.99	233791
NRU1690	FEX100YR1DAY	16.89	18.27	0.0000	62.02	60.78	38825
NRU1710	FEX100YR1DAY	16.60	18.29	0.0001	34.47	34.20	1426
NRU1730	FEX100YR1DAY	16.58	18.37	0.0000	106.18	25.82	195532
NRU1750	FEX100YR1DAY	16.58	18.37	-0.0001	14.82	16.87	720
NRU1770	FEX100YR1DAY	16.58	18.37	-0.0001	45.56	42.97	15134
NRU1790	FEX100YR1DAY	17.21	18.43	0.0000	27.13	24.50	40938
NRU1810	FEX100YR1DAY	16.58	18.37	0.0000	15.32	8.34	40796
NRU1830	FEX100YR1DAY	17.12	18.62	0.0000	46.72	29.63	66476
NRU1850	FEX100YR1DAY	17.07	18.32	-0.0001	25.08	25.05	1054
NRU1870	FEX100YR1DAY	17.20	18.43	-0.0001	25.11	25.08	907
NRU1890	FEX100YR1DAY	17.38	18.63	0.0000	70.03	25.11	129042
NRU1910	FEX100YR1DAY	17.71	18.63	0.0000	34.02	22.87	51880
NRU1930	FEX100YR1DAY	15.71	17.89	0.0000	68.83	83.09	171329
NRU1950	FEX100YR1DAY	16.43	18.04	0.0000	49.72	50.03	1646
NRU1970	FEX100YR1DAY	16.86	18.13	0.0001	49.47	49.72	1037
NRU1990	FEX100YR1DAY	17.09	18.18	-0.0001	50.06	50.08	7362
NRU2010	FEX100YR1DAY	18.02	18.73	0.0001	12.59	10.81	8412
NRU2030	FEX100YR1DAY	18.39	18.73	-0.0001	20.49	19.31	44075
NRU2050	FEX100YR1DAY	18.40	18.80	0.0001	4.79	3.17	453
NRU2070	FEX100YR1DAY	18.41	18.81	0.0000	8.83	4.79	20100

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2090	FEX100YR1DAY	17.16	18.25	-0.0001	43.93	44.23	15781
NRU2110	FEX100YR1DAY	17.28	18.35	0.0000	41.85	42.16	19348
NRU2130	FEX100YR1DAY	17.49	18.42	-0.0002	41.09	41.40	12518
NRU2150	FEX100YR1DAY	17.69	18.64	0.0001	13.40	6.34	64294
NRU2170	FEX100YR1DAY	17.07	18.53	0.0001	3.87	3.95	771
NRU2190	FEX100YR1DAY	17.08	18.53	0.0000	19.41	3.87	65743
NRU2210	FEX100YR1DAY	17.33	18.41	0.0001	8.77	8.81	540
NRU2230	FEX100YR1DAY	17.33	18.40	0.0000	71.86	18.29	157919
NRU2250	FEX100YR1DAY	17.31	18.40	0.0001	17.29	9.41	46865
NRU2270	FEX100YR1DAY	17.61	18.44	0.0001	32.52	30.44	17767
NRU2290	FEX100YR1DAY	17.67	18.45	-0.0001	25.75	26.01	7825
NRU2310	FEX100YR1DAY	17.68	18.44	0.0001	23.83	24.26	16534
NRU2330	FEX100YR1DAY	17.68	18.46	0.0004	31.95	10.89	11670
NRU2350	FEX100YR1DAY	17.68	18.45	-0.0002	6.32	30.85	655
NRU2370	FEX100YR1DAY	17.37	18.32	0.0001	6.19	6.32	528
NRU2390	FEX100YR1DAY	17.36	18.34	0.0000	17.32	6.19	38205
NRU2410	FEX100YR1DAY	17.72	18.41	0.0001	27.67	27.59	22637
NRU2430	FEX100YR1DAY	17.83	18.41	0.0001	23.34	22.93	16951
NRU2450	FEX100YR1DAY	18.06	18.40	0.0001	10.47	9.54	20483
NRU2470	FEX100YR1DAY	15.72	17.89	-0.0001	14.17	13.98	1460
NRU2490	FEX100YR1DAY	15.75	17.91	0.0000	14.52	14.17	1431
NRU2510	FEX100YR1DAY	15.75	17.95	0.0001	9.49	9.58	959
NRU2530	FEX100YR1DAY	15.76	18.10	0.0001	9.41	9.49	582
NRU2550	FEX100YR1D	16.53	17.91	0.0001	265.10	256.51	120350

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU2570	FEX100YR1DAY	17.71	18.78	0.0001	257.56	251.72	116849
NRU2590	FEX100YR1DAY	18.30	18.79	0.0001	35.96	35.60	9958
NRU2610	FEX100YR1DAY	18.62	19.33	0.0001	125.66	125.40	31292
NRU2630	FEX100YR1DAY	19.41	19.77	-0.0002	111.12	109.69	86613
NRU2650	FEX100YR1DAY	19.54	20.18	0.0002	99.01	97.35	99571
NRU2670	FEX100YR1DAY	16.64	17.19	0.0000	46.81	44.46	20737
NRU2690	FEX100YR1DAY	17.09	18.15	0.0000	292.57	127.49	605413
NSH02	FEX100YR1DAY	0.00	21.33	-0.0005	22.38	110.55	20448
NSH03	FEX100YR1DAY	0.00	20.72	0.0000	5.65	5.58	548
NSH04	FEX100YR1DAY	0.00	20.19	0.0002	82.54	81.47	36945
NSH05	FEX100YR1DAY	0.00	19.82	-0.0030	14.32	13.46	20657
NSH07	FEX100YR1DAY	0.00	8.54	0.0001	84.13	84.08	10552
NSH08	FEX100YR1DAY	0.00	10.37	0.0000	41.25	40.98	7786
NSH09	FEX100YR1DAY	0.00	10.85	0.0000	119.49	119.34	23552
NSH10	FEX100YR1DAY	0.00	19.20	0.0000	41.92	41.04	29924
NSH11	FEX100YR1DAY	0.00	21.15	0.0000	12.75	12.68	6845
NSH12	FEX100YR1DAY	0.00	19.25	0.0000	18.00	17.57	8506
NSH13	FEX100YR1DAY	0.00	18.16	0.0000	47.53	46.86	23319
NSH14	FEX100YR1DAY	0.00	17.87	0.0000	13.99	13.89	11233
NSH15	FEX100YR1DAY	0.00	18.76	0.0000	9.12	9.06	5723
NSH17	FEX100YR1DAY	0.00	17.37	0.0000	50.11	49.97	9805
NSH18	FEX100YR1DAY	0.00	15.93	0.0000	44.94	44.80	10661
NSH19	FEX100YR1DAY	0.00	11.74	0.0000	41.07	40.78	14879

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH20	FEX100YR1DAY	0.00	20.24	0.0000	5.94	5.77	12954
NSH21	FEX100YR1DAY	0.00	11.32	-0.0001	59.10	59.05	12078
NSH22	FEX100YR1DAY	0.00	14.51	0.0000	59.06	58.65	11836
NSH23	FEX100YR1DAY	0.00	18.45	0.0000	20.07	19.84	5458
NSH24	FEX100YR1DAY	0.00	14.51	0.0000	48.19	47.90	9643
NSH25	FEX100YR1DAY	0.00	14.24	0.0000	33.02	31.93	16896
NSH26	FEX100YR1DAY	0.00	14.14	0.0000	151.16	147.40	75470
NSH27	FEX100YR1DAY	0.00	13.14	0.0000	46.31	44.60	42641
NSH27A	FEX100YR1DAY	0.00	13.09	0.0000	17.22	16.97	921
NSH27AA	FEX100YR1DAY	0.00	13.12	-0.0001	4.50	4.53	549
NSH27B	FEX100YR1DAY	0.00	11.78	-0.0002	16.97	18.48	1033
NSH27C	FEX100YR1DAY	0.00	9.52	-0.0004	18.48	17.25	1037
NSH28	FEX100YR1DAY	0.00	10.12	0.0000	73.25	72.76	16358
NSH29	FEX100YR1DAY	0.00	9.78	-0.0001	17.96	13.62	8428
NSH31	FEX100YR1DAY	0.00	10.10	0.0000	5.40	4.72	480
NSH33	FEX100YR1DAY	0.00	16.81	0.0000	11.13	10.62	14334
NSH34	FEX100YR1DAY	0.00	9.61	0.0001	123.50	123.45	8537
NSH35	FEX100YR1DAY	0.00	8.23	-0.0001	144.04	144.03	5884
NSH36	FEX100YR1DAY	0.00	8.19	0.0005	22.24	22.20	805
NSH37	FEX100YR1DAY	0.00	18.14	0.0000	31.59	31.55	7607
NSH41	FEX100YR1DAY	0.00	19.25	0.0000	14.04	13.75	1789
NSH42	FEX100YR1DAY	0.00	7.99	0.0001	182.11	182.10	6042
NSH43	FEX100YR1DAY	0.00	7.99	-0.0001	49.13	49.08	1957
NSH44	FEX100YR1D	0.00	10.00	0.0002	88.03	88.03	1313

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSH45	FEX100YR1DAY	0.00	16.72	0.0000	90.83	89.82	39582
NSH48	FEX100YR1DAY	0.00	18.46	0.0000	24.84	24.67	6113
NSH49	FEX100YR1DAY	0.00	21.00	0.0000	28.79	26.24	22593
NSH50	FEX100YR1DAY	0.00	20.22	0.0002	72.48	68.11	25468
NSH51	FEX100YR1DAY	0.00	20.03	0.0001	52.53	29.74	112735
NSH52	FEX100YR1DAY	0.00	20.21	0.0001	118.24	107.04	70095
NSH53	FEX100YR1DAY	0.00	20.04	-0.0001	28.38	24.61	5102
NSH54	FEX100YR1DAY	0.00	20.21	0.0001	76.49	77.31	40786
NSH55	FEX100YR1DAY	0.00	20.22	0.0001	92.34	87.65	41605
NSH56	FEX100YR1DAY	0.00	20.22	-0.0001	28.04	28.15	5662
NSH57	FEX100YR1DAY	0.00	20.25	-0.0001	49.23	47.57	16463
NSH60	FEX100YR1DAY	0.00	20.69	0.0002	23.93	23.24	6840
NSH61	FEX100YR1DAY	0.00	20.22	-0.0003	19.53	19.41	444
NSH65	FEX100YR1DAY	0.00	21.07	0.0000	5.77	5.40	470
NSH75	FEX100YR1DAY	0.00	8.35	0.0001	76.33	75.52	17644
NSH80	FEX100YR1DAY	0.00	20.30	0.0000	6.58	6.80	10684
NSH81	FEX100YR1DAY	0.00	20.99	0.0000	2.06	0.70	3439
NSH82	FEX100YR1DAY	0.00	21.00	0.0000	5.70	3.10	11378
NSH83	FEX100YR1DAY	0.00	20.88	0.0000	29.99	29.17	16697
NSR0000	FEX100YR1DAY	2.00	2.00	0.0000	330.97	40.21	0
NSR0005	FEX100YR1DAY	2.00	2.00	0.0000	11.15	0.00	0
NSR0010	FEX100YR1DAY	2.00	2.00	0.0000	579.34	0.00	0
NSR0030	FEX100YR1DAY	2.92	3.92	0.0000	581.63	579.34	223647

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0032	FEX100YR1DAY	4.88	5.39	0.0000	21.10	18.83	25764
NSR0034	FEX100YR1DAY	3.63	4.27	0.0000	115.12	98.32	98793
NSR0050	FEX100YR1DAY	3.44	4.63	0.0000	564.11	561.57	129769
NSR0070	FEX100YR1DAY	3.45	4.46	0.0001	35.42	18.66	79250
NSR0090	FEX100YR1DAY	3.68	4.28	-0.0001	57.03	43.64	56360
NSR0100	FEX100YR1DAY	2.25	4.00	0.0000	11.35	11.15	3440
NSR0102	FEX100YR1DAY	4.24	4.63	0.0000	6.18	5.54	4275
NSR0105	FEX100YR1DAY	1.91	3.11	-0.0471	331.01	330.97	484
NSR0110	FEX100YR1DAY	3.93	4.84	0.0000	78.28	77.49	40574
NSR0112	FEX100YR1DAY	2.31	3.61	-0.0407	329.99	329.98	469
NSR0115	FEX100YR1DAY	4.25	4.45	0.0000	5.73	5.46	10006
NSR0120	FEX100YR1DAY	2.62	4.00	0.0398	327.62	327.66	479
NSR0130	FEX100YR1DAY	4.16	5.21	0.0000	76.19	75.79	49075
NSR0135	FEX100YR1DAY	4.22	5.60	0.0000	61.83	61.70	45052
NSR0140	FEX100YR1DAY	3.28	4.85	0.0271	324.93	325.02	10670
NSR0150	FEX100YR1DAY	3.64	5.09	0.0003	443.71	444.79	29727
NSR0160	FEX100YR1DAY	3.56	5.17	0.0217	307.89	306.98	26821
NSR0165	FEX100YR1DAY	4.03	5.65	0.0000	134.71	134.58	36094
NSR0170	FEX100YR1DAY	3.70	5.24	0.0000	80.48	80.43	17380
NSR0180	FEX100YR1DAY	3.83	5.64	0.0000	141.50	137.93	47450
NSR0190	FEX100YR1DAY	4.04	5.30	-0.0001	59.20	59.72	6427
NSR0210	FEX100YR1DAY	4.26	5.98	-0.0001	59.34	58.91	22376
NSR0230	FEX100YR1DAY	4.26	5.98	0.0000	82.89	58.75	165084
NSR0250	FEX100YR1D	3.93	5.27	0.0041	415.90	415.55	12764

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0270	FEX100YR1DAY	3.98	5.34	0.0000	199.90	192.64	119573
NSR0280	FEX100YR1DAY	5.41	6.11	0.0017	359.90	359.45	50761
NSR0281	FEX100YR1DAY	5.97	6.82	0.0004	288.27	288.00	23870
NSR0290	FEX100YR1DAY	6.70	7.30	-0.0009	190.07	189.03	45885
NSR0310	FEX100YR1DAY	9.28	9.57	0.0001	164.47	163.33	77627
NSR0330	FEX100YR1DAY	9.65	10.31	-0.0001	9.85	9.86	470
NSR0350	FEX100YR1DAY	10.32	11.70	-0.0001	9.85	9.85	446
NSR0370	FEX100YR1DAY	10.35	11.73	0.0000	18.60	9.85	22309
NSR0390	FEX100YR1DAY	11.96	12.44	-0.0001	144.75	144.42	80921
NSR0410	FEX100YR1DAY	12.27	13.16	0.0001	8.85	9.46	510
NSR0430	FEX100YR1DAY	12.28	13.17	0.0000	15.33	8.85	33870
NSR0450	FEX100YR1DAY	13.04	14.22	-0.0001	88.82	88.62	42665
NSR0470	FEX100YR1DAY	13.10	14.68	-0.0002	65.06	64.98	16740
NSR0490	FEX100YR1DAY	4.41	5.42	-0.0051	245.98	242.76	53397
NSR0510	FEX100YR1DAY	4.48	5.58	-0.0015	122.13	119.93	27179
NSR0530	FEX100YR1DAY	4.55	5.67	-0.0005	58.58	56.87	80107
NSR0540	FEX100YR1DAY	4.55	5.74	0.0008	173.45	168.16	117177
NSR0550	FEX100YR1DAY	4.56	5.74	0.0040	399.23	397.48	34721
NSR0560	FEX100YR1DAY	4.66	5.79	-0.0007	193.38	188.42	129415
NSR0570	FEX100YR1DAY	5.28	5.94	0.0002	293.23	292.59	65195
NSR0580	FEX100YR1DAY	6.13	6.92	-0.0001	39.67	21.09	125065
NSR0590	FEX100YR1DAY	6.15	6.94	-0.0001	158.55	157.31	83072
NSR0610	FEX100YR1DAY	6.26	7.00	-0.0001	185.25	177.48	85709

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0630	FEX100YR1DAY	6.26	6.99	-0.0001	16.21	16.27	475
NSR0650	FEX100YR1DAY	6.25	6.96	-0.0001	159.63	118.54	223316
NSR0660	FEX100YR1DAY	6.13	6.90	-0.0001	111.79	108.75	80036
NSR0670	FEX100YR1DAY	6.24	6.95	-0.0001	6.47	7.05	520
NSR0680	FEX100YR1DAY	6.14	6.83	-0.0001	151.26	148.92	174308
NSR0690	FEX100YR1DAY	6.24	6.95	-0.0001	6.11	6.47	599
NSR0710	FEX100YR1DAY	6.23	6.94	0.0000	6.04	6.11	861
NSR0730	FEX100YR1DAY	6.29	7.04	-0.0001	234.51	221.19	213010
NSR0770	FEX100YR1DAY	6.81	7.93	0.0001	241.53	241.22	30940
NSR0780	FEX100YR1DAY	6.74	7.46	0.0001	94.11	93.31	30051
NSR0790	FEX100YR1DAY	8.35	10.97	-0.0003	489.41	488.36	92861
NSR0791	FEX100YR1DAY	7.13	8.85	0.0001	251.66	251.55	5596
NSR0809	FEX100YR1DAY	12.76	12.03	-0.0004	76.02	93.05	2120
NSR0810	FEX100YR1DAY	13.45	13.81	0.0000	333.69	333.51	60626
NSR0830	FEX100YR1DAY	15.10	15.70	-0.0001	435.94	434.10	181714
NSR0840	FEX100YR1DAY	16.09	16.45	0.0000	91.04	91.38	58511
NSR0850	FEX100YR1DAY	15.64	16.40	-0.0003	336.20	335.35	82337
NSR0860	FEX100YR1DAY	16.41	16.65	0.0001	22.51	22.40	19073
NSR0869	FEX100YR1DAY	16.03	16.76	0.0000	30.04	29.77	1504
NSR0870	FEX100YR1DAY	16.24	16.95	0.0001	282.70	282.56	53835
NSR0880	FEX100YR1DAY	16.24	16.99	0.0000	122.25	121.99	27454
NSR0881	FEX100YR1DAY	14.14	18.04	0.0005	462.93	461.40	196182
NSR0890	FEX100YR1DAY	4.02	5.30	0.1244	280.03	339.94	150765
NSR0910	FEX100YR1D	4.79	5.99	-0.0028	224.34	222.62	99125

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0930	FEX100YR1DAY	5.54	7.30	0.0000	301.36	49.58	338143
NSR0950	FEX100YR1DAY	5.63	7.30	0.0004	437.32	398.99	206965
NSR0970	FEX100YR1DAY	6.14	7.35	0.0003	141.96	141.83	3616
NSR0990	FEX100YR1DAY	6.27	7.36	-0.0001	272.33	271.41	4555
NSR1010	FEX100YR1DAY	6.30	7.39	0.0000	67.42	64.05	20849
NSR1030	FEX100YR1DAY	8.54	9.55	0.0002	209.92	209.36	10071
NSR1050	FEX100YR1DAY	8.56	9.63	0.0000	154.56	151.10	32536
NSR1070	FEX100YR1DAY	9.58	9.88	-0.0014	309.58	305.98	74751
NSR1090	FEX100YR1DAY	11.30	11.52	-0.0002	173.37	173.46	8782
NSR1110	FEX100YR1DAY	11.57	11.61	0.0000	4.40	4.38	3049
NSR1130	FEX100YR1DAY	11.29	11.45	0.0000	49.26	49.19	16531
NSR1150	FEX100YR1DAY	11.39	11.67	0.0000	10.62	9.77	13551
NSR1170	FEX100YR1DAY	11.38	11.65	0.0000	3.29	3.13	450
NSR1190	FEX100YR1DAY	12.70	13.46	0.0000	172.32	172.32	14615
NSR1210	FEX100YR1DAY	12.70	13.46	0.0000	37.40	7.70	99541
NSR1230	FEX100YR1DAY	14.76	15.62	0.0000	168.75	168.74	9771
NSR1270	FEX100YR1DAY	14.99	15.80	0.0000	168.77	168.75	6276
NSR1290	FEX100YR1DAY	14.99	15.80	0.0000	12.18	2.10	28285
NSR1310	FEX100YR1DAY	14.99	15.80	0.0000	46.51	14.13	186684
NSR1330	FEX100YR1DAY	15.44	16.61	0.0000	167.79	166.42	23796
NSR1350	FEX100YR1DAY	15.45	16.62	0.0000	62.94	34.03	390137
NSR1370	FEX100YR1DAY	15.56	16.69	-0.0001	172.84	166.59	21929
NSR1390	FEX100YR1DAY	15.56	16.69	0.0000	6.17	3.48	11505

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1410	FEX100YR1DAY	15.56	16.69	-0.0001	39.56	32.65	107482
NSR1430	FEX100YR1DAY	15.76	16.79	0.0000	83.17	79.41	64121
NSR1450	FEX100YR1DAY	15.74	16.79	0.0000	105.88	79.88	178426
NSR1470	FEX100YR1DAY	15.96	16.81	0.0000	85.89	79.39	96396
NSR1490	FEX100YR1DAY	16.21	16.84	0.0000	103.63	78.64	254603
NSR1510	FEX100YR1DAY	16.21	16.84	0.0000	59.19	51.47	88083
NSR1530	FEX100YR1DAY	15.56	16.69	0.0000	9.24	4.00	28722
NSR1550	FEX100YR1DAY	15.68	16.77	-0.0001	201.80	194.42	34955
NSR1570	FEX100YR1DAY	15.68	16.77	-0.0001	43.90	35.25	34037
NSR1590	FEX100YR1DAY	15.68	16.77	-0.0001	83.56	96.11	64696
NSR1610	FEX100YR1DAY	15.75	16.82	0.0002	34.35	23.11	66485
NSR1630	FEX100YR1DAY	15.75	16.82	0.0000	115.14	110.41	21008
NSR1650	FEX100YR1DAY	16.39	17.12	0.0000	5.20	5.20	537
NSR1670	FEX100YR1DAY	15.92	17.41	0.0003	150.09	133.60	106121
NSR1690	FEX100YR1DAY	16.24	17.62	0.0000	97.37	92.88	24231
NSR1710	FEX100YR1DAY	16.25	17.62	0.0000	13.21	10.64	46673
NSR1730	FEX100YR1DAY	16.32	17.66	0.0000	102.04	97.56	23105
NSR1750	FEX100YR1DAY	16.68	17.66	0.0000	5.47	5.35	6432
NSR1770	FEX100YR1DAY	17.23	17.58	0.0000	26.74	13.89	24466
NSR1790	FEX100YR1DAY	17.24	17.57	0.0000	33.11	18.02	42406
NSR1810	FEX100YR1DAY	17.25	17.57	0.0000	12.36	9.63	19444
NSR1830	FEX100YR1DAY	17.25	17.57	0.0000	118.47	114.50	125874
NSR1850	FEX100YR1DAY	16.95	18.33	0.0000	17.08	12.55	14267
NSR1870	FEX100YR1D	16.93	18.33	0.0001	114.70	33.08	189717

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR1890	FEX100YR1DAY	16.05	18.33	0.0001	13.36	13.73	1056
NSR1910	FEX100YR1DAY	15.45	18.33	0.0003	207.70	200.36	185911
NSR1930	FEX100YR1DAY	16.53	17.72	0.0002	78.16	76.78	15345
NSR1950	FEX100YR1DAY	16.70	17.68	0.0000	28.25	28.04	16923
NSR1970	FEX100YR1DAY	16.84	18.14	0.0000	50.32	31.05	118021
NSR1990	FEX100YR1DAY	16.86	17.95	0.0000	9.07	9.08	949
NSR2010	FEX100YR1DAY	16.91	17.80	0.0000	26.47	12.33	63776
NSR2030	FEX100YR1DAY	16.90	17.64	0.0000	12.33	12.34	751
NSR2050	FEX100YR1DAY	16.88	17.39	0.0000	27.12	24.05	37266
NSR2070	FEX100YR1DAY	16.81	17.39	-0.0001	6.62	6.51	781
NSR2090	FEX100YR1DAY	16.72	17.38	0.0000	6.51	6.41	673
NSR2110	FEX100YR1DAY	16.54	17.38	0.0000	27.49	23.62	44374
NSR2130	FEX100YR1DAY	16.50	16.64	0.0000	27.49	23.88	89275
NSR2150	FEX100YR1DAY	17.60	18.25	0.0000	107.39	67.73	285889
NSR2170	FEX100YR1DAY	17.62	18.26	0.0023	31.26	31.40	2087
NSR2190	FEX100YR1DAY	17.62	18.26	-0.0037	31.13	31.26	967
NSR2210	FEX100YR1DAY	17.62	18.26	0.0000	112.01	77.99	314959
NSR2230	FEX100YR1DAY	17.62	18.26	-0.0031	18.88	18.55	675
NSR2250	FEX100YR1DAY	17.63	18.26	0.0001	26.96	21.88	15517
NSR2270	FEX100YR1DAY	17.63	18.27	0.0001	34.17	23.42	53356
NSR2290	FEX100YR1DAY	17.63	18.27	-0.0002	18.45	18.21	888
NSR2310	FEX100YR1DAY	17.63	18.27	0.0000	26.66	19.32	42310
NSR2330	FEX100YR1DAY	17.65	18.42	0.0000	29.97	11.52	56437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2350	FEX100YR1DAY	17.65	18.43	0.0000	39.58	15.43	109288
NSR2370	FEX100YR1DAY	16.66	18.12	0.0000	63.28	57.54	9676
NSR2390	FEX100YR1DAY	18.07	18.17	0.0000	21.60	16.43	73672
NSR2410	FEX100YR1DAY	16.66	18.13	0.0000	69.45	47.17	24152
NSR2430	FEX100YR1DAY	17.99	18.13	0.0000	4.77	4.75	4168
NSR2450	FEX100YR1DAY	18.06	18.31	0.0000	64.21	61.88	33680
NSR3000	FEX100YR1DAY	17.04	18.33	-0.0727	20.63	49.45	58622
NSR3005	FEX100YR1DAY	17.02	18.33	0.1453	49.45	4.05	566
NSR3020	FEX100YR1DAY	17.61	18.11	-0.0001	210.34	209.77	120034
NSR3040	FEX100YR1DAY	16.25	17.00	0.0000	255.02	251.84	145880
NSR3060	FEX100YR1DAY	16.21	16.84	0.0000	74.64	71.44	70180
NSW0010	FEX100YR1DAY	2.00	2.00	0.0000	33.37	0.00	0
NSW0030	FEX100YR1DAY	2.13	3.45	0.0003	33.37	33.37	587
NSW0050	FEX100YR1DAY	4.04	6.45	-0.0003	57.43	33.37	57503
Outfall	FEX100YR1DAY	2.00	2.00	0.0000	142.46	0.00	0
Outfall_NE	FEX100YR1DAY	21.00	21.27	-0.0003	9.60	0.00	0
PondA	FEX100YR1DAY	0.00	20.47	0.0000	39.11	30.49	94716
PondB	FEX100YR1DAY	0.00	17.86	0.0000	219.37	173.04	220017
SH_OUTFALL	FEX100YR1DAY	2.00	2.00	0.0000	522.20	0.00	0
STORAGE1	FEX100YR1DAY	0.00	20.90	0.0000	7.50	1.21	7405
STORAGE10	FEX100YR1DAY	0.00	21.07	0.0000	5.40	0.53	9148
STORAGE11	FEX100YR1DAY	0.00	21.33	0.0004	110.55	0.01	18648
STORAGE12	FEX100YR1DAY	0.00	21.94	0.0004	88.42	5.91	10262
STORAGE13	FEX100YR1D	0.00	20.29	0.0001	54.70	0.74	5323

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
STORAGE14	FEX100YR1DAY	0.00	23.04	0.0000	8.08	0.04	13395
STORAGE2	FEX100YR1DAY	0.00	20.27	0.0001	33.98	2.92	18426
STORAGE4	FEX100YR1DAY	0.00	20.26	0.0002	59.96	3.38	12088
STORAGE5	FEX100YR1DAY	0.00	21.53	0.0000	13.53	6.32	20042
STORAGE8	FEX100YR1DAY	0.00	20.23	0.0000	3.04	1.29	6098
STORAGE9	FEX100YR1DAY	0.00	20.69	0.0014	14.14	2.80	11761
Sevilla1	FEX100YR1DAY	1.20	2.62	0.0000	0.58	0.08	804
Sevilla2	FEX100YR1DAY	1.23	2.37	0.0000	0.28	0.04	610
Sevilla3	FEX100YR1DAY	1.20	2.62	0.0000	1.51	0.58	1339
Sevilla4	FEX100YR1DAY	1.20	2.62	0.0000	2.48	1.51	1450
Shamrock2	FEX100YR1DAY	1.11	2.37	-0.0001	142.47	142.46	5389
Shmrck1.1	FEX100YR1DAY	1.38	2.96	0.0002	144.58	142.48	6206
Shmrck1.2	FEX100YR1DAY	1.20	2.62	0.0002	142.48	142.48	3971
V3	FEX100YR1DAY	6.53	6.63	0.0000	1.66	1.48	36742
BC_N02	FEX10YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	FEX10YR1DAY	8.77	9.69	0.0000	0.49	0.31	533
Church2	FEX10YR1DAY	8.77	9.70	0.0000	6.13	5.30	4390
Clark1	FEX10YR1DAY	7.21	8.13	0.0000	0.83	0.55	742
Clark2	FEX10YR1DAY	7.21	8.14	-0.0001	60.48	60.03	20693
DM1	FEX10YR1DAY	11.42	11.75	0.0000	6.03	6.16	1409
DM2	FEX10YR1DAY	10.30	10.53	0.0000	6.16	5.95	2165
DM3	FEX10YR1DAY	9.16	9.75	0.0000	5.95	6.13	2979
E_Outlet	FEX10YR1DAY	0.00	16.39	0.0002	103.17	41.17	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
E_Outlet2	FEX10YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	FEX10YR1DAY	1.99	2.74	0.0000	0.39	0.29	763
ElP_con.1	FEX10YR1DAY	2.18	2.90	-0.0001	71.15	71.12	4221
ElPrad.1	FEX10YR1DAY	1.99	2.74	0.0000	0.19	0.12	632
G1	FEX10YR1DAY	14.98	15.74	-0.0004	84.03	67.18	40750
G10	FEX10YR1DAY	8.77	9.68	0.0001	60.85	60.48	4601
G2	FEX10YR1DAY	14.99	15.70	-0.0003	27.17	37.86	32918
G3	FEX10YR1DAY	14.86	15.69	-0.0005	103.84	93.27	27806
G4	FEX10YR1DAY	12.82	14.75	-0.0005	93.27	90.27	57240
G5	FEX10YR1DAY	11.69	13.35	0.0001	69.24	69.20	1864
G6	FEX10YR1DAY	11.00	9.24	0.0000	11.30	0.00	0
G7	FEX10YR1DAY	11.00	11.68	0.0000	69.20	69.07	3601
G8	FEX10YR1DAY	10.07	10.69	0.0000	57.80	57.62	2143
G9	FEX10YR1DAY	9.41	10.09	0.0001	57.62	57.41	1353
H1	FEX10YR1DAY	1.99	2.74	0.0000	0.14	0.12	514
H2.1	FEX10YR1DAY	1.99	2.74	0.0001	71.12	71.09	6105
Hubert	FEX10YR1DAY	3.16	3.60	0.0000	59.99	59.62	5965
JUNCT1	FEX10YR1DAY	0.00	19.01	0.0000	6.63	6.46	4385
JUNCT10	FEX10YR1DAY	0.00	22.09	0.0000	53.30	53.08	10692
JUNCT2	FEX10YR1DAY	0.00	14.35	0.0000	26.51	26.48	2680
JUNCT3	FEX10YR1DAY	0.00	19.95	0.0000	7.92	7.81	10385
JUNCT4	FEX10YR1DAY	0.00	13.67	0.0000	5.47	5.46	5545
JUNCT6	FEX10YR1DAY	0.00	16.10	0.0000	105.54	104.91	9918
JUNCT7	FEX10YR1DA	0.00	19.51	0.0000	98.78	99.05	8388

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
JUNCT7B	FEX10YR1DAY	0.00	19.51	0.0000	100.03	96.85	18395
JUNCT8	FEX10YR1DAY	0.00	19.51	0.0000	162.46	162.76	11633
JUNCT8B	FEX10YR1DAY	0.00	19.51	0.0001	161.65	156.98	26041
JUNCT9	FEX10YR1DAY	0.00	29.51	0.0000	48.93	48.97	9424
L1	FEX10YR1DAY	11.53	11.86	0.0000	21.15	21.74	51703
L2	FEX10YR1DAY	11.63	11.71	0.0000	4.42	4.08	41893
L3	FEX10YR1DAY	10.43	10.47	0.0000	1.60	1.33	32936
L4	FEX10YR1DAY	8.43	8.45	0.0000	0.60	0.38	50837
L5	FEX10YR1DAY	7.63	7.64	0.0000	0.15	0.11	43662
L6	FEX10YR1DAY	6.93	6.94	0.0000	0.05	0.03	43812
Lois	FEX10YR1DAY	4.82	4.96	0.0001	60.02	59.99	6808
M1	FEX10YR1DAY	2.58	6.31	-0.0002	18.10	16.53	24805
M1.1	FEX10YR1DAY	6.33	6.69	0.0000	21.69	18.10	35067
M1.2	FEX10YR1DAY	7.03	7.27	0.0000	19.04	20.99	28313
M1.3	FEX10YR1DAY	7.13	7.50	0.0000	17.61	16.73	28489
M2	FEX10YR1DAY	2.58	5.63	-0.0005	16.72	12.60	60353
M3	FEX10YR1DAY	2.58	4.92	0.0000	12.60	12.60	1185
M4	FEX10YR1DAY	2.58	3.84	0.0000	12.60	12.61	909
M5.1	FEX10YR1DAY	2.57	3.22	0.0000	71.20	71.15	6163
M6	FEX10YR1DAY	2.58	3.22	0.0000	0.38	0.23	558
Marjory_Pump	FEX10YR1DAY	0.00	36.09	0.0102	3.62	3.05	496
N01	FEX10YR1DAY	0.00	20.57	0.0000	21.13	9.13	32092
N01A	FEX10YR1DAY	0.00	20.54	0.0000	7.19	6.94	437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N02	FEX10YR1DAY	0.00	17.81	0.0001	25.62	25.09	15764
N03	FEX10YR1DAY	0.00	18.01	0.0001	6.73	6.85	2617
N04	FEX10YR1DAY	0.00	17.82	0.0000	6.10	8.29	2097
N05	FEX10YR1DAY	0.00	17.62	0.0001	113.30	112.95	4411
N06	FEX10YR1DAY	0.00	16.66	0.0002	79.78	79.83	3292
N07A	FEX10YR1DAY	0.00	15.42	0.0002	82.50	82.55	4248
N08A	FEX10YR1DAY	0.00	14.06	0.0005	113.35	113.40	9318
N09	FEX10YR1DAY	0.00	12.15	0.0001	11.19	10.42	468
N09A	FEX10YR1DAY	0.00	12.00	0.0003	121.63	121.63	1360
N10	FEX10YR1DAY	2.00	2.00	0.0000	256.43	0.00	0
N11	FEX10YR1DAY	0.00	16.82	-0.0006	115.97	103.17	194717
NBB0010	FEX10YR1DAY	2.00	2.00	0.0000	128.31	0.00	0
NBB0030	FEX10YR1DAY	5.03	6.84	0.0003	128.31	128.31	557
NBB0050	FEX10YR1DAY	9.15	11.69	-0.0003	161.52	128.31	57598
NBB0070	FEX10YR1DAY	11.30	13.32	0.0001	112.69	111.81	2549
NBB0090	FEX10YR1DAY	12.67	13.86	0.0001	98.65	98.22	2258
NBB0110	FEX10YR1DAY	13.46	14.72	0.0001	91.92	92.38	1982
NBB0130	FEX10YR1DAY	15.26	16.59	-0.0003	42.66	28.25	43109
NBB0150	FEX10YR1DAY	14.01	15.20	0.0001	71.84	71.98	1935
NBB0170	FEX10YR1DAY	14.74	15.84	0.0001	71.72	71.84	1452
NBB0190	FEX10YR1DAY	15.42	16.44	0.0001	71.60	71.72	32978
NBB0210	FEX10YR1DAY	15.70	16.59	0.0001	69.24	69.35	1556
NBB0230	FEX10YR1DAY	16.02	16.78	0.0001	69.13	69.24	4110
NBB0250	FEX10YR1DA	16.31	17.07	0.0001	68.36	68.48	2036

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBB0270	FEX10YR1DAY	17.05	17.51	0.0001	67.69	68.36	14624
NBB0290	FEX10YR1DAY	17.06	17.51	0.0001	56.02	54.31	1258
NBB0310	FEX10YR1DAY	17.07	17.51	-0.0002	173.32	103.90	358842
NBB0330	FEX10YR1DAY	16.57	16.84	0.0002	40.51	38.86	17547
NBB0350	FEX10YR1DAY	16.45	16.82	0.0002	27.55	28.58	1396
NBB0370	FEX10YR1DAY	16.33	16.79	0.0002	72.38	52.95	60775
NBB0390	FEX10YR1DAY	16.32	16.79	0.0002	21.17	22.05	1835
NBB0410	FEX10YR1DAY	16.30	16.79	-0.0002	64.51	52.55	37664
NBB0430	FEX10YR1DAY	15.45	15.83	-0.0003	101.62	98.39	67617
NBW0010	FEX10YR1DAY	2.00	2.00	0.0000	711.02	0.00	0
NBW0030	FEX10YR1DAY	3.39	3.89	0.0002	711.56	711.02	44975
NBW0050	FEX10YR1DAY	3.92	4.14	0.0000	11.00	9.44	5830
NBW0070	FEX10YR1DAY	3.57	4.17	-0.0003	229.72	519.20	36185
NBW0090	FEX10YR1DAY	3.66	3.90	0.0000	7.32	5.85	15333
NBW0130	FEX10YR1DAY	3.73	4.34	0.0000	227.65	228.69	14485
NBW0150	FEX10YR1DAY	3.93	4.36	0.0001	10.26	9.87	2048
NBW0170	FEX10YR1DAY	3.98	4.36	0.0001	5.53	4.13	10719
NBW0190	FEX10YR1DAY	3.89	4.49	0.0001	226.01	226.25	5980
NBW0210	FEX10YR1DAY	6.25	6.34	0.0000	9.58	9.38	6143
NBW0230	FEX10YR1DAY	4.01	4.64	0.0001	225.14	225.26	3886
NBW0250	FEX10YR1DAY	4.88	5.56	0.0000	224.31	224.38	5592
NBW0270	FEX10YR1DAY	5.49	5.66	0.0001	45.31	40.61	23914
NBW0290	FEX10YR1DAY	5.91	5.95	0.0000	34.54	35.04	12995

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0310	FEX10YR1DAY	6.38	6.64	0.0000	12.01	11.36	4672
NBW0330	FEX10YR1DAY	5.50	6.34	0.0000	219.47	219.35	23546
NBW0350	FEX10YR1DAY	4.97	4.97	0.0000	9.27	9.26	2521
NBW0370	FEX10YR1DAY	5.52	6.35	-0.0001	11.01	9.88	6221
NBW0390	FEX10YR1DAY	5.52	6.35	-0.0001	11.37	8.66	27060
NBW0410	FEX10YR1DAY	5.54	6.40	-0.0001	216.18	216.42	3446
NBW0430	FEX10YR1DAY	5.89	6.77	0.0000	6.95	6.12	15276
NBW0450	FEX10YR1DAY	5.89	6.77	0.0001	216.96	216.18	11772
NBW0470	FEX10YR1DAY	5.89	6.77	0.0000	5.07	4.25	10268
NBW0490	FEX10YR1DAY	5.92	6.84	-0.0002	215.12	215.18	3152
NBW0510	FEX10YR1DAY	6.72	6.84	0.0001	4.14	4.13	1674
NBW0530	FEX10YR1DAY	6.22	7.21	0.0000	214.82	214.62	4802
NBW0550	FEX10YR1DAY	6.72	7.91	0.0000	172.92	162.01	226482
NBW0570	FEX10YR1DAY	7.09	7.88	0.0000	167.65	166.68	22828
NBW0590	FEX10YR1DAY	10.03	10.09	-0.0003	238.32	237.40	84863
NBW0610	FEX10YR1DAY	6.45	7.43	-0.0001	194.05	193.99	8694
NBW0630	FEX10YR1DAY	6.22	7.21	0.0000	6.43	2.77	41110
NBW0650	FEX10YR1DAY	6.66	7.86	0.0000	195.18	194.39	21553
NBW0670	FEX10YR1DAY	6.66	7.87	0.0000	9.94	4.49	33162
NBW0690	FEX10YR1DAY	6.71	7.90	0.0001	152.34	152.74	10024
NBW0710	FEX10YR1DAY	6.71	7.90	0.0000	15.79	10.10	43254
NBW0730	FEX10YR1DAY	6.72	7.90	-0.0001	143.44	147.16	196465
NBW0750	FEX10YR1DAY	7.06	7.93	0.0001	167.53	160.65	100908
NBW0770	FEX10YR1DA	7.06	7.93	-0.0002	28.02	21.85	23096

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW0790	FEX10YR1DAY	8.11	8.08	0.0000	23.88	23.70	1403
NBW0810	FEX10YR1DAY	7.06	7.93	-0.0001	50.43	36.76	37172
NBW0830	FEX10YR1DAY	8.41	8.22	-0.0001	36.96	36.71	2098
NBW0850	FEX10YR1DAY	10.17	9.51	0.0001	35.90	33.75	4538
NBW0870	FEX10YR1DAY	7.06	7.96	0.0000	138.90	123.40	188090
NBW0890	FEX10YR1DAY	7.06	7.93	-0.0003	16.82	17.44	1027
NBW0910	FEX10YR1DAY	7.06	7.94	-0.0001	146.52	138.41	129281
NBW0930	FEX10YR1DAY	8.03	8.22	-0.0001	40.48	40.40	1301
NBW0950	FEX10YR1DAY	8.82	8.62	0.0001	54.19	40.48	74539
NBW0970	FEX10YR1DAY	8.82	8.62	0.0002	36.47	35.22	18493
NBW0990	FEX10YR1DAY	8.82	8.63	-0.0003	15.67	15.85	785
NBW1010	FEX10YR1DAY	8.83	8.73	0.0000	35.83	35.81	1120
NBW1030	FEX10YR1DAY	9.19	10.58	0.0000	74.78	35.20	51662
NBW1050	FEX10YR1DAY	9.30	10.58	-0.0001	17.94	17.46	900
NBW1070	FEX10YR1DAY	9.34	10.58	0.0000	180.01	169.51	66682
NBW1090	FEX10YR1DAY	3.78	4.33	0.0000	433.72	433.29	13517
NBW1130	FEX10YR1DAY	4.51	5.24	-0.0001	76.28	76.13	26459
NBW1150	FEX10YR1DAY	4.53	5.27	-0.0001	79.69	78.01	61654
NBW1169	FEX10YR1DAY	4.09	4.58	0.0000	418.70	417.32	17298
NBW1170	FEX10YR1DAY	4.30	4.77	0.0001	412.88	412.37	6253
NBW1190	FEX10YR1DAY	6.13	6.40	-0.0001	39.42	35.46	53026
NBW1210	FEX10YR1DAY	7.17	7.44	-0.0003	133.51	127.86	125002
NBW1230	FEX10YR1DAY	7.17	7.46	-0.0002	188.86	121.10	184664

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1250	FEX10YR1DAY	4.74	5.27	-0.0001	371.38	370.46	7386
NBW1270	FEX10YR1DAY	6.14	6.40	-0.0001	11.86	12.76	28720
NBW1310	FEX10YR1DAY	5.21	5.64	0.0003	434.27	368.44	8354
NBW1330	FEX10YR1DAY	7.56	9.05	-0.0022	330.62	378.92	3077
NBW1350	FEX10YR1DAY	10.95	11.68	0.0001	38.08	38.36	8569
NBW1351	FEX10YR1DAY	8.89	10.63	0.0004	269.20	271.60	8277
NBW1352	FEX10YR1DAY	9.96	11.94	0.0006	261.99	262.20	7956
NBW1353	FEX10YR1DAY	11.01	13.22	0.0005	259.75	259.98	8196
NBW1370	FEX10YR1DAY	10.02	10.96	0.0004	208.25	224.26	39994
NBW1390	FEX10YR1DAY	15.24	15.41	0.0003	273.49	272.67	121926
NBW1410	FEX10YR1DAY	15.58	15.68	0.0003	188.55	184.93	25124
NBW1430	FEX10YR1DAY	15.79	15.81	-0.0002	160.10	166.03	20744
NBW1450	FEX10YR1DAY	16.94	17.02	-0.0003	250.12	249.87	113229
NBW1460	FEX10YR1DAY	16.43	16.53	0.0002	155.46	155.97	4273
NBW1470	FEX10YR1DAY	17.14	17.31	-0.0003	273.30	267.56	195782
NBW1480	FEX10YR1DAY	18.11	18.16	0.0001	13.24	12.78	16211
NBW1490	FEX10YR1DAY	17.86	18.15	0.0001	171.61	169.05	90694
NBW1510	FEX10YR1DAY	18.12	18.39	0.0004	156.05	156.31	25530
NBW1530	FEX10YR1DAY	17.92	18.33	0.0001	17.37	12.17	1181
NBW1550	FEX10YR1DAY	17.75	18.28	0.0001	38.37	33.90	17264
NBW1570	FEX10YR1DAY	18.21	18.55	0.0002	154.63	154.89	2604
NBW1590	FEX10YR1DAY	18.12	18.38	0.0001	43.70	36.80	20607
NBW1610	FEX10YR1DAY	18.13	18.38	0.0001	32.77	31.20	13651
NBW1630	FEX10YR1DA	18.13	18.28	0.0001	23.63	23.61	1804

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1650	FEX10YR1DAY	18.81	19.26	0.0001	15.25	12.70	22746
NBW1670	FEX10YR1DAY	18.89	19.26	0.0001	33.37	31.25	18184
NBW1690	FEX10YR1DAY	19.03	19.26	0.0001	20.81	19.31	10387
NBW1710	FEX10YR1DAY	19.26	19.26	0.0001	4.73	1.20	998
NBW1730	FEX10YR1DAY	18.65	19.25	0.0004	192.37	183.52	256084
NBW1750	FEX10YR1DAY	18.82	19.26	0.0001	128.93	118.57	43588
NBW1770	FEX10YR1DAY	18.82	19.26	0.0001	121.07	106.16	117274
NBW1790	FEX10YR1DAY	18.91	19.26	0.0001	27.91	26.95	12888
NBW1820	FEX10YR1DAY	18.72	19.00	0.0000	60.06	48.24	130419
NBW1830	FEX10YR1DAY	18.74	19.28	-0.0001	78.52	78.69	55822
NBW1840	FEX10YR1DAY	18.39	18.56	0.0000	99.32	89.81	100590
NBW1850	FEX10YR1DAY	18.74	19.29	-0.0001	126.44	115.46	115134
NBW1860	FEX10YR1DAY	18.39	18.57	-0.0001	13.50	9.66	19380
NBW1870	FEX10YR1DAY	18.72	19.01	-0.0002	22.88	21.98	34675
NBW1890	FEX10YR1DAY	19.06	19.55	0.0001	62.15	62.32	2613
NBW1910	FEX10YR1DAY	19.27	19.72	0.0001	61.99	62.15	4108
NBW1930	FEX10YR1DAY	19.27	19.72	0.0001	61.46	61.62	20159
NBW1950	FEX10YR1DAY	18.97	19.30	0.0001	4.63	1.95	450
NBW1970	FEX10YR1DAY	18.96	19.29	0.0000	12.07	12.02	5935
NBW1990	FEX10YR1DAY	19.27	19.68	0.0001	65.65	61.26	100330
NBW2010	FEX10YR1DAY	19.65	19.73	0.0001	10.18	9.26	10178
NBW2030	FEX10YR1DAY	19.65	19.73	0.0001	12.90	9.15	53941
NBW2050	FEX10YR1DAY	19.26	19.82	0.0001	53.28	55.14	97655

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2060	FEX10YR1DAY	0.00	19.82	0.0000	20.41	17.98	42634
NBW2070	FEX10YR1DAY	19.26	19.82	0.0001	97.99	58.84	160824
NBW2090	FEX10YR1DAY	19.10	19.49	0.0001	46.93	46.72	32399
NBW2110	FEX10YR1DAY	18.92	19.50	0.0000	143.21	99.52	202966
NBW2130	FEX10YR1DAY	18.92	19.50	-0.0001	38.69	27.11	36150
NBW2140	FEX10YR1DAY	20.00	19.50	-0.0001	5.31	5.29	588
NBW2145	FEX10YR1DAY	0.00	19.50	-0.0011	15.74	92.40	46091
NBW2150	FEX10YR1DAY	19.26	19.82	0.0001	76.30	74.61	22845
NBW2170	FEX10YR1DAY	19.12	19.87	0.0001	4.83	4.34	869
NBW2190	FEX10YR1DAY	19.10	19.90	0.0001	6.90	4.83	10769
NBW2210	FEX10YR1DAY	19.47	19.83	0.0001	27.21	25.31	11508
NBW2230	FEX10YR1DAY	19.47	19.83	0.0001	55.44	54.29	47865
NBW2250	FEX10YR1DAY	19.51	19.83	0.0001	16.72	14.80	2376
NBW2270	FEX10YR1DAY	19.57	19.83	0.0001	17.08	14.74	14963
NBW2290	FEX10YR1DAY	19.65	19.83	0.0001	37.02	33.10	97084
NBW2310	FEX10YR1DAY	19.82	19.83	0.0001	36.67	30.57	100469
NBW2330	FEX10YR1DAY	19.82	19.83	0.0001	26.81	16.64	54080
NBW2350	FEX10YR1DAY	16.05	16.22	0.0001	79.88	79.37	54363
NBW2370	FEX10YR1DAY	16.11	16.24	-0.0001	18.66	16.44	58286
NBW2380	FEX10YR1DAY	12.29	14.80	0.0004	258.30	258.54	10756
NBW2385	FEX10YR1DAY	18.49	18.50	0.0000	4.31	4.29	6514
NBW2387	FEX10YR1DAY	16.11	15.78	0.0000	0.53	0.52	479
NBW2390	FEX10YR1DAY	16.42	17.41	0.0001	55.04	54.37	17274
NBW2410	FEX10YR1DA	16.59	18.12	-0.0002	106.69	103.52	145945

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2430	FEX10YR1DAY	16.23	18.13	0.0001	172.93	170.71	60449
NBW2450	FEX10YR1DAY	16.15	18.14	0.0002	163.68	164.43	4396
NBW2470	FEX10YR1DAY	16.43	18.27	0.0002	379.59	202.78	37921
NBW2490	FEX10YR1DAY	16.90	18.27	-0.0004	77.65	318.97	21092
NBW2510	FEX10YR1DAY	17.74	18.28	-0.0001	74.33	73.50	2140
NBW2530	FEX10YR1DAY	17.92	18.33	0.0001	65.42	65.84	2010
NBW2550	FEX10YR1DAY	17.95	18.34	0.0001	2.59	2.90	450
NBW2570	FEX10YR1DAY	17.96	18.34	0.0000	3.43	2.59	6042
NBW2590	FEX10YR1DAY	18.06	18.36	0.0002	53.43	53.68	1098
NBW2610	FEX10YR1DAY	17.00	18.33	-0.0008	216.31	209.29	90676
NBW2630	FEX10YR1DAY	17.98	18.39	0.0001	166.18	158.55	36672
NBW2650	FEX10YR1DAY	16.97	18.33	-0.0004	27.93	29.01	21293
NBW2670	FEX10YR1DAY	16.42	18.33	0.0001	30.23	31.04	24366
NBW2680	FEX10YR1DAY	17.73	18.02	-0.0001	46.94	44.25	26976
NBW2690	FEX10YR1DAY	15.40	17.90	0.0002	248.04	246.28	79643
NBW2710	FEX10YR1DAY	17.73	18.04	0.0001	2.97	2.44	533
NBW2730	FEX10YR1DAY	18.29	18.53	0.0000	2.30	0.75	4929
NBW2770	FEX10YR1DAY	18.09	18.43	0.0001	13.27	13.30	1309
NBW2775	FEX10YR1DAY	6.59	6.61	0.0000	13.79	10.12	27705
NBW2780	FEX10YR1DAY	18.38	18.54	-0.0001	66.32	63.54	92913
NBW2790	FEX10YR1DAY	18.38	18.55	0.0000	199.04	196.04	98374
NBW2810	FEX10YR1DAY	18.39	18.56	-0.0002	74.48	73.14	69691
NBW2830	FEX10YR1DAY	18.40	18.58	-0.0001	57.28	47.55	123007

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NC01	FEX10YR1DAY	0.00	6.10	0.0001	27.57	25.45	4228
NC01B	FEX10YR1DAY	0.00	5.86	0.0000	15.91	15.86	5347
NC02	FEX10YR1DAY	0.00	8.71	-0.0001	129.88	129.87	7336
NC03	FEX10YR1DAY	0.00	4.84	-0.0002	149.63	149.59	10241
NC04	FEX10YR1DAY	0.00	3.65	0.0000	65.02	60.88	32690
NC05	FEX10YR1DAY	0.00	3.64	-0.0001	67.47	64.68	43957
NC06	FEX10YR1DAY	0.00	3.60	0.0000	70.89	70.30	19977
NC07	FEX10YR1DAY	0.00	3.59	-0.0001	61.51	61.38	19446
NC08	FEX10YR1DAY	0.00	3.56	0.0000	69.58	69.42	14881
NCL0010	FEX10YR1DAY	2.00	2.00	0.0000	685.38	0.00	0
NCL0030	FEX10YR1DAY	2.36	2.94	-0.0002	537.71	537.69	6856
NCL0050	FEX10YR1DAY	2.36	2.94	0.0001	0.62	0.97	439
NCL0070	FEX10YR1DAY	5.20	5.51	0.0000	149.72	148.58	54233
NCL0090	FEX10YR1DAY	6.06	6.17	-0.0001	58.21	43.79	76229
NCL0110	FEX10YR1DAY	3.04	3.62	-0.0007	603.41	603.39	6623
NCL0130	FEX10YR1DAY	4.05	3.76	-0.0003	144.27	144.34	565
NCL0150	FEX10YR1DAY	4.95	4.97	-0.0001	144.20	144.27	2802
NCL0170	FEX10YR1DAY	5.08	5.09	-0.0001	77.95	77.98	1472
NCL0190	FEX10YR1DAY	5.08	5.10	0.0000	2.86	2.53	438
NCL0210	FEX10YR1DAY	5.85	5.83	-0.0001	96.84	98.08	10354
NCL0230	FEX10YR1DAY	6.60	6.95	-0.0002	40.65	31.99	43865
NCL0250	FEX10YR1DAY	6.60	6.95	0.0001	3.79	3.94	602
NCL0270	FEX10YR1DAY	6.60	6.95	-0.0001	5.15	4.33	2028
NCL0290	FEX10YR1DA	5.90	5.90	-0.0001	62.70	63.07	924

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0310	FEX10YR1DAY	6.10	6.20	0.0010	62.38	62.72	1045
NCL0330	FEX10YR1DAY	5.95	5.97	-0.0001	22.08	22.30	8477
NCL0350	FEX10YR1DAY	6.60	6.95	-0.0005	119.48	93.21	79207
NCL0370	FEX10YR1DAY	7.36	7.62	0.0002	107.23	105.42	22725
NCL0390	FEX10YR1DAY	4.02	4.55	-0.0013	445.62	475.02	4339
NCL0410	FEX10YR1DAY	4.09	4.66	-0.0001	6.50	6.38	819
NCL0430	FEX10YR1DAY	4.23	4.81	0.0000	6.69	6.50	639
NCL0450	FEX10YR1DAY	4.75	5.22	-0.0011	435.92	436.01	3676
NCL0470	FEX10YR1DAY	5.43	5.84	-0.0016	434.21	434.30	3437
NCL0490	FEX10YR1DAY	6.48	6.78	0.0006	494.38	496.09	42665
NCL0510	FEX10YR1DAY	6.67	6.98	0.0002	35.11	34.90	1146
NCL0530	FEX10YR1DAY	8.10	8.17	0.0004	40.47	20.36	1172
NCL0550	FEX10YR1DAY	8.17	8.23	-0.0002	30.56	40.47	33147
NCL0570	FEX10YR1DAY	8.66	8.48	-0.0001	15.44	15.13	840
NCL0590	FEX10YR1DAY	7.00	7.33	0.0011	436.67	436.95	3683
NCL0610	FEX10YR1DAY	7.52	7.90	0.0007	424.07	424.12	3640
NCL0630	FEX10YR1DAY	8.06	8.55	-0.0004	422.69	422.73	4608
NCL0650	FEX10YR1DAY	8.12	8.60	-0.0003	49.98	102.61	1613
NCL0670	FEX10YR1DAY	8.67	9.15	0.0003	131.12	49.98	1693
NCL0690	FEX10YR1DAY	8.76	9.21	0.0001	33.94	35.14	605
NCL0710	FEX10YR1DAY	8.95	9.34	0.0002	33.94	33.46	601
NCL0730	FEX10YR1DAY	9.26	9.57	-0.0001	34.80	33.94	554
NCL0750	FEX10YR1DAY	9.56	9.77	0.0000	114.25	103.04	56922

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0770	FEX10YR1DAY	10.12	10.27	0.0000	68.76	68.71	2178
NCL0790	FEX10YR1DAY	8.69	9.18	0.0003	31.73	101.59	895
NCL0810	FEX10YR1DAY	8.84	9.38	0.0001	32.11	31.73	4838
NCL0830	FEX10YR1DAY	8.93	9.64	-0.0008	374.61	376.72	37498
NCL0850	FEX10YR1DAY	9.01	9.66	0.0001	99.29	92.71	18457
NCL0870	FEX10YR1DAY	9.37	9.86	0.0004	116.96	116.69	2022
NCL0890	FEX10YR1DAY	9.65	10.02	-0.0004	102.79	102.47	1590
NCL0910	FEX10YR1DAY	9.71	10.02	0.0001	7.60	7.04	6453
NCL0930	FEX10YR1DAY	9.57	10.35	-0.0001	100.61	99.70	2111
NCL0950	FEX10YR1DAY	9.89	10.67	0.0001	87.62	87.38	3156
NCL0970	FEX10YR1DAY	10.41	11.09	0.0001	44.99	44.25	2268
NCL0990	FEX10YR1DAY	11.00	11.47	0.0001	37.08	36.03	4252
NCL1010	FEX10YR1DAY	11.14	11.65	0.0001	7.95	7.77	638
NCL1030	FEX10YR1DAY	9.67	9.89	-0.0002	22.43	33.52	1473
NCL1050	FEX10YR1DAY	10.46	9.90	0.0001	7.29	6.86	607
NCL1070	FEX10YR1DAY	9.30	10.64	0.0001	4.14	4.17	617
NCL1090	FEX10YR1DAY	9.76	10.72	0.0000	35.18	8.26	20932
NCL1110	FEX10YR1DAY	9.85	10.39	0.0001	17.27	17.31	2096
NCL1130	FEX10YR1DAY	9.76	10.72	0.0001	23.24	16.43	66626
NCL1150	FEX10YR1DAY	9.76	10.72	0.0001	544.08	546.23	222266
NCL1170	FEX10YR1DAY	10.59	11.85	0.0005	416.01	376.99	118141
NCL1190	FEX10YR1DAY	10.72	11.99	0.0001	78.52	77.97	1850
NCL1210	FEX10YR1DAY	10.63	11.87	0.0001	46.76	14.40	55841
NCL1230	FEX10YR1DA	10.94	12.16	0.0001	79.07	78.52	1432

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL1250	FEX10YR1DAY	11.11	12.27	0.0001	79.63	79.07	1231
NCL1270	FEX10YR1DAY	11.34	12.38	0.0001	96.48	93.52	24877
NCL1290	FEX10YR1DAY	13.06	13.36	0.0001	62.38	62.28	5899
NCL1310	FEX10YR1DAY	14.77	15.06	-0.0001	60.19	59.80	18087
NCL1330	FEX10YR1DAY	10.60	11.85	-0.0002	240.70	245.63	83213
NCL1350	FEX10YR1DAY	10.63	11.87	0.0001	245.60	239.16	67256
NCL1370	FEX10YR1DAY	10.63	11.88	-0.0001	86.75	85.52	7107
NCL1390	FEX10YR1DAY	10.63	12.28	0.0001	29.64	29.42	11838
NCL1410	FEX10YR1DAY	10.63	12.29	0.0001	29.68	29.06	8003
NCL1430	FEX10YR1DAY	10.70	11.90	0.0005	514.90	421.62	202060
NCL1450	FEX10YR1DAY	10.93	12.51	0.0011	446.57	446.18	3036
NCL1470	FEX10YR1DAY	12.72	13.94	0.0002	341.70	341.06	4427
NCL1490	FEX10YR1DAY	14.45	14.60	0.0000	5.50	5.47	783
NCL1510	FEX10YR1DAY	11.06	12.57	-0.0007	60.07	72.40	4790
NCL1530	FEX10YR1DAY	12.54	12.86	-0.0003	81.61	80.80	11320
NCL1550	FEX10YR1DAY	13.13	13.31	-0.0001	42.89	41.74	1021
NCL1570	FEX10YR1DAY	13.31	13.59	0.0001	4.76	4.64	504
NCL1590	FEX10YR1DAY	13.70	13.72	0.0000	2.14	2.13	1307
NCL1610	FEX10YR1DAY	13.37	13.68	0.0001	2.90	2.67	469
NCL1630	FEX10YR1DAY	13.57	13.64	-0.0003	74.59	74.57	2663
NCL1650	FEX10YR1DAY	13.68	13.81	0.0002	75.83	75.85	1293
NCL1670	FEX10YR1DAY	14.02	14.49	0.0001	78.39	78.39	6182
NCL1690	FEX10YR1DAY	17.47	17.70	0.0001	51.98	51.92	4567

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1710	FEX10YR1DAY	17.89	18.05	0.0001	47.86	47.89	3210
NCL1730	FEX10YR1DAY	18.27	18.77	-0.0003	109.92	109.96	19341
NCL1750	FEX10YR1DAY	18.24	18.69	-0.0003	23.47	23.48	513
NCL1770	FEX10YR1DAY	18.07	18.17	0.0001	36.35	36.35	2907
NCL1790	FEX10YR1DAY	15.78	15.92	0.0002	336.79	336.24	5863
NCL1810	FEX10YR1DAY	18.13	18.29	0.0001	58.06	53.30	34141
NCL1830	FEX10YR1DAY	18.39	17.88	0.0002	315.29	314.76	6250
NCL1850	FEX10YR1DAY	18.50	18.05	-0.0003	66.64	79.05	909
NCL1870	FEX10YR1DAY	19.01	18.86	0.0002	66.47	66.64	1000
NCL1890	FEX10YR1DAY	19.15	19.07	0.0003	68.23	67.07	985
NCL1910	FEX10YR1DAY	19.15	19.07	0.0001	4.42	0.93	531
NCL1930	FEX10YR1DAY	19.91	19.91	0.0000	4.91	4.90	1630
NCL1950	FEX10YR1DAY	19.15	19.07	0.0000	0.79	0.16	503
NCL1970	FEX10YR1DAY	21.67	21.66	0.0000	2.70	2.69	3234
NCL1990	FEX10YR1DAY	19.58	19.75	-0.0002	70.50	68.23	917
NCL2010	FEX10YR1DAY	19.74	19.90	0.0001	43.87	42.41	1104
NCL2030	FEX10YR1DAY	19.76	19.82	0.0001	16.61	13.47	34228
NCL2050	FEX10YR1DAY	19.76	19.94	0.0001	40.64	38.87	1411
NCL2070	FEX10YR1DAY	19.76	19.82	-0.0001	4.01	4.57	1202
NCL2090	FEX10YR1DAY	19.87	20.23	0.0001	42.78	40.64	1414
NCL2110	FEX10YR1DAY	20.03	20.26	0.0004	30.16	28.92	3950
NCL2130	FEX10YR1DAY	19.87	20.28	0.0001	90.19	96.06	63130
NCL2150	FEX10YR1DAY	20.75	21.30	-0.0003	92.53	85.65	181850
NCL2170	FEX10YR1DA	19.85	20.26	0.0001	137.03	137.30	44716

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2230	FEX10YR1DAY	19.13	19.03	0.0003	243.36	244.01	5806
NCL2250	FEX10YR1DAY	19.55	19.70	0.0002	254.41	241.91	4443
NCL2270	FEX10YR1DAY	20.05	20.57	0.0001	204.02	203.45	26602
NCL2290	FEX10YR1DAY	19.88	20.27	0.0001	12.75	12.29	4761
NCL2310	FEX10YR1DAY	20.45	20.91	0.0001	103.12	102.15	1779
NCL2330	FEX10YR1DAY	20.74	21.16	0.0001	148.95	139.42	104541
NCL2350	FEX10YR1DAY	20.78	21.19	0.0001	94.67	93.19	7647
NCL2370	FEX10YR1DAY	20.81	21.20	0.0001	91.14	89.61	2298
NCL2390	FEX10YR1DAY	20.84	21.22	0.0001	144.77	124.99	149976
NCL2410	FEX10YR1DAY	21.07	21.28	0.0000	30.74	29.76	1380
NCL2430	FEX10YR1DAY	21.32	21.37	0.0000	29.82	28.64	1472
NCL2450	FEX10YR1DAY	21.25	21.33	0.0000	5.20	5.03	493
NCL2470	FEX10YR1DAY	20.93	21.23	0.0000	20.24	19.80	846
NCL2490	FEX10YR1DAY	21.54	21.39	0.0000	27.09	26.21	1524
NCL2510	FEX10YR1DAY	21.70	21.39	0.0000	120.96	121.77	93225
NCL2530	FEX10YR1DAY	21.70	21.39	0.0000	52.66	54.21	45998
NCL2540	FEX10YR1DAY	0.00	22.08	0.0000	79.11	78.32	46002
NCL2550	FEX10YR1DAY	21.70	21.39	0.0000	64.00	64.49	15653
NCL2570	FEX10YR1DAY	21.51	21.36	0.0001	13.53	12.58	1503
NCL2580	FEX10YR1DAY	0.00	21.34	-0.0002	119.80	118.88	33660
NCL2590	FEX10YR1DAY	21.17	21.34	0.0000	200.64	198.38	136096
NCL2610	FEX10YR1DAY	21.14	21.34	0.0000	138.03	137.76	29612
NCL2630	FEX10YR1DAY	20.86	20.94	0.0000	86.49	82.38	49383

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2631	FEX10YR1DAY	0.00	20.72	0.0001	94.37	72.24	43537
NCL2650	FEX10YR1DAY	21.17	21.49	0.0001	98.39	82.93	117402
NCL2670	FEX10YR1DAY	21.93	22.17	-0.0003	108.00	120.83	58369
NCL2690	FEX10YR1DAY	21.96	22.39	-0.0001	61.87	75.36	54009
NCL2710	FEX10YR1DAY	21.96	22.47	0.0000	53.13	54.10	71008
NCL2730	FEX10YR1DAY	21.95	22.59	0.0000	35.30	34.92	11503
NCL2750	FEX10YR1DAY	21.84	22.97	0.0000	103.63	103.08	32926
NCL2770	FEX10YR1DAY	21.71	22.40	0.0000	29.28	29.30	1389
NCL2780	FEX10YR1DAY	0.00	22.24	0.0000	23.11	21.90	26546
NCL2790	FEX10YR1DAY	21.84	22.27	0.0000	151.14	144.87	121035
NCL2810	FEX10YR1DAY	22.11	22.79	-0.0001	97.09	96.53	23110
NCL2830	FEX10YR1DAY	23.09	22.92	-0.0001	19.25	18.80	3599
NCL2835	FEX10YR1DAY	0.00	23.80	0.0000	7.82	7.88	1077
NCL2840	FEX10YR1DAY	0.00	23.75	0.0000	94.87	94.61	24714
NCL2845	FEX10YR1DAY	0.00	24.28	-0.0001	52.26	52.08	15879
NCL2850	FEX10YR1DAY	20.82	21.20	0.0000	17.59	17.82	1361
NCL2870	FEX10YR1DAY	20.83	21.15	0.0001	16.82	17.01	1245
NCL2890	FEX10YR1DAY	20.83	21.11	-0.0001	15.04	16.82	21420
NCL2910	FEX10YR1DAY	20.83	21.11	0.0001	76.26	75.63	43377
NCL2930	FEX10YR1DAY	19.55	19.74	0.0003	192.96	198.49	5860
NCL2950	FEX10YR1DAY	19.53	19.74	0.0002	191.99	192.25	7987
NCL2970	FEX10YR1DAY	20.49	20.59	0.0002	59.32	58.29	15692
NCL2990	FEX10YR1DAY	19.33	19.74	0.0002	188.59	188.80	5872
NCL3010	FEX10YR1DA	19.35	19.75	0.0002	185.70	185.86	217986

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL3030	FEX10YR1DAY	19.58	19.82	0.0002	183.31	183.47	64949
NCL3050	FEX10YR1DAY	19.94	20.07	0.0002	80.84	74.84	38932
NCL3070	FEX10YR1DAY	20.14	20.20	0.0000	43.86	41.96	21045
NCL3090	FEX10YR1DAY	19.59	19.82	0.0002	177.86	178.02	89259
NCL3110	FEX10YR1DAY	19.59	19.83	0.0002	70.36	40.42	101772
NCL3130	FEX10YR1DAY	19.59	19.83	0.0002	28.14	21.01	41903
NCL3150	FEX10YR1DAY	19.54	19.82	0.0002	173.19	173.34	51780
NCL3170	FEX10YR1DAY	19.71	20.28	0.0002	82.92	82.36	35373
NCL3190	FEX10YR1DAY	20.31	20.50	0.0001	90.97	83.30	125874
NCL3210	FEX10YR1DAY	20.32	20.50	0.0001	62.65	57.43	62665
NCL3230	FEX10YR1DAY	20.32	20.51	0.0001	49.08	47.96	23260
NCL3250	FEX10YR1DAY	19.11	19.50	0.0002	166.21	167.72	162110
NCL3270	FEX10YR1DAY	19.11	19.54	0.0001	26.08	25.72	11164
NCL3280	FEX10YR1DAY	0.00	19.63	0.0001	23.74	23.09	12621
NCL3290	FEX10YR1DAY	20.16	20.26	0.0000	26.57	24.47	23107
NCL3300	FEX10YR1DAY	0.00	19.74	0.0000	8.25	8.25	1823
NCL3310	FEX10YR1DAY	20.19	20.25	0.0000	2.57	1.74	756
NCL3330	FEX10YR1DAY	20.75	20.28	0.0000	5.51	5.18	437
NCL3350	FEX10YR1DAY	20.51	20.66	0.0000	33.27	31.21	45221
NCL3360	FEX10YR1DAY	0.00	20.65	0.0000	12.08	10.17	19901
NCL3365	FEX10YR1DAY	0.00	20.26	0.0001	28.31	27.83	25048
NCL3370	FEX10YR1DAY	20.64	21.05	-0.0001	131.00	126.65	96228
NCL3390	FEX10YR1DAY	20.83	21.11	0.0001	124.62	124.03	41982

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3410	FEX10YR1DAY	20.83	21.11	0.0001	2.24	1.65	475
NCL3430	FEX10YR1DAY	20.83	21.11	0.0000	5.73	0.82	4445
NCL3450	FEX10YR1DAY	18.92	19.50	0.0006	379.84	251.39	210703
NCL3460	FEX10YR1DAY	18.92	19.50	-0.0008	127.46	131.12	2956
NCL3470	FEX10YR1DAY	19.11	19.51	0.0001	309.31	242.65	288280
NCL3490	FEX10YR1DAY	19.15	19.51	0.0001	123.41	115.52	55396
NCL3510	FEX10YR1DAY	20.64	19.85	0.0001	108.44	107.64	26329
NCL3520	FEX10YR1DAY	0.00	19.52	0.0001	264.96	265.37	32948
NCL3530	FEX10YR1DAY	20.66	20.73	0.0001	154.66	151.53	65926
NCL3550	FEX10YR1DAY	20.66	20.73	0.0001	5.47	2.25	736
NCL3570	FEX10YR1DAY	20.66	20.75	0.0001	3.02	1.15	624
NCL3590	FEX10YR1DAY	20.66	20.80	0.0000	3.26	1.08	5674
NCL3610	FEX10YR1DAY	20.66	20.73	0.0001	17.99	16.49	1245
NCL3630	FEX10YR1DAY	20.64	20.72	0.0001	243.28	238.44	118557
NCL3635	FEX10YR1DAY	0.00	20.72	0.0001	14.11	10.57	1720
NCL3640	FEX10YR1DAY	0.00	20.72	0.0001	29.56	26.34	43607
NCL3650	FEX10YR1DAY	18.92	19.50	0.0001	5.00	3.97	501
NCL3670	FEX10YR1DAY	18.92	19.50	0.0000	31.64	21.11	79602
NCL3690	FEX10YR1DAY	18.92	19.50	0.0003	219.15	218.53	3204
NCL3730	FEX10YR1DAY	18.92	19.50	0.0000	414.43	95.78	141775
NCL3740	FEX10YR1DAY	0.00	19.50	0.0001	112.61	84.22	40666
NCL3750	FEX10YR1DAY	18.93	19.26	0.0002	203.31	75.70	243155
NCL3770	FEX10YR1DAY	18.93	19.26	0.0002	73.80	25.62	100088
NCL4000	FEX10YR1DA	0.00	29.79	0.0000	48.97	48.93	7165

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL4010	FEX10YR1DAY	0.00	29.51	0.0000	41.32	41.09	14000
NCypEast	FEX10YR1DAY	32.00	29.00	0.0000	10.75	0.00	0
NCypWest	FEX10YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX10YR1DAY	2.00	2.00	0.0000	473.29	69.19	0
NOC0030	FEX10YR1DAY	1.14	2.32	0.0310	473.39	473.29	595
NOC0050	FEX10YR1DAY	1.20	2.51	-0.0204	423.35	423.49	530
NOC0070	FEX10YR1DAY	1.45	3.25	0.0064	412.43	412.17	917
NOC0090	FEX10YR1DAY	2.91	3.45	-0.0020	124.56	124.66	446
NOC0110	FEX10YR1DAY	1.65	3.32	-0.0068	266.00	266.20	455
NOC0130	FEX10YR1DAY	3.06	4.03	-0.0025	265.92	266.00	528
NOC0150	FEX10YR1DAY	3.08	4.05	0.0000	2.96	2.72	500
NOC0170	FEX10YR1DAY	4.56	4.83	0.0000	15.77	15.76	1455
NOC0190	FEX10YR1DAY	5.09	5.17	-0.0006	263.72	263.78	1077
NOC0210	FEX10YR1DAY	5.68	5.91	-0.0001	31.25	30.57	4212
NOC0230	FEX10YR1DAY	5.12	5.22	-0.0003	9.05	8.75	742
NOC0250	FEX10YR1DAY	5.30	5.57	0.0000	9.54	9.05	984
NOC0270	FEX10YR1DAY	5.57	6.18	0.0000	5.70	4.84	876
NOC0290	FEX10YR1DAY	5.11	5.31	-0.0002	314.10	314.24	1836
NOC0310	FEX10YR1DAY	5.27	5.53	-0.0002	62.99	62.38	1447
NOC0330	FEX10YR1DAY	5.85	5.83	-0.0002	267.29	270.03	54698
NOC0350	FEX10YR1DAY	5.89	5.94	-0.0002	218.77	217.99	9727
NOC0370	FEX10YR1DAY	6.47	6.76	-0.0001	153.39	153.42	26836
NOC0390	FEX10YR1DAY	6.60	6.95	0.0001	57.69	54.43	27241

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0410	FEX10YR1DAY	6.95	7.03	0.0000	53.82	42.98	32926
NOC0430	FEX10YR1DAY	7.01	7.07	0.0000	37.67	33.49	15150
NOC0450	FEX10YR1DAY	7.62	7.40	0.0000	26.63	26.31	9506
NOC0470	FEX10YR1DAY	8.12	7.95	-0.0001	17.70	16.81	17277
NOC0490	FEX10YR1DAY	7.67	7.42	0.0001	5.51	4.37	1051
NRU0010	FEX10YR1DAY	2.00	2.00	0.0000	615.49	0.00	0
NRU0030	FEX10YR1DAY	2.84	3.42	0.0002	339.12	339.11	2468
NRU0050	FEX10YR1DAY	4.36	4.95	0.0001	339.11	339.12	2036
NRU0070	FEX10YR1DAY	5.61	6.35	-0.0010	342.41	339.11	20378
NRU0090	FEX10YR1DAY	5.66	6.36	-0.0002	86.93	68.29	22388
NRU0110	FEX10YR1DAY	6.23	6.62	-0.0001	266.12	259.39	18593
NRU0130	FEX10YR1DAY	7.66	7.88	0.0002	235.54	235.31	2616
NRU0150	FEX10YR1DAY	7.71	7.92	0.0006	222.70	222.70	1434
NRU0160	FEX10YR1DAY	0.00	13.96	0.0000	169.64	169.63	4959
NRU0165	FEX10YR1DAY	0.00	14.15	0.0000	4.96	4.62	474
NRU0170	FEX10YR1DAY	14.45	16.06	0.0003	175.63	168.37	44004
NRU0172	FEX10YR1DAY	0.00	16.22	0.0000	6.43	6.50	829
NRU0174	FEX10YR1DAY	0.00	16.53	-0.0001	10.15	6.70	9551
NRU0176	FEX10YR1DAY	0.00	16.28	0.0000	6.35	6.38	761
NRU0178	FEX10YR1DAY	0.00	16.52	0.0000	6.37	6.35	957
NRU0180	FEX10YR1DAY	0.00	16.59	0.0000	103.46	92.63	115359
NRU0190	FEX10YR1DAY	14.45	16.06	-0.0004	15.56	14.66	2320
NRU0210	FEX10YR1DAY	14.45	16.04	-0.0001	16.54	14.53	4230
NRU0230	FEX10YR1DA	13.39	15.15	-0.0001	25.70	24.92	21625

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0250	FEX10YR1DAY	14.62	16.06	-0.0001	158.25	154.19	21346
NRU0270	FEX10YR1DAY	15.05	16.15	0.0001	134.53	134.37	2590
NRU0290	FEX10YR1DAY	16.30	18.68	-0.0003	58.05	46.29	71575
NRU0310	FEX10YR1DAY	16.13	16.80	0.0001	97.70	97.94	2501
NRU0330	FEX10YR1DAY	18.25	17.94	0.0001	27.99	28.23	1352
NRU0335	FEX10YR1DAY	0.00	19.30	0.0001	8.72	6.25	14520
NRU0340	FEX10YR1DAY	0.00	18.73	0.0001	66.84	65.81	36736
NRU0343	FEX10YR1DAY	0.00	19.46	0.0001	10.22	8.40	903
NRU0345	FEX10YR1DAY	0.00	19.70	-0.0001	56.86	50.78	80067
NRU0350	FEX10YR1DAY	19.50	19.35	0.0001	18.76	16.30	26857
NRU0370	FEX10YR1DAY	19.51	19.36	0.0001	14.37	15.27	19407
NRU0380	FEX10YR1DAY	23.33	19.45	-0.0001	7.61	7.78	470
NRU0390	FEX10YR1DAY	27.00	19.46	0.0000	18.80	7.61	32506
NRU0410	FEX10YR1DAY	19.56	19.49	0.0001	9.52	9.71	1101
NRU0425	FEX10YR1DAY	15.53	16.18	0.0001	6.92	5.96	4982
NRU0430	FEX10YR1DAY	19.61	19.59	0.0001	9.38	9.52	1077
NRU0450	FEX10YR1DAY	19.66	19.71	0.0001	9.26	9.38	1038
NRU0470	FEX10YR1DAY	19.72	20.26	0.0001	9.81	9.26	799
NRU0490	FEX10YR1DAY	20.36	20.69	0.0001	11.80	9.28	41775
NRU0495	FEX10YR1DAY	0.00	21.15	-0.0001	10.08	8.08	15831
NRU0500	FEX10YR1DAY	0.00	21.26	0.0000	2.78	2.67	7550
NRU0510	FEX10YR1DAY	19.67	20.25	0.0001	28.54	20.60	77097
NRU0530	FEX10YR1DAY	16.95	17.56	0.0001	68.59	68.79	2251

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0550	FEX10YR1DAY	17.92	18.36	0.0001	99.51	94.67	77029
NRU0570	FEX10YR1DAY	18.16	18.67	0.0001	67.75	67.71	1939
NRU0590	FEX10YR1DAY	18.51	19.08	0.0001	64.26	64.32	6798
NRU0610	FEX10YR1DAY	18.78	19.34	0.0001	63.78	63.84	39391
NRU0612	FEX10YR1DAY	0.00	19.34	0.0001	59.86	59.92	17816
NRU0615	FEX10YR1DAY	0.00	19.80	0.0001	11.14	8.12	1943
NRU0616	FEX10YR1DAY	0.00	20.25	0.0000	7.29	6.14	16366
NRU0618	FEX10YR1DAY	0.00	20.59	0.0000	12.84	10.68	19528
NRU0620	FEX10YR1DAY	0.00	19.97	0.0001	23.42	22.04	24720
NRU0630	FEX10YR1DAY	18.79	19.40	0.0001	58.29	58.35	16100
NRU0650	FEX10YR1DAY	18.79	19.45	0.0001	57.27	57.65	31502
NRU0670	FEX10YR1DAY	18.78	19.46	0.0001	55.99	56.05	1429
NRU0690	FEX10YR1DAY	18.84	19.48	0.0001	64.21	61.46	41736
NRU0710	FEX10YR1DAY	18.86	19.49	0.0001	109.49	99.18	55724
NRU0730	FEX10YR1DAY	18.85	19.49	0.0001	34.22	30.61	54092
NRU0740	FEX10YR1DAY	0.00	19.49	0.0000	107.42	91.60	36355
NRU0745	FEX10YR1DAY	0.00	19.49	0.0000	97.37	80.74	57253
NRU0750	FEX10YR1DAY	18.87	19.49	0.0000	129.11	46.18	269325
NRU0770	FEX10YR1DAY	18.88	19.49	0.0001	27.21	27.46	1008
NRU0785	FEX10YR1DAY	0.00	19.49	0.0000	107.14	91.91	69586
NRU0790	FEX10YR1DAY	18.88	19.49	0.0000	160.14	124.24	156214
NRU0810	FEX10YR1DAY	18.88	19.49	-0.0001	34.18	29.50	10749
NRU0820	FEX10YR1DAY	0.00	19.49	0.0001	6.21	3.05	442
NRU0830	FEX10YR1DA	18.99	19.50	-0.0001	63.60	56.15	42435

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0850	FEX10YR1DAY	19.11	19.50	-0.0001	67.76	67.60	1188
NRU0870	FEX10YR1DAY	19.32	19.50	-0.0007	16.89	18.61	560
NRU0890	FEX10YR1DAY	19.35	19.50	0.0000	59.86	15.55	73248
NRU0910	FEX10YR1DAY	19.35	19.51	0.0000	2.01	1.74	572
NRU0930	FEX10YR1DAY	19.35	19.60	0.0000	2.15	2.01	1742
NRU0950	FEX10YR1DAY	19.11	19.50	0.0000	99.10	84.56	38947
NRU0955	FEX10YR1DAY	0.00	19.50	0.0000	120.00	93.25	60491
NRU0960	FEX10YR1DAY	0.00	19.51	0.0001	160.43	153.20	42812
NRU0965	FEX10YR1DAY	0.00	19.51	0.0001	184.40	173.62	114085
NRU0970	FEX10YR1DAY	19.34	19.50	0.0000	49.22	27.36	90091
NRU0980	FEX10YR1DAY	0.00	19.50	-0.0009	12.60	7.42	1097
NRU0990	FEX10YR1DAY	19.39	19.50	0.0005	32.86	38.68	440
NRU1010	FEX10YR1DAY	19.70	19.51	0.0001	33.18	32.86	33899
NRU1015	FEX10YR1DAY	0.00	19.90	-0.0001	19.40	12.21	28079
NRU1020	FEX10YR1DAY	0.00	21.01	-0.0060	18.89	99.39	866
NRU1025	FEX10YR1DAY	0.00	20.55	0.0001	11.24	11.02	724
NRU1030	FEX10YR1DAY	19.70	19.51	0.0001	73.08	63.34	135203
NRU1035	FEX10YR1DAY	0.00	19.75	0.0000	4.98	4.55	436
NRU1037	FEX10YR1DAY	0.00	19.51	0.0000	1.35	1.02	640
NRU1040	FEX10YR1DAY	0.00	19.51	0.0001	52.37	47.76	80668
NRU1045	FEX10YR1DAY	0.00	21.09	0.0001	16.32	13.83	21279
NRU1046	FEX10YR1DAY	0.00	21.05	0.0060	13.83	12.28	932
NRU1050	FEX10YR1DAY	19.70	19.51	0.0000	66.73	61.31	121417

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1070	FEX10YR1DAY	19.83	19.51	0.0000	26.39	25.86	29469
NRU1090	FEX10YR1DAY	18.86	19.49	0.0000	14.32	13.81	919
NRU1110	FEX10YR1DAY	18.86	19.49	0.0001	61.33	39.10	86058
NRU1130	FEX10YR1DAY	18.86	19.49	-0.0002	10.06	8.93	769
NRU1150	FEX10YR1DAY	18.86	19.49	0.0001	47.81	44.26	93491
NRU1170	FEX10YR1DAY	18.86	19.49	0.0001	35.50	32.53	79863
NRU1182	FEX10YR1DAY	0.00	19.48	0.0000	9.44	8.89	15436
NRU1184	FEX10YR1DAY	0.00	19.47	0.0000	12.75	12.64	872
NRU1185	FEX10YR1DAY	0.00	19.30	0.0001	13.36	7.85	43143
NRU1186	FEX10YR1DAY	0.00	19.47	0.0000	5.07	4.67	790
NRU1188	FEX10YR1DAY	0.00	19.47	0.0000	16.02	4.93	60456
NRU1190	FEX10YR1DAY	18.86	19.50	0.0001	5.36	3.31	576
NRU1210	FEX10YR1DAY	18.86	19.50	0.0001	8.59	7.18	903
NRU1220	FEX10YR1DAY	0.00	20.32	0.0001	17.47	13.32	29041
NRU1225	FEX10YR1DAY	0.00	21.51	0.0000	4.62	4.46	436
NRU1230	FEX10YR1DAY	18.88	19.49	0.0001	12.26	11.99	874
NRU1232	FEX10YR1DAY	0.00	19.48	-0.0001	8.96	8.69	862
NRU1234	FEX10YR1DAY	0.00	19.48	0.0003	48.99	45.47	13448
NRU1240	FEX10YR1DAY	0.00	19.48	-0.0004	28.37	85.83	15105
NRU1250	FEX10YR1DAY	4.07	4.59	0.0002	278.90	278.89	2104
NRU1270	FEX10YR1DAY	4.78	5.24	0.0001	274.73	274.74	1667
NRU1290	FEX10YR1DAY	5.41	5.88	-0.0001	261.88	261.96	3103
NRU1310	FEX10YR1DAY	6.42	6.89	-0.0001	261.81	261.88	5053
NRU1330	FEX10YR1DA	8.29	8.86	0.0001	320.25	320.24	3357

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1350	FEX10YR1DAY	9.32	10.03	0.0001	315.33	315.28	2409
NRU1370	FEX10YR1DAY	11.03	12.11	0.0001	310.78	309.45	5323
NRU1390	FEX10YR1DAY	11.84	12.84	0.0001	64.83	54.12	22462
NRU1410	FEX10YR1DAY	12.56	13.56	0.0002	257.02	257.23	7338
NRU1430	FEX10YR1DAY	15.53	16.18	-0.0001	60.71	32.85	69290
NRU1450	FEX10YR1DAY	15.94	16.16	-0.0001	39.82	38.91	7331
NRU1470	FEX10YR1DAY	15.97	16.21	0.0001	7.10	7.09	981
NRU1490	FEX10YR1DAY	16.09	16.43	0.0001	9.55	7.67	12531
NRU1510	FEX10YR1DAY	15.12	16.36	0.0001	204.49	207.96	72369
NRU1530	FEX10YR1DAY	15.71	16.53	-0.0001	83.90	89.21	14797
NRU1550	FEX10YR1DAY	15.40	16.37	0.0000	75.84	76.50	3961
NRU1570	FEX10YR1DAY	16.20	17.12	0.0000	53.12	52.21	7394
NRU1590	FEX10YR1DAY	16.40	17.12	0.0000	8.26	7.60	4190
NRU1610	FEX10YR1DAY	16.56	17.56	0.0001	41.72	40.19	19499
NRU1630	FEX10YR1DAY	16.69	17.63	0.0001	34.97	35.07	1538
NRU1650	FEX10YR1DAY	16.84	17.69	0.0001	34.87	34.97	27840
NRU1670	FEX10YR1DAY	16.89	17.72	0.0001	86.72	33.26	162240
NRU1690	FEX10YR1DAY	16.89	17.67	0.0001	44.24	43.80	5553
NRU1710	FEX10YR1DAY	16.60	17.43	0.0001	34.33	34.11	1351
NRU1730	FEX10YR1DAY	16.58	17.38	0.0000	91.62	24.70	153327
NRU1750	FEX10YR1DAY	16.58	17.38	-0.0002	17.73	17.09	720
NRU1770	FEX10YR1DAY	16.58	17.39	0.0000	30.66	30.53	5562
NRU1790	FEX10YR1DAY	17.21	17.49	0.0000	9.61	7.86	5216

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1810	FEX10YR1DAY	16.58	17.38	0.0000	10.83	7.35	20674
NRU1830	FEX10YR1DAY	17.12	17.60	0.0000	22.86	19.95	7078
NRU1850	FEX10YR1DAY	17.07	17.89	0.0001	25.03	24.84	1048
NRU1870	FEX10YR1DAY	17.20	18.03	0.0001	25.24	25.03	908
NRU1890	FEX10YR1DAY	17.38	18.22	0.0001	50.04	25.24	64936
NRU1910	FEX10YR1DAY	17.71	18.22	0.0001	20.97	18.51	17196
NRU1930	FEX10YR1DAY	15.71	16.53	-0.0001	53.17	79.50	79516
NRU1950	FEX10YR1DAY	16.43	16.97	0.0001	50.61	50.97	1646
NRU1970	FEX10YR1DAY	16.86	17.24	0.0001	50.27	50.61	1037
NRU1990	FEX10YR1DAY	17.09	17.39	-0.0001	49.92	50.27	1719
NRU2010	FEX10YR1DAY	18.02	18.23	0.0001	12.93	12.25	1603
NRU2030	FEX10YR1DAY	18.39	18.48	0.0001	12.39	10.51	26342
NRU2050	FEX10YR1DAY	18.40	18.49	0.0001	4.71	5.21	453
NRU2070	FEX10YR1DAY	18.41	18.50	-0.0001	4.67	4.71	18731
NRU2090	FEX10YR1DAY	17.16	17.43	-0.0001	35.20	35.12	2321
NRU2110	FEX10YR1DAY	17.28	17.50	0.0001	34.86	34.28	1563
NRU2130	FEX10YR1DAY	17.49	17.64	-0.0001	36.98	36.76	1932
NRU2150	FEX10YR1DAY	17.69	17.90	0.0001	7.65	5.85	11762
NRU2170	FEX10YR1DAY	17.07	17.44	0.0001	3.47	3.57	770
NRU2190	FEX10YR1DAY	17.08	17.45	0.0000	10.81	3.47	28529
NRU2210	FEX10YR1DAY	17.33	17.39	0.0001	6.37	6.37	538
NRU2230	FEX10YR1DAY	17.33	17.08	0.0000	27.64	3.69	80995
NRU2250	FEX10YR1DAY	17.31	17.07	0.0001	3.64	1.92	13380
NRU2270	FEX10YR1DA	17.61	17.73	0.0001	30.88	30.59	1544

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU2290	FEX10YR1DAY	17.67	17.76	0.0001	19.94	18.86	1150
NRU2310	FEX10YR1DAY	17.68	17.76	0.0001	14.58	15.01	7753
NRU2330	FEX10YR1DAY	17.68	17.76	0.0003	33.26	8.11	2737
NRU2350	FEX10YR1DAY	17.68	17.76	-0.0002	4.96	30.85	654
NRU2370	FEX10YR1DAY	17.37	17.30	0.0001	4.76	4.96	528
NRU2390	FEX10YR1DAY	17.36	17.28	0.0000	9.55	4.76	33541
NRU2410	FEX10YR1DAY	17.72	17.76	0.0001	10.21	10.10	6776
NRU2430	FEX10YR1DAY	17.83	17.79	0.0001	9.38	9.50	5413
NRU2450	FEX10YR1DAY	18.06	17.83	0.0001	3.47	2.51	4373
NRU2470	FEX10YR1DAY	15.72	16.53	0.0001	6.46	5.65	1459
NRU2490	FEX10YR1DAY	15.75	16.54	0.0001	8.60	7.97	1430
NRU2510	FEX10YR1DAY	15.75	16.54	0.0001	7.97	5.10	946
NRU2530	FEX10YR1DAY	15.76	16.54	0.0001	5.10	2.42	582
NRU2550	FEX10YR1DAY	16.53	17.08	0.0001	119.30	117.21	30977
NRU2570	FEX10YR1DAY	17.71	18.17	0.0001	116.92	111.17	61194
NRU2590	FEX10YR1DAY	18.30	18.47	0.0001	36.52	31.53	8901
NRU2610	FEX10YR1DAY	18.62	18.93	0.0001	58.43	57.62	21467
NRU2630	FEX10YR1DAY	19.41	19.41	-0.0002	50.86	48.64	49810
NRU2650	FEX10YR1DAY	19.54	19.82	-0.0002	37.98	33.66	51098
NRU2670	FEX10YR1DAY	16.64	16.91	0.0000	27.90	26.98	8086
NRU2690	FEX10YR1DAY	17.09	17.52	0.0000	179.82	92.71	333579
NSH02	FEX10YR1DAY	0.00	20.88	-0.0002	13.62	19.51	5470
NSH03	FEX10YR1DAY	0.00	20.23	-0.0001	1.20	1.21	548

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH04	FEX10YR1DAY	0.00	18.77	0.0002	82.63	82.39	4613
NSH05	FEX10YR1DAY	0.00	19.69	-0.0030	6.78	5.94	17276
NSH07	FEX10YR1DAY	0.00	8.38	0.0001	47.79	49.75	10564
NSH08	FEX10YR1DAY	0.00	8.58	0.0000	21.82	20.44	2236
NSH09	FEX10YR1DAY	0.00	10.67	0.0000	65.58	65.02	16039
NSH10	FEX10YR1DAY	0.00	19.07	0.0000	20.50	20.16	26296
NSH11	FEX10YR1DAY	0.00	21.09	0.0000	7.73	7.65	6588
NSH12	FEX10YR1DAY	0.00	19.16	0.0000	8.74	8.67	7528
NSH13	FEX10YR1DAY	0.00	18.00	0.0000	26.38	25.96	19365
NSH14	FEX10YR1DAY	0.00	17.82	0.0000	9.30	9.16	10747
NSH15	FEX10YR1DAY	0.00	18.71	0.0000	5.51	5.45	5704
NSH17	FEX10YR1DAY	0.00	17.25	0.0000	27.47	27.39	9015
NSH18	FEX10YR1DAY	0.00	15.82	0.0000	25.29	25.19	10070
NSH19	FEX10YR1DAY	0.00	11.63	0.0000	22.20	22.03	12736
NSH20	FEX10YR1DAY	0.00	20.20	0.0000	3.48	3.29	11656
NSH21	FEX10YR1DAY	0.00	11.20	-0.0001	22.83	22.71	10802
NSH22	FEX10YR1DAY	0.00	14.35	0.0000	36.86	36.23	9812
NSH23	FEX10YR1DAY	0.00	18.26	0.0000	11.96	11.87	3727
NSH24	FEX10YR1DAY	0.00	14.35	0.0000	27.37	26.78	8275
NSH25	FEX10YR1DAY	0.00	14.07	0.0000	17.87	16.41	12223
NSH26	FEX10YR1DAY	0.00	13.97	0.0000	91.70	86.39	62371
NSH27	FEX10YR1DAY	0.00	13.01	0.0000	24.07	19.43	38701
NSH27A	FEX10YR1DAY	0.00	12.94	0.0000	18.77	17.45	921
NSH27AA	FEX10YR1DA	0.00	12.98	0.0000	4.52	4.55	552

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH27B	FEX10YR1DAY	0.00	11.62	-0.0001	17.45	18.67	1033
NSH27C	FEX10YR1DAY	0.00	9.33	-0.0002	18.67	17.34	1037
NSH28	FEX10YR1DAY	0.00	9.77	0.0000	25.11	24.64	9457
NSH29	FEX10YR1DAY	0.00	7.43	-0.0001	11.08	11.85	648
NSH31	FEX10YR1DAY	0.00	9.75	0.0001	6.76	4.54	480
NSH33	FEX10YR1DAY	0.00	16.70	0.0000	5.95	5.47	10825
NSH34	FEX10YR1DAY	0.00	9.40	0.0001	62.27	62.23	5759
NSH35	FEX10YR1DAY	0.00	8.02	0.0000	58.17	58.16	4127
NSH36	FEX10YR1DAY	0.00	8.00	0.0003	22.08	21.85	805
NSH37	FEX10YR1DAY	0.00	18.05	0.0000	16.81	16.76	6905
NSH41	FEX10YR1DAY	0.00	19.02	0.0000	6.05	6.01	697
NSH42	FEX10YR1DAY	0.00	6.38	0.0001	80.76	80.70	447
NSH43	FEX10YR1DAY	0.00	6.75	-0.0003	38.60	39.76	507
NSH44	FEX10YR1DAY	0.00	9.76	0.0002	53.88	53.88	682
NSH45	FEX10YR1DAY	0.00	16.50	0.0000	49.03	48.11	27428
NSH48	FEX10YR1DAY	0.00	18.26	0.0000	14.81	14.77	3581
NSH49	FEX10YR1DAY	0.00	20.81	0.0000	16.73	15.51	17079
NSH50	FEX10YR1DAY	0.00	19.40	0.0002	43.30	41.23	14595
NSH51	FEX10YR1DAY	0.00	19.25	0.0001	31.33	26.08	25710
NSH52	FEX10YR1DAY	0.00	19.21	0.0001	74.57	69.52	25454
NSH53	FEX10YR1DAY	0.00	19.22	-0.0001	26.08	23.14	4697
NSH54	FEX10YR1DAY	0.00	19.21	0.0001	70.46	70.24	12484
NSH55	FEX10YR1DAY	0.00	19.30	0.0001	55.64	54.98	22412

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH56	FEX10YR1DAY	0.00	19.31	0.0001	28.09	28.20	5673
NSH57	FEX10YR1DAY	0.00	19.48	0.0002	86.24	32.93	6892
NSH60	FEX10YR1DAY	0.00	20.01	0.0002	14.55	16.44	436
NSH61	FEX10YR1DAY	0.00	19.68	-0.0002	14.06	15.77	444
NSH65	FEX10YR1DAY	0.00	20.57	0.0000	3.18	3.04	463
NSH75	FEX10YR1DAY	0.00	7.60	0.0000	47.96	37.38	7037
NSH80	FEX10YR1DAY	0.00	20.27	0.0000	3.99	3.78	10845
NSH81	FEX10YR1DAY	0.00	20.62	0.0000	0.42	0.00	2178
NSH82	FEX10YR1DAY	0.00	20.83	0.0000	2.17	0.47	5773
NSH83	FEX10YR1DAY	0.00	20.69	0.0000	18.29	17.62	14357
NSR0000	FEX10YR1DAY	2.00	2.00	0.0000	281.86	0.00	0
NSR0005	FEX10YR1DAY	2.00	2.00	0.0000	6.69	0.00	0
NSR0010	FEX10YR1DAY	2.00	2.00	0.0000	407.26	0.00	0
NSR0030	FEX10YR1DAY	2.92	3.30	0.0000	423.53	407.26	218718
NSR0032	FEX10YR1DAY	4.88	5.24	0.0000	12.36	7.57	22427
NSR0034	FEX10YR1DAY	3.63	3.92	0.0000	67.67	60.74	46083
NSR0050	FEX10YR1DAY	3.44	3.82	0.0000	373.16	370.04	94893
NSR0070	FEX10YR1DAY	3.45	3.81	-0.0001	28.23	21.35	38843
NSR0090	FEX10YR1DAY	3.68	3.93	-0.0001	35.16	31.03	18405
NSR0100	FEX10YR1DAY	2.25	2.72	0.0000	6.74	6.69	524
NSR0102	FEX10YR1DAY	4.24	4.39	0.0000	3.79	3.46	2973
NSR0105	FEX10YR1DAY	1.91	2.81	-0.0272	281.91	281.86	484
NSR0110	FEX10YR1DAY	3.93	4.19	0.0000	16.03	15.41	6626
NSR0112	FEX10YR1DA	2.31	3.17	-0.0305	280.21	280.19	469

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0115	FEX10YR1DAY	4.25	4.38	0.0000	3.03	2.64	8675
NSR0120	FEX10YR1DAY	2.62	3.45	0.0329	277.36	277.41	479
NSR0130	FEX10YR1DAY	4.16	4.61	0.0000	10.74	8.08	10585
NSR0135	FEX10YR1DAY	4.22	4.74	0.0000	3.96	3.69	695
NSR0140	FEX10YR1DAY	3.28	4.04	0.0121	273.59	273.61	477
NSR0150	FEX10YR1DAY	3.64	4.12	0.0003	356.87	357.33	29291
NSR0160	FEX10YR1DAY	3.56	4.29	-0.0068	270.60	271.02	11711
NSR0165	FEX10YR1DAY	4.03	5.10	0.0000	4.54	3.57	13523
NSR0170	FEX10YR1DAY	3.70	4.29	0.0000	6.01	4.60	8952
NSR0180	FEX10YR1DAY	3.83	4.61	0.0000	7.22	5.48	8898
NSR0190	FEX10YR1DAY	4.04	4.41	-0.0001	36.45	36.70	3229
NSR0210	FEX10YR1DAY	4.26	4.70	0.0001	35.53	36.08	9344
NSR0230	FEX10YR1DAY	4.26	4.70	0.0000	35.25	35.02	44638
NSR0250	FEX10YR1DAY	3.93	4.35	0.0050	324.80	324.57	12764
NSR0270	FEX10YR1DAY	3.98	4.44	0.0000	97.95	96.46	27326
NSR0280	FEX10YR1DAY	5.41	5.88	0.0006	250.46	249.24	31513
NSR0281	FEX10YR1DAY	5.97	6.54	0.0004	244.26	243.87	17693
NSR0290	FEX10YR1DAY	6.70	6.91	-0.0005	103.37	102.53	35069
NSR0310	FEX10YR1DAY	9.28	9.37	0.0001	91.27	89.91	63072
NSR0330	FEX10YR1DAY	9.65	9.86	0.0001	7.93	7.95	470
NSR0350	FEX10YR1DAY	10.32	10.76	0.0001	8.20	7.93	446
NSR0370	FEX10YR1DAY	10.35	10.80	0.0000	11.28	8.20	9570
NSR0390	FEX10YR1DAY	11.96	12.24	0.0001	53.50	50.70	75095

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0410	FEX10YR1DAY	12.27	12.66	0.0001	9.45	10.18	510
NSR0430	FEX10YR1DAY	12.28	12.67	0.0000	9.31	9.45	20547
NSR0450	FEX10YR1DAY	13.04	14.02	0.0001	38.45	37.56	32430
NSR0470	FEX10YR1DAY	13.10	14.40	-0.0001	26.57	25.94	13286
NSR0490	FEX10YR1DAY	4.41	4.73	-0.0065	161.26	160.18	28804
NSR0510	FEX10YR1DAY	4.48	4.93	-0.0008	85.25	85.40	15302
NSR0530	FEX10YR1DAY	4.55	4.99	-0.0002	10.78	8.59	18159
NSR0540	FEX10YR1DAY	4.55	5.17	0.0004	87.14	80.97	86083
NSR0550	FEX10YR1DAY	4.56	5.18	-0.0011	312.44	312.26	20623
NSR0560	FEX10YR1DAY	4.66	5.21	-0.0003	105.01	111.61	69556
NSR0570	FEX10YR1DAY	5.28	5.49	0.0001	96.81	99.22	56722
NSR0580	FEX10YR1DAY	6.13	6.40	-0.0001	21.42	15.32	103328
NSR0590	FEX10YR1DAY	6.15	6.43	-0.0001	89.93	86.61	53258
NSR0610	FEX10YR1DAY	6.26	6.46	-0.0001	55.23	48.15	67615
NSR0630	FEX10YR1DAY	6.26	6.46	-0.0001	16.73	16.80	475
NSR0650	FEX10YR1DAY	6.25	6.44	0.0001	60.13	39.69	169411
NSR0660	FEX10YR1DAY	6.13	6.40	-0.0001	44.49	18.14	68683
NSR0670	FEX10YR1DAY	6.24	6.44	-0.0001	6.86	7.54	520
NSR0680	FEX10YR1DAY	6.14	6.39	-0.0001	21.42	9.45	133401
NSR0690	FEX10YR1DAY	6.24	6.43	-0.0001	6.44	6.86	599
NSR0710	FEX10YR1DAY	6.23	6.42	0.0000	6.37	6.44	861
NSR0730	FEX10YR1DAY	6.29	6.50	0.0000	133.97	109.94	162109
NSR0770	FEX10YR1DAY	6.81	7.33	0.0001	110.67	109.07	14261
NSR0780	FEX10YR1DA	6.74	6.85	-0.0001	14.33	13.45	20636

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0790	FEX10YR1DAY	8.35	10.14	-0.0003	362.47	340.08	48217
NSR0791	FEX10YR1DAY	7.13	8.30	0.0002	233.82	233.82	5596
NSR0809	FEX10YR1DAY	12.76	11.29	0.0004	73.61	93.49	2122
NSR0810	FEX10YR1DAY	13.45	13.54	-0.0002	190.64	189.69	60274
NSR0830	FEX10YR1DAY	15.10	15.32	-0.0001	205.13	200.61	136078
NSR0840	FEX10YR1DAY	16.09	16.14	0.0001	30.19	30.74	38270
NSR0850	FEX10YR1DAY	15.64	15.86	-0.0003	146.79	139.09	80333
NSR0860	FEX10YR1DAY	16.41	16.44	0.0000	9.10	9.09	13933
NSR0869	FEX10YR1DAY	16.03	16.23	0.0001	31.19	30.12	1505
NSR0870	FEX10YR1DAY	16.24	16.45	0.0002	98.74	99.55	36629
NSR0880	FEX10YR1DAY	16.24	16.47	0.0001	36.81	36.35	13962
NSR0881	FEX10YR1DAY	14.14	17.11	0.0005	252.87	253.46	60713
NSR0890	FEX10YR1DAY	4.02	4.40	-0.0805	271.12	252.15	52010
NSR0910	FEX10YR1DAY	4.79	5.11	-0.0023	192.63	194.32	31084
NSR0930	FEX10YR1DAY	5.54	6.17	0.0000	146.85	37.80	289965
NSR0950	FEX10YR1DAY	5.63	6.17	0.0004	271.16	270.96	62320
NSR0970	FEX10YR1DAY	6.14	6.47	-0.0002	138.48	138.71	3616
NSR0990	FEX10YR1DAY	6.27	6.55	0.0001	205.69	205.65	4324
NSR1010	FEX10YR1DAY	6.30	6.58	0.0000	43.63	43.00	12934
NSR1030	FEX10YR1DAY	8.54	8.89	-0.0001	163.19	162.89	9869
NSR1050	FEX10YR1DAY	8.56	8.94	0.0000	73.25	71.43	23835
NSR1070	FEX10YR1DAY	9.58	9.69	-0.0006	207.57	206.40	48154
NSR1090	FEX10YR1DAY	11.30	11.41	0.0004	150.54	150.55	8267

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1110	FEX10YR1DAY	11.57	11.58	0.0000	2.71	2.70	2961
NSR1130	FEX10YR1DAY	11.29	11.36	0.0000	24.12	24.09	15025
NSR1150	FEX10YR1DAY	11.39	11.53	0.0000	6.66	4.62	9460
NSR1170	FEX10YR1DAY	11.38	11.52	0.0001	4.62	3.67	451
NSR1190	FEX10YR1DAY	12.70	13.16	0.0000	149.73	149.72	13564
NSR1210	FEX10YR1DAY	12.70	13.16	-0.0001	23.27	8.97	78442
NSR1230	FEX10YR1DAY	14.76	15.23	0.0000	147.67	147.64	9640
NSR1270	FEX10YR1DAY	14.99	15.43	0.0000	147.72	147.67	6276
NSR1290	FEX10YR1DAY	14.99	15.43	0.0000	9.87	2.65	23519
NSR1310	FEX10YR1DAY	14.99	15.43	0.0000	28.78	13.89	98685
NSR1330	FEX10YR1DAY	15.44	16.06	0.0000	147.55	146.08	22876
NSR1350	FEX10YR1DAY	15.45	16.07	0.0000	32.74	22.70	150055
NSR1370	FEX10YR1DAY	15.56	16.16	0.0000	144.28	136.67	21929
NSR1390	FEX10YR1DAY	15.56	16.16	0.0000	3.81	3.36	5042
NSR1410	FEX10YR1DAY	15.56	16.16	-0.0001	29.07	26.86	33267
NSR1430	FEX10YR1DAY	15.76	16.26	0.0000	51.11	43.99	39591
NSR1450	FEX10YR1DAY	15.74	16.26	0.0000	69.03	48.16	107652
NSR1470	FEX10YR1DAY	15.96	16.28	0.0000	50.24	45.02	42453
NSR1490	FEX10YR1DAY	16.21	16.35	0.0000	55.40	40.97	143725
NSR1510	FEX10YR1DAY	16.21	16.35	0.0000	32.72	30.23	29547
NSR1530	FEX10YR1DAY	15.56	16.16	0.0000	5.70	4.09	11796
NSR1550	FEX10YR1DAY	15.68	16.25	-0.0001	147.83	134.36	34084
NSR1570	FEX10YR1DAY	15.68	16.25	0.0000	6.39	4.31	34037
NSR1590	FEX10YR1DA	15.68	16.25	0.0000	60.72	54.94	35360

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1610	FEX10YR1DAY	15.75	16.32	-0.0002	21.18	18.65	24644
NSR1630	FEX10YR1DAY	15.75	16.32	0.0000	102.22	91.77	20155
NSR1650	FEX10YR1DAY	16.39	17.09	0.0000	3.21	3.21	436
NSR1670	FEX10YR1DAY	15.92	16.79	0.0002	67.92	60.77	47575
NSR1690	FEX10YR1DAY	16.24	16.92	0.0000	89.05	78.87	21985
NSR1710	FEX10YR1DAY	16.25	16.92	0.0000	8.17	7.95	13659
NSR1730	FEX10YR1DAY	16.32	16.97	0.0000	87.79	80.29	12680
NSR1750	FEX10YR1DAY	16.68	16.97	0.0000	3.37	3.37	871
NSR1770	FEX10YR1DAY	17.23	17.44	0.0000	27.39	15.24	21032
NSR1790	FEX10YR1DAY	17.24	17.45	0.0000	32.81	17.31	36302
NSR1810	FEX10YR1DAY	17.25	17.45	0.0000	9.42	7.41	15081
NSR1830	FEX10YR1DAY	17.25	17.45	0.0000	58.85	51.89	99383
NSR1850	FEX10YR1DAY	16.95	17.90	-0.0001	11.37	9.66	13810
NSR1870	FEX10YR1DAY	16.93	17.90	0.0001	48.77	32.92	130635
NSR1890	FEX10YR1DAY	16.05	17.90	0.0001	13.34	13.74	1056
NSR1910	FEX10YR1DAY	15.45	17.90	0.0004	69.09	66.07	120857
NSR1930	FEX10YR1DAY	16.53	17.12	0.0002	64.77	64.33	5014
NSR1950	FEX10YR1DAY	16.70	17.16	-0.0001	20.55	20.03	10001
NSR1970	FEX10YR1DAY	16.84	17.50	-0.0001	32.36	25.48	58432
NSR1990	FEX10YR1DAY	16.86	17.39	0.0000	9.97	8.86	949
NSR2010	FEX10YR1DAY	16.91	17.29	0.0001	16.32	10.39	39821
NSR2030	FEX10YR1DAY	16.90	17.18	-0.0001	10.39	10.39	751
NSR2050	FEX10YR1DAY	16.88	17.00	0.0000	15.95	15.35	19626

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2070	FEX10YR1DAY	16.81	16.95	-0.0001	6.38	6.37	781
NSR2090	FEX10YR1DAY	16.72	16.89	0.0000	6.37	6.35	673
NSR2110	FEX10YR1DAY	16.54	16.79	0.0000	18.86	18.13	21930
NSR2130	FEX10YR1DAY	16.50	16.54	0.0000	17.80	13.76	89615
NSR2150	FEX10YR1DAY	17.60	17.44	0.0000	59.25	48.94	196280
NSR2170	FEX10YR1DAY	17.62	17.49	-0.0001	27.85	27.67	2087
NSR2190	FEX10YR1DAY	17.62	17.51	-0.0001	28.03	27.85	967
NSR2210	FEX10YR1DAY	17.62	17.55	0.0000	55.03	42.52	111906
NSR2230	FEX10YR1DAY	17.62	17.53	-0.0001	20.65	20.17	675
NSR2250	FEX10YR1DAY	17.63	17.55	-0.0001	23.88	20.65	13328
NSR2270	FEX10YR1DAY	17.63	17.56	0.0001	27.92	21.55	26025
NSR2290	FEX10YR1DAY	17.63	17.56	0.0001	18.62	18.40	888
NSR2310	FEX10YR1DAY	17.63	17.57	0.0000	21.29	18.67	21205
NSR2330	FEX10YR1DAY	17.65	18.01	0.0000	21.89	12.78	43091
NSR2350	FEX10YR1DAY	17.65	18.01	0.0001	24.85	12.48	57587
NSR2370	FEX10YR1DAY	16.66	17.15	0.0000	32.63	28.28	9676
NSR2390	FEX10YR1DAY	18.07	18.05	0.0000	13.22	7.13	64000
NSR2410	FEX10YR1DAY	16.66	17.16	0.0000	43.18	28.80	19074
NSR2430	FEX10YR1DAY	17.99	18.00	0.0000	2.94	2.93	3087
NSR2450	FEX10YR1DAY	18.06	18.14	0.0000	39.32	38.48	19821
NSR3000	FEX10YR1DAY	17.04	17.90	-0.0727	8.55	49.45	35753
NSR3005	FEX10YR1DAY	17.02	17.90	0.1453	49.45	4.00	566
NSR3020	FEX10YR1DAY	17.61	17.77	-0.0001	41.63	39.70	72402
NSR3040	FEX10YR1DA	16.25	16.48	0.0000	77.47	74.66	58891

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR3060	FEX10YR1DAY	16.21	16.34	0.0001	25.73	24.13	47392
NSW0010	FEX10YR1DAY	2.00	2.00	0.0000	28.75	0.00	0
NSW0030	FEX10YR1DAY	2.13	3.08	-0.0004	28.76	28.75	587
NSW0050	FEX10YR1DAY	4.04	5.31	0.0001	32.15	28.76	4899
Outfall	FEX10YR1DAY	2.00	2.00	0.0000	71.08	0.00	0
Outfall_NE	FEX10YR1DAY	21.00	20.51	-0.0003	8.60	0.00	0
PondA	FEX10YR1DAY	0.00	20.22	0.0000	19.77	6.34	72920
PondB	FEX10YR1DAY	0.00	17.06	0.0000	160.94	131.00	136551
SH_OUTFALL	FEX10YR1DAY	2.00	2.00	0.0000	263.07	0.00	0
STORAGE1	FEX10YR1DAY	0.00	20.28	0.0000	5.18	1.23	7405
STORAGE10	FEX10YR1DAY	0.00	20.57	0.0000	3.04	0.04	9148
STORAGE11	FEX10YR1DAY	0.00	20.88	0.0000	19.51	0.01	18648
STORAGE12	FEX10YR1DAY	0.00	21.01	0.0004	95.89	5.91	10262
STORAGE13	FEX10YR1DAY	0.00	19.75	0.0000	4.31	0.59	5323
STORAGE14	FEX10YR1DAY	0.00	21.51	0.0000	4.46	0.00	13395
STORAGE2	FEX10YR1DAY	0.00	19.50	0.0001	21.11	2.95	18426
STORAGE4	FEX10YR1DAY	0.00	19.50	0.0003	88.80	3.38	12088
STORAGE5	FEX10YR1DAY	0.00	21.23	0.0000	16.55	5.97	20042
STORAGE8	FEX10YR1DAY	0.00	19.47	0.0000	3.05	0.97	6098
STORAGE9	FEX10YR1DAY	0.00	20.01	0.0014	14.09	2.15	11761
Sevilla1	FEX10YR1DAY	1.20	2.16	0.0000	0.05	0.03	804
Sevilla2	FEX10YR1DAY	1.23	2.09	0.0000	0.02	0.01	610
Sevilla3	FEX10YR1DAY	1.20	2.16	0.0000	0.12	0.09	1339

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Sevilla4	FEX10YR1DAY	1.20	2.16	0.0000	0.21	0.16	1450
Shamrock2	FEX10YR1DAY	1.11	2.09	-0.0003	71.12	71.08	5389
Shmrck1.1	FEX10YR1DAY	1.38	2.29	-0.0001	71.08	71.08	6206
Shmrck1.2	FEX10YR1DAY	1.20	2.16	0.0002	71.08	71.13	3971
V3	FEX10YR1DAY	6.53	6.53	0.0000	0.01	0.01	36626
BC_N02	FEX233YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	FEX233YR1DAY	8.77	8.63	0.0000	0.00	0.00	436
Church2	FEX233YR1DAY	8.77	8.39	0.0000	3.36	2.84	4390
Clark1	FEX233YR1DAY	7.21	6.91	0.0000	0.41	0.21	741
Clark2	FEX233YR1DAY	7.21	6.91	0.0000	36.29	36.27	4366
DM1	FEX233YR1DAY	11.42	11.45	0.0000	3.25	3.37	1347
DM2	FEX233YR1DAY	10.30	10.22	0.0000	3.37	3.18	2049
DM3	FEX233YR1DAY	9.16	9.18	0.0000	3.18	3.36	2978
E_Outlet	FEX233YR1DAY	0.00	16.06	0.0002	60.41	27.53	0
E_Outlet2	FEX233YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	FEX233YR1DAY	1.99	2.25	0.0000	0.29	0.24	763
ElP_con.1	FEX233YR1DAY	2.18	2.33	-0.0001	36.17	36.19	4221
ElPrad.1	FEX233YR1DAY	1.99	2.25	0.0000	0.14	0.09	623
G1	FEX233YR1DAY	14.98	14.70	-0.0006	44.56	38.16	31408
G10	FEX233YR1DAY	8.77	8.34	0.0000	36.30	36.29	4590
G2	FEX233YR1DAY	14.99	14.92	-0.0001	10.09	9.65	32920
G3	FEX233YR1DAY	14.86	14.44	-0.0003	47.44	40.66	14812
G4	FEX233YR1DAY	12.82	12.30	0.0000	40.66	40.65	2076
G5	FEX233YR1D	11.69	11.34	0.0000	40.65	40.64	1864

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
G6	FEX233YR1DAY	11.00	9.24	0.0000	5.70	0.00	0
G7	FEX233YR1DAY	11.00	10.56	0.0000	40.64	40.63	3601
G8	FEX233YR1DAY	10.07	9.76	0.0000	34.93	34.93	2143
G9	FEX233YR1DAY	9.41	9.24	0.0001	34.93	34.93	1353
H1	FEX233YR1DAY	1.99	2.25	0.0000	0.11	0.10	512
H2.1	FEX233YR1DAY	1.99	2.25	0.0000	36.19	36.17	6105
Hubert	FEX233YR1DAY	3.16	2.97	0.0000	36.27	36.24	5965
JUNCT1	FEX233YR1DAY	0.00	18.91	0.0000	2.94	2.83	3947
JUNCT10	FEX233YR1DAY	0.00	21.87	0.0000	30.80	30.74	8712
JUNCT2	FEX233YR1DAY	0.00	14.12	0.0000	13.65	13.63	1785
JUNCT3	FEX233YR1DAY	0.00	19.81	0.0000	1.47	1.01	8325
JUNCT4	FEX233YR1DAY	0.00	13.62	0.0000	2.96	2.91	5133
JUNCT6	FEX233YR1DAY	0.00	15.07	0.0000	9.68	9.67	2796
JUNCT7	FEX233YR1DAY	0.00	19.11	0.0000	31.32	31.21	6799
JUNCT7B	FEX233YR1DAY	0.00	18.68	0.0000	34.77	35.03	13690
JUNCT8	FEX233YR1DAY	0.00	19.26	0.0000	71.62	71.67	10623
JUNCT8B	FEX233YR1DAY	0.00	18.70	0.0000	71.11	71.03	24104
JUNCT9	FEX233YR1DAY	0.00	29.38	0.0000	25.55	25.52	8979
L1	FEX233YR1DAY	11.53	11.53	0.0000	0.00	0.00	436
L2	FEX233YR1DAY	11.63	11.63	0.0000	0.00	0.00	436
L3	FEX233YR1DAY	10.43	10.43	0.0000	0.00	0.00	436
L4	FEX233YR1DAY	8.43	8.43	0.0000	0.00	0.00	436
L5	FEX233YR1DAY	7.63	7.63	0.0000	0.00	0.00	436

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
L6	FEX233YR1DAY	6.93	6.93	0.0000	0.00	0.00	436
Lois	FEX233YR1DAY	4.82	4.53	0.0000	36.27	36.27	6808
M1	FEX233YR1DAY	2.58	2.53	0.0000	0.03	0.01	629
M1.1	FEX233YR1DAY	6.33	6.33	0.0000	0.00	0.00	436
M1.2	FEX233YR1DAY	7.03	7.03	0.0000	0.00	0.00	436
M1.3	FEX233YR1DAY	7.13	7.13	0.0000	0.00	0.00	436
M2	FEX233YR1DAY	2.58	2.53	0.0000	0.40	0.17	1054
M3	FEX233YR1DAY	2.58	2.53	0.0000	0.59	0.47	1167
M4	FEX233YR1DAY	2.58	2.54	0.0000	0.94	0.78	908
M5.1	FEX233YR1DAY	2.57	2.54	0.0000	36.24	36.21	6162
M6	FEX233YR1DAY	2.58	2.54	0.0000	0.31	0.21	558
Marjory_Pump	FEX233YR1DAY	0.00	28.97	0.0102	3.62	2.25	496
N01	FEX233YR1DAY	0.00	20.00	0.0000	11.34	7.76	20002
N01A	FEX233YR1DAY	0.00	20.00	0.0000	7.76	7.53	437
N02	FEX233YR1DAY	0.00	14.27	-0.0001	11.48	11.08	687
N03	FEX233YR1DAY	0.00	16.36	0.0000	0.82	0.82	576
N04	FEX233YR1DAY	0.00	17.41	0.0000	3.26	3.23	699
N05	FEX233YR1DAY	0.00	14.25	0.0000	69.72	69.73	4416
N06	FEX233YR1DAY	0.00	13.16	-0.0001	64.07	64.92	3292
N07A	FEX233YR1DAY	0.00	11.41	-0.0001	69.63	69.85	4248
N08A	FEX233YR1DAY	0.00	10.01	0.0002	87.86	87.79	1955
N09	FEX233YR1DAY	0.00	8.81	0.0000	5.58	5.73	468
N09A	FEX233YR1DAY	0.00	8.77	-0.0002	91.70	91.78	1361
N10	FEX233YR1D	2.00	2.00	0.0000	154.68	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
N11	FEX233YR1DAY	0.00	16.13	-0.0003	48.39	60.41	74964
NBB0010	FEX233YR1DAY	2.00	2.00	0.0000	112.41	0.00	0
NBB0030	FEX233YR1DAY	5.03	5.72	-0.0019	112.43	112.41	557
NBB0050	FEX233YR1DAY	9.15	9.44	0.0004	112.82	112.43	2226
NBB0070	FEX233YR1DAY	11.30	11.34	0.0001	99.70	99.71	2549
NBB0090	FEX233YR1DAY	12.67	12.56	0.0001	91.80	92.30	1994
NBB0110	FEX233YR1DAY	13.46	13.29	0.0001	88.67	89.16	1981
NBB0130	FEX233YR1DAY	15.26	15.15	-0.0002	25.94	23.51	13324
NBB0150	FEX233YR1DAY	14.01	13.80	0.0001	68.44	68.78	1936
NBB0170	FEX233YR1DAY	14.74	14.48	0.0001	68.10	68.44	1452
NBB0190	FEX233YR1DAY	15.42	15.12	0.0001	67.77	68.10	1476
NBB0210	FEX233YR1DAY	15.70	15.46	0.0001	65.44	65.62	1555
NBB0230	FEX233YR1DAY	16.02	15.86	0.0001	65.32	65.44	1635
NBB0250	FEX233YR1DAY	16.31	16.21	0.0001	64.63	64.69	2036
NBB0270	FEX233YR1DAY	17.05	16.82	0.0001	64.87	64.63	2232
NBB0290	FEX233YR1DAY	17.06	16.84	0.0002	57.02	53.73	1258
NBB0310	FEX233YR1DAY	17.07	16.86	0.0002	120.22	88.56	204604
NBB0330	FEX233YR1DAY	16.57	16.47	0.0002	29.58	29.48	3568
NBB0350	FEX233YR1DAY	16.45	16.31	0.0002	21.50	22.85	1396
NBB0370	FEX233YR1DAY	16.33	16.15	0.0002	44.16	40.45	27515
NBB0390	FEX233YR1DAY	16.32	16.14	0.0002	17.57	18.63	1838
NBB0410	FEX233YR1DAY	16.30	16.11	0.0002	45.29	42.86	28873
NBB0430	FEX233YR1DAY	15.45	15.42	-0.0002	45.32	50.65	65379

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0010	FEX233YR1DAY	2.00	2.00	0.0000	529.03	0.00	0
NBW0030	FEX233YR1DAY	3.39	3.33	0.0000	529.26	529.03	38090
NBW0050	FEX233YR1DAY	3.92	3.54	0.0000	6.21	4.56	3654
NBW0070	FEX233YR1DAY	3.57	3.46	0.0000	150.84	151.91	25520
NBW0090	FEX233YR1DAY	3.66	3.54	0.0000	4.42	3.83	2623
NBW0130	FEX233YR1DAY	3.73	3.60	0.0000	148.01	148.51	14031
NBW0150	FEX233YR1DAY	3.93	3.64	-0.0001	7.33	7.02	442
NBW0170	FEX233YR1DAY	3.98	3.64	0.0000	3.34	2.98	1265
NBW0190	FEX233YR1DAY	3.89	3.73	0.0001	145.32	145.51	5759
NBW0210	FEX233YR1DAY	6.25	6.24	0.0000	5.80	5.68	4893
NBW0230	FEX233YR1DAY	4.01	3.83	-0.0001	143.79	143.88	2786
NBW0250	FEX233YR1DAY	4.88	4.61	0.0000	142.43	142.52	5287
NBW0270	FEX233YR1DAY	5.49	5.22	0.0001	22.37	21.23	10131
NBW0290	FEX233YR1DAY	5.91	5.78	0.0000	18.38	16.92	10381
NBW0310	FEX233YR1DAY	6.38	5.97	0.0000	6.22	6.07	743
NBW0330	FEX233YR1DAY	5.50	5.21	0.0000	132.97	133.40	19755
NBW0350	FEX233YR1DAY	4.97	4.93	0.0000	5.25	5.24	2460
NBW0370	FEX233YR1DAY	5.52	5.22	-0.0001	7.33	6.86	1036
NBW0390	FEX233YR1DAY	5.52	5.22	-0.0001	6.45	5.95	4359
NBW0410	FEX233YR1DAY	5.54	5.24	-0.0002	127.24	127.51	3446
NBW0430	FEX233YR1DAY	5.89	5.55	0.0001	3.51	2.92	847
NBW0450	FEX233YR1DAY	5.89	5.55	-0.0001	127.60	127.24	10354
NBW0470	FEX233YR1DAY	5.89	5.55	-0.0001	2.56	1.92	834
NBW0490	FEX233YR1D	5.92	5.58	-0.0002	125.86	126.20	2671

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW0510	FEX233YR1DAY	6.72	6.58	0.0000	1.83	1.82	1636
NBW0530	FEX233YR1DAY	6.22	5.87	0.0000	125.43	125.39	4802
NBW0550	FEX233YR1DAY	6.72	6.30	0.0000	67.42	55.60	83746
NBW0570	FEX233YR1DAY	7.09	6.81	0.0000	77.63	77.37	3638
NBW0590	FEX233YR1DAY	10.03	9.81	-0.0003	82.41	80.68	66130
NBW0610	FEX233YR1DAY	6.45	6.07	-0.0001	109.35	109.17	6706
NBW0630	FEX233YR1DAY	6.22	5.88	0.0000	2.20	1.39	5868
NBW0650	FEX233YR1DAY	6.66	6.20	0.0000	110.98	109.30	19153
NBW0670	FEX233YR1DAY	6.66	6.21	0.0000	2.71	2.19	7963
NBW0690	FEX233YR1DAY	6.71	6.28	-0.0001	87.94	87.16	8201
NBW0710	FEX233YR1DAY	6.71	6.28	0.0000	9.49	9.05	10458
NBW0730	FEX233YR1DAY	6.72	6.29	-0.0001	89.11	82.38	63701
NBW0750	FEX233YR1DAY	7.06	6.89	0.0001	77.55	53.89	71907
NBW0770	FEX233YR1DAY	7.06	6.90	-0.0006	14.80	11.90	8972
NBW0790	FEX233YR1DAY	8.11	7.10	0.0000	12.60	12.20	769
NBW0810	FEX233YR1DAY	7.06	6.90	0.0000	38.74	29.98	18605
NBW0830	FEX233YR1DAY	8.41	7.11	-0.0001	19.81	19.42	1332
NBW0850	FEX233YR1DAY	10.17	7.39	0.0001	18.29	17.80	755
NBW0870	FEX233YR1DAY	7.06	6.90	0.0001	21.36	14.04	54278
NBW0890	FEX233YR1DAY	7.06	6.90	-0.0002	16.56	17.16	1027
NBW0910	FEX233YR1DAY	7.06	6.90	-0.0001	40.91	30.43	70662
NBW0930	FEX233YR1DAY	8.03	7.04	-0.0001	29.11	28.79	1301
NBW0950	FEX233YR1DAY	8.82	7.26	0.0000	29.44	29.11	3380

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0970	FEX233YR1DAY	8.82	7.29	0.0001	21.29	21.42	3092
NBW0990	FEX233YR1DAY	8.82	7.34	-0.0001	20.98	21.00	785
NBW1010	FEX233YR1DAY	8.83	7.86	0.0000	20.95	20.98	1120
NBW1030	FEX233YR1DAY	9.19	8.51	-0.0001	20.76	20.68	6165
NBW1050	FEX233YR1DAY	9.30	8.96	-0.0001	19.61	19.55	900
NBW1070	FEX233YR1DAY	9.34	9.12	-0.0001	28.78	21.19	40515
NBW1090	FEX233YR1DAY	3.78	3.67	0.0000	373.35	372.27	11814
NBW1130	FEX233YR1DAY	4.51	4.28	-0.0001	13.75	12.67	9580
NBW1150	FEX233YR1DAY	4.53	4.33	0.0000	11.54	9.18	14728
NBW1169	FEX233YR1DAY	4.09	3.96	0.0000	360.41	358.89	15876
NBW1170	FEX233YR1DAY	4.30	4.20	0.0001	356.28	355.72	5824
NBW1190	FEX233YR1DAY	6.13	5.50	-0.0001	10.88	6.84	33184
NBW1210	FEX233YR1DAY	7.17	5.82	-0.0002	35.11	30.84	34766
NBW1230	FEX233YR1DAY	7.17	6.28	-0.0001	40.00	27.63	86106
NBW1250	FEX233YR1DAY	4.74	4.61	0.0001	324.85	323.87	7383
NBW1270	FEX233YR1DAY	6.14	5.68	0.0000	7.16	6.45	7979
NBW1310	FEX233YR1DAY	5.21	5.11	-0.0001	325.22	324.40	7887
NBW1330	FEX233YR1DAY	7.56	7.40	-0.0005	286.83	286.82	3193
NBW1350	FEX233YR1DAY	10.95	9.45	0.0002	23.04	22.73	492
NBW1351	FEX233YR1DAY	8.89	8.69	0.0002	246.04	245.81	8277
NBW1352	FEX233YR1DAY	9.96	9.84	0.0005	241.42	240.19	7956
NBW1353	FEX233YR1DAY	11.01	10.98	0.0005	242.57	234.98	8196
NBW1370	FEX233YR1DAY	10.02	9.77	0.0004	203.28	197.31	6358
NBW1390	FEX233YR1D	15.24	15.13	-0.0004	203.20	193.72	79478

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW1410	FEX233YR1DAY	15.58	15.48	0.0003	188.67	184.61	18565
NBW1430	FEX233YR1DAY	15.79	15.70	-0.0002	153.54	160.87	19649
NBW1450	FEX233YR1DAY	16.94	16.82	0.0002	167.31	165.97	98624
NBW1460	FEX233YR1DAY	16.43	16.32	0.0002	149.69	150.44	4273
NBW1470	FEX233YR1DAY	17.14	17.06	-0.0002	167.72	162.46	107441
NBW1480	FEX233YR1DAY	18.11	18.04	0.0001	7.99	4.93	12888
NBW1490	FEX233YR1DAY	17.86	17.72	0.0002	109.85	107.72	19733
NBW1510	FEX233YR1DAY	18.12	17.95	0.0004	134.60	135.85	10278
NBW1530	FEX233YR1DAY	17.92	17.69	0.0001	18.17	12.16	1226
NBW1550	FEX233YR1DAY	17.75	17.47	0.0001	21.14	20.41	8273
NBW1570	FEX233YR1DAY	18.21	18.08	0.0002	132.56	133.33	2604
NBW1590	FEX233YR1DAY	18.12	18.01	0.0001	30.86	28.44	11626
NBW1610	FEX233YR1DAY	18.13	18.03	0.0001	27.00	26.55	3693
NBW1630	FEX233YR1DAY	18.13	18.06	0.0001	13.60	13.48	1639
NBW1650	FEX233YR1DAY	18.81	18.83	0.0001	12.23	11.19	3786
NBW1670	FEX233YR1DAY	18.89	18.89	0.0001	21.57	20.69	5507
NBW1690	FEX233YR1DAY	19.03	18.97	0.0001	12.89	12.74	8043
NBW1710	FEX233YR1DAY	19.26	18.97	0.0001	3.46	1.37	998
NBW1730	FEX233YR1DAY	18.65	18.55	0.0004	122.56	121.21	135131
NBW1750	FEX233YR1DAY	18.82	18.56	-0.0001	82.54	82.07	13663
NBW1770	FEX233YR1DAY	18.82	18.83	0.0001	74.05	65.51	50242
NBW1790	FEX233YR1DAY	18.91	18.91	0.0001	17.05	16.93	1900
NBW1820	FEX233YR1DAY	18.72	18.61	0.0000	36.32	22.03	69528

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1830	FEX233YR1DAY	18.74	18.62	0.0001	71.53	71.98	1977
NBW1840	FEX233YR1DAY	18.39	18.32	0.0000	54.87	46.09	71373
NBW1850	FEX233YR1DAY	18.74	18.62	-0.0001	70.24	70.68	55289
NBW1860	FEX233YR1DAY	18.39	18.32	-0.0001	8.15	4.91	15470
NBW1870	FEX233YR1DAY	18.72	18.62	-0.0002	24.49	15.76	22740
NBW1890	FEX233YR1DAY	19.06	18.74	0.0002	53.06	53.36	2613
NBW1910	FEX233YR1DAY	19.27	18.82	0.0001	52.79	53.06	1873
NBW1930	FEX233YR1DAY	19.27	18.92	0.0001	52.15	52.41	2455
NBW1950	FEX233YR1DAY	18.97	18.94	0.0001	5.00	2.30	450
NBW1970	FEX233YR1DAY	18.96	18.94	0.0000	6.96	6.87	2246
NBW1990	FEX233YR1DAY	19.27	19.07	0.0001	49.97	50.80	36343
NBW2010	FEX233YR1DAY	19.65	19.22	0.0001	9.09	8.55	1930
NBW2030	FEX233YR1DAY	19.65	19.22	0.0001	7.76	7.81	5500
NBW2050	FEX233YR1DAY	19.26	19.17	0.0001	45.28	46.22	44579
NBW2060	FEX233YR1DAY	0.00	19.46	0.0000	11.85	9.72	23396
NBW2070	FEX233YR1DAY	19.26	19.18	0.0001	45.82	42.63	73107
NBW2090	FEX233YR1DAY	19.10	18.68	0.0001	32.01	31.97	5720
NBW2110	FEX233YR1DAY	18.92	18.39	0.0001	50.07	48.01	64372
NBW2130	FEX233YR1DAY	18.92	18.40	0.0001	23.31	14.31	25662
NBW2140	FEX233YR1DAY	20.00	18.53	-0.0001	4.54	4.74	582
NBW2145	FEX233YR1DAY	0.00	18.89	-0.0003	14.06	31.24	4845
NBW2150	FEX233YR1DAY	19.26	19.43	0.0001	35.00	34.78	10194
NBW2170	FEX233YR1DAY	19.12	19.45	0.0002	14.19	5.08	862
NBW2190	FEX233YR1D	19.10	19.46	0.0002	7.72	3.42	981

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW2210	FEX233YR1DAY	19.47	19.51	0.0001	27.81	26.82	2011
NBW2230	FEX233YR1DAY	19.47	19.59	0.0001	21.01	20.01	35890
NBW2250	FEX233YR1DAY	19.51	19.55	0.0001	21.20	21.41	2377
NBW2270	FEX233YR1DAY	19.57	19.59	0.0001	20.73	20.94	2582
NBW2290	FEX233YR1DAY	19.65	19.61	0.0001	20.12	13.80	59359
NBW2310	FEX233YR1DAY	19.82	19.66	-0.0001	16.51	14.07	71354
NBW2330	FEX233YR1DAY	19.82	19.67	-0.0001	14.69	8.67	38526
NBW2350	FEX233YR1DAY	16.05	15.90	0.0001	43.60	43.02	4682
NBW2370	FEX233YR1DAY	16.11	16.08	-0.0001	10.04	7.31	58512
NBW2380	FEX233YR1DAY	12.29	12.37	0.0004	243.05	237.79	10756
NBW2385	FEX233YR1DAY	18.49	18.48	0.0000	2.55	2.54	6453
NBW2387	FEX233YR1DAY	16.11	15.71	0.0000	0.37	0.36	476
NBW2390	FEX233YR1DAY	16.42	16.27	0.0001	30.65	30.58	2672
NBW2410	FEX233YR1DAY	16.59	16.70	0.0001	29.14	28.05	3870
NBW2430	FEX233YR1DAY	16.23	16.70	0.0001	45.34	44.76	7412
NBW2450	FEX233YR1DAY	16.15	16.62	0.0002	158.84	159.33	4396
NBW2470	FEX233YR1DAY	16.43	16.75	0.0001	80.80	78.70	25661
NBW2490	FEX233YR1DAY	16.90	16.97	0.0001	77.02	76.79	6698
NBW2510	FEX233YR1DAY	17.74	17.41	0.0001	73.66	73.19	2032
NBW2530	FEX233YR1DAY	17.92	17.68	0.0001	63.41	63.71	2011
NBW2550	FEX233YR1DAY	17.95	17.70	0.0000	2.10	2.90	450
NBW2570	FEX233YR1DAY	17.96	17.71	0.0000	2.15	2.10	3103
NBW2590	FEX233YR1DAY	18.06	17.86	0.0002	52.03	52.28	1098

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2610	FEX233YR1DAY	17.00	17.07	-0.0004	93.02	93.93	25086
NBW2630	FEX233YR1DAY	17.98	17.88	0.0001	85.91	86.16	41005
NBW2650	FEX233YR1DAY	16.97	17.04	-0.0002	27.77	28.31	3142
NBW2670	FEX233YR1DAY	16.42	16.57	0.0001	29.58	30.16	1830
NBW2680	FEX233YR1DAY	17.73	17.54	-0.0001	29.85	29.52	6113
NBW2690	FEX233YR1DAY	15.40	15.78	0.0002	240.42	235.56	7486
NBW2710	FEX233YR1DAY	17.73	17.54	-0.0001	2.01	4.28	531
NBW2730	FEX233YR1DAY	18.29	18.07	0.0000	1.43	0.25	4356
NBW2770	FEX233YR1DAY	18.09	18.00	0.0001	13.27	13.31	1309
NBW2775	FEX233YR1DAY	6.59	6.13	0.0000	6.92	5.26	10494
NBW2780	FEX233YR1DAY	18.38	18.30	-0.0003	34.04	26.76	43513
NBW2790	FEX233YR1DAY	18.38	18.32	0.0000	102.79	102.03	77546
NBW2810	FEX233YR1DAY	18.39	18.32	-0.0001	39.52	38.88	66507
NBW2830	FEX233YR1DAY	18.40	18.33	-0.0001	34.48	25.70	95201
NC01	FEX233YR1DAY	0.00	3.79	0.0000	7.38	7.34	699
NC01B	FEX233YR1DAY	0.00	5.72	0.0000	7.99	8.16	3356
NC02	FEX233YR1DAY	0.00	6.90	-0.0001	95.43	95.47	1890
NC03	FEX233YR1DAY	0.00	4.29	-0.0002	104.19	104.18	1200
NC04	FEX233YR1DAY	0.00	3.14	0.0000	16.49	15.62	15501
NC05	FEX233YR1DAY	0.00	3.13	-0.0001	16.28	14.52	25550
NC06	FEX233YR1DAY	0.00	2.98	0.0000	14.21	13.98	7701
NC07	FEX233YR1DAY	0.00	2.56	0.0000	7.06	7.04	437
NC08	FEX233YR1DAY	0.00	2.95	0.0000	12.06	11.97	5706
NCL0010	FEX233YR1D	2.00	2.00	0.0000	488.28	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL0030	FEX233YR1DAY	2.36	2.68	-0.0002	459.91	459.88	6856
NCL0050	FEX233YR1DAY	2.36	2.68	0.0000	0.41	1.04	439
NCL0070	FEX233YR1DAY	5.20	4.95	0.0000	57.02	56.43	14932
NCL0090	FEX233YR1DAY	6.06	5.87	-0.0001	31.38	20.73	47685
NCL0110	FEX233YR1DAY	3.04	3.19	-0.0007	540.16	540.14	6623
NCL0130	FEX233YR1DAY	4.05	3.26	-0.0002	99.38	99.41	565
NCL0150	FEX233YR1DAY	4.95	3.78	0.0000	99.42	99.38	2802
NCL0170	FEX233YR1DAY	5.08	3.87	-0.0001	55.31	55.49	1380
NCL0190	FEX233YR1DAY	5.08	3.88	0.0000	1.80	1.65	438
NCL0210	FEX233YR1DAY	5.85	4.17	-0.0001	65.61	65.74	1234
NCL0230	FEX233YR1DAY	6.60	4.46	0.0000	13.40	12.77	566
NCL0250	FEX233YR1DAY	6.60	4.42	0.0000	0.37	0.15	528
NCL0270	FEX233YR1DAY	6.60	5.82	0.0000	3.24	3.23	1041
NCL0290	FEX233YR1DAY	5.90	4.30	-0.0001	49.72	49.82	924
NCL0310	FEX233YR1DAY	6.10	4.87	0.0007	49.68	49.72	1045
NCL0330	FEX233YR1DAY	5.95	4.87	0.0000	1.26	1.42	513
NCL0350	FEX233YR1DAY	6.60	5.42	-0.0002	52.27	49.66	7820
NCL0370	FEX233YR1DAY	7.36	7.05	0.0001	35.53	35.12	6512
NCL0390	FEX233YR1DAY	4.02	4.05	-0.0022	433.76	467.59	4339
NCL0410	FEX233YR1DAY	4.09	4.09	-0.0001	3.89	3.75	819
NCL0430	FEX233YR1DAY	4.23	4.14	0.0000	4.17	3.89	639
NCL0450	FEX233YR1DAY	4.75	4.71	0.0017	426.20	428.43	3676
NCL0470	FEX233YR1DAY	5.43	5.32	-0.0010	422.68	422.80	3437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0490	FEX233YR1DAY	6.48	6.28	-0.0006	426.16	428.53	19105
NCL0510	FEX233YR1DAY	6.67	6.38	0.0001	26.46	26.16	1146
NCL0530	FEX233YR1DAY	8.10	7.23	0.0004	40.47	17.06	1181
NCL0550	FEX233YR1DAY	8.17	7.27	-0.0001	18.05	40.47	880
NCL0570	FEX233YR1DAY	8.66	7.40	0.0001	9.45	8.62	841
NCL0590	FEX233YR1DAY	7.00	6.77	0.0007	402.86	402.99	3392
NCL0610	FEX233YR1DAY	7.52	7.28	0.0007	400.80	400.94	3640
NCL0630	FEX233YR1DAY	8.06	7.83	-0.0004	399.98	400.13	4608
NCL0650	FEX233YR1DAY	8.12	7.88	-0.0003	46.68	102.62	1613
NCL0670	FEX233YR1DAY	8.67	8.38	0.0003	132.52	46.68	1695
NCL0690	FEX233YR1DAY	8.76	8.47	0.0002	34.70	35.14	605
NCL0710	FEX233YR1DAY	8.95	8.66	0.0002	34.38	34.19	601
NCL0730	FEX233YR1DAY	9.26	8.98	-0.0001	34.77	34.38	554
NCL0750	FEX233YR1DAY	9.56	9.34	0.0000	52.38	43.85	35541
NCL0770	FEX233YR1DAY	10.12	9.91	0.0000	35.76	35.65	2178
NCL0790	FEX233YR1DAY	8.69	8.40	-0.0003	28.35	101.59	895
NCL0810	FEX233YR1DAY	8.84	8.53	0.0001	28.27	28.35	1379
NCL0830	FEX233YR1DAY	8.93	8.77	-0.0007	361.48	362.84	20049
NCL0850	FEX233YR1DAY	9.01	8.81	0.0001	58.34	55.12	5788
NCL0870	FEX233YR1DAY	9.37	8.88	0.0001	75.58	75.17	2022
NCL0890	FEX233YR1DAY	9.65	8.94	-0.0001	61.88	61.36	1591
NCL0910	FEX233YR1DAY	9.71	8.94	0.0001	4.77	4.02	490
NCL0930	FEX233YR1DAY	9.57	9.05	-0.0001	58.44	57.86	2111
NCL0950	FEX233YR1D	9.89	9.20	0.0001	47.41	46.54	3155

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL0970	FEX233YR1DAY	10.41	9.31	0.0000	28.53	24.87	2265
NCL0990	FEX233YR1DAY	11.00	9.43	0.0000	18.78	18.54	1485
NCL1010	FEX233YR1DAY	11.14	9.46	0.0000	4.04	3.92	648
NCL1030	FEX233YR1DAY	9.67	8.90	-0.0002	19.27	33.52	1467
NCL1050	FEX233YR1DAY	10.46	8.91	0.0001	4.75	3.82	622
NCL1070	FEX233YR1DAY	9.30	9.03	0.0001	3.42	2.07	621
NCL1090	FEX233YR1DAY	9.76	9.85	0.0000	32.57	9.43	16697
NCL1110	FEX233YR1DAY	9.85	9.50	0.0001	16.86	16.96	2094
NCL1130	FEX233YR1DAY	9.76	9.85	-0.0001	15.31	16.28	18079
NCL1150	FEX233YR1DAY	9.76	9.85	0.0001	375.76	387.14	160700
NCL1170	FEX233YR1DAY	10.59	10.89	0.0005	369.12	354.66	76082
NCL1190	FEX233YR1DAY	10.72	10.93	0.0001	49.18	48.78	1853
NCL1210	FEX233YR1DAY	10.63	10.92	0.0001	19.62	8.87	43860
NCL1230	FEX233YR1DAY	10.94	10.96	0.0001	49.58	49.18	1432
NCL1250	FEX233YR1DAY	11.11	10.99	0.0001	50.00	49.58	1231
NCL1270	FEX233YR1DAY	11.34	11.03	0.0001	50.43	50.00	1218
NCL1290	FEX233YR1DAY	13.06	11.65	0.0001	29.69	27.90	1408
NCL1310	FEX233YR1DAY	14.77	13.40	0.0000	21.37	21.07	788
NCL1330	FEX233YR1DAY	10.60	10.90	-0.0002	119.84	122.22	72287
NCL1350	FEX233YR1DAY	10.63	10.92	0.0001	120.70	119.02	42946
NCL1370	FEX233YR1DAY	10.63	10.92	-0.0002	11.80	17.32	895
NCL1390	FEX233YR1DAY	10.63	10.92	0.0001	9.21	4.24	581
NCL1410	FEX233YR1DAY	10.63	10.92	0.0001	4.68	1.09	577

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1430	FEX233YR1DAY	10.70	11.03	0.0005	404.32	362.08	125584
NCL1450	FEX233YR1DAY	10.93	11.56	0.0013	387.66	387.33	3036
NCL1470	FEX233YR1DAY	12.72	12.84	0.0003	326.06	325.61	4426
NCL1490	FEX233YR1DAY	14.45	14.35	0.0000	3.27	3.23	766
NCL1510	FEX233YR1DAY	11.06	11.63	0.0006	47.50	72.43	863
NCL1530	FEX233YR1DAY	12.54	12.34	-0.0003	43.04	41.90	4640
NCL1550	FEX233YR1DAY	13.13	12.87	-0.0001	40.65	40.20	1021
NCL1570	FEX233YR1DAY	13.31	12.92	0.0001	3.97	2.04	504
NCL1590	FEX233YR1DAY	13.70	13.67	0.0000	1.22	1.21	1307
NCL1610	FEX233YR1DAY	13.37	12.93	0.0001	2.22	1.68	469
NCL1630	FEX233YR1DAY	13.57	13.30	-0.0003	53.23	39.18	1892
NCL1650	FEX233YR1DAY	13.68	13.34	0.0002	40.09	52.20	1292
NCL1670	FEX233YR1DAY	14.02	13.37	0.0001	7.71	6.60	696
NCL1690	FEX233YR1DAY	17.47	16.22	0.0000	31.12	31.07	1258
NCL1710	FEX233YR1DAY	17.89	16.49	0.0000	28.87	28.90	614
NCL1730	FEX233YR1DAY	18.27	16.73	-0.0001	24.59	24.69	567
NCL1750	FEX233YR1DAY	18.24	16.74	-0.0001	13.66	13.14	513
NCL1770	FEX233YR1DAY	18.07	16.80	-0.0001	14.41	13.66	482
NCL1790	FEX233YR1DAY	15.78	14.65	0.0002	323.48	322.98	5863
NCL1810	FEX233YR1DAY	18.13	17.92	-0.0001	35.06	31.55	13157
NCL1830	FEX233YR1DAY	18.39	16.41	0.0002	299.40	299.03	6250
NCL1850	FEX233YR1DAY	18.50	16.63	-0.0004	66.81	79.05	910
NCL1870	FEX233YR1DAY	19.01	17.70	0.0001	66.69	66.81	1006
NCL1890	FEX233YR1D	19.15	17.97	-0.0003	66.58	66.69	984

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL1910	FEX233YR1DAY	19.15	17.97	0.0000	2.22	0.67	527
NCL1930	FEX233YR1DAY	19.91	19.86	0.0000	3.07	3.07	1567
NCL1950	FEX233YR1DAY	19.15	17.93	0.0000	0.11	0.05	500
NCL1970	FEX233YR1DAY	21.67	21.64	0.0000	1.70	1.69	3103
NCL1990	FEX233YR1DAY	19.58	18.87	-0.0002	66.40	66.47	917
NCL2010	FEX233YR1DAY	19.74	19.23	-0.0001	44.91	43.60	1104
NCL2030	FEX233YR1DAY	19.76	19.28	0.0001	8.03	6.56	8487
NCL2050	FEX233YR1DAY	19.76	19.27	0.0001	41.00	39.43	1411
NCL2070	FEX233YR1DAY	19.76	19.28	0.0001	2.49	1.47	891
NCL2090	FEX233YR1DAY	19.87	19.43	0.0001	42.79	41.00	1414
NCL2110	FEX233YR1DAY	20.03	19.54	-0.0001	18.94	17.89	873
NCL2130	FEX233YR1DAY	19.87	19.44	0.0001	29.44	27.97	6893
NCL2150	FEX233YR1DAY	20.75	20.70	-0.0003	27.89	23.62	79384
NCL2170	FEX233YR1DAY	19.85	19.40	-0.0001	52.38	52.21	4667
NCL2230	FEX233YR1DAY	19.13	17.46	0.0004	244.59	238.80	5806
NCL2250	FEX233YR1DAY	19.55	18.23	-0.0002	233.66	229.87	4443
NCL2270	FEX233YR1DAY	20.05	19.65	0.0001	113.72	111.25	2533
NCL2290	FEX233YR1DAY	19.88	19.64	0.0001	6.02	3.88	967
NCL2310	FEX233YR1DAY	20.45	20.31	0.0001	102.73	101.91	1780
NCL2330	FEX233YR1DAY	20.74	20.76	0.0001	104.04	102.73	52264
NCL2350	FEX233YR1DAY	20.78	20.81	0.0001	94.27	92.88	2283
NCL2370	FEX233YR1DAY	20.81	20.83	0.0000	90.80	89.30	2298
NCL2390	FEX233YR1DAY	20.84	20.87	0.0001	92.61	83.67	61105

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2410	FEX233YR1DAY	21.07	20.95	0.0000	30.28	29.48	1380
NCL2430	FEX233YR1DAY	21.32	21.04	0.0000	30.80	29.98	1473
NCL2450	FEX233YR1DAY	21.25	21.01	0.0001	4.25	4.10	493
NCL2470	FEX233YR1DAY	20.93	20.90	0.0000	16.02	15.50	846
NCL2490	FEX233YR1DAY	21.54	21.11	0.0001	27.88	26.86	1524
NCL2510	FEX233YR1DAY	21.70	21.14	0.0001	60.93	58.48	62981
NCL2530	FEX233YR1DAY	21.70	21.14	0.0001	29.29	28.31	32024
NCL2540	FEX233YR1DAY	0.00	21.86	0.0000	41.05	40.37	33510
NCL2550	FEX233YR1DAY	21.70	21.14	0.0001	24.56	24.90	9672
NCL2570	FEX233YR1DAY	21.51	21.13	0.0001	15.54	15.84	1503
NCL2580	FEX233YR1DAY	0.00	21.13	0.0001	63.49	61.30	24150
NCL2590	FEX233YR1DAY	21.17	21.13	0.0001	104.89	99.80	97093
NCL2610	FEX233YR1DAY	21.14	21.12	0.0001	70.59	70.33	22126
NCL2630	FEX233YR1DAY	20.86	20.72	0.0001	51.51	50.66	34536
NCL2631	FEX233YR1DAY	0.00	20.34	0.0001	57.62	49.58	32373
NCL2650	FEX233YR1DAY	21.17	21.27	0.0001	62.08	55.51	76098
NCL2670	FEX233YR1DAY	21.93	22.07	0.0001	48.19	54.27	47127
NCL2690	FEX233YR1DAY	21.96	22.19	-0.0001	32.50	41.01	40565
NCL2710	FEX233YR1DAY	21.96	22.23	0.0001	28.05	30.67	52186
NCL2730	FEX233YR1DAY	21.95	22.33	0.0001	21.70	21.82	3459
NCL2750	FEX233YR1DAY	21.84	22.48	0.0001	33.65	33.50	3540
NCL2770	FEX233YR1DAY	21.71	22.19	0.0000	19.15	19.23	1389
NCL2780	FEX233YR1DAY	0.00	22.02	0.0000	8.31	7.80	16981
NCL2790	FEX233YR1D	21.84	22.09	0.0000	80.28	75.31	83560

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL2810	FEX233YR1DAY	22.11	22.61	-0.0001	46.83	45.54	14220
NCL2830	FEX233YR1DAY	23.09	22.62	-0.0001	12.09	11.85	1242
NCL2835	FEX233YR1DAY	0.00	23.67	0.0000	7.71	7.83	1089
NCL2840	FEX233YR1DAY	0.00	23.64	0.0000	48.17	47.76	20010
NCL2845	FEX233YR1DAY	0.00	24.18	-0.0001	26.41	25.84	12657
NCL2850	FEX233YR1DAY	20.82	20.86	0.0000	17.77	17.89	1361
NCL2870	FEX233YR1DAY	20.83	20.89	0.0000	17.13	17.25	1246
NCL2890	FEX233YR1DAY	20.83	20.92	-0.0001	15.97	17.13	15714
NCL2910	FEX233YR1DAY	20.83	20.92	0.0000	33.39	30.47	40371
NCL2930	FEX233YR1DAY	19.55	18.26	0.0003	165.55	167.01	2979
NCL2950	FEX233YR1DAY	19.53	18.42	0.0002	164.38	164.89	5717
NCL2970	FEX233YR1DAY	20.49	20.34	0.0002	36.25	35.45	5867
NCL2990	FEX233YR1DAY	19.33	18.52	0.0002	160.01	161.40	5899
NCL3010	FEX233YR1DAY	19.35	18.64	0.0002	154.25	156.16	15619
NCL3030	FEX233YR1DAY	19.58	18.69	0.0002	149.86	152.12	6660
NCL3050	FEX233YR1DAY	19.94	19.68	0.0002	49.38	46.55	14735
NCL3070	FEX233YR1DAY	20.14	20.01	0.0000	26.83	24.87	10741
NCL3090	FEX233YR1DAY	19.59	18.69	0.0002	141.94	144.15	27166
NCL3110	FEX233YR1DAY	19.59	18.90	0.0002	44.56	34.42	34723
NCL3130	FEX233YR1DAY	19.59	18.93	0.0002	17.07	17.23	5964
NCL3150	FEX233YR1DAY	19.54	18.63	0.0002	136.18	136.88	5805
NCL3170	FEX233YR1DAY	19.71	19.83	0.0001	42.46	40.22	7333
NCL3190	FEX233YR1DAY	20.31	20.16	0.0001	43.65	34.87	75946

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3210	FEX233YR1DAY	20.32	20.16	0.0001	28.28	21.12	36709
NCL3230	FEX233YR1DAY	20.32	20.18	0.0001	13.89	13.32	9990
NCL3250	FEX233YR1DAY	19.11	18.41	0.0002	129.21	129.61	60163
NCL3270	FEX233YR1DAY	19.11	18.58	0.0001	25.43	25.28	1736
NCL3280	FEX233YR1DAY	0.00	18.72	0.0001	23.76	23.18	999
NCL3290	FEX233YR1DAY	20.16	19.32	0.0000	20.65	19.45	1659
NCL3300	FEX233YR1DAY	0.00	19.46	0.0000	2.95	2.41	752
NCL3310	FEX233YR1DAY	20.19	19.29	0.0000	2.32	1.59	752
NCL3330	FEX233YR1DAY	20.75	19.07	0.0000	3.35	3.34	437
NCL3350	FEX233YR1DAY	20.51	20.17	0.0000	17.07	13.20	10061
NCL3360	FEX233YR1DAY	0.00	20.31	0.0000	4.36	3.12	7642
NCL3365	FEX233YR1DAY	0.00	20.04	0.0001	7.52	6.95	12629
NCL3370	FEX233YR1DAY	20.64	20.74	-0.0002	46.93	38.76	74540
NCL3390	FEX233YR1DAY	20.83	20.92	0.0000	44.14	43.32	36854
NCL3410	FEX233YR1DAY	20.83	20.92	0.0001	2.53	2.23	477
NCL3430	FEX233YR1DAY	20.83	20.92	0.0000	2.96	1.07	3577
NCL3450	FEX233YR1DAY	18.92	18.45	0.0008	224.48	200.86	163414
NCL3460	FEX233YR1DAY	18.92	18.43	-0.0008	123.40	131.81	2955
NCL3470	FEX233YR1DAY	19.11	18.48	0.0001	123.69	100.15	156161
NCL3490	FEX233YR1DAY	19.15	18.58	0.0001	60.22	56.67	26143
NCL3510	FEX233YR1DAY	20.64	19.40	0.0001	51.37	50.51	13818
NCL3520	FEX233YR1DAY	0.00	19.27	0.0000	102.91	102.90	15589
NCL3530	FEX233YR1DAY	20.66	20.34	0.0001	61.48	61.00	48652
NCL3550	FEX233YR1D	20.66	20.34	0.0001	4.71	1.90	736

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL3570	FEX233YR1DAY	20.66	20.34	0.0001	2.67	1.19	622
NCL3590	FEX233YR1DAY	20.66	20.36	0.0000	1.91	0.96	4356
NCL3610	FEX233YR1DAY	20.66	20.34	0.0001	18.86	17.51	1245
NCL3630	FEX233YR1DAY	20.64	20.34	0.0001	97.59	94.20	98820
NCL3635	FEX233YR1DAY	0.00	20.34	0.0001	14.37	11.24	1727
NCL3640	FEX233YR1DAY	0.00	20.34	0.0001	13.27	12.80	15891
NCL3650	FEX233YR1DAY	18.92	18.44	0.0000	2.62	2.82	500
NCL3670	FEX233YR1DAY	18.92	18.45	0.0000	7.28	7.11	7336
NCL3690	FEX233YR1DAY	18.92	18.45	0.0006	200.86	200.65	3204
NCL3730	FEX233YR1DAY	18.92	18.45	0.0000	228.11	95.16	128806
NCL3740	FEX233YR1DAY	0.00	18.46	0.0000	36.44	31.75	30210
NCL3750	FEX233YR1DAY	18.93	18.55	0.0002	144.99	67.91	139699
NCL3770	FEX233YR1DAY	18.93	18.56	0.0002	51.60	22.72	70251
NCL4000	FEX233YR1DAY	0.00	29.68	0.0000	25.58	25.55	4980
NCL4010	FEX233YR1DAY	0.00	29.38	0.0000	19.59	19.41	12518
NCypEast	FEX233YR1DAY	32.00	29.00	0.0000	5.49	0.00	0
NCypWest	FEX233YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX233YR1DAY	2.00	2.00	0.0000	367.61	3.01	0
NOC0030	FEX233YR1DAY	1.14	2.19	0.0054	367.76	367.61	504
NOC0050	FEX233YR1DAY	1.20	2.32	-0.0064	336.16	336.31	530
NOC0070	FEX233YR1DAY	1.45	2.78	0.0081	328.50	328.16	516
NOC0090	FEX233YR1DAY	2.91	3.00	-0.0011	123.19	123.30	446
NOC0110	FEX233YR1DAY	1.65	2.83	0.0043	195.22	195.56	455

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0130	FEX233YR1DAY	3.06	3.22	-0.0012	195.20	195.22	528
NOC0150	FEX233YR1DAY	3.08	3.23	0.0000	2.17	2.07	499
NOC0170	FEX233YR1DAY	4.56	4.72	0.0000	9.89	9.88	1237
NOC0190	FEX233YR1DAY	5.09	3.83	0.0002	193.24	193.13	1077
NOC0210	FEX233YR1DAY	5.68	4.45	0.0000	19.52	19.01	781
NOC0230	FEX233YR1DAY	5.12	3.86	0.0000	5.82	5.97	742
NOC0250	FEX233YR1DAY	5.30	4.04	0.0000	5.87	5.82	984
NOC0270	FEX233YR1DAY	5.57	4.30	0.0000	3.54	3.18	676
NOC0290	FEX233YR1DAY	5.11	3.90	-0.0001	210.53	210.61	1836
NOC0310	FEX233YR1DAY	5.27	4.02	-0.0001	39.47	39.48	450
NOC0330	FEX233YR1DAY	5.85	4.13	0.0001	171.19	171.08	2431
NOC0350	FEX233YR1DAY	5.89	4.33	-0.0001	128.26	127.68	1837
NOC0370	FEX233YR1DAY	6.47	5.56	-0.0001	75.37	75.62	2022
NOC0390	FEX233YR1DAY	6.60	5.65	-0.0001	47.72	48.02	2171
NOC0410	FEX233YR1DAY	6.95	6.00	0.0000	39.35	39.74	2497
NOC0430	FEX233YR1DAY	7.01	6.15	0.0000	24.93	25.21	1757
NOC0450	FEX233YR1DAY	7.62	6.30	0.0000	17.45	17.80	2392
NOC0470	FEX233YR1DAY	8.12	6.58	0.0000	9.25	9.61	726
NOC0490	FEX233YR1DAY	7.67	6.30	0.0000	3.76	3.50	1051
NRU0010	FEX233YR1DAY	2.00	2.00	0.0000	470.33	0.00	0
NRU0030	FEX233YR1DAY	2.84	2.44	-0.0002	217.42	217.39	2468
NRU0050	FEX233YR1DAY	4.36	3.99	0.0002	222.48	217.42	2036
NRU0070	FEX233YR1DAY	5.61	4.56	0.0006	217.43	222.48	2549
NRU0090	FEX233YR1D	5.66	5.03	-0.0002	38.15	37.70	3561

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU0110	FEX233YR1DAY	6.23	4.93	-0.0001	185.99	184.75	5430
NRU0130	FEX233YR1DAY	7.66	5.49	-0.0004	174.12	178.05	2616
NRU0150	FEX233YR1DAY	7.71	5.51	0.0021	150.30	169.60	1430
NRU0160	FEX233YR1DAY	0.00	12.91	0.0000	146.01	146.00	4959
NRU0165	FEX233YR1DAY	0.00	12.98	0.0000	2.97	2.91	474
NRU0170	FEX233YR1DAY	14.45	14.48	0.0003	146.86	143.98	9988
NRU0172	FEX233YR1DAY	0.00	14.56	0.0001	6.73	6.79	830
NRU0174	FEX233YR1DAY	0.00	14.71	0.0001	6.68	6.73	802
NRU0176	FEX233YR1DAY	0.00	15.19	0.0000	6.64	6.68	761
NRU0178	FEX233YR1DAY	0.00	15.80	0.0001	8.34	6.64	957
NRU0180	FEX233YR1DAY	0.00	16.07	0.0001	26.05	13.34	69977
NRU0190	FEX233YR1DAY	14.45	14.76	-0.0002	15.90	16.78	516
NRU0210	FEX233YR1DAY	14.45	14.96	0.0001	14.51	13.21	602
NRU0230	FEX233YR1DAY	13.39	15.00	0.0000	11.85	8.93	16626
NRU0250	FEX233YR1DAY	14.62	14.69	0.0001	117.52	117.32	4464
NRU0270	FEX233YR1DAY	15.05	15.46	0.0001	106.57	106.57	2598
NRU0290	FEX233YR1DAY	16.30	17.08	0.0001	18.61	18.54	623
NRU0310	FEX233YR1DAY	16.13	16.12	0.0001	90.84	91.31	2501
NRU0330	FEX233YR1DAY	18.25	17.43	0.0001	30.37	30.84	1352
NRU0335	FEX233YR1DAY	0.00	18.83	0.0000	5.28	4.30	1326
NRU0340	FEX233YR1DAY	0.00	18.36	0.0001	33.24	33.22	16163
NRU0343	FEX233YR1DAY	0.00	19.10	0.0001	10.53	9.47	904
NRU0345	FEX233YR1DAY	0.00	19.35	0.0001	19.40	15.76	51526

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0350	FEX233YR1DAY	19.50	18.70	0.0001	16.40	16.71	978
NRU0370	FEX233YR1DAY	19.51	18.88	0.0001	15.04	15.62	8431
NRU0380	FEX233YR1DAY	23.33	18.91	-0.0001	7.76	8.07	470
NRU0390	FEX233YR1DAY	27.00	18.92	0.0000	11.31	7.76	24541
NRU0410	FEX233YR1DAY	19.56	19.06	0.0001	9.69	10.03	1100
NRU0425	FEX233YR1DAY	15.53	15.53	0.0001	6.01	5.03	4902
NRU0430	FEX233YR1DAY	19.61	19.20	0.0001	9.46	9.69	1077
NRU0450	FEX233YR1DAY	19.66	19.37	0.0001	9.29	9.46	1038
NRU0470	FEX233YR1DAY	19.72	20.09	0.0001	9.55	9.29	799
NRU0490	FEX233YR1DAY	20.36	20.51	0.0001	8.45	5.67	7166
NRU0495	FEX233YR1DAY	0.00	20.82	-0.0001	5.82	5.09	2539
NRU0500	FEX233YR1DAY	0.00	21.22	0.0000	1.65	1.64	4752
NRU0510	FEX233YR1DAY	19.67	20.09	-0.0001	12.01	6.57	56313
NRU0530	FEX233YR1DAY	16.95	16.82	0.0001	61.87	61.97	2252
NRU0550	FEX233YR1DAY	17.92	17.57	0.0001	61.77	61.87	31587
NRU0570	FEX233YR1DAY	18.16	17.71	0.0001	60.23	60.32	1523
NRU0590	FEX233YR1DAY	18.51	17.91	0.0001	59.44	59.52	1745
NRU0610	FEX233YR1DAY	18.78	18.10	0.0001	59.03	59.12	2456
NRU0612	FEX233YR1DAY	0.00	18.13	0.0001	55.96	56.04	1569
NRU0615	FEX233YR1DAY	0.00	19.18	0.0001	11.27	8.61	1931
NRU0616	FEX233YR1DAY	0.00	20.08	0.0000	5.91	5.01	6706
NRU0618	FEX233YR1DAY	0.00	20.41	0.0000	6.48	4.16	14410
NRU0620	FEX233YR1DAY	0.00	19.72	0.0001	10.01	7.09	14885
NRU0630	FEX233YR1D	18.79	18.16	0.0001	54.72	54.79	2176

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU0650	FEX233YR1DAY	18.79	18.18	0.0001	54.18	54.26	1809
NRU0670	FEX233YR1DAY	18.78	18.20	0.0001	53.24	53.32	1429
NRU0690	FEX233YR1DAY	18.84	18.22	0.0001	53.16	53.24	4310
NRU0710	FEX233YR1DAY	18.86	18.29	0.0001	59.52	58.13	18659
NRU0730	FEX233YR1DAY	18.85	18.34	0.0001	16.65	14.51	13864
NRU0740	FEX233YR1DAY	0.00	18.34	0.0001	62.89	60.99	25720
NRU0745	FEX233YR1DAY	0.00	18.36	0.0001	64.73	52.70	36057
NRU0750	FEX233YR1DAY	18.87	18.36	0.0001	96.68	46.00	177192
NRU0770	FEX233YR1DAY	18.88	18.36	0.0001	31.21	28.17	1008
NRU0785	FEX233YR1DAY	0.00	18.36	0.0001	45.44	43.57	42627
NRU0790	FEX233YR1DAY	18.88	18.36	0.0001	62.90	59.33	90110
NRU0810	FEX233YR1DAY	18.88	18.36	0.0001	16.74	14.80	10739
NRU0820	FEX233YR1DAY	0.00	18.36	0.0003	5.02	2.74	442
NRU0830	FEX233YR1DAY	18.99	18.40	-0.0001	25.36	25.66	22106
NRU0850	FEX233YR1DAY	19.11	18.45	0.0001	52.29	52.24	1187
NRU0870	FEX233YR1DAY	19.32	18.46	-0.0007	15.37	15.51	560
NRU0890	FEX233YR1DAY	19.35	18.47	0.0000	45.67	16.02	60843
NRU0910	FEX233YR1DAY	19.35	18.47	0.0000	0.97	0.70	573
NRU0930	FEX233YR1DAY	19.35	19.42	0.0000	1.09	0.97	1742
NRU0950	FEX233YR1DAY	19.11	18.46	0.0001	44.03	40.73	28907
NRU0955	FEX233YR1DAY	0.00	18.46	0.0001	50.21	46.05	38355
NRU0960	FEX233YR1DAY	0.00	18.48	0.0001	64.64	64.38	27914
NRU0965	FEX233YR1DAY	0.00	18.48	0.0001	75.82	75.29	39319

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0970	FEX233YR1DAY	19.34	18.46	0.0001	11.15	8.78	38946
NRU0980	FEX233YR1DAY	0.00	18.47	0.0011	10.45	7.70	1097
NRU0990	FEX233YR1DAY	19.39	18.47	0.0008	33.95	33.57	440
NRU1010	FEX233YR1DAY	19.70	18.48	-0.0002	34.35	33.95	1849
NRU1015	FEX233YR1DAY	0.00	18.88	-0.0001	9.88	9.54	1687
NRU1020	FEX233YR1DAY	0.00	19.79	-0.0060	12.36	46.83	866
NRU1025	FEX233YR1DAY	0.00	19.22	0.0000	7.19	7.06	724
NRU1030	FEX233YR1DAY	19.70	18.48	0.0001	49.17	33.83	70460
NRU1035	FEX233YR1DAY	0.00	18.75	0.0000	3.60	3.30	436
NRU1037	FEX233YR1DAY	0.00	18.49	0.0000	1.25	0.81	640
NRU1040	FEX233YR1DAY	0.00	18.48	0.0001	40.41	27.45	31037
NRU1045	FEX233YR1DAY	0.00	19.83	-0.0001	10.22	9.49	1465
NRU1046	FEX233YR1DAY	0.00	19.81	0.0060	9.49	8.76	931
NRU1050	FEX233YR1DAY	19.70	18.49	0.0001	39.52	36.43	32908
NRU1070	FEX233YR1DAY	19.83	18.86	0.0000	15.76	15.33	1384
NRU1090	FEX233YR1DAY	18.86	18.36	0.0001	13.75	13.18	919
NRU1110	FEX233YR1DAY	18.86	18.36	0.0001	34.52	27.63	55798
NRU1130	FEX233YR1DAY	18.86	18.36	0.0001	10.45	9.02	771
NRU1150	FEX233YR1DAY	18.86	18.36	0.0001	21.43	20.96	28877
NRU1170	FEX233YR1DAY	18.86	18.75	0.0001	16.17	14.53	15680
NRU1182	FEX233YR1DAY	0.00	18.38	0.0001	9.17	8.73	1208
NRU1184	FEX233YR1DAY	0.00	18.39	0.0001	8.89	8.83	873
NRU1185	FEX233YR1DAY	0.00	18.79	0.0001	7.29	5.16	12787
NRU1186	FEX233YR1D	0.00	18.39	0.0001	5.67	4.37	791

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU1188	FEX233YR1DAY	0.00	18.39	0.0000	5.33	2.82	31184
NRU1190	FEX233YR1DAY	18.86	18.83	0.0001	5.80	3.27	576
NRU1210	FEX233YR1DAY	18.86	18.88	0.0001	10.63	6.71	908
NRU1220	FEX233YR1DAY	0.00	19.85	0.0000	9.02	8.06	7396
NRU1225	FEX233YR1DAY	0.00	20.38	0.0000	2.33	2.26	436
NRU1230	FEX233YR1DAY	18.88	18.36	0.0001	12.81	10.88	880
NRU1232	FEX233YR1DAY	0.00	18.36	0.0001	8.90	8.49	865
NRU1234	FEX233YR1DAY	0.00	18.32	0.0001	9.84	9.83	5877
NRU1240	FEX233YR1DAY	0.00	18.30	0.0001	15.76	15.75	5694
NRU1250	FEX233YR1DAY	4.07	4.13	-0.0002	253.32	253.30	2104
NRU1270	FEX233YR1DAY	4.78	4.74	0.0001	251.45	251.44	1667
NRU1290	FEX233YR1DAY	5.41	5.28	-0.0001	244.57	244.59	3103
NRU1310	FEX233YR1DAY	6.42	6.07	0.0000	244.59	244.57	5053
NRU1330	FEX233YR1DAY	8.29	7.61	0.0000	249.06	248.95	3357
NRU1350	FEX233YR1DAY	9.32	8.65	0.0000	246.66	246.64	2409
NRU1370	FEX233YR1DAY	11.03	9.87	0.0000	243.61	243.60	5323
NRU1390	FEX233YR1DAY	11.84	10.53	0.0000	39.32	38.44	1238
NRU1410	FEX233YR1DAY	12.56	10.98	0.0000	204.64	205.21	7198
NRU1430	FEX233YR1DAY	15.53	15.53	-0.0001	44.44	29.32	30601
NRU1450	FEX233YR1DAY	15.94	15.91	0.0001	25.75	25.26	3335
NRU1470	FEX233YR1DAY	15.97	15.94	0.0001	5.57	5.58	981
NRU1490	FEX233YR1DAY	16.09	16.09	0.0001	6.00	5.57	2101
NRU1510	FEX233YR1DAY	15.12	12.62	0.0000	139.00	139.16	10558

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1530	FEX233YR1DAY	15.71	14.60	-0.0001	73.28	73.66	2452
NRU1550	FEX233YR1DAY	15.40	14.93	0.0000	55.55	54.20	1677
NRU1570	FEX233YR1DAY	16.20	15.83	0.0000	49.36	47.84	1398
NRU1590	FEX233YR1DAY	16.40	15.92	0.0000	4.94	4.35	1286
NRU1610	FEX233YR1DAY	16.56	16.32	0.0001	42.90	41.39	1573
NRU1630	FEX233YR1DAY	16.69	16.57	0.0001	28.95	28.79	1538
NRU1650	FEX233YR1DAY	16.84	16.77	0.0001	31.83	28.95	1066
NRU1670	FEX233YR1DAY	16.89	16.82	0.0001	39.28	28.01	70473
NRU1690	FEX233YR1DAY	16.89	16.81	0.0001	32.27	31.86	2551
NRU1710	FEX233YR1DAY	16.60	16.40	0.0001	29.72	29.57	1327
NRU1730	FEX233YR1DAY	16.58	16.09	0.0000	63.11	19.73	100771
NRU1750	FEX233YR1DAY	16.58	16.09	-0.0002	17.65	17.31	720
NRU1770	FEX233YR1DAY	16.58	16.09	0.0000	19.87	19.76	1091
NRU1790	FEX233YR1DAY	17.21	16.53	0.0000	5.21	5.00	753
NRU1810	FEX233YR1DAY	16.58	16.09	0.0000	4.00	3.99	15094
NRU1830	FEX233YR1DAY	17.12	16.52	0.0000	13.03	12.91	602
NRU1850	FEX233YR1DAY	17.07	16.98	0.0001	21.57	21.34	1047
NRU1870	FEX233YR1DAY	17.20	17.08	0.0001	21.83	21.57	908
NRU1890	FEX233YR1DAY	17.38	17.22	0.0001	31.11	21.83	10807
NRU1910	FEX233YR1DAY	17.71	17.52	0.0001	12.69	12.03	1684
NRU1930	FEX233YR1DAY	15.71	14.63	-0.0001	44.14	44.37	1580
NRU1950	FEX233YR1DAY	16.43	15.06	0.0000	43.11	43.19	1646
NRU1970	FEX233YR1DAY	16.86	15.33	0.0000	43.04	43.11	1037
NRU1990	FEX233YR1D	17.09	15.48	0.0000	42.97	43.04	1720

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU2010	FEX233YR1DAY	18.02	16.20	0.0000	9.90	9.71	1370
NRU2030	FEX233YR1DAY	18.39	16.53	0.0001	7.87	6.73	679
NRU2050	FEX233YR1DAY	18.40	16.56	0.0000	2.62	2.98	453
NRU2070	FEX233YR1DAY	18.41	17.73	0.0000	2.63	2.62	436
NRU2090	FEX233YR1DAY	17.16	15.53	0.0000	31.20	31.29	983
NRU2110	FEX233YR1DAY	17.28	15.61	0.0000	30.25	30.31	1563
NRU2130	FEX233YR1DAY	17.49	15.80	0.0000	29.83	29.85	1851
NRU2150	FEX233YR1DAY	17.69	16.15	0.0000	5.07	4.73	1044
NRU2170	FEX233YR1DAY	17.07	16.40	0.0000	2.05	2.32	771
NRU2190	FEX233YR1DAY	17.08	16.47	0.0000	5.70	2.05	25700
NRU2210	FEX233YR1DAY	17.33	15.80	0.0001	3.15	2.57	538
NRU2230	FEX233YR1DAY	17.33	16.25	0.0000	10.13	0.05	76635
NRU2250	FEX233YR1DAY	17.31	16.25	0.0001	1.39	1.29	9787
NRU2270	FEX233YR1DAY	17.61	15.87	0.0000	23.87	23.87	1283
NRU2290	FEX233YR1DAY	17.67	15.90	0.0000	18.05	18.16	1150
NRU2310	FEX233YR1DAY	17.68	15.91	0.0000	12.42	12.71	1271
NRU2330	FEX233YR1DAY	17.68	15.93	0.0001	12.34	6.59	757
NRU2350	FEX233YR1DAY	17.68	15.93	-0.0001	2.70	9.55	654
NRU2370	FEX233YR1DAY	17.37	16.17	0.0000	2.78	2.70	528
NRU2390	FEX233YR1DAY	17.36	16.40	0.0000	4.05	2.78	29448
NRU2410	FEX233YR1DAY	17.72	15.93	0.0000	6.53	4.69	1098
NRU2430	FEX233YR1DAY	17.83	15.94	0.0000	5.03	4.09	925
NRU2450	FEX233YR1DAY	18.06	15.94	0.0000	2.58	0.70	588

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2470	FEX233YR1DAY	15.72	14.59	0.0000	7.98	4.70	1457
NRU2490	FEX233YR1DAY	15.75	14.59	0.0000	4.85	1.15	1418
NRU2510	FEX233YR1DAY	15.75	14.49	0.0000	1.04	0.62	928
NRU2530	FEX233YR1DAY	15.76	14.49	0.0000	0.62	0.13	572
NRU2550	FEX233YR1DAY	16.53	13.20	0.0000	47.97	46.50	2428
NRU2570	FEX233YR1DAY	17.71	14.23	0.0000	41.87	40.34	2093
NRU2590	FEX233YR1DAY	18.30	15.17	0.0000	31.11	29.88	1428
NRU2610	FEX233YR1DAY	18.62	15.77	0.0000	30.96	29.69	1170
NRU2630	FEX233YR1DAY	19.41	16.69	0.0000	22.06	20.69	1128
NRU2650	FEX233YR1DAY	19.54	17.41	0.0000	11.11	9.57	927
NRU2670	FEX233YR1DAY	16.64	16.13	0.0000	22.21	22.46	2044
NRU2690	FEX233YR1DAY	17.09	16.90	-0.0001	108.32	80.17	158275
NSH02	FEX233YR1DAY	0.00	19.87	0.0000	8.06	7.85	1307
NSH03	FEX233YR1DAY	0.00	19.99	0.0000	0.22	0.00	548
NSH04	FEX233YR1DAY	0.00	14.98	0.0000	57.22	56.33	4615
NSH05	FEX233YR1DAY	0.00	19.38	-0.0030	3.82	3.62	1481
NSH07	FEX233YR1DAY	0.00	6.19	-0.0001	14.84	14.44	623
NSH08	FEX233YR1DAY	0.00	7.30	0.0000	12.79	12.56	1922
NSH09	FEX233YR1DAY	0.00	9.58	0.0001	35.19	26.73	8331
NSH10	FEX233YR1DAY	0.00	18.99	0.0000	10.00	9.81	22651
NSH11	FEX233YR1DAY	0.00	21.04	0.0000	4.55	4.42	6151
NSH12	FEX233YR1DAY	0.00	19.07	0.0000	4.20	4.02	7452
NSH13	FEX233YR1DAY	0.00	17.88	0.0000	13.85	13.45	16923
NSH14	FEX233YR1D	0.00	17.78	0.0000	6.34	6.10	10671

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSH15	FEX233YR1DAY	0.00	18.67	0.0000	3.23	3.21	5533
NSH17	FEX233YR1DAY	0.00	17.16	0.0000	14.38	14.33	7952
NSH18	FEX233YR1DAY	0.00	15.73	0.0000	13.59	13.53	8771
NSH19	FEX233YR1DAY	0.00	11.54	0.0000	11.30	11.19	9968
NSH20	FEX233YR1DAY	0.00	20.16	0.0000	1.95	1.77	10634
NSH21	FEX233YR1DAY	0.00	10.23	0.0000	7.78	7.06	587
NSH22	FEX233YR1DAY	0.00	14.12	0.0000	22.66	21.28	6786
NSH23	FEX233YR1DAY	0.00	18.13	0.0000	6.40	6.35	2634
NSH24	FEX233YR1DAY	0.00	14.12	0.0000	14.83	13.65	6085
NSH25	FEX233YR1DAY	0.00	13.92	0.0000	10.23	9.25	7545
NSH26	FEX233YR1DAY	0.00	13.79	0.0001	51.71	44.03	49821
NSH27	FEX233YR1DAY	0.00	12.74	0.0000	8.81	3.95	26613
NSH27A	FEX233YR1DAY	0.00	12.63	0.0000	18.57	17.43	921
NSH27AA	FEX233YR1DAY	0.00	12.66	0.0000	3.95	4.28	554
NSH27B	FEX233YR1DAY	0.00	11.31	0.0001	17.43	18.82	1033
NSH27C	FEX233YR1DAY	0.00	9.06	-0.0001	18.82	17.39	1037
NSH28	FEX233YR1DAY	0.00	9.19	0.0000	9.09	6.62	7802
NSH29	FEX233YR1DAY	0.00	7.43	-0.0001	6.71	11.85	648
NSH31	FEX233YR1DAY	0.00	9.17	0.0001	6.62	4.41	480
NSH33	FEX233YR1DAY	0.00	16.60	0.0000	3.03	2.96	4722
NSH34	FEX233YR1DAY	0.00	8.97	0.0000	21.67	21.51	1196
NSH35	FEX233YR1DAY	0.00	7.81	0.0000	10.55	10.48	2661
NSH36	FEX233YR1DAY	0.00	7.78	-0.0002	21.78	21.45	805

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH37	FEX233YR1DAY	0.00	17.99	0.0000	9.00	8.95	6644
NSH41	FEX233YR1DAY	0.00	18.91	0.0000	2.74	2.71	436
NSH42	FEX233YR1DAY	0.00	2.60	0.0001	29.78	29.76	447
NSH43	FEX233YR1DAY	0.00	2.82	0.0001	26.77	26.77	507
NSH44	FEX233YR1DAY	0.00	9.39	-0.0001	25.95	25.94	670
NSH45	FEX233YR1DAY	0.00	16.26	0.0000	25.19	24.86	18696
NSH48	FEX233YR1DAY	0.00	18.16	0.0000	8.55	8.52	2620
NSH49	FEX233YR1DAY	0.00	20.68	0.0000	9.81	9.10	12872
NSH50	FEX233YR1DAY	0.00	16.39	0.0001	25.42	20.85	2345
NSH51	FEX233YR1DAY	0.00	16.01	0.0000	18.13	18.22	952
NSH52	FEX233YR1DAY	0.00	15.49	-0.0001	50.09	49.64	1772
NSH53	FEX233YR1DAY	0.00	15.55	-0.0002	18.22	16.60	1023
NSH54	FEX233YR1DAY	0.00	15.29	0.0000	51.62	50.84	1343
NSH55	FEX233YR1DAY	0.00	15.51	0.0000	26.38	26.42	1595
NSH56	FEX233YR1DAY	0.00	16.35	0.0000	25.81	25.81	879
NSH57	FEX233YR1DAY	0.00	17.67	0.0000	25.86	25.81	460
NSH60	FEX233YR1DAY	0.00	18.13	0.0000	8.60	8.27	436
NSH61	FEX233YR1DAY	0.00	16.43	-0.0003	5.24	16.49	444
NSH65	FEX233YR1DAY	0.00	19.59	0.0000	1.61	1.60	436
NSH75	FEX233YR1DAY	0.00	3.32	0.0000	28.05	26.27	5531
NSH80	FEX233YR1DAY	0.00	20.19	0.0000	2.35	1.89	9317
NSH81	FEX233YR1DAY	0.00	20.12	0.0000	0.19	0.00	1742
NSH82	FEX233YR1DAY	0.00	20.67	0.0000	1.10	0.00	4792
NSH83	FEX233YR1D	0.00	20.53	0.0000	10.66	10.06	12288

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0000	FEX233YR1DAY	2.00	2.00	0.0000	250.22	5.17	0
NSR0005	FEX233YR1DAY	2.00	2.00	0.0000	3.85	0.00	0
NSR0010	FEX233YR1DAY	2.00	2.00	0.0000	294.51	0.00	0
NSR0030	FEX233YR1DAY	2.92	2.86	0.0000	307.67	294.51	215144
NSR0032	FEX233YR1DAY	4.88	4.85	0.0000	6.94	2.89	16519
NSR0034	FEX233YR1DAY	3.63	3.54	0.0000	34.59	33.37	10964
NSR0050	FEX233YR1DAY	3.44	3.32	0.0000	291.97	283.27	82108
NSR0070	FEX233YR1DAY	3.45	3.34	-0.0001	23.35	22.06	15603
NSR0090	FEX233YR1DAY	3.68	3.56	-0.0001	21.27	19.93	6308
NSR0100	FEX233YR1DAY	2.25	2.23	0.0000	3.87	3.85	524
NSR0102	FEX233YR1DAY	4.24	4.25	0.0000	2.76	2.45	2188
NSR0105	FEX233YR1DAY	1.91	2.64	0.0176	250.25	250.22	484
NSR0110	FEX233YR1DAY	3.93	3.65	0.0000	11.01	10.74	448
NSR0112	FEX233YR1DAY	2.31	2.92	-0.0155	249.08	249.04	457
NSR0115	FEX233YR1DAY	4.25	4.27	0.0000	1.51	1.14	6734
NSR0120	FEX233YR1DAY	2.62	3.14	0.0111	246.57	246.61	479
NSR0130	FEX233YR1DAY	4.16	3.84	0.0000	6.15	5.84	445
NSR0135	FEX233YR1DAY	4.22	3.90	0.0000	2.40	1.92	438
NSR0140	FEX233YR1DAY	3.28	3.62	0.0047	244.03	244.03	477
NSR0150	FEX233YR1DAY	3.64	3.49	0.0003	273.55	271.47	28355
NSR0160	FEX233YR1DAY	3.56	3.82	0.0041	242.05	242.11	1443
NSR0165	FEX233YR1DAY	4.03	3.57	0.0000	2.07	1.72	440
NSR0170	FEX233YR1DAY	3.70	3.50	0.0000	3.65	2.43	1748

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0180	FEX233YR1DAY	3.83	3.71	0.0000	4.37	4.04	1798
NSR0190	FEX233YR1DAY	4.04	3.50	-0.0001	14.55	14.23	1310
NSR0210	FEX233YR1DAY	4.26	3.50	-0.0001	13.01	12.52	1573
NSR0230	FEX233YR1DAY	4.26	3.51	0.0000	13.28	10.31	5996
NSR0250	FEX233YR1DAY	3.93	3.75	-0.0069	265.69	264.95	12764
NSR0270	FEX233YR1DAY	3.98	3.79	0.0000	29.23	28.83	6020
NSR0280	FEX233YR1DAY	5.41	5.32	0.0007	197.50	196.82	1094
NSR0281	FEX233YR1DAY	5.97	5.84	0.0004	197.47	190.94	4724
NSR0290	FEX233YR1DAY	6.70	5.96	0.0004	54.61	54.57	5875
NSR0310	FEX233YR1DAY	9.28	9.13	-0.0001	49.33	46.76	33746
NSR0330	FEX233YR1DAY	9.65	9.38	0.0001	5.95	6.53	470
NSR0350	FEX233YR1DAY	10.32	9.86	0.0001	6.56	5.95	446
NSR0370	FEX233YR1DAY	10.35	10.10	0.0000	6.64	6.56	4788
NSR0390	FEX233YR1DAY	11.96	11.10	0.0001	20.76	20.68	2045
NSR0410	FEX233YR1DAY	12.27	11.58	0.0001	4.54	4.51	510
NSR0430	FEX233YR1DAY	12.28	12.03	0.0000	5.50	4.54	14949
NSR0450	FEX233YR1DAY	13.04	11.77	-0.0001	12.70	12.38	1271
NSR0470	FEX233YR1DAY	13.10	11.81	0.0000	7.78	7.39	1156
NSR0490	FEX233YR1DAY	4.41	4.29	-0.0092	105.81	105.10	13910
NSR0510	FEX233YR1DAY	4.48	4.41	-0.0016	46.06	46.31	8458
NSR0530	FEX233YR1DAY	4.55	4.44	0.0002	6.51	6.14	791
NSR0540	FEX233YR1DAY	4.55	4.53	0.0003	45.25	41.09	39664
NSR0550	FEX233YR1DAY	4.56	4.54	0.0020	277.43	277.43	5315
NSR0560	FEX233YR1D	4.66	4.62	0.0002	85.69	88.77	39450

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0570	FEX233YR1DAY	5.28	5.20	0.0001	79.81	80.80	30161
NSR0580	FEX233YR1DAY	6.13	5.96	-0.0001	12.50	7.45	43873
NSR0590	FEX233YR1DAY	6.15	5.97	-0.0001	78.48	76.93	26297
NSR0610	FEX233YR1DAY	6.26	6.04	0.0001	17.52	18.04	38317
NSR0630	FEX233YR1DAY	6.26	6.03	0.0001	16.66	16.74	475
NSR0650	FEX233YR1DAY	6.25	6.03	0.0000	21.54	16.66	111683
NSR0660	FEX233YR1DAY	6.13	4.61	0.0000	4.55	4.07	565
NSR0670	FEX233YR1DAY	6.24	6.02	0.0001	7.06	7.84	520
NSR0680	FEX233YR1DAY	6.14	6.01	-0.0001	11.23	6.51	70386
NSR0690	FEX233YR1DAY	6.24	6.02	-0.0001	6.59	7.06	599
NSR0710	FEX233YR1DAY	6.23	6.02	0.0000	6.51	6.59	861
NSR0730	FEX233YR1DAY	6.29	6.18	0.0000	103.44	81.10	120698
NSR0770	FEX233YR1DAY	6.81	6.66	0.0001	83.15	82.06	4277
NSR0780	FEX233YR1DAY	6.74	6.68	-0.0001	6.77	5.24	10902
NSR0790	FEX233YR1DAY	8.35	8.07	0.0002	282.13	262.99	23821
NSR0791	FEX233YR1DAY	7.13	6.93	0.0002	186.67	188.72	5596
NSR0809	FEX233YR1DAY	12.76	9.85	-0.0004	69.30	94.11	2127
NSR0810	FEX233YR1DAY	13.45	13.33	-0.0003	109.97	109.27	59924
NSR0830	FEX233YR1DAY	15.10	15.05	-0.0002	108.59	104.57	101105
NSR0840	FEX233YR1DAY	16.09	16.03	0.0001	14.33	14.36	30570
NSR0850	FEX233YR1DAY	15.64	15.58	-0.0004	75.13	72.10	64320
NSR0860	FEX233YR1DAY	16.41	16.39	0.0000	5.49	5.35	6329
NSR0869	FEX233YR1DAY	16.03	16.02	0.0001	30.21	30.02	1505

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0870	FEX233YR1DAY	16.24	16.27	0.0001	57.07	57.22	26546
NSR0880	FEX233YR1DAY	16.24	16.28	0.0000	19.04	18.56	9148
NSR0881	FEX233YR1DAY	14.14	14.40	0.0004	242.85	225.40	13396
NSR0890	FEX233YR1DAY	4.02	3.84	0.1109	244.83	287.19	29826
NSR0910	FEX233YR1DAY	4.79	4.51	-0.0038	157.31	156.56	6020
NSR0930	FEX233YR1DAY	5.54	4.58	0.0000	33.22	13.29	77837
NSR0950	FEX233YR1DAY	5.63	5.36	0.0009	155.31	154.10	11563
NSR0970	FEX233YR1DAY	6.14	5.80	-0.0002	130.94	131.06	3616
NSR0990	FEX233YR1DAY	6.27	5.92	-0.0002	137.75	137.91	3845
NSR1010	FEX233YR1DAY	6.30	5.95	0.0000	18.59	18.36	5852
NSR1030	FEX233YR1DAY	8.54	8.16	0.0001	119.41	119.44	9024
NSR1050	FEX233YR1DAY	8.56	8.16	0.0000	15.67	4.54	17923
NSR1070	FEX233YR1DAY	9.58	9.44	-0.0004	137.54	136.73	19525
NSR1090	FEX233YR1DAY	11.30	11.27	0.0004	121.51	121.57	7627
NSR1110	FEX233YR1DAY	11.57	11.56	0.0000	1.64	1.63	2862
NSR1130	FEX233YR1DAY	11.29	11.26	0.0000	14.03	13.14	13270
NSR1150	FEX233YR1DAY	11.39	11.28	0.0000	4.16	4.01	5151
NSR1170	FEX233YR1DAY	11.38	11.28	0.0000	4.01	3.28	451
NSR1190	FEX233YR1DAY	12.70	12.75	0.0000	120.82	120.79	12428
NSR1210	FEX233YR1DAY	12.70	12.76	-0.0001	14.08	10.75	51577
NSR1230	FEX233YR1DAY	14.76	14.68	0.0000	120.22	120.08	9407
NSR1270	FEX233YR1DAY	14.99	14.92	0.0000	120.53	120.30	6127
NSR1290	FEX233YR1DAY	14.99	14.92	0.0000	6.08	2.42	15157
NSR1310	FEX233YR1D	14.99	14.92	0.0000	17.54	15.49	32468

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR1330	FEX233YR1DAY	15.44	15.33	0.0000	122.72	119.22	20787
NSR1350	FEX233YR1DAY	15.45	15.34	0.0000	19.71	19.37	17333
NSR1370	FEX233YR1DAY	15.56	15.46	0.0000	114.91	108.64	20962
NSR1390	FEX233YR1DAY	15.56	15.46	0.0000	2.30	2.30	3049
NSR1410	FEX233YR1DAY	15.56	15.46	0.0003	23.30	21.74	2383
NSR1430	FEX233YR1DAY	15.76	15.65	0.0000	27.52	26.99	7775
NSR1450	FEX233YR1DAY	15.74	15.63	0.0000	30.63	25.59	57824
NSR1470	FEX233YR1DAY	15.96	15.86	0.0000	26.20	25.82	22018
NSR1490	FEX233YR1DAY	16.21	16.12	0.0000	41.45	23.21	104528
NSR1510	FEX233YR1DAY	16.21	16.12	0.0000	25.40	17.34	27089
NSR1530	FEX233YR1DAY	15.56	15.46	0.0001	3.45	2.03	3180
NSR1550	FEX233YR1DAY	15.68	15.58	0.0000	115.69	103.11	32288
NSR1570	FEX233YR1DAY	15.68	15.58	-0.0001	2.42	0.95	1228
NSR1590	FEX233YR1DAY	15.68	15.58	-0.0001	29.90	32.90	8535
NSR1610	FEX233YR1DAY	15.75	15.67	-0.0001	12.81	11.97	6158
NSR1630	FEX233YR1DAY	15.75	15.67	0.0000	89.94	79.56	18988
NSR1650	FEX233YR1DAY	16.39	17.06	0.0000	1.94	1.94	436
NSR1670	FEX233YR1DAY	15.92	15.92	-0.0003	18.14	15.70	21523
NSR1690	FEX233YR1DAY	16.24	16.10	0.0000	86.35	71.87	18791
NSR1710	FEX233YR1DAY	16.25	16.12	0.0000	4.98	4.33	881
NSR1730	FEX233YR1DAY	16.32	16.19	0.0000	86.46	81.10	8711
NSR1750	FEX233YR1DAY	16.68	16.67	0.0000	2.04	2.04	436
NSR1770	FEX233YR1DAY	17.23	17.28	0.0000	21.72	15.64	17115

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1790	FEX233YR1DAY	17.24	17.29	0.0000	23.45	16.42	29118
NSR1810	FEX233YR1DAY	17.25	17.29	0.0000	9.62	8.09	10644
NSR1830	FEX233YR1DAY	17.25	17.29	0.0000	33.78	25.37	66571
NSR1850	FEX233YR1DAY	16.95	17.02	-0.0001	7.32	7.99	13303
NSR1870	FEX233YR1DAY	16.93	17.01	0.0001	24.93	17.23	45189
NSR1890	FEX233YR1DAY	16.05	16.32	0.0000	13.21	13.53	1056
NSR1910	FEX233YR1DAY	15.45	15.83	0.0003	43.87	40.75	4816
NSR1930	FEX233YR1DAY	16.53	16.37	-0.0002	65.68	65.32	1836
NSR1950	FEX233YR1DAY	16.70	16.58	-0.0001	20.97	20.43	1859
NSR1970	FEX233YR1DAY	16.84	16.75	-0.0001	19.62	18.67	12205
NSR1990	FEX233YR1DAY	16.86	16.75	0.0001	10.31	9.21	949
NSR2010	FEX233YR1DAY	16.91	16.76	-0.0001	11.88	10.31	14743
NSR2030	FEX233YR1DAY	16.90	16.75	-0.0001	6.50	5.26	751
NSR2050	FEX233YR1DAY	16.88	16.75	0.0000	7.77	6.83	10851
NSR2070	FEX233YR1DAY	16.81	16.70	0.0000	5.00	5.00	781
NSR2090	FEX233YR1DAY	16.72	16.63	0.0000	6.11	5.01	673
NSR2110	FEX233YR1DAY	16.54	16.50	0.0000	11.86	11.02	13935
NSR2130	FEX233YR1DAY	16.50	16.47	0.0000	11.85	6.78	89085
NSR2150	FEX233YR1DAY	17.60	16.59	-0.0001	44.32	39.88	65973
NSR2170	FEX233YR1DAY	17.62	16.80	0.0000	31.78	31.74	2087
NSR2190	FEX233YR1DAY	17.62	16.87	-0.0001	31.83	31.78	967
NSR2210	FEX233YR1DAY	17.62	17.01	0.0000	29.52	21.66	54015
NSR2230	FEX233YR1DAY	17.62	16.92	-0.0001	21.20	20.54	675
NSR2250	FEX233YR1D	17.63	16.99	-0.0001	22.02	21.20	8873

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR2270	FEX233YR1DAY	17.63	17.00	-0.0001	22.99	20.69	17006
NSR2290	FEX233YR1DAY	17.63	17.02	-0.0001	17.84	17.37	888
NSR2310	FEX233YR1DAY	17.63	17.04	0.0000	18.33	17.84	6258
NSR2330	FEX233YR1DAY	17.65	17.58	0.0000	17.12	13.09	18305
NSR2350	FEX233YR1DAY	17.65	17.58	0.0001	15.55	11.66	21623
NSR2370	FEX233YR1DAY	16.66	16.38	0.0000	16.18	11.80	9676
NSR2390	FEX233YR1DAY	18.07	17.94	0.0000	7.91	0.91	55404
NSR2410	FEX233YR1DAY	16.66	16.38	0.0000	26.00	16.18	16248
NSR2430	FEX233YR1DAY	17.99	17.97	0.0000	1.78	1.77	2497
NSR2450	FEX233YR1DAY	18.06	18.02	0.0000	23.51	23.16	12919
NSR3000	FEX233YR1DAY	17.04	17.06	-0.0727	5.37	49.45	871
NSR3005	FEX233YR1DAY	17.02	17.05	0.1453	49.45	3.97	566
NSR3020	FEX233YR1DAY	17.61	17.68	-0.0001	26.07	22.82	61813
NSR3040	FEX233YR1DAY	16.25	16.29	0.0000	47.35	43.20	31414
NSR3060	FEX233YR1DAY	16.21	16.12	-0.0001	13.04	11.59	38522
NSW0010	FEX233YR1DAY	2.00	2.00	0.0000	17.00	0.00	0
NSW0030	FEX233YR1DAY	2.13	2.38	0.0003	17.01	17.00	587
NSW0050	FEX233YR1DAY	4.04	3.16	0.0001	17.12	17.01	959
Outfall	FEX233YR1DAY	2.00	2.00	0.0000	36.22	0.00	0
Outfall_NE	FEX233YR1DAY	21.00	18.65	0.0002	8.21	0.00	0
PondA	FEX233YR1DAY	0.00	19.99	0.0000	14.13	0.77	52079
PondB	FEX233YR1DAY	0.00	14.16	0.0000	99.93	64.05	70441
SH_OUTFALL	FEX233YR1DAY	2.00	2.00	0.0000	148.17	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
STORAGE1	FEX233YR1DAY	0.00	19.07	0.0000	3.34	1.11	7405
STORAGE10	FEX233YR1DAY	0.00	19.59	0.0000	1.60	0.00	9148
STORAGE11	FEX233YR1DAY	0.00	19.87	0.0000	7.85	0.00	18648
STORAGE12	FEX233YR1DAY	0.00	19.79	0.0001	42.43	5.91	10262
STORAGE13	FEX233YR1DAY	0.00	18.75	0.0000	3.30	0.56	5323
STORAGE14	FEX233YR1DAY	0.00	20.38	0.0000	2.26	0.00	13395
STORAGE2	FEX233YR1DAY	0.00	18.45	0.0000	5.71	2.06	18426
STORAGE4	FEX233YR1DAY	0.00	18.89	0.0001	27.80	3.29	12088
STORAGE5	FEX233YR1DAY	0.00	20.90	0.0000	15.50	4.18	19777
STORAGE8	FEX233YR1DAY	0.00	18.31	0.0000	2.74	0.98	6098
STORAGE9	FEX233YR1DAY	0.00	18.12	0.0000	6.69	1.17	11761
Sevilla1	FEX233YR1DAY	1.20	2.04	0.0000	0.03	0.03	804
Sevilla2	FEX233YR1DAY	1.23	2.02	0.0000	0.01	0.01	609
Sevilla3	FEX233YR1DAY	1.20	2.04	0.0000	0.07	0.07	1339
Sevilla4	FEX233YR1DAY	1.20	2.04	0.0000	0.12	0.13	1450
Shamrock2	FEX233YR1DAY	1.11	2.02	-0.0001	36.25	36.22	5389
Shmrck1.1	FEX233YR1DAY	1.38	2.08	0.0001	36.17	36.21	6206
Shmrck1.2	FEX233YR1DAY	1.20	2.04	-0.0001	36.21	36.25	3971
V3	FEX233YR1DAY	6.53	6.53	0.0000	0.00	0.00	436
BC_N02	FEX25YR1DAY	0.00	18.00	0.0000	0.90	0.00	0
Church1	FEX25YR1DAY	8.77	10.24	0.0000	0.66	0.40	533
Church2	FEX25YR1DAY	8.77	10.24	0.0000	7.17	6.74	4390
Clark1	FEX25YR1DAY	7.21	8.19	0.0000	0.97	0.57	743
Clark2	FEX25YR1DA	7.21	8.19	-0.0001	64.17	62.71	21566

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
DM1	FEX25YR1DAY	11.42	11.86	0.0000	7.14	7.24	1416
DM2	FEX25YR1DAY	10.30	10.64	0.0000	7.24	7.13	2186
DM3	FEX25YR1DAY	9.16	10.27	0.0000	7.13	7.17	2979
E_Outlet	FEX25YR1DAY	0.00	16.53	0.0002	120.98	41.31	0
E_Outlet2	FEX25YR1DAY	0.00	17.00	0.0000	1.07	0.00	0
ElP_Hes.1	FEX25YR1DAY	1.99	2.97	0.0000	0.41	0.31	763
ElP_con.1	FEX25YR1DAY	2.18	3.13	0.0001	80.89	80.75	4221
ElPrad.1	FEX25YR1DAY	1.99	2.97	0.0000	0.20	0.15	632
G1	FEX25YR1DAY	14.98	15.98	-0.0033	154.55	96.36	40439
G10	FEX25YR1DAY	8.77	10.22	-0.0001	63.61	64.17	4602
G2	FEX25YR1DAY	14.99	15.92	-0.0003	36.79	37.58	32924
G3	FEX25YR1DAY	14.86	15.91	-0.0006	120.59	120.36	27807
G4	FEX25YR1DAY	12.82	14.94	-0.0001	120.36	117.49	57248
G5	FEX25YR1DAY	11.69	13.68	-0.0002	82.65	77.27	35804
G6	FEX25YR1DAY	11.00	9.24	0.0000	12.52	0.00	0
G7	FEX25YR1DAY	11.00	11.94	0.0000	71.97	71.77	3601
G8	FEX25YR1DAY	10.07	11.01	0.0000	59.73	59.47	2143
G9	FEX25YR1DAY	9.41	10.51	0.0001	59.47	59.18	1353
H1	FEX25YR1DAY	1.99	3.31	0.0000	5.54	5.53	514
H2.1	FEX25YR1DAY	1.99	2.97	0.0000	86.16	86.12	6105
Hubert	FEX25YR1DAY	3.16	3.76	0.0000	62.69	62.37	5965
JUNCT1	FEX25YR1DAY	0.00	19.07	0.0000	8.56	8.30	4494
JUNCT10	FEX25YR1DAY	0.00	22.14	0.0000	61.31	61.20	10835

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
JUNCT2	FEX25YR1DAY	0.00	14.40	0.0000	30.66	30.63	2871
JUNCT3	FEX25YR1DAY	0.00	19.98	0.0000	10.16	10.65	10386
JUNCT4	FEX25YR1DAY	0.00	13.69	0.0000	6.52	6.52	5548
JUNCT6	FEX25YR1DAY	0.00	16.62	0.0000	138.58	136.57	10275
JUNCT7	FEX25YR1DAY	0.00	19.76	0.0000	117.91	118.06	8389
JUNCT7B	FEX25YR1DAY	0.00	19.76	-0.0001	123.46	118.75	18398
JUNCT8	FEX25YR1DAY	0.00	19.76	0.0000	192.19	192.21	11635
JUNCT8B	FEX25YR1DAY	0.00	19.76	0.0001	192.10	185.34	26044
JUNCT9	FEX25YR1DAY	0.00	29.56	0.0000	58.51	58.58	9578
L1	FEX25YR1DAY	11.53	11.98	0.0000	35.43	36.51	51707
L2	FEX25YR1DAY	11.63	11.76	0.0000	8.60	8.46	41894
L3	FEX25YR1DAY	10.43	10.56	0.0000	9.84	8.99	46099
L4	FEX25YR1DAY	8.43	8.53	0.0000	4.19	3.81	50838
L5	FEX25YR1DAY	7.63	7.68	0.0000	1.56	1.30	43662
L6	FEX25YR1DAY	6.93	6.96	0.0000	0.53	0.40	43812
Lois	FEX25YR1DAY	4.82	5.01	0.0000	62.71	62.69	6808
M1	FEX25YR1DAY	2.58	6.51	-0.0003	34.91	34.02	24844
M1.1	FEX25YR1DAY	6.33	6.84	0.0000	38.52	34.91	35184
M1.2	FEX25YR1DAY	7.03	7.35	0.0000	31.83	34.28	28442
M1.3	FEX25YR1DAY	7.13	7.61	0.0000	28.39	27.54	28489
M2	FEX25YR1DAY	2.58	5.89	-0.0006	36.62	31.92	60587
M3	FEX25YR1DAY	2.58	5.47	-0.0004	32.03	30.48	39363
M4	FEX25YR1DAY	2.58	4.96	-0.0005	30.49	25.09	49933
M5.1	FEX25YR1DA	2.57	3.45	0.0000	81.08	80.90	6163

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
M6	FEX25YR1DAY	2.58	3.45	0.0000	0.40	0.23	558
Marjory_Pump	FEX25YR1DAY	0.00	36.71	0.0102	3.62	3.11	496
N01	FEX25YR1DAY	0.00	20.70	0.0000	25.10	13.31	34441
N01A	FEX25YR1DAY	0.00	20.68	0.0000	7.05	6.86	437
N02	FEX25YR1DAY	0.00	18.25	0.0001	30.35	29.03	53057
N03	FEX25YR1DAY	0.00	18.79	0.0001	11.62	11.00	5193
N04	FEX25YR1DAY	0.00	18.76	0.0000	11.09	9.24	7975
N05	FEX25YR1DAY	0.00	17.99	0.0000	119.02	118.24	4401
N06	FEX25YR1DAY	0.00	16.93	0.0002	80.27	80.30	3292
N07A	FEX25YR1DAY	0.00	16.32	0.0002	82.81	82.84	4248
N08A	FEX25YR1DAY	0.00	15.14	0.0005	122.33	122.38	9321
N09	FEX25YR1DAY	0.00	12.99	0.0001	13.51	12.80	468
N09A	FEX25YR1DAY	0.00	12.74	0.0003	132.93	132.93	1359
N10	FEX25YR1DAY	2.00	2.00	0.0000	296.92	0.00	0
N11	FEX25YR1DAY	0.00	17.27	-0.0008	171.16	120.98	340404
NBB0010	FEX25YR1DAY	2.00	2.00	0.0000	133.13	0.00	0
NBB0030	FEX25YR1DAY	5.03	7.21	-0.0006	133.13	133.13	557
NBB0050	FEX25YR1DAY	9.15	12.43	-0.0003	181.44	133.13	85574
NBB0070	FEX25YR1DAY	11.30	13.73	-0.0001	113.61	112.64	2549
NBB0090	FEX25YR1DAY	12.67	14.03	0.0001	107.64	107.64	2685
NBB0110	FEX25YR1DAY	13.46	15.10	0.0001	100.59	100.59	1982
NBB0130	FEX25YR1DAY	15.26	16.71	-0.0003	49.29	36.22	47198
NBB0150	FEX25YR1DAY	14.01	15.56	0.0001	72.33	72.49	1935

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBB0170	FEX25YR1DAY	14.74	16.17	0.0001	72.22	72.33	1452
NBB0190	FEX25YR1DAY	15.42	16.75	0.0001	72.13	72.22	53053
NBB0210	FEX25YR1DAY	15.70	16.83	0.0001	69.64	69.74	1556
NBB0230	FEX25YR1DAY	16.02	16.91	0.0001	69.54	69.64	5426
NBB0250	FEX25YR1DAY	16.31	17.23	0.0001	68.81	68.91	2036
NBB0270	FEX25YR1DAY	17.05	17.69	0.0001	68.09	68.81	21072
NBB0290	FEX25YR1DAY	17.06	17.69	0.0001	55.00	54.34	1258
NBB0310	FEX25YR1DAY	17.07	17.70	-0.0002	187.52	105.88	420500
NBB0330	FEX25YR1DAY	16.57	17.00	0.0002	43.42	40.63	27650
NBB0350	FEX25YR1DAY	16.45	16.99	0.0002	28.19	29.16	1396
NBB0370	FEX25YR1DAY	16.33	16.97	0.0002	83.04	55.82	67431
NBB0390	FEX25YR1DAY	16.32	16.97	0.0002	21.61	22.44	1833
NBB0410	FEX25YR1DAY	16.30	16.97	-0.0002	70.27	53.29	42102
NBB0430	FEX25YR1DAY	15.45	16.00	-0.0003	123.10	176.00	67704
NBW0010	FEX25YR1DAY	2.00	2.00	0.0000	805.11	0.00	0
NBW0030	FEX25YR1DAY	3.39	4.19	0.0002	805.90	805.11	50104
NBW0050	FEX25YR1DAY	3.92	4.21	0.0000	12.94	11.80	6161
NBW0070	FEX25YR1DAY	3.57	4.51	-0.0005	258.05	519.20	43578
NBW0090	FEX25YR1DAY	3.66	4.22	0.0000	8.47	8.16	32178
NBW0130	FEX25YR1DAY	3.73	4.65	0.0000	256.15	257.05	14584
NBW0150	FEX25YR1DAY	3.93	4.64	0.0001	11.15	10.55	9793
NBW0170	FEX25YR1DAY	3.98	4.62	0.0001	6.39	4.09	34256
NBW0190	FEX25YR1DAY	3.89	4.79	0.0001	255.02	254.61	5987
NBW0210	FEX25YR1DA	6.25	6.37	0.0000	11.08	10.84	6589

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW0230	FEX25YR1DAY	4.01	4.97	0.0001	253.47	254.36	5050
NBW0250	FEX25YR1DAY	4.88	5.85	0.0000	252.64	252.73	5657
NBW0270	FEX25YR1DAY	5.49	5.86	0.0001	53.16	46.73	28412
NBW0290	FEX25YR1DAY	5.91	5.97	0.0000	40.16	40.78	13706
NBW0310	FEX25YR1DAY	6.38	6.82	0.0000	14.38	12.52	10617
NBW0330	FEX25YR1DAY	5.50	6.66	0.0000	247.57	247.47	24038
NBW0350	FEX25YR1DAY	4.97	4.99	0.0000	10.89	10.87	2530
NBW0370	FEX25YR1DAY	5.52	6.67	-0.0001	11.05	9.92	9235
NBW0390	FEX25YR1DAY	5.52	6.67	-0.0001	13.35	8.64	36011
NBW0410	FEX25YR1DAY	5.54	6.75	-0.0002	244.56	244.70	3446
NBW0430	FEX25YR1DAY	5.89	7.13	0.0000	8.37	7.53	28311
NBW0450	FEX25YR1DAY	5.89	7.13	0.0000	245.51	244.56	12326
NBW0470	FEX25YR1DAY	5.89	7.13	0.0000	6.10	5.27	18230
NBW0490	FEX25YR1DAY	5.92	7.21	-0.0001	243.81	243.77	3173
NBW0510	FEX25YR1DAY	6.72	7.21	0.0000	5.20	5.19	8087
NBW0530	FEX25YR1DAY	6.22	7.58	0.0000	243.85	243.82	4802
NBW0550	FEX25YR1DAY	6.72	8.41	0.0000	209.68	199.04	300008
NBW0570	FEX25YR1DAY	7.09	8.38	0.0000	196.98	194.82	49969
NBW0590	FEX25YR1DAY	10.03	10.16	-0.0002	294.46	293.52	86319
NBW0610	FEX25YR1DAY	6.45	7.81	0.0000	221.59	221.45	9200
NBW0630	FEX25YR1DAY	6.22	7.58	0.0000	8.14	5.47	64395
NBW0650	FEX25YR1DAY	6.66	8.37	0.0000	223.43	222.40	22121
NBW0670	FEX25YR1DAY	6.66	8.37	0.0000	14.25	4.89	38297

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0690	FEX25YR1DAY	6.71	8.40	-0.0001	176.53	176.83	10590
NBW0710	FEX25YR1DAY	6.71	8.40	0.0000	18.73	10.31	53403
NBW0730	FEX25YR1DAY	6.72	8.41	-0.0001	176.55	170.28	221174
NBW0750	FEX25YR1DAY	7.06	8.42	0.0001	212.21	202.08	115237
NBW0770	FEX25YR1DAY	7.06	8.43	-0.0002	33.31	26.73	27017
NBW0790	FEX25YR1DAY	8.11	8.43	0.0001	28.50	28.31	3328
NBW0810	FEX25YR1DAY	7.06	8.43	-0.0001	52.78	44.91	49806
NBW0830	FEX25YR1DAY	8.41	8.43	-0.0001	41.98	41.74	3165
NBW0850	FEX25YR1DAY	10.17	9.83	0.0001	43.14	38.48	13552
NBW0870	FEX25YR1DAY	7.06	8.44	0.0000	197.12	173.82	228733
NBW0890	FEX25YR1DAY	7.06	8.43	-0.0005	16.77	17.38	1027
NBW0910	FEX25YR1DAY	7.06	8.43	-0.0001	195.17	183.22	143832
NBW0930	FEX25YR1DAY	8.03	8.66	-0.0001	42.55	42.43	1301
NBW0950	FEX25YR1DAY	8.82	8.99	-0.0001	63.25	42.55	113312
NBW0970	FEX25YR1DAY	8.82	8.99	0.0006	38.06	36.17	26578
NBW0990	FEX25YR1DAY	8.82	8.99	-0.0005	14.96	14.58	785
NBW1010	FEX25YR1DAY	8.83	9.02	0.0000	37.06	37.01	1120
NBW1030	FEX25YR1DAY	9.19	10.89	0.0000	84.91	36.28	57083
NBW1050	FEX25YR1DAY	9.30	10.90	-0.0001	17.51	16.98	900
NBW1070	FEX25YR1DAY	9.34	10.90	0.0000	230.82	229.73	67952
NBW1090	FEX25YR1DAY	3.78	4.68	0.0000	448.10	445.14	15999
NBW1130	FEX25YR1DAY	4.51	5.38	0.0000	131.85	131.67	29996
NBW1150	FEX25YR1DAY	4.53	5.42	-0.0001	141.21	139.57	66498
NBW1169	FEX25YR1DA	4.09	4.90	0.0000	430.42	426.89	18061

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1170	FEX25YR1DAY	4.30	5.07	0.0001	424.47	423.31	6914
NBW1190	FEX25YR1DAY	6.13	6.55	-0.0001	52.66	45.14	61548
NBW1210	FEX25YR1DAY	7.17	7.58	-0.0002	196.49	191.70	154454
NBW1230	FEX25YR1DAY	7.17	7.61	-0.0002	239.43	182.57	225314
NBW1250	FEX25YR1DAY	4.74	5.61	-0.0001	382.46	381.05	7823
NBW1270	FEX25YR1DAY	6.14	6.55	-0.0001	14.69	13.36	41217
NBW1310	FEX25YR1DAY	5.21	5.89	0.0002	438.76	377.64	8354
NBW1330	FEX25YR1DAY	7.56	8.99	-0.0021	329.41	376.06	3077
NBW1350	FEX25YR1DAY	10.95	11.71	0.0001	44.03	45.89	13585
NBW1351	FEX25YR1DAY	8.89	10.87	0.0004	277.45	280.61	20158
NBW1352	FEX25YR1DAY	9.96	12.36	0.0006	273.09	273.14	7956
NBW1353	FEX25YR1DAY	11.01	13.87	0.0005	269.28	269.34	8196
NBW1370	FEX25YR1DAY	10.02	10.94	0.0003	214.35	221.27	37156
NBW1390	FEX25YR1DAY	15.24	15.45	0.0003	298.23	296.09	146130
NBW1410	FEX25YR1DAY	15.58	15.71	0.0003	188.36	184.53	26558
NBW1430	FEX25YR1DAY	15.79	15.84	-0.0002	168.90	167.97	20679
NBW1450	FEX25YR1DAY	16.94	17.08	-0.0003	278.89	278.63	117114
NBW1460	FEX25YR1DAY	16.43	16.59	0.0002	154.79	155.33	4273
NBW1470	FEX25YR1DAY	17.14	17.38	-0.0004	316.04	309.50	214314
NBW1480	FEX25YR1DAY	18.11	18.18	0.0001	15.32	15.15	16550
NBW1490	FEX25YR1DAY	17.86	18.23	0.0001	195.51	193.47	107214
NBW1510	FEX25YR1DAY	18.12	18.48	0.0002	158.44	158.67	29267
NBW1530	FEX25YR1DAY	17.92	18.48	0.0001	15.50	12.15	1178

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1550	FEX25YR1DAY	17.75	18.47	0.0001	45.34	40.38	21852
NBW1570	FEX25YR1DAY	18.21	18.65	0.0001	157.02	157.23	2604
NBW1590	FEX25YR1DAY	18.12	18.47	0.0001	47.98	48.58	21600
NBW1610	FEX25YR1DAY	18.13	18.48	0.0001	34.01	31.90	17919
NBW1630	FEX25YR1DAY	18.13	18.32	0.0001	27.16	27.14	1813
NBW1650	FEX25YR1DAY	18.81	19.39	0.0001	16.76	13.31	31699
NBW1670	FEX25YR1DAY	18.89	19.40	0.0001	38.14	35.25	26876
NBW1690	FEX25YR1DAY	19.03	19.40	0.0001	23.97	22.00	14140
NBW1710	FEX25YR1DAY	19.26	19.40	0.0001	4.82	1.14	998
NBW1730	FEX25YR1DAY	18.65	19.37	0.0004	249.85	242.62	281555
NBW1750	FEX25YR1DAY	18.82	19.39	0.0001	146.75	130.86	54277
NBW1770	FEX25YR1DAY	18.82	19.39	0.0001	138.77	119.76	138306
NBW1790	FEX25YR1DAY	18.91	19.40	0.0001	32.21	30.54	21010
NBW1820	FEX25YR1DAY	18.72	19.16	0.0000	72.95	63.94	149342
NBW1830	FEX25YR1DAY	18.74	19.40	-0.0001	79.19	79.35	68283
NBW1840	FEX25YR1DAY	18.39	18.66	0.0000	115.86	106.00	112827
NBW1850	FEX25YR1DAY	18.74	19.41	-0.0001	154.14	143.07	130446
NBW1860	FEX25YR1DAY	18.39	18.65	0.0000	15.62	10.99	20668
NBW1870	FEX25YR1DAY	18.72	19.16	-0.0002	27.69	28.69	37528
NBW1890	FEX25YR1DAY	19.06	19.72	0.0001	63.40	63.54	2613
NBW1910	FEX25YR1DAY	19.27	19.92	0.0001	67.79	67.39	4546
NBW1930	FEX25YR1DAY	19.27	19.91	0.0000	62.78	62.89	30970
NBW1950	FEX25YR1DAY	18.97	19.42	0.0001	4.19	1.91	450
NBW1970	FEX25YR1DA	18.96	19.42	0.0000	14.11	14.12	8242

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1990	FEX25YR1DAY	19.27	19.82	0.0000	87.76	82.69	120660
NBW2010	FEX25YR1DAY	19.65	19.84	0.0000	10.21	8.34	11134
NBW2030	FEX25YR1DAY	19.65	19.83	0.0000	14.94	11.89	66961
NBW2050	FEX25YR1DAY	19.26	20.00	0.0000	61.98	56.95	112902
NBW2060	FEX25YR1DAY	0.00	19.99	0.0000	23.85	21.13	52744
NBW2070	FEX25YR1DAY	19.26	19.99	0.0000	115.46	52.08	183282
NBW2090	FEX25YR1DAY	19.10	19.75	0.0000	51.91	51.56	48857
NBW2110	FEX25YR1DAY	18.92	19.75	0.0000	155.40	109.63	227460
NBW2130	FEX25YR1DAY	18.92	19.75	-0.0001	41.91	26.35	37926
NBW2140	FEX25YR1DAY	20.00	19.75	-0.0001	5.32	5.29	592
NBW2145	FEX25YR1DAY	0.00	19.75	-0.0011	18.07	90.74	76666
NBW2150	FEX25YR1DAY	19.26	19.99	0.0000	89.02	84.80	27349
NBW2170	FEX25YR1DAY	19.12	20.04	0.0000	4.83	4.76	878
NBW2190	FEX25YR1DAY	19.10	20.07	0.0000	8.19	4.83	17549
NBW2210	FEX25YR1DAY	19.47	20.00	0.0000	28.33	27.08	19053
NBW2230	FEX25YR1DAY	19.47	20.00	0.0001	67.43	64.08	65972
NBW2250	FEX25YR1DAY	19.51	20.00	-0.0001	16.37	14.86	3915
NBW2270	FEX25YR1DAY	19.57	19.99	0.0000	16.34	14.59	25571
NBW2290	FEX25YR1DAY	19.65	20.00	0.0000	43.28	36.40	137931
NBW2310	FEX25YR1DAY	19.82	19.91	0.0001	48.46	46.09	118758
NBW2330	FEX25YR1DAY	19.82	19.92	0.0001	31.74	20.18	62322
NBW2350	FEX25YR1DAY	16.05	16.30	0.0001	97.23	97.29	65747
NBW2370	FEX25YR1DAY	16.11	16.30	-0.0001	21.18	18.94	57803

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2380	FEX25YR1DAY	12.29	15.74	0.0004	266.14	266.71	10756
NBW2385	FEX25YR1DAY	18.49	18.50	0.0000	5.00	4.99	6541
NBW2387	FEX25YR1DAY	16.11	15.81	0.0000	0.60	0.58	480
NBW2390	FEX25YR1DAY	16.42	17.69	0.0001	82.99	82.15	35952
NBW2410	FEX25YR1DAY	16.59	18.25	-0.0002	158.43	154.73	170015
NBW2430	FEX25YR1DAY	16.23	18.28	0.0001	240.42	237.76	80443
NBW2450	FEX25YR1DAY	16.15	18.30	0.0002	162.61	163.39	4396
NBW2470	FEX25YR1DAY	16.43	18.47	0.0002	374.87	261.16	40233
NBW2490	FEX25YR1DAY	16.90	18.47	-0.0004	77.15	316.58	21664
NBW2510	FEX25YR1DAY	17.74	18.47	-0.0001	73.86	73.19	3722
NBW2530	FEX25YR1DAY	17.92	18.48	-0.0001	65.47	65.90	2010
NBW2550	FEX25YR1DAY	17.95	18.49	0.0000	2.55	2.90	450
NBW2570	FEX25YR1DAY	17.96	18.50	0.0000	3.93	2.55	7797
NBW2590	FEX25YR1DAY	18.06	18.48	-0.0001	53.48	53.73	1098
NBW2610	FEX25YR1DAY	17.00	18.54	-0.0008	283.92	280.75	104592
NBW2630	FEX25YR1DAY	17.98	18.57	0.0001	184.06	171.57	39485
NBW2650	FEX25YR1DAY	16.97	18.55	-0.0004	27.69	28.76	27133
NBW2670	FEX25YR1DAY	16.42	18.55	0.0001	36.11	30.75	31682
NBW2680	FEX25YR1DAY	17.73	18.18	-0.0001	64.39	62.11	27505
NBW2690	FEX25YR1DAY	15.40	18.08	0.0002	272.27	256.69	88758
NBW2710	FEX25YR1DAY	17.73	18.20	0.0001	3.02	2.48	532
NBW2730	FEX25YR1DAY	18.29	18.65	0.0000	2.64	1.23	5637
NBW2770	FEX25YR1DAY	18.09	18.59	0.0001	13.27	13.29	1310
NBW2775	FEX25YR1DA	6.59	6.67	0.0000	16.63	13.39	29473

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2780	FEX25YR1DAY	18.38	18.62	0.0001	89.98	88.77	114072
NBW2790	FEX25YR1DAY	18.38	18.64	0.0000	232.75	226.18	111510
NBW2810	FEX25YR1DAY	18.39	18.65	-0.0002	87.27	83.07	71069
NBW2830	FEX25YR1DAY	18.40	18.66	-0.0001	66.32	53.52	135332
NC01	FEX25YR1DAY	0.00	6.22	-0.0001	33.36	33.15	4576
NC01B	FEX25YR1DAY	0.00	5.90	0.0000	22.73	22.66	6162
NC02	FEX25YR1DAY	0.00	8.81	-0.0001	143.42	143.41	9855
NC03	FEX25YR1DAY	0.00	4.90	0.0002	167.08	167.04	13298
NC04	FEX25YR1DAY	0.00	3.82	0.0000	87.59	82.90	41544
NC05	FEX25YR1DAY	0.00	3.80	-0.0001	92.41	89.44	54082
NC06	FEX25YR1DAY	0.00	3.76	0.0000	98.56	97.96	23818
NC07	FEX25YR1DAY	0.00	3.76	-0.0001	89.31	89.20	22370
NC08	FEX25YR1DAY	0.00	3.72	0.0000	101.20	101.03	16821
NCL0010	FEX25YR1DAY	2.00	2.00	0.0000	751.75	0.00	0
NCL0030	FEX25YR1DAY	2.36	3.01	0.0002	559.85	559.83	6856
NCL0050	FEX25YR1DAY	2.36	3.01	0.0000	0.42	0.99	439
NCL0070	FEX25YR1DAY	5.20	5.63	0.0000	186.18	184.37	64130
NCL0090	FEX25YR1DAY	6.06	6.25	-0.0001	69.14	53.35	85037
NCL0110	FEX25YR1DAY	3.04	3.75	-0.0005	615.70	615.70	6623
NCL0130	FEX25YR1DAY	4.05	3.90	0.0006	151.16	151.22	565
NCL0150	FEX25YR1DAY	4.95	5.19	0.0000	151.09	151.16	2802
NCL0170	FEX25YR1DAY	5.08	5.30	-0.0001	87.58	87.61	1472
NCL0190	FEX25YR1DAY	5.08	5.31	0.0000	3.28	3.00	438

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0210	FEX25YR1DAY	5.85	6.27	0.0001	97.70	99.04	19811
NCL0230	FEX25YR1DAY	6.60	7.24	-0.0002	50.72	32.46	62390
NCL0250	FEX25YR1DAY	6.60	7.25	0.0001	3.88	3.88	598
NCL0270	FEX25YR1DAY	6.60	7.25	0.0000	5.91	4.36	2464
NCL0290	FEX25YR1DAY	5.90	6.32	-0.0001	63.49	63.87	924
NCL0310	FEX25YR1DAY	6.10	6.56	0.0010	63.45	63.79	1045
NCL0330	FEX25YR1DAY	5.95	6.29	-0.0001	24.02	26.87	12707
NCL0350	FEX25YR1DAY	6.60	7.25	-0.0005	155.02	119.10	96665
NCL0370	FEX25YR1DAY	7.36	7.78	0.0002	141.14	138.87	28200
NCL0390	FEX25YR1DAY	4.02	4.70	-0.0022	450.07	474.92	4339
NCL0410	FEX25YR1DAY	4.09	4.86	-0.0001	7.48	7.37	819
NCL0430	FEX25YR1DAY	4.23	5.06	0.0000	7.69	7.48	639
NCL0450	FEX25YR1DAY	4.75	5.37	-0.0016	438.93	438.96	3676
NCL0470	FEX25YR1DAY	5.43	5.98	-0.0019	437.31	437.35	3437
NCL0490	FEX25YR1DAY	6.48	6.91	0.0005	518.34	520.40	52814
NCL0510	FEX25YR1DAY	6.67	7.14	0.0002	37.46	36.93	1799
NCL0530	FEX25YR1DAY	8.10	8.35	0.0004	40.47	21.08	1172
NCL0550	FEX25YR1DAY	8.17	8.41	-0.0002	34.31	40.47	48360
NCL0570	FEX25YR1DAY	8.66	8.73	-0.0001	17.82	16.57	3065
NCL0590	FEX25YR1DAY	7.00	7.46	0.0011	452.10	452.42	6912
NCL0610	FEX25YR1DAY	7.52	8.04	0.0015	435.13	435.34	3640
NCL0630	FEX25YR1DAY	8.06	8.71	-0.0004	431.54	431.57	4608
NCL0650	FEX25YR1DAY	8.12	8.77	-0.0003	50.54	102.60	1613
NCL0670	FEX25YR1DA	8.67	9.37	0.0002	129.13	50.54	1693

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0690	FEX25YR1DAY	8.76	9.42	-0.0002	31.78	35.14	605
NCL0710	FEX25YR1DAY	8.95	9.53	0.0002	32.36	31.31	601
NCL0730	FEX25YR1DAY	9.26	9.74	-0.0002	34.56	32.36	554
NCL0750	FEX25YR1DAY	9.56	9.92	0.0000	145.94	133.20	65140
NCL0770	FEX25YR1DAY	10.12	10.35	0.0000	81.85	81.80	2178
NCL0790	FEX25YR1DAY	8.69	9.40	-0.0003	34.73	101.59	895
NCL0810	FEX25YR1DAY	8.84	9.63	0.0001	35.62	34.73	13676
NCL0830	FEX25YR1DAY	8.93	9.85	-0.0007	382.52	384.66	42803
NCL0850	FEX25YR1DAY	9.01	9.87	-0.0001	108.77	100.07	24910
NCL0870	FEX25YR1DAY	9.37	10.08	-0.0001	125.98	125.68	2022
NCL0890	FEX25YR1DAY	9.65	10.26	-0.0001	110.81	110.47	1588
NCL0910	FEX25YR1DAY	9.71	10.26	0.0001	8.72	7.32	13376
NCL0930	FEX25YR1DAY	9.57	10.65	-0.0001	123.20	122.32	3406
NCL0950	FEX25YR1DAY	9.89	10.90	0.0001	108.58	108.37	3168
NCL0970	FEX25YR1DAY	10.41	11.35	0.0001	45.63	44.66	2269
NCL0990	FEX25YR1DAY	11.00	11.63	0.0001	44.77	43.92	6007
NCL1010	FEX25YR1DAY	11.14	11.89	0.0001	9.56	9.45	638
NCL1030	FEX25YR1DAY	9.67	10.12	-0.0002	23.02	33.49	1478
NCL1050	FEX25YR1DAY	10.46	10.14	0.0001	8.37	7.98	1195
NCL1070	FEX25YR1DAY	9.30	10.95	0.0001	4.26	4.29	615
NCL1090	FEX25YR1DAY	9.76	11.02	0.0000	34.93	7.80	22218
NCL1110	FEX25YR1DAY	9.85	10.63	0.0001	17.63	17.66	2096
NCL1130	FEX25YR1DAY	9.76	11.02	0.0001	27.30	16.62	88162

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1150	FEX25YR1DAY	9.76	11.02	0.0001	614.11	614.67	242240
NCL1170	FEX25YR1DAY	10.59	12.14	0.0006	430.88	377.00	135263
NCL1190	FEX25YR1DAY	10.72	12.39	0.0001	80.94	80.35	1850
NCL1210	FEX25YR1DAY	10.63	12.16	0.0001	51.72	19.25	57262
NCL1230	FEX25YR1DAY	10.94	12.70	0.0001	81.53	80.94	1432
NCL1250	FEX25YR1DAY	11.11	12.88	-0.0001	82.13	81.53	1231
NCL1270	FEX25YR1DAY	11.34	13.09	0.0001	131.92	116.75	89370
NCL1290	FEX25YR1DAY	13.06	13.75	0.0001	105.80	105.33	15844
NCL1310	FEX25YR1DAY	14.77	15.37	-0.0001	103.82	102.51	34082
NCL1330	FEX25YR1DAY	10.60	12.14	-0.0002	289.51	287.39	85855
NCL1350	FEX25YR1DAY	10.63	12.16	0.0001	294.05	287.83	69617
NCL1370	FEX25YR1DAY	10.63	12.18	-0.0002	133.07	131.97	11469
NCL1390	FEX25YR1DAY	10.63	13.07	0.0001	46.89	44.08	26814
NCL1410	FEX25YR1DAY	10.63	13.08	0.0001	48.43	46.16	10467
NCL1430	FEX25YR1DAY	10.70	12.18	0.0006	548.61	436.53	227756
NCL1450	FEX25YR1DAY	10.93	12.78	0.0013	462.97	462.56	3036
NCL1470	FEX25YR1DAY	12.72	14.23	0.0002	344.64	344.01	4428
NCL1490	FEX25YR1DAY	14.45	14.69	0.0000	6.39	6.36	784
NCL1510	FEX25YR1DAY	11.06	12.82	-0.0032	62.42	72.41	9266
NCL1530	FEX25YR1DAY	12.54	12.94	0.0002	91.11	90.02	13134
NCL1550	FEX25YR1DAY	13.13	13.38	-0.0001	42.81	41.66	1021
NCL1570	FEX25YR1DAY	13.31	13.76	0.0001	5.39	5.30	504
NCL1590	FEX25YR1DAY	13.70	13.80	0.0000	2.51	2.34	1307
NCL1610	FEX25YR1DA	13.37	13.88	0.0001	3.37	3.17	469

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL1630	FEX25YR1DAY	13.57	13.69	-0.0003	81.44	81.44	2663
NCL1650	FEX25YR1DAY	13.68	13.88	0.0002	83.99	84.01	1293
NCL1670	FEX25YR1DAY	14.02	14.70	0.0001	114.34	114.34	8376
NCL1690	FEX25YR1DAY	17.47	17.81	0.0001	57.77	57.71	5578
NCL1710	FEX25YR1DAY	17.89	18.11	0.0001	52.79	52.82	3311
NCL1730	FEX25YR1DAY	18.27	19.00	0.0002	151.50	151.42	28087
NCL1750	FEX25YR1DAY	18.24	18.90	-0.0002	26.90	26.91	513
NCL1770	FEX25YR1DAY	18.07	18.22	0.0001	43.20	43.18	3115
NCL1790	FEX25YR1DAY	15.78	16.23	0.0002	338.84	338.32	5863
NCL1810	FEX25YR1DAY	18.13	18.36	0.0001	67.22	61.90	41094
NCL1830	FEX25YR1DAY	18.39	18.22	0.0002	318.38	317.93	6250
NCL1850	FEX25YR1DAY	18.50	18.37	-0.0002	65.09	79.05	909
NCL1870	FEX25YR1DAY	19.01	19.13	0.0002	64.93	65.09	998
NCL1890	FEX25YR1DAY	19.15	19.33	0.0003	68.09	66.86	985
NCL1910	FEX25YR1DAY	19.15	19.33	0.0001	4.48	0.91	529
NCL1930	FEX25YR1DAY	19.91	19.93	0.0000	5.62	5.61	1614
NCL1950	FEX25YR1DAY	19.15	19.33	0.0000	0.90	0.17	503
NCL1970	FEX25YR1DAY	21.67	21.67	0.0000	3.10	3.09	3303
NCL1990	FEX25YR1DAY	19.58	19.97	-0.0002	70.33	68.09	917
NCL2010	FEX25YR1DAY	19.74	20.07	0.0001	43.19	41.40	1104
NCL2030	FEX25YR1DAY	19.76	19.89	0.0001	20.78	17.46	37857
NCL2050	FEX25YR1DAY	19.76	20.11	0.0001	40.80	38.67	1411
NCL2070	FEX25YR1DAY	19.76	19.89	-0.0001	5.04	5.86	1202

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2090	FEX25YR1DAY	19.87	20.44	-0.0001	43.19	40.80	1414
NCL2110	FEX25YR1DAY	20.03	20.47	0.0004	34.61	33.01	10031
NCL2130	FEX25YR1DAY	19.87	20.49	0.0001	111.30	119.92	85980
NCL2150	FEX25YR1DAY	20.75	21.40	-0.0003	114.83	105.92	211235
NCL2170	FEX25YR1DAY	19.85	20.47	-0.0001	175.98	176.06	64423
NCL2230	FEX25YR1DAY	19.13	19.38	0.0003	246.85	247.09	18684
NCL2250	FEX25YR1DAY	19.55	19.96	0.0002	260.57	245.33	4443
NCL2270	FEX25YR1DAY	20.05	20.72	0.0001	246.08	245.19	39649
NCL2290	FEX25YR1DAY	19.88	20.48	0.0001	14.46	13.61	9102
NCL2310	FEX25YR1DAY	20.45	21.03	0.0001	101.71	101.10	1779
NCL2330	FEX25YR1DAY	20.74	21.26	0.0001	167.48	156.63	117288
NCL2350	FEX25YR1DAY	20.78	21.28	0.0001	93.66	91.92	10081
NCL2370	FEX25YR1DAY	20.81	21.29	0.0001	90.52	88.68	2298
NCL2390	FEX25YR1DAY	20.84	21.32	0.0001	165.94	139.74	178019
NCL2410	FEX25YR1DAY	21.07	21.36	0.0000	30.39	29.89	1380
NCL2430	FEX25YR1DAY	21.32	21.45	0.0000	28.96	28.44	1472
NCL2450	FEX25YR1DAY	21.25	21.42	0.0000	5.58	5.42	493
NCL2470	FEX25YR1DAY	20.93	21.33	0.0000	22.87	22.47	846
NCL2490	FEX25YR1DAY	21.54	21.47	0.0000	26.13	25.72	1524
NCL2510	FEX25YR1DAY	21.70	21.46	0.0000	149.62	149.75	105506
NCL2530	FEX25YR1DAY	21.70	21.46	0.0000	66.44	68.04	50882
NCL2540	FEX25YR1DAY	0.00	22.15	0.0000	95.20	94.02	50924
NCL2550	FEX25YR1DAY	21.70	21.46	0.0000	77.20	77.65	18132
NCL2570	FEX25YR1DA	21.51	21.42	0.0000	13.21	13.00	1503

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2580	FEX25YR1DAY	0.00	21.40	-0.0001	141.22	140.08	37070
NCL2590	FEX25YR1DAY	21.17	21.40	0.0000	237.57	234.93	149394
NCL2610	FEX25YR1DAY	21.14	21.40	0.0000	163.43	163.19	31721
NCL2630	FEX25YR1DAY	20.86	21.01	0.0000	99.22	94.48	52869
NCL2631	FEX25YR1DAY	0.00	20.81	0.0001	104.68	78.27	46052
NCL2650	FEX25YR1DAY	21.17	21.55	0.0000	110.55	92.87	131144
NCL2670	FEX25YR1DAY	21.93	22.19	-0.0003	117.33	136.92	62058
NCL2690	FEX25YR1DAY	21.96	22.44	0.0000	71.70	81.43	57913
NCL2710	FEX25YR1DAY	21.96	22.53	0.0000	61.51	57.32	76903
NCL2730	FEX25YR1DAY	21.95	22.65	0.0000	39.95	39.43	16670
NCL2750	FEX25YR1DAY	21.84	23.04	0.0000	123.18	122.26	39414
NCL2770	FEX25YR1DAY	21.71	22.44	0.0000	33.19	33.21	1389
NCL2780	FEX25YR1DAY	0.00	22.31	0.0000	29.65	27.78	29149
NCL2790	FEX25YR1DAY	21.84	22.32	0.0000	177.54	170.68	133685
NCL2810	FEX25YR1DAY	22.11	22.83	-0.0001	116.03	115.42	26279
NCL2830	FEX25YR1DAY	23.09	23.04	-0.0002	23.03	21.88	8603
NCL2835	FEX25YR1DAY	0.00	23.84	0.0000	7.86	7.91	1074
NCL2840	FEX25YR1DAY	0.00	23.78	0.0000	113.66	113.39	26145
NCL2845	FEX25YR1DAY	0.00	24.31	0.0000	62.92	62.73	16980
NCL2850	FEX25YR1DAY	20.82	21.29	0.0001	16.76	16.97	1361
NCL2870	FEX25YR1DAY	20.83	21.22	0.0001	15.96	16.13	1245
NCL2890	FEX25YR1DAY	20.83	21.16	-0.0001	15.19	15.96	23388
NCL2910	FEX25YR1DAY	20.83	21.16	0.0001	90.55	89.76	44469

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2930	FEX25YR1DAY	19.55	19.99	0.0003	194.97	203.90	10312
NCL2950	FEX25YR1DAY	19.53	19.99	0.0002	194.11	194.28	18097
NCL2970	FEX25YR1DAY	20.49	20.65	0.0002	68.46	67.05	19499
NCL2990	FEX25YR1DAY	19.33	19.94	0.0002	190.90	191.01	6536
NCL3010	FEX25YR1DAY	19.35	19.95	0.0002	188.33	188.44	263402
NCL3030	FEX25YR1DAY	19.58	20.00	0.0002	186.10	186.21	86240
NCL3050	FEX25YR1DAY	19.94	20.16	0.0002	92.20	85.91	46845
NCL3070	FEX25YR1DAY	20.14	20.26	0.0000	50.61	47.44	26199
NCL3090	FEX25YR1DAY	19.59	20.00	0.0002	180.98	181.07	101190
NCL3110	FEX25YR1DAY	19.59	20.00	0.0002	78.14	50.19	125842
NCL3130	FEX25YR1DAY	19.59	20.01	0.0002	32.52	21.79	53156
NCL3150	FEX25YR1DAY	19.54	19.99	0.0002	176.65	176.75	65515
NCL3170	FEX25YR1DAY	19.71	20.35	0.0002	102.94	102.35	42068
NCL3190	FEX25YR1DAY	20.31	20.59	0.0002	114.71	105.86	138974
NCL3210	FEX25YR1DAY	20.32	20.59	0.0002	82.08	76.01	69665
NCL3230	FEX25YR1DAY	20.32	20.60	0.0002	65.71	64.17	27260
NCL3250	FEX25YR1DAY	19.11	19.75	0.0003	176.17	171.62	188583
NCL3270	FEX25YR1DAY	19.11	19.76	0.0001	26.84	26.28	15200
NCL3280	FEX25YR1DAY	0.00	19.80	0.0001	31.30	30.13	17183
NCL3290	FEX25YR1DAY	20.16	20.42	0.0001	34.66	32.03	29494
NCL3300	FEX25YR1DAY	0.00	19.77	0.0001	10.91	10.90	2268
NCL3310	FEX25YR1DAY	20.19	20.41	0.0000	2.67	1.77	755
NCL3330	FEX25YR1DAY	20.75	20.54	0.0000	6.20	5.80	437
NCL3350	FEX25YR1DA	20.51	20.72	0.0001	42.83	40.59	49734

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL3360	FEX25YR1DAY	0.00	20.71	0.0000	14.71	13.49	21775
NCL3365	FEX25YR1DAY	0.00	20.33	0.0001	38.25	37.55	28750
NCL3370	FEX25YR1DAY	20.64	21.12	-0.0001	156.09	153.01	101736
NCL3390	FEX25YR1DAY	20.83	21.16	0.0001	151.71	150.99	42854
NCL3410	FEX25YR1DAY	20.83	21.16	0.0001	2.30	1.69	475
NCL3430	FEX25YR1DAY	20.83	21.16	0.0000	6.08	0.98	4881
NCL3450	FEX25YR1DAY	18.92	19.76	0.0006	425.84	272.89	227661
NCL3460	FEX25YR1DAY	18.92	19.75	-0.0008	127.46	130.37	2956
NCL3470	FEX25YR1DAY	19.11	19.76	0.0001	365.43	311.78	323033
NCL3490	FEX25YR1DAY	19.15	19.76	0.0001	146.21	134.20	67050
NCL3510	FEX25YR1DAY	20.64	19.93	0.0001	129.51	129.52	30271
NCL3520	FEX25YR1DAY	0.00	19.77	0.0001	321.17	321.11	72629
NCL3530	FEX25YR1DAY	20.66	20.82	0.0001	183.00	179.95	70744
NCL3550	FEX25YR1DAY	20.66	20.82	0.0001	5.93	2.48	736
NCL3570	FEX25YR1DAY	20.66	20.88	0.0001	3.23	1.36	624
NCL3590	FEX25YR1DAY	20.66	20.89	0.0000	3.70	1.30	6447
NCL3610	FEX25YR1DAY	20.66	20.82	-0.0001	17.76	16.13	1245
NCL3630	FEX25YR1DAY	20.64	20.81	0.0001	290.98	286.04	123454
NCL3635	FEX25YR1DAY	0.00	20.81	0.0001	14.53	10.39	1722
NCL3640	FEX25YR1DAY	0.00	20.81	0.0001	37.11	33.68	51189
NCL3650	FEX25YR1DAY	18.92	19.75	0.0000	5.44	4.15	502
NCL3670	FEX25YR1DAY	18.92	19.75	0.0000	56.37	26.36	101143
NCL3690	FEX25YR1DAY	18.92	19.76	-0.0003	211.08	210.47	3204

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3730	FEX25YR1DAY	18.92	19.75	0.0000	449.61	96.26	146600
NCL3740	FEX25YR1DAY	0.00	19.76	0.0002	230.47	94.69	41196
NCL3750	FEX25YR1DAY	18.93	19.39	0.0002	209.08	99.67	264806
NCL3770	FEX25YR1DAY	18.93	19.39	0.0002	75.19	23.90	104836
NCL4000	FEX25YR1DAY	0.00	29.82	0.0000	58.55	58.51	7820
NCL4010	FEX25YR1DAY	0.00	29.55	0.0000	50.33	50.07	14519
NCypEast	FEX25YR1DAY	32.00	29.00	0.0000	12.85	0.00	0
NCypWest	FEX25YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX25YR1DAY	2.00	2.00	0.0000	510.05	66.07	0
NOC0030	FEX25YR1DAY	1.14	2.37	0.0206	510.13	510.05	821
NOC0050	FEX25YR1DAY	1.20	2.59	0.0130	451.25	451.39	530
NOC0070	FEX25YR1DAY	1.45	3.42	-0.0062	438.57	438.36	2495
NOC0090	FEX25YR1DAY	2.91	3.60	0.0018	124.91	125.00	446
NOC0110	FEX25YR1DAY	1.65	3.50	0.0082	278.30	278.46	455
NOC0130	FEX25YR1DAY	3.06	4.26	-0.0020	278.23	278.30	528
NOC0150	FEX25YR1DAY	3.08	4.28	0.0000	3.63	3.34	500
NOC0170	FEX25YR1DAY	4.56	4.86	0.0000	18.10	18.50	1605
NOC0190	FEX25YR1DAY	5.09	5.49	0.0003	275.92	275.97	1077
NOC0210	FEX25YR1DAY	5.68	5.99	0.0001	35.91	35.18	5088
NOC0230	FEX25YR1DAY	5.12	5.55	-0.0001	9.78	9.43	742
NOC0250	FEX25YR1DAY	5.30	5.95	-0.0001	10.29	9.78	984
NOC0270	FEX25YR1DAY	5.57	6.57	0.0000	6.56	4.88	3694
NOC0290	FEX25YR1DAY	5.11	5.65	0.0002	340.71	340.80	1836
NOC0310	FEX25YR1DA	5.27	5.93	0.0002	72.34	71.14	2306

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NOC0330	FEX25YR1DAY	5.85	6.27	0.0001	314.53	313.41	115812
NOC0350	FEX25YR1DAY	5.89	6.36	0.0001	266.20	261.53	29770
NOC0370	FEX25YR1DAY	6.47	6.98	0.0001	194.42	193.44	40364
NOC0390	FEX25YR1DAY	6.60	7.24	-0.0001	71.47	63.64	39192
NOC0410	FEX25YR1DAY	6.95	7.25	0.0001	56.13	43.09	46697
NOC0430	FEX25YR1DAY	7.01	7.24	0.0001	40.93	36.86	21497
NOC0450	FEX25YR1DAY	7.62	7.54	0.0000	31.38	30.61	15517
NOC0470	FEX25YR1DAY	8.12	8.07	-0.0001	21.24	20.03	21957
NOC0490	FEX25YR1DAY	7.67	7.55	0.0000	5.05	4.96	1051
NRU0010	FEX25YR1DAY	2.00	2.00	0.0000	658.44	0.00	0
NRU0030	FEX25YR1DAY	2.84	3.60	-0.0003	373.59	376.01	2468
NRU0050	FEX25YR1DAY	4.36	5.13	0.0011	364.13	373.59	2036
NRU0070	FEX25YR1DAY	5.61	6.75	-0.0006	372.39	364.13	25500
NRU0090	FEX25YR1DAY	5.66	6.75	-0.0002	101.21	77.57	29138
NRU0110	FEX25YR1DAY	6.23	6.91	-0.0001	287.67	277.55	22359
NRU0130	FEX25YR1DAY	7.66	8.33	0.0002	251.09	250.89	2616
NRU0150	FEX25YR1DAY	7.71	8.38	-0.0006	236.32	236.17	1432
NRU0160	FEX25YR1DAY	0.00	14.32	0.0000	177.17	177.17	4959
NRU0165	FEX25YR1DAY	0.00	14.57	0.0000	5.74	5.42	474
NRU0170	FEX25YR1DAY	14.45	16.62	0.0002	194.24	177.74	62175
NRU0172	FEX25YR1DAY	0.00	16.70	0.0000	6.37	6.84	829
NRU0174	FEX25YR1DAY	0.00	16.86	0.0000	12.92	6.78	10638
NRU0176	FEX25YR1DAY	0.00	16.30	0.0000	7.08	7.08	761

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0178	FEX25YR1DAY	0.00	16.74	0.0000	6.26	6.29	957
NRU0180	FEX25YR1DAY	0.00	16.87	0.0000	153.25	130.01	140641
NRU0190	FEX25YR1DAY	14.45	16.61	-0.0004	15.77	14.50	7041
NRU0210	FEX25YR1DAY	14.45	16.54	0.0001	19.09	15.56	8657
NRU0230	FEX25YR1DAY	13.39	15.18	0.0001	29.78	29.10	22474
NRU0250	FEX25YR1DAY	14.62	16.62	-0.0001	175.95	167.92	29416
NRU0270	FEX25YR1DAY	15.05	16.63	0.0000	146.36	145.60	2782
NRU0290	FEX25YR1DAY	16.30	18.84	-0.0003	73.82	58.29	84058
NRU0310	FEX25YR1DAY	16.13	17.16	0.0000	97.99	98.23	2501
NRU0330	FEX25YR1DAY	18.25	18.17	0.0001	27.52	27.74	1352
NRU0335	FEX25YR1DAY	0.00	19.36	0.0000	10.08	7.68	15390
NRU0340	FEX25YR1DAY	0.00	18.87	0.0001	80.17	76.79	47969
NRU0343	FEX25YR1DAY	0.00	19.55	0.0001	10.07	8.24	904
NRU0345	FEX25YR1DAY	0.00	19.79	0.0001	70.59	63.69	86253
NRU0350	FEX25YR1DAY	19.50	19.50	0.0001	22.26	17.24	37096
NRU0370	FEX25YR1DAY	19.51	19.50	0.0001	14.91	15.00	24063
NRU0380	FEX25YR1DAY	23.33	19.61	-0.0001	7.50	7.62	470
NRU0390	FEX25YR1DAY	27.00	19.63	0.0000	22.02	7.50	34356
NRU0410	FEX25YR1DAY	19.56	19.62	0.0001	9.29	9.48	1100
NRU0425	FEX25YR1DAY	15.53	16.37	0.0001	7.69	4.53	4982
NRU0430	FEX25YR1DAY	19.61	19.71	0.0001	9.14	9.29	1077
NRU0450	FEX25YR1DAY	19.66	19.82	0.0001	8.99	9.14	1038
NRU0470	FEX25YR1DAY	19.72	20.31	0.0001	9.86	8.99	801
NRU0490	FEX25YR1DA	20.36	20.72	0.0001	13.55	10.43	47012

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0495	FEX25YR1DAY	0.00	21.18	-0.0001	11.79	10.31	17161
NRU0500	FEX25YR1DAY	0.00	21.27	0.0000	3.23	3.06	8085
NRU0510	FEX25YR1DAY	19.67	20.30	0.0001	35.81	25.36	87146
NRU0530	FEX25YR1DAY	16.95	17.76	0.0000	69.61	69.77	2252
NRU0550	FEX25YR1DAY	17.92	18.42	0.0000	114.18	112.30	80336
NRU0570	FEX25YR1DAY	18.16	18.79	0.0000	80.62	80.59	8047
NRU0590	FEX25YR1DAY	18.51	19.35	0.0000	65.46	65.52	20547
NRU0610	FEX25YR1DAY	18.78	19.60	0.0000	64.92	64.98	56285
NRU0612	FEX25YR1DAY	0.00	19.61	0.0000	60.83	60.88	29093
NRU0615	FEX25YR1DAY	0.00	19.93	0.0001	11.17	8.14	1934
NRU0616	FEX25YR1DAY	0.00	20.31	0.0000	8.31	7.07	20104
NRU0618	FEX25YR1DAY	0.00	20.65	0.0000	15.46	13.01	22246
NRU0620	FEX25YR1DAY	0.00	20.05	0.0001	29.08	27.08	28379
NRU0630	FEX25YR1DAY	18.79	19.69	0.0000	59.27	59.32	25256
NRU0650	FEX25YR1DAY	18.79	19.71	0.0000	65.07	61.06	45800
NRU0670	FEX25YR1DAY	18.78	19.73	0.0002	56.74	56.82	1429
NRU0690	FEX25YR1DAY	18.84	19.74	0.0000	75.10	71.80	61914
NRU0710	FEX25YR1DAY	18.86	19.74	0.0000	123.81	115.03	66421
NRU0730	FEX25YR1DAY	18.85	19.75	0.0000	42.57	33.78	82431
NRU0740	FEX25YR1DAY	0.00	19.74	0.0000	123.85	109.75	39526
NRU0745	FEX25YR1DAY	0.00	19.75	0.0000	116.35	97.29	64802
NRU0750	FEX25YR1DAY	18.87	19.75	0.0000	141.31	45.72	294962
NRU0770	FEX25YR1DAY	18.88	19.75	0.0000	27.24	27.51	1008

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0785	FEX25YR1DAY	0.00	19.75	0.0000	105.96	89.21	75670
NRU0790	FEX25YR1DAY	18.88	19.75	0.0000	164.56	133.48	171194
NRU0810	FEX25YR1DAY	18.88	19.75	-0.0001	40.76	35.96	10751
NRU0820	FEX25YR1DAY	0.00	19.74	0.0001	6.27	3.08	442
NRU0830	FEX25YR1DAY	18.99	19.75	-0.0001	78.40	69.75	49765
NRU0850	FEX25YR1DAY	19.11	19.75	-0.0001	69.92	69.73	1188
NRU0870	FEX25YR1DAY	19.32	19.76	-0.0007	17.83	17.91	560
NRU0890	FEX25YR1DAY	19.35	19.76	0.0000	67.11	15.55	78168
NRU0910	FEX25YR1DAY	19.35	19.76	0.0000	2.44	2.19	570
NRU0930	FEX25YR1DAY	19.35	19.77	0.0000	2.59	2.44	1742
NRU0950	FEX25YR1DAY	19.11	19.76	0.0000	111.97	92.87	40492
NRU0955	FEX25YR1DAY	0.00	19.76	0.0000	136.36	101.85	64047
NRU0960	FEX25YR1DAY	0.00	19.76	0.0000	186.04	175.64	44356
NRU0965	FEX25YR1DAY	0.00	19.76	0.0000	215.81	198.86	133329
NRU0970	FEX25YR1DAY	19.34	19.76	0.0000	76.68	44.83	93678
NRU0980	FEX25YR1DAY	0.00	19.76	-0.0009	12.65	7.44	1097
NRU0990	FEX25YR1DAY	19.39	19.76	0.0005	33.02	39.18	440
NRU1010	FEX25YR1DAY	19.70	19.76	0.0001	33.27	33.02	39868
NRU1015	FEX25YR1DAY	0.00	20.17	0.0000	21.67	12.35	36794
NRU1020	FEX25YR1DAY	0.00	21.28	-0.0060	19.60	102.03	866
NRU1025	FEX25YR1DAY	0.00	20.79	-0.0002	11.60	11.45	724
NRU1030	FEX25YR1DAY	19.70	19.76	0.0001	95.52	79.67	145587
NRU1035	FEX25YR1DAY	0.00	20.02	-0.0002	5.71	18.24	436
NRU1037	FEX25YR1DA	0.00	19.77	0.0000	2.15	1.98	641

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1040	FEX25YR1DAY	0.00	19.76	0.0001	66.41	59.30	92685
NRU1045	FEX25YR1DAY	0.00	21.36	0.0001	18.74	14.24	33036
NRU1046	FEX25YR1DAY	0.00	21.32	0.0060	14.24	12.59	933
NRU1050	FEX25YR1DAY	19.70	19.76	0.0000	94.55	82.00	152104
NRU1070	FEX25YR1DAY	19.83	19.76	0.0000	38.67	37.56	41781
NRU1090	FEX25YR1DAY	18.86	19.75	0.0000	14.59	14.13	919
NRU1110	FEX25YR1DAY	18.86	19.75	0.0001	66.81	37.77	91228
NRU1130	FEX25YR1DAY	18.86	19.75	-0.0002	9.47	8.65	769
NRU1150	FEX25YR1DAY	18.86	19.75	0.0001	58.83	48.69	110713
NRU1170	FEX25YR1DAY	18.86	19.74	0.0001	44.62	40.51	114846
NRU1182	FEX25YR1DAY	0.00	19.74	0.0000	14.56	8.87	24203
NRU1184	FEX25YR1DAY	0.00	19.70	0.0000	13.43	13.32	872
NRU1185	FEX25YR1DAY	0.00	19.67	0.0000	15.83	10.77	65843
NRU1186	FEX25YR1DAY	0.00	19.71	0.0000	4.86	4.69	787
NRU1188	FEX25YR1DAY	0.00	19.69	0.0000	18.81	4.99	67998
NRU1190	FEX25YR1DAY	18.86	19.76	0.0000	4.77	3.17	576
NRU1210	FEX25YR1DAY	18.86	19.77	0.0001	7.16	7.13	893
NRU1220	FEX25YR1DAY	0.00	20.39	0.0000	20.94	16.73	33107
NRU1225	FEX25YR1DAY	0.00	22.08	0.0000	5.56	5.36	436
NRU1230	FEX25YR1DAY	18.88	19.74	0.0003	12.10	11.86	874
NRU1232	FEX25YR1DAY	0.00	19.74	0.0001	8.93	8.68	862
NRU1234	FEX25YR1DAY	0.00	19.74	0.0004	73.27	59.72	13395
NRU1240	FEX25YR1DAY	0.00	19.74	-0.0006	34.66	146.90	20341

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1250	FEX25YR1DAY	4.07	4.67	0.0001	283.37	283.35	2104
NRU1270	FEX25YR1DAY	4.78	5.36	-0.0002	278.76	278.77	1667
NRU1290	FEX25YR1DAY	5.41	6.03	0.0001	263.93	264.10	3103
NRU1310	FEX25YR1DAY	6.42	7.07	-0.0001	263.76	263.93	5052
NRU1330	FEX25YR1DAY	8.29	9.13	0.0001	332.63	332.60	3357
NRU1350	FEX25YR1DAY	9.32	10.40	0.0001	326.81	326.70	2409
NRU1370	FEX25YR1DAY	11.03	12.63	0.0001	322.67	319.92	6443
NRU1390	FEX25YR1DAY	11.84	13.05	0.0001	74.95	64.06	27862
NRU1410	FEX25YR1DAY	12.56	14.05	0.0002	262.92	263.06	7289
NRU1430	FEX25YR1DAY	15.53	16.37	-0.0001	69.08	33.47	83136
NRU1450	FEX25YR1DAY	15.94	16.25	0.0001	44.99	43.75	9361
NRU1470	FEX25YR1DAY	15.97	16.30	0.0001	7.07	7.04	981
NRU1490	FEX25YR1DAY	16.09	16.51	0.0001	10.96	8.48	16746
NRU1510	FEX25YR1DAY	15.12	16.86	0.0001	218.74	216.07	115254
NRU1530	FEX25YR1DAY	15.71	16.91	-0.0001	93.55	100.19	24379
NRU1550	FEX25YR1DAY	15.40	16.86	0.0000	80.94	81.93	12043
NRU1570	FEX25YR1DAY	16.20	17.49	0.0000	54.23	52.25	14360
NRU1590	FEX25YR1DAY	16.40	17.49	0.0000	9.57	8.12	8325
NRU1610	FEX25YR1DAY	16.56	17.85	0.0001	42.62	39.60	30203
NRU1630	FEX25YR1DAY	16.69	17.87	0.0001	35.96	36.04	1538
NRU1650	FEX25YR1DAY	16.84	17.89	0.0001	35.88	35.96	34093
NRU1670	FEX25YR1DAY	16.89	17.90	0.0001	97.70	34.39	184791
NRU1690	FEX25YR1DAY	16.89	17.79	0.0001	47.35	45.98	8672
NRU1710	FEX25YR1DA	16.60	17.72	-0.0001	34.99	34.74	1396

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1730	FEX25YR1DAY	16.58	17.72	0.0000	98.71	25.48	169730
NRU1750	FEX25YR1DAY	16.58	17.72	0.0002	17.46	16.89	720
NRU1770	FEX25YR1DAY	16.58	17.72	0.0000	33.11	33.04	7974
NRU1790	FEX25YR1DAY	17.21	18.03	0.0000	11.38	8.44	15610
NRU1810	FEX25YR1DAY	16.58	17.72	0.0000	12.28	7.96	24253
NRU1830	FEX25YR1DAY	17.12	17.95	0.0000	26.96	21.71	17854
NRU1850	FEX25YR1DAY	17.07	18.01	0.0001	24.94	24.80	1049
NRU1870	FEX25YR1DAY	17.20	18.16	0.0001	25.09	24.94	908
NRU1890	FEX25YR1DAY	17.38	18.35	0.0001	55.64	25.09	85612
NRU1910	FEX25YR1DAY	17.71	18.36	0.0001	24.25	19.59	25114
NRU1930	FEX25YR1DAY	15.71	16.91	0.0001	56.36	85.56	100423
NRU1950	FEX25YR1DAY	16.43	17.30	0.0001	53.33	53.64	1646
NRU1970	FEX25YR1DAY	16.86	17.54	0.0001	53.04	53.33	1037
NRU1990	FEX25YR1DAY	17.09	17.67	-0.0001	52.74	53.04	1719
NRU2010	FEX25YR1DAY	18.02	18.44	0.0001	12.96	11.08	3773
NRU2030	FEX25YR1DAY	18.39	18.59	-0.0001	13.25	10.89	32946
NRU2050	FEX25YR1DAY	18.40	18.61	0.0001	4.98	4.58	453
NRU2070	FEX25YR1DAY	18.41	18.61	-0.0001	5.55	4.98	19221
NRU2090	FEX25YR1DAY	17.16	17.70	-0.0001	39.44	39.73	3958
NRU2110	FEX25YR1DAY	17.28	17.75	0.0001	37.04	37.34	4873
NRU2130	FEX25YR1DAY	17.49	17.85	-0.0001	37.58	37.25	1933
NRU2150	FEX25YR1DAY	17.69	18.15	0.0001	9.09	6.28	20111
NRU2170	FEX25YR1DAY	17.07	17.77	0.0001	3.62	3.70	770

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2190	FEX25YR1DAY	17.08	17.78	0.0000	13.04	3.62	30792
NRU2210	FEX25YR1DAY	17.33	17.67	0.0001	7.52	7.48	540
NRU2230	FEX25YR1DAY	17.33	17.68	0.0000	41.47	12.06	99572
NRU2250	FEX25YR1DAY	17.31	17.61	0.0001	6.43	5.80	16687
NRU2270	FEX25YR1DAY	17.61	17.92	0.0001	30.98	30.50	3385
NRU2290	FEX25YR1DAY	17.67	17.94	-0.0002	22.05	22.31	1498
NRU2310	FEX25YR1DAY	17.68	17.94	0.0001	17.63	19.20	9675
NRU2330	FEX25YR1DAY	17.68	17.95	0.0004	32.90	8.17	4106
NRU2350	FEX25YR1DAY	17.68	17.94	-0.0002	5.38	30.85	654
NRU2370	FEX25YR1DAY	17.37	17.60	0.0001	5.23	5.38	528
NRU2390	FEX25YR1DAY	17.36	17.60	0.0000	11.92	5.23	34396
NRU2410	FEX25YR1DAY	17.72	17.87	0.0001	14.94	14.88	9175
NRU2430	FEX25YR1DAY	17.83	17.88	0.0001	11.78	11.84	6842
NRU2450	FEX25YR1DAY	18.06	17.96	0.0001	5.04	3.59	7470
NRU2470	FEX25YR1DAY	15.72	16.91	0.0001	7.41	7.89	1460
NRU2490	FEX25YR1DAY	15.75	16.93	0.0001	9.11	8.40	1431
NRU2510	FEX25YR1DAY	15.75	16.93	0.0001	8.40	6.39	957
NRU2530	FEX25YR1DAY	15.76	16.96	0.0001	5.80	5.95	582
NRU2550	FEX25YR1DAY	16.53	17.30	0.0001	157.82	153.79	51572
NRU2570	FEX25YR1DAY	17.71	18.36	0.0001	154.73	147.63	80281
NRU2590	FEX25YR1DAY	18.30	18.53	0.0001	36.42	31.57	9049
NRU2610	FEX25YR1DAY	18.62	19.04	0.0001	73.01	72.08	27211
NRU2630	FEX25YR1DAY	19.41	19.49	-0.0002	62.90	61.52	51533
NRU2650	FEX25YR1DA	19.54	19.91	-0.0002	46.99	45.36	63614

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU2670	FEX25YR1DAY	16.64	17.00	0.0000	32.70	31.27	12067
NRU2690	FEX25YR1DAY	17.09	17.70	0.0000	208.17	100.83	395164
NSH02	FEX25YR1DAY	0.00	21.12	-0.0003	15.82	62.17	11847
NSH03	FEX25YR1DAY	0.00	20.39	0.0000	3.26	3.25	548
NSH04	FEX25YR1DAY	0.00	19.46	0.0002	83.71	83.12	13733
NSH05	FEX25YR1DAY	0.00	19.74	-0.0030	8.50	7.68	19281
NSH07	FEX25YR1DAY	0.00	8.43	0.0001	58.24	58.19	10391
NSH08	FEX25YR1DAY	0.00	9.38	0.0000	26.22	24.50	2239
NSH09	FEX25YR1DAY	0.00	10.74	0.0000	78.56	78.34	18530
NSH10	FEX25YR1DAY	0.00	19.10	0.0000	25.37	24.92	27025
NSH11	FEX25YR1DAY	0.00	21.11	0.0000	8.99	8.92	6662
NSH12	FEX25YR1DAY	0.00	19.18	0.0000	10.78	10.69	7535
NSH13	FEX25YR1DAY	0.00	18.05	0.0000	31.46	30.97	20372
NSH14	FEX25YR1DAY	0.00	17.84	0.0000	10.48	10.32	10875
NSH15	FEX25YR1DAY	0.00	18.72	0.0000	6.41	6.36	5721
NSH17	FEX25YR1DAY	0.00	17.28	0.0000	32.73	32.65	9147
NSH18	FEX25YR1DAY	0.00	15.85	0.0000	29.97	29.89	10206
NSH19	FEX25YR1DAY	0.00	11.66	0.0000	26.67	26.51	13425
NSH20	FEX25YR1DAY	0.00	20.21	0.0000	4.09	3.91	12029
NSH21	FEX25YR1DAY	0.00	11.25	-0.0001	32.52	32.45	11191
NSH22	FEX25YR1DAY	0.00	14.40	0.0000	42.16	41.64	10416
NSH23	FEX25YR1DAY	0.00	18.31	0.0000	14.18	13.92	4296
NSH24	FEX25YR1DAY	0.00	14.40	0.0000	31.78	31.33	8714

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH25	FEX25YR1DAY	0.00	14.12	0.0001	21.54	20.20	13430
NSH26	FEX25YR1DAY	0.00	14.02	0.0000	106.66	102.35	66255
NSH27	FEX25YR1DAY	0.00	13.06	0.0000	30.04	26.28	40049
NSH27A	FEX25YR1DAY	0.00	12.99	0.0000	18.46	16.99	921
NSH27AA	FEX25YR1DAY	0.00	13.03	-0.0001	4.51	4.54	551
NSH27B	FEX25YR1DAY	0.00	11.67	-0.0001	16.99	18.54	1033
NSH27C	FEX25YR1DAY	0.00	9.39	-0.0002	18.54	17.31	1037
NSH28	FEX25YR1DAY	0.00	9.89	0.0000	38.44	37.99	10815
NSH29	FEX25YR1DAY	0.00	8.14	-0.0001	12.81	12.10	648
NSH31	FEX25YR1DAY	0.00	9.87	0.0001	6.84	4.60	480
NSH33	FEX25YR1DAY	0.00	16.73	0.0000	7.13	6.52	12091
NSH34	FEX25YR1DAY	0.00	9.47	0.0001	77.85	77.81	6332
NSH35	FEX25YR1DAY	0.00	8.09	-0.0001	82.29	82.28	4722
NSH36	FEX25YR1DAY	0.00	8.06	-0.0002	22.11	21.97	805
NSH37	FEX25YR1DAY	0.00	18.08	0.0000	20.27	20.22	7004
NSH41	FEX25YR1DAY	0.00	19.08	0.0000	7.86	7.77	1028
NSH42	FEX25YR1DAY	0.00	7.77	-0.0001	108.70	108.58	4955
NSH43	FEX25YR1DAY	0.00	7.77	-0.0002	40.14	41.40	1745
NSH44	FEX25YR1DAY	0.00	9.84	0.0003	63.35	63.35	876
NSH45	FEX25YR1DAY	0.00	16.57	0.0000	59.08	58.11	31343
NSH48	FEX25YR1DAY	0.00	18.31	0.0000	17.34	17.14	4748
NSH49	FEX25YR1DAY	0.00	20.85	0.0000	19.42	18.08	18211
NSH50	FEX25YR1DAY	0.00	19.66	0.0002	51.50	53.86	18179
NSH51	FEX25YR1DA	0.00	19.66	0.0001	36.63	26.78	60222

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH52	FEX25YR1DAY	0.00	19.66	0.0001	90.05	79.33	34704
NSH53	FEX25YR1DAY	0.00	19.66	-0.0001	26.78	23.37	5101
NSH54	FEX25YR1DAY	0.00	19.66	0.0001	71.88	70.07	15998
NSH55	FEX25YR1DAY	0.00	19.67	0.0001	63.52	62.04	28418
NSH56	FEX25YR1DAY	0.00	19.68	-0.0001	28.17	28.28	5665
NSH57	FEX25YR1DAY	0.00	19.74	0.0003	147.27	50.28	9064
NSH60	FEX25YR1DAY	0.00	20.29	0.0002	16.91	16.93	979
NSH61	FEX25YR1DAY	0.00	19.91	-0.0002	16.46	16.36	444
NSH65	FEX25YR1DAY	0.00	20.61	0.0000	3.82	3.63	467
NSH75	FEX25YR1DAY	0.00	8.16	0.0001	54.69	43.43	12574
NSH80	FEX25YR1DAY	0.00	20.28	0.0000	4.64	4.96	10827
NSH81	FEX25YR1DAY	0.00	20.78	0.0000	0.65	0.01	2540
NSH82	FEX25YR1DAY	0.00	20.87	0.0000	3.03	1.34	6326
NSH83	FEX25YR1DAY	0.00	20.74	0.0000	20.81	20.14	14304
NSR0000	FEX25YR1DAY	2.00	2.00	0.0000	290.62	0.00	0
NSR0005	FEX25YR1DAY	2.00	2.00	0.0000	7.82	0.00	0
NSR0010	FEX25YR1DAY	2.00	2.00	0.0000	443.22	0.00	0
NSR0030	FEX25YR1DAY	2.92	3.44	0.0000	460.21	443.22	219521
NSR0032	FEX25YR1DAY	4.88	5.30	0.0000	14.54	10.44	23479
NSR0034	FEX25YR1DAY	3.63	4.03	0.0000	80.29	70.76	59498
NSR0050	FEX25YR1DAY	3.44	3.98	0.0000	398.59	400.56	101299
NSR0070	FEX25YR1DAY	3.45	3.96	-0.0001	30.08	21.05	47044
NSR0090	FEX25YR1DAY	3.68	4.04	-0.0001	40.66	34.76	26246

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0100	FEX25YR1DAY	2.25	2.98	0.0000	7.90	7.82	524
NSR0102	FEX25YR1DAY	4.24	4.45	0.0000	4.39	4.01	3250
NSR0105	FEX25YR1DAY	1.91	2.86	-0.0290	290.66	290.62	484
NSR0110	FEX25YR1DAY	3.93	4.25	0.0000	17.98	17.16	14944
NSR0112	FEX25YR1DAY	2.31	3.24	0.0305	288.57	288.56	469
NSR0115	FEX25YR1DAY	4.25	4.40	0.0000	3.76	3.43	9071
NSR0120	FEX25YR1DAY	2.62	3.54	0.0304	285.60	285.65	479
NSR0130	FEX25YR1DAY	4.16	4.74	0.0000	12.10	8.91	19778
NSR0135	FEX25YR1DAY	4.22	4.90	0.0000	4.58	4.09	3170
NSR0140	FEX25YR1DAY	3.28	4.17	0.0111	282.95	282.96	477
NSR0150	FEX25YR1DAY	3.64	4.32	0.0001	383.96	385.07	29291
NSR0160	FEX25YR1DAY	3.56	4.43	0.0080	280.99	281.34	14263
NSR0165	FEX25YR1DAY	4.03	5.31	0.0000	14.57	12.98	26496
NSR0170	FEX25YR1DAY	3.70	5.04	0.0000	13.71	11.82	15218
NSR0180	FEX25YR1DAY	3.83	5.01	0.0000	19.77	19.27	22664
NSR0190	FEX25YR1DAY	4.04	4.62	-0.0001	50.07	50.23	3373
NSR0210	FEX25YR1DAY	4.26	5.19	-0.0001	50.33	49.74	15796
NSR0230	FEX25YR1DAY	4.26	5.19	0.0000	55.35	49.78	87264
NSR0250	FEX25YR1DAY	3.93	4.54	0.0035	346.40	346.06	12764
NSR0270	FEX25YR1DAY	3.98	4.63	0.0000	122.01	118.93	38535
NSR0280	FEX25YR1DAY	5.41	5.94	0.0010	263.66	263.05	36004
NSR0281	FEX25YR1DAY	5.97	6.61	0.0004	256.40	255.95	18912
NSR0290	FEX25YR1DAY	6.70	7.01	-0.0004	126.74	125.57	39036
NSR0310	FEX25YR1DA	9.28	9.44	0.0001	111.22	109.57	65330

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0330	FEX25YR1DAY	9.65	9.99	0.0001	8.58	8.61	470
NSR0350	FEX25YR1DAY	10.32	11.04	0.0001	8.56	8.58	446
NSR0370	FEX25YR1DAY	10.35	11.07	0.0000	13.12	8.56	11956
NSR0390	FEX25YR1DAY	11.96	12.29	0.0001	71.08	68.94	74546
NSR0410	FEX25YR1DAY	12.27	12.82	-0.0001	10.20	11.00	510
NSR0430	FEX25YR1DAY	12.28	12.83	0.0000	10.82	10.20	23516
NSR0450	FEX25YR1DAY	13.04	14.07	-0.0001	47.12	46.36	35223
NSR0470	FEX25YR1DAY	13.10	14.47	-0.0002	34.19	33.79	14534
NSR0490	FEX25YR1DAY	4.41	4.85	0.0049	180.41	178.19	30432
NSR0510	FEX25YR1DAY	4.48	5.07	-0.0008	96.39	96.69	17320
NSR0530	FEX25YR1DAY	4.55	5.17	-0.0003	12.47	8.95	34966
NSR0540	FEX25YR1DAY	4.55	5.31	-0.0003	100.10	91.95	95811
NSR0550	FEX25YR1DAY	4.56	5.33	0.0019	328.29	328.79	25199
NSR0560	FEX25YR1DAY	4.66	5.36	0.0005	123.34	126.44	83720
NSR0570	FEX25YR1DAY	5.28	5.60	0.0002	127.18	127.57	60904
NSR0580	FEX25YR1DAY	6.13	6.55	-0.0001	24.99	17.71	103400
NSR0590	FEX25YR1DAY	6.15	6.56	-0.0001	97.59	94.24	59333
NSR0610	FEX25YR1DAY	6.26	6.60	-0.0002	78.14	69.58	70700
NSR0630	FEX25YR1DAY	6.26	6.60	-0.0001	16.69	16.76	475
NSR0650	FEX25YR1DAY	6.25	6.59	-0.0001	78.77	60.67	187369
NSR0660	FEX25YR1DAY	6.13	6.55	-0.0001	57.95	34.35	72153
NSR0670	FEX25YR1DAY	6.24	6.58	-0.0001	6.81	7.48	520
NSR0680	FEX25YR1DAY	6.14	6.53	-0.0001	38.43	34.74	148535

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0690	FEX25YR1DAY	6.24	6.58	-0.0001	6.42	6.81	599
NSR0710	FEX25YR1DAY	6.23	6.58	0.0000	6.34	6.42	861
NSR0730	FEX25YR1DAY	6.29	6.63	0.0001	143.58	113.81	175672
NSR0770	FEX25YR1DAY	6.81	7.49	0.0001	119.87	116.16	27081
NSR0780	FEX25YR1DAY	6.74	7.05	-0.0001	38.22	37.02	29019
NSR0790	FEX25YR1DAY	8.35	10.52	0.0002	393.69	358.95	78287
NSR0791	FEX25YR1DAY	7.13	8.52	0.0002	243.86	243.87	5596
NSR0809	FEX25YR1DAY	12.76	11.67	-0.0004	75.19	93.42	2120
NSR0810	FEX25YR1DAY	13.45	13.60	-0.0002	217.51	216.71	60336
NSR0830	FEX25YR1DAY	15.10	15.38	-0.0002	240.83	236.45	142897
NSR0840	FEX25YR1DAY	16.09	16.18	0.0001	36.48	36.93	41967
NSR0850	FEX25YR1DAY	15.64	15.93	-0.0003	169.35	162.35	80811
NSR0860	FEX25YR1DAY	16.41	16.45	0.0000	10.53	10.39	14299
NSR0869	FEX25YR1DAY	16.03	16.32	0.0001	30.30	30.06	1504
NSR0870	FEX25YR1DAY	16.24	16.53	0.0002	123.07	122.80	39531
NSR0880	FEX25YR1DAY	16.24	16.55	0.0001	48.77	48.49	18764
NSR0881	FEX25YR1DAY	14.14	17.58	0.0005	290.31	284.79	194796
NSR0890	FEX25YR1DAY	4.02	4.59	-0.0845	274.26	281.96	64443
NSR0910	FEX25YR1DAY	4.79	5.28	0.0019	206.02	206.24	43772
NSR0930	FEX25YR1DAY	5.54	6.52	0.0000	192.58	44.65	318851
NSR0950	FEX25YR1DAY	5.63	6.52	0.0004	316.11	310.57	102855
NSR0970	FEX25YR1DAY	6.14	6.69	0.0002	139.44	139.39	3616
NSR0990	FEX25YR1DAY	6.27	6.73	0.0001	225.72	225.35	4382
NSR1010	FEX25YR1DA	6.30	6.76	0.0000	50.55	49.42	14483

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1030	FEX25YR1DAY	8.54	9.10	-0.0001	177.35	176.91	9932
NSR1050	FEX25YR1DAY	8.56	9.15	0.0000	96.46	94.41	25979
NSR1070	FEX25YR1DAY	9.58	9.75	-0.0007	232.90	230.93	61310
NSR1090	FEX25YR1DAY	11.30	11.44	-0.0004	157.02	157.04	8417
NSR1110	FEX25YR1DAY	11.57	11.59	0.0000	3.13	3.12	2996
NSR1130	FEX25YR1DAY	11.29	11.38	0.0000	30.74	30.71	15467
NSR1150	FEX25YR1DAY	11.39	11.58	0.0000	7.66	5.50	10711
NSR1170	FEX25YR1DAY	11.38	11.57	0.0000	4.31	3.44	450
NSR1190	FEX25YR1DAY	12.70	13.25	0.0000	156.21	156.21	13789
NSR1210	FEX25YR1DAY	12.70	13.25	-0.0001	27.40	8.20	84114
NSR1230	FEX25YR1DAY	14.76	15.35	0.0000	153.57	153.55	9678
NSR1270	FEX25YR1DAY	14.99	15.54	0.0000	153.61	153.57	6276
NSR1290	FEX25YR1DAY	14.99	15.54	0.0000	11.41	2.53	24888
NSR1310	FEX25YR1DAY	14.99	15.54	0.0000	33.23	12.87	122814
NSR1330	FEX25YR1DAY	15.44	16.21	0.0000	152.71	151.46	22925
NSR1350	FEX25YR1DAY	15.45	16.22	0.0000	37.91	21.62	214387
NSR1370	FEX25YR1DAY	15.56	16.30	0.0000	154.00	144.50	21929
NSR1390	FEX25YR1DAY	15.56	16.30	0.0000	4.40	3.21	5676
NSR1410	FEX25YR1DAY	15.56	16.30	-0.0001	31.34	29.07	49496
NSR1430	FEX25YR1DAY	15.76	16.40	0.0000	57.50	47.48	47359
NSR1450	FEX25YR1DAY	15.74	16.40	0.0000	83.34	52.31	125032
NSR1470	FEX25YR1DAY	15.96	16.41	0.0000	57.39	49.08	54252
NSR1490	FEX25YR1DAY	16.21	16.44	0.0000	64.35	44.21	165994

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1510	FEX25YR1DAY	16.21	16.45	0.0000	37.83	34.73	33738
NSR1530	FEX25YR1DAY	15.56	16.30	0.0000	6.59	4.40	16052
NSR1550	FEX25YR1DAY	15.68	16.39	-0.0001	153.29	144.76	34084
NSR1570	FEX25YR1DAY	15.68	16.39	0.0000	13.25	9.79	20453
NSR1590	FEX25YR1DAY	15.68	16.39	-0.0001	67.92	59.61	41596
NSR1610	FEX25YR1DAY	15.75	16.46	-0.0004	24.49	20.02	36160
NSR1630	FEX25YR1DAY	15.75	16.46	0.0000	102.76	97.77	20547
NSR1650	FEX25YR1DAY	16.39	17.10	0.0000	3.71	3.71	436
NSR1670	FEX25YR1DAY	15.92	17.01	-0.0002	90.67	82.00	50545
NSR1690	FEX25YR1DAY	16.24	17.13	0.0000	89.45	84.27	22629
NSR1710	FEX25YR1DAY	16.25	17.13	0.0000	9.44	9.28	21285
NSR1730	FEX25YR1DAY	16.32	17.18	0.0000	87.02	82.68	15571
NSR1750	FEX25YR1DAY	16.68	17.18	0.0000	3.90	3.90	1675
NSR1770	FEX25YR1DAY	17.23	17.48	0.0000	27.76	14.97	22067
NSR1790	FEX25YR1DAY	17.24	17.49	0.0000	33.66	17.03	38178
NSR1810	FEX25YR1DAY	17.25	17.49	0.0000	9.40	7.25	16410
NSR1830	FEX25YR1DAY	17.25	17.48	0.0000	71.04	67.84	107607
NSR1850	FEX25YR1DAY	16.95	18.06	0.0000	13.05	10.96	13811
NSR1870	FEX25YR1DAY	16.93	18.06	0.0001	70.26	35.45	164989
NSR1890	FEX25YR1DAY	16.05	18.07	0.0001	13.36	13.76	1056
NSR1910	FEX25YR1DAY	15.45	18.07	0.0004	102.72	83.34	145067
NSR1930	FEX25YR1DAY	16.53	17.30	0.0001	63.49	63.05	7668
NSR1950	FEX25YR1DAY	16.70	17.30	-0.0001	20.86	20.82	12755
NSR1970	FEX25YR1DA	16.84	17.69	-0.0001	37.66	27.48	69834

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1990	FEX25YR1DAY	16.86	17.55	0.0000	9.67	8.62	949
NSR2010	FEX25YR1DAY	16.91	17.42	-0.0001	18.87	11.23	45608
NSR2030	FEX25YR1DAY	16.90	17.29	-0.0001	11.23	11.23	751
NSR2050	FEX25YR1DAY	16.88	17.06	0.0000	18.85	17.62	22634
NSR2070	FEX25YR1DAY	16.81	17.04	0.0000	6.48	6.45	781
NSR2090	FEX25YR1DAY	16.72	17.02	0.0000	6.45	6.42	673
NSR2110	FEX25YR1DAY	16.54	16.97	0.0000	21.19	20.47	27949
NSR2130	FEX25YR1DAY	16.50	16.56	0.0000	19.95	16.42	89609
NSR2150	FEX25YR1DAY	17.60	17.70	0.0000	73.03	53.60	223566
NSR2170	FEX25YR1DAY	17.62	17.72	-0.0001	26.81	26.60	2087
NSR2190	FEX25YR1DAY	17.62	17.73	-0.0001	27.01	26.81	967
NSR2210	FEX25YR1DAY	17.62	17.75	0.0000	69.92	53.83	140153
NSR2230	FEX25YR1DAY	17.62	17.74	-0.0001	20.52	20.04	675
NSR2250	FEX25YR1DAY	17.63	17.75	-0.0001	24.49	20.52	14264
NSR2270	FEX25YR1DAY	17.63	17.75	-0.0001	29.65	21.82	30815
NSR2290	FEX25YR1DAY	17.63	17.75	-0.0002	18.82	18.59	888
NSR2310	FEX25YR1DAY	17.63	17.76	0.0000	22.65	18.94	25548
NSR2330	FEX25YR1DAY	17.65	18.13	0.0000	24.45	12.55	49241
NSR2350	FEX25YR1DAY	17.65	18.13	0.0001	28.55	13.61	74170
NSR2370	FEX25YR1DAY	16.66	17.40	0.0000	41.01	36.55	9676
NSR2390	FEX25YR1DAY	18.07	18.09	0.0000	15.33	9.69	66867
NSR2410	FEX25YR1DAY	16.66	17.41	0.0000	49.87	32.94	19694
NSR2430	FEX25YR1DAY	17.99	18.01	0.0000	3.40	3.38	3286

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2450	FEX25YR1DAY	18.06	18.19	0.0000	45.58	44.44	23137
NSR3000	FEX25YR1DAY	17.04	18.07	-0.0727	10.30	49.45	47661
NSR3005	FEX25YR1DAY	17.02	18.07	0.1453	49.45	4.05	566
NSR3020	FEX25YR1DAY	17.61	17.89	-0.0001	83.66	83.33	74194
NSR3040	FEX25YR1DAY	16.25	16.56	0.0000	97.84	95.03	83066
NSR3060	FEX25YR1DAY	16.21	16.44	0.0001	31.23	30.31	48876
NSW0010	FEX25YR1DAY	2.00	2.00	0.0000	30.57	0.00	0
NSW0030	FEX25YR1DAY	2.13	3.22	-0.0003	30.57	30.57	587
NSW0050	FEX25YR1DAY	4.04	5.74	-0.0002	38.39	30.57	16182
Outfall	FEX25YR1DAY	2.00	2.00	0.0000	86.10	0.00	0
Outfall_NE	FEX25YR1DAY	21.00	20.77	0.0003	8.66	0.00	0
PondA	FEX25YR1DAY	0.00	20.30	0.0000	22.26	10.99	79675
PondB	FEX25YR1DAY	0.00	17.27	0.0000	176.25	154.62	160323
SH_OUTFALL	FEX25YR1DAY	2.00	2.00	0.0000	332.34	0.00	0
STORAGE1	FEX25YR1DAY	0.00	20.54	0.0000	5.80	1.24	7405
STORAGE10	FEX25YR1DAY	0.00	20.61	0.0000	3.63	0.04	9148
STORAGE11	FEX25YR1DAY	0.00	21.12	0.0001	62.17	0.01	18648
STORAGE12	FEX25YR1DAY	0.00	21.28	0.0004	98.60	5.91	10262
STORAGE13	FEX25YR1DAY	0.00	20.02	0.0001	17.02	0.56	5323
STORAGE14	FEX25YR1DAY	0.00	22.08	0.0000	5.36	0.00	13395
STORAGE2	FEX25YR1DAY	0.00	19.75	0.0001	26.36	2.98	18426
STORAGE4	FEX25YR1DAY	0.00	19.75	0.0003	87.08	3.43	12088
STORAGE5	FEX25YR1DAY	0.00	21.33	0.0000	15.67	6.59	20042
STORAGE8	FEX25YR1DA	0.00	19.73	0.0000	3.08	0.93	6098

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
STORAGE9	FEX25YR1DAY	0.00	20.29	0.0014	14.24	2.73	11761
Sevilla1	FEX25YR1DAY	1.20	2.24	0.0000	0.06	0.05	804
Sevilla2	FEX25YR1DAY	1.23	2.13	0.0000	0.03	0.02	610
Sevilla3	FEX25YR1DAY	1.20	2.24	0.0000	0.17	0.13	1339
Sevilla4	FEX25YR1DAY	1.20	2.24	0.0000	0.28	0.22	1450
Shamrock2	FEX25YR1DAY	1.11	2.13	0.0007	86.10	86.10	5389
Shmrck1.1	FEX25YR1DAY	1.38	2.41	0.0001	86.12	86.12	6206
Shmrck1.2	FEX25YR1DAY	1.20	2.24	0.0002	86.12	86.11	3971
V3	FEX25YR1DAY	6.53	6.55	0.0000	0.14	0.09	36710
BC_N02	FEX50YR1DAY	0.00	18.00	0.0000	18.71	0.00	0
Church1	FEX50YR1DAY	8.77	10.58	0.0000	0.96	0.40	533
Church2	FEX50YR1DAY	8.77	10.58	0.0000	9.35	8.90	4390
Clark1	FEX50YR1DAY	7.21	8.25	0.0000	1.26	0.57	743
Clark2	FEX50YR1DAY	7.21	8.25	-0.0001	66.82	66.51	22560
DM1	FEX50YR1DAY	11.42	12.16	0.0000	10.55	10.53	1416
DM2	FEX50YR1DAY	10.30	10.92	0.0000	10.53	10.72	2201
DM3	FEX50YR1DAY	9.16	10.63	0.0000	10.72	9.35	2980
E_Outlet	FEX50YR1DAY	0.00	16.70	0.0004	158.72	49.82	0
E_Outlet2	FEX50YR1DAY	0.00	17.00	0.0000	20.68	0.00	0
ElP_Hes.1	FEX50YR1DAY	1.99	3.88	0.0002	1.31	0.88	763
ElP_con.1	FEX50YR1DAY	2.18	4.11	0.0014	93.77	95.72	4221
ElPrad.1	FEX50YR1DAY	1.99	3.88	0.0000	0.63	0.38	632
G1	FEX50YR1DAY	14.98	16.30	-0.0030	171.76	118.94	40654

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
G10	FEX50YR1DAY	8.77	10.55	-0.0002	66.84	66.82	4603
G2	FEX50YR1DAY	14.99	16.25	-0.0003	56.34	52.12	32934
G3	FEX50YR1DAY	14.86	16.23	-0.0004	167.06	166.84	27807
G4	FEX50YR1DAY	12.82	15.18	-0.0005	166.84	165.88	57263
G5	FEX50YR1DAY	11.69	14.01	-0.0003	106.73	99.08	46141
G6	FEX50YR1DAY	11.00	9.24	0.0000	14.69	0.00	0
G7	FEX50YR1DAY	11.00	12.41	0.0000	74.68	74.06	3601
G8	FEX50YR1DAY	10.07	11.35	0.0000	61.13	60.54	2143
G9	FEX50YR1DAY	9.41	10.82	0.0001	60.54	59.90	1353
H1	FEX50YR1DAY	1.99	5.25	-0.0002	37.22	36.85	16505
H2.1	FEX50YR1DAY	1.99	3.88	0.0017	125.75	127.88	6105
Hubert	FEX50YR1DAY	3.16	4.79	-0.0001	68.81	73.53	5965
JUNCT1	FEX50YR1DAY	0.00	19.19	0.0000	13.04	12.68	5103
JUNCT10	FEX50YR1DAY	0.00	22.23	0.0000	77.66	77.60	11013
JUNCT2	FEX50YR1DAY	0.00	14.47	0.0000	40.83	40.81	3144
JUNCT3	FEX50YR1DAY	0.00	20.05	0.0000	15.40	15.02	10386
JUNCT4	FEX50YR1DAY	0.00	13.73	0.0000	9.14	9.14	5549
JUNCT6	FEX50YR1DAY	0.00	17.54	-0.0013	205.68	807.71	10285
JUNCT7	FEX50YR1DAY	0.00	20.14	-0.0001	147.12	146.78	8392
JUNCT7B	FEX50YR1DAY	0.00	20.13	-0.0001	154.61	147.17	18403
JUNCT8	FEX50YR1DAY	0.00	20.14	0.0001	239.26	238.60	11637
JUNCT8B	FEX50YR1DAY	0.00	20.13	-0.0001	238.60	228.30	26049
JUNCT9	FEX50YR1DAY	0.00	29.64	0.0000	77.77	77.89	9858
L1	FEX50YR1DA	11.53	12.13	0.0000	59.88	61.70	51706

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
L2	FEX50YR1DAY	11.63	11.81	0.0000	16.28	16.70	32936
L3	FEX50YR1DAY	10.43	10.71	0.0000	33.51	33.07	46104
L4	FEX50YR1DAY	8.43	8.67	0.0000	16.36	16.42	50838
L5	FEX50YR1DAY	7.63	7.78	0.0000	7.02	6.65	43662
L6	FEX50YR1DAY	6.93	7.02	0.0000	2.90	2.63	43812
Lois	FEX50YR1DAY	4.82	5.44	-0.0001	66.51	68.81	6808
M1	FEX50YR1DAY	2.58	6.73	0.0003	66.58	68.42	24875
M1.1	FEX50YR1DAY	6.33	7.06	0.0000	68.83	66.58	35314
M1.2	FEX50YR1DAY	7.03	7.44	0.0000	52.55	53.53	28599
M1.3	FEX50YR1DAY	7.13	7.75	0.0000	46.11	45.21	28491
M2	FEX50YR1DAY	2.58	6.18	-0.0006	80.98	75.02	60750
M3	FEX50YR1DAY	2.58	5.77	-0.0005	76.09	78.46	39418
M4	FEX50YR1DAY	2.58	5.58	-0.0006	78.61	65.16	52777
M5.1	FEX50YR1DAY	2.57	4.52	0.0005	94.10	93.77	6163
M6	FEX50YR1DAY	2.58	4.52	0.0001	1.65	1.38	558
Marjory_Pump	FEX50YR1DAY	0.00	37.60	0.0102	3.62	3.19	496
N01	FEX50YR1DAY	0.00	20.90	0.0000	33.04	21.74	37876
N01A	FEX50YR1DAY	0.00	20.88	0.0000	7.13	7.01	437
N02	FEX50YR1DAY	0.00	18.68	-0.0002	45.55	35.30	61713
N03	FEX50YR1DAY	0.00	19.88	0.0001	25.88	22.98	21461
N04	FEX50YR1DAY	0.00	19.95	0.0000	21.68	10.45	23083
N05	FEX50YR1DAY	0.00	18.51	0.0000	121.47	119.88	4391
N06	FEX50YR1DAY	0.00	17.48	0.0002	80.43	80.45	3292

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N07A	FEX50YR1DAY	0.00	17.12	0.0002	82.91	82.93	4248
N08A	FEX50YR1DAY	0.00	16.09	0.0004	148.54	140.68	27710
N09	FEX50YR1DAY	0.00	14.03	0.0001	27.11	27.08	1872
N09A	FEX50YR1DAY	0.00	13.49	0.0003	143.12	143.13	1358
N10	FEX50YR1DAY	2.00	2.00	0.0000	373.15	0.00	0
N11	FEX50YR1DAY	0.00	17.69	-0.0008	239.39	158.72	475237
NBB0010	FEX50YR1DAY	2.00	2.00	0.0000	139.88	0.00	0
NBB0030	FEX50YR1DAY	5.03	7.76	-0.0005	139.88	139.88	557
NBB0050	FEX50YR1DAY	9.15	13.51	-0.0003	226.02	139.88	127349
NBB0070	FEX50YR1DAY	11.30	14.22	-0.0001	114.24	113.19	2549
NBB0090	FEX50YR1DAY	12.67	14.27	0.0001	128.33	128.20	3745
NBB0110	FEX50YR1DAY	13.46	15.74	0.0001	117.56	117.56	1982
NBB0130	FEX50YR1DAY	15.26	16.90	-0.0003	62.47	50.64	53657
NBB0150	FEX50YR1DAY	14.01	16.12	0.0001	73.00	73.14	1935
NBB0170	FEX50YR1DAY	14.74	16.65	0.0001	72.92	73.00	1452
NBB0190	FEX50YR1DAY	15.42	17.21	0.0001	82.02	72.92	83437
NBB0210	FEX50YR1DAY	15.70	17.22	0.0001	70.25	70.31	1556
NBB0230	FEX50YR1DAY	16.02	17.23	0.0001	70.18	70.25	12812
NBB0250	FEX50YR1DAY	16.31	17.53	0.0001	69.40	69.46	2036
NBB0270	FEX50YR1DAY	17.05	18.01	0.0001	68.41	69.40	37293
NBB0290	FEX50YR1DAY	17.06	18.01	-0.0001	53.47	54.50	1258
NBB0310	FEX50YR1DAY	17.07	18.01	-0.0002	226.84	110.95	558215
NBB0330	FEX50YR1DAY	16.57	17.27	0.0001	49.44	44.89	44470
NBB0350	FEX50YR1DA	16.45	17.26	0.0001	28.92	29.78	1396

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBB0370	FEX50YR1DAY	16.33	17.26	0.0001	97.88	58.55	76857
NBB0390	FEX50YR1DAY	16.32	17.26	-0.0001	21.93	22.67	1832
NBB0410	FEX50YR1DAY	16.30	17.26	-0.0002	77.37	55.26	57174
NBB0430	FEX50YR1DAY	15.45	16.32	-0.0003	156.97	194.61	67752
NBW0010	FEX50YR1DAY	2.00	2.00	0.0000	992.76	0.00	0
NBW0030	FEX50YR1DAY	3.39	4.84	0.0002	993.76	992.76	66109
NBW0050	FEX50YR1DAY	3.92	5.31	0.0000	89.86	83.81	56831
NBW0070	FEX50YR1DAY	3.57	5.16	-0.0005	309.51	519.20	62664
NBW0090	FEX50YR1DAY	3.66	4.98	0.0000	34.38	38.51	49846
NBW0130	FEX50YR1DAY	3.73	5.26	0.0000	309.41	310.18	14686
NBW0150	FEX50YR1DAY	3.93	5.08	-0.0001	31.70	31.16	20376
NBW0170	FEX50YR1DAY	3.98	5.04	0.0001	32.13	32.88	48347
NBW0190	FEX50YR1DAY	3.89	5.36	-0.0001	309.17	309.41	5986
NBW0210	FEX50YR1DAY	6.25	6.43	0.0000	14.06	13.74	7418
NBW0230	FEX50YR1DAY	4.01	5.60	0.0001	308.16	308.40	6159
NBW0250	FEX50YR1DAY	4.88	6.40	0.0000	307.14	307.23	5687
NBW0270	FEX50YR1DAY	5.49	6.44	0.0001	64.83	57.63	49501
NBW0290	FEX50YR1DAY	5.91	6.44	0.0000	50.56	48.68	34542
NBW0310	FEX50YR1DAY	6.38	7.46	0.0000	21.63	14.82	40296
NBW0330	FEX50YR1DAY	5.50	7.14	0.0000	299.02	298.96	24909
NBW0350	FEX50YR1DAY	4.97	5.60	0.0000	14.13	14.11	10793
NBW0370	FEX50YR1DAY	5.52	7.14	0.0001	10.83	9.45	17383
NBW0390	FEX50YR1DAY	5.52	7.14	0.0001	17.31	8.12	64095

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0410	FEX50YR1DAY	5.54	7.26	-0.0002	297.46	297.61	3446
NBW0430	FEX50YR1DAY	5.89	7.67	0.0000	11.22	10.16	50807
NBW0450	FEX50YR1DAY	5.89	7.67	-0.0001	298.45	297.46	12326
NBW0470	FEX50YR1DAY	5.89	7.67	0.0000	8.18	7.16	38486
NBW0490	FEX50YR1DAY	5.92	7.80	-0.0001	296.59	296.40	3184
NBW0510	FEX50YR1DAY	6.72	7.80	0.0000	7.42	7.40	24705
NBW0530	FEX50YR1DAY	6.22	8.18	-0.0001	296.64	296.65	4802
NBW0550	FEX50YR1DAY	6.72	9.29	0.0000	277.87	262.97	380217
NBW0570	FEX50YR1DAY	7.09	9.26	0.0000	253.31	244.46	131522
NBW0590	FEX50YR1DAY	10.03	10.31	0.0002	414.76	413.86	89027
NBW0610	FEX50YR1DAY	6.45	8.41	0.0000	270.89	270.78	10531
NBW0630	FEX50YR1DAY	6.22	8.18	0.0000	15.40	7.80	87077
NBW0650	FEX50YR1DAY	6.66	9.25	0.0001	278.72	272.32	23104
NBW0670	FEX50YR1DAY	6.66	9.25	0.0000	22.60	5.73	40589
NBW0690	FEX50YR1DAY	6.71	9.28	-0.0001	216.87	216.81	11570
NBW0710	FEX50YR1DAY	6.71	9.28	0.0000	29.11	10.38	82496
NBW0730	FEX50YR1DAY	6.72	9.28	0.0001	236.72	212.31	268048
NBW0750	FEX50YR1DAY	7.06	9.29	0.0001	293.85	275.94	143914
NBW0770	FEX50YR1DAY	7.06	9.29	-0.0002	43.86	35.96	32961
NBW0790	FEX50YR1DAY	8.11	9.29	0.0000	37.78	37.52	18839
NBW0810	FEX50YR1DAY	7.06	9.29	0.0000	71.53	60.18	70880
NBW0830	FEX50YR1DAY	8.41	9.30	0.0001	57.29	56.98	9616
NBW0850	FEX50YR1DAY	10.17	10.12	0.0001	57.73	52.75	21327
NBW0870	FEX50YR1DA	7.06	9.31	0.0000	310.82	273.45	282379

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW0890	FEX50YR1DAY	7.06	9.29	-0.0002	16.68	17.27	1027
NBW0910	FEX50YR1DAY	7.06	9.30	0.0001	282.78	262.30	168404
NBW0930	FEX50YR1DAY	8.03	9.32	0.0001	45.00	44.81	1301
NBW0950	FEX50YR1DAY	8.82	9.35	-0.0001	82.02	45.00	168842
NBW0970	FEX50YR1DAY	8.82	9.35	0.0002	40.32	38.48	37639
NBW0990	FEX50YR1DAY	8.82	9.36	-0.0002	15.10	14.64	785
NBW1010	FEX50YR1DAY	8.83	9.37	0.0000	38.51	38.47	1559
NBW1030	FEX50YR1DAY	9.19	11.41	0.0000	97.24	37.80	72940
NBW1050	FEX50YR1DAY	9.30	11.41	0.0001	16.70	16.09	900
NBW1070	FEX50YR1DAY	9.34	11.41	0.0000	345.24	344.81	76254
NBW1090	FEX50YR1DAY	3.78	5.32	0.0000	474.05	465.25	20111
NBW1130	FEX50YR1DAY	4.51	5.59	0.0000	242.43	242.17	36815
NBW1150	FEX50YR1DAY	4.53	5.68	0.0000	265.31	264.00	75435
NBW1169	FEX50YR1DAY	4.09	5.45	0.0000	453.05	445.91	21742
NBW1170	FEX50YR1DAY	4.30	5.58	-0.0001	446.97	444.55	8399
NBW1190	FEX50YR1DAY	6.13	6.81	-0.0001	81.78	63.73	77133
NBW1210	FEX50YR1DAY	7.17	7.80	-0.0002	326.18	322.26	170572
NBW1230	FEX50YR1DAY	7.17	7.85	-0.0001	348.24	310.43	251094
NBW1250	FEX50YR1DAY	4.74	6.13	-0.0001	406.73	403.87	7825
NBW1270	FEX50YR1DAY	6.14	6.82	-0.0001	34.47	27.72	53674
NBW1310	FEX50YR1DAY	5.21	6.33	0.0002	439.83	401.90	8702
NBW1330	FEX50YR1DAY	7.56	8.98	-0.0021	329.36	375.15	3078
NBW1350	FEX50YR1DAY	10.95	11.74	-0.0001	56.11	55.96	16310

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1351	FEX50YR1DAY	8.89	11.05	0.0004	306.43	306.51	28327
NBW1352	FEX50YR1DAY	9.96	12.90	0.0006	300.06	300.06	7956
NBW1353	FEX50YR1DAY	11.01	14.74	0.0005	294.62	294.64	8196
NBW1370	FEX50YR1DAY	10.02	11.02	-0.0005	231.15	227.70	45872
NBW1390	FEX50YR1DAY	15.24	15.52	0.0002	355.52	354.85	186246
NBW1410	FEX50YR1DAY	15.58	15.81	0.0003	203.01	202.97	30996
NBW1430	FEX50YR1DAY	15.79	15.91	0.0002	189.07	188.69	29105
NBW1450	FEX50YR1DAY	16.94	17.18	-0.0003	330.60	329.98	124192
NBW1460	FEX50YR1DAY	16.43	16.70	-0.0002	153.92	154.49	4273
NBW1470	FEX50YR1DAY	17.14	17.50	-0.0005	397.66	390.07	246821
NBW1480	FEX50YR1DAY	18.11	18.20	0.0001	19.46	19.33	17770
NBW1490	FEX50YR1DAY	17.86	18.36	0.0001	242.08	238.98	142635
NBW1510	FEX50YR1DAY	18.12	18.66	-0.0002	160.93	161.08	38136
NBW1530	FEX50YR1DAY	17.92	18.70	0.0000	13.62	12.22	1169
NBW1550	FEX50YR1DAY	17.75	18.75	0.0001	61.96	54.59	43313
NBW1570	FEX50YR1DAY	18.21	18.84	-0.0001	159.48	159.63	2604
NBW1590	FEX50YR1DAY	18.12	18.65	0.0000	67.65	68.05	23407
NBW1610	FEX50YR1DAY	18.13	18.65	0.0000	40.98	34.62	27659
NBW1630	FEX50YR1DAY	18.13	18.42	0.0000	32.72	32.56	1802
NBW1650	FEX50YR1DAY	18.81	19.67	0.0000	19.81	12.69	48711
NBW1670	FEX50YR1DAY	18.89	19.67	0.0001	47.30	41.16	42237
NBW1690	FEX50YR1DAY	19.03	19.67	0.0001	30.25	26.91	27180
NBW1710	FEX50YR1DAY	19.26	19.67	0.0000	2.38	0.98	998
NBW1730	FEX50YR1DA	18.65	19.58	0.0002	374.58	368.22	329133

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1750	FEX50YR1DAY	18.82	19.65	-0.0001	187.55	168.70	79664
NBW1770	FEX50YR1DAY	18.82	19.67	0.0000	171.19	130.01	184368
NBW1790	FEX50YR1DAY	18.91	19.67	0.0001	40.77	36.54	42241
NBW1820	FEX50YR1DAY	18.72	19.35	0.0000	115.43	109.44	174445
NBW1830	FEX50YR1DAY	18.74	19.58	-0.0001	80.30	80.48	88088
NBW1840	FEX50YR1DAY	18.39	18.89	0.0000	152.90	135.25	142229
NBW1850	FEX50YR1DAY	18.74	19.61	-0.0001	198.72	183.31	150512
NBW1860	FEX50YR1DAY	18.39	18.89	-0.0001	19.84	14.50	23309
NBW1870	FEX50YR1DAY	18.72	19.36	-0.0001	42.36	43.37	40332
NBW1890	FEX50YR1DAY	19.06	19.95	0.0000	64.87	65.00	2613
NBW1910	FEX50YR1DAY	19.27	20.18	0.0000	80.58	79.52	8643
NBW1930	FEX50YR1DAY	19.27	20.17	0.0000	64.21	64.33	44855
NBW1950	FEX50YR1DAY	18.97	19.62	0.0000	2.62	1.84	450
NBW1970	FEX50YR1DAY	18.96	19.62	0.0000	17.79	16.90	14454
NBW1990	FEX50YR1DAY	19.27	20.00	0.0000	123.97	117.75	148711
NBW2010	FEX50YR1DAY	19.65	19.98	-0.0001	14.91	16.23	12411
NBW2030	FEX50YR1DAY	19.65	19.98	0.0000	34.48	31.98	95914
NBW2050	FEX50YR1DAY	19.26	20.22	0.0000	107.43	101.72	131979
NBW2060	FEX50YR1DAY	0.00	20.22	0.0000	30.92	25.50	68439
NBW2070	FEX50YR1DAY	19.26	20.22	0.0000	154.25	95.21	202885
NBW2090	FEX50YR1DAY	19.10	20.12	0.0000	61.16	60.73	80803
NBW2110	FEX50YR1DAY	18.92	20.12	0.0000	201.50	129.02	245356
NBW2130	FEX50YR1DAY	18.92	20.12	0.0000	47.42	27.74	40186

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2140	FEX50YR1DAY	20.00	20.12	-0.0001	5.35	5.27	603
NBW2145	FEX50YR1DAY	0.00	20.12	-0.0008	22.71	71.96	106084
NBW2150	FEX50YR1DAY	19.26	20.22	0.0000	109.56	98.35	32169
NBW2170	FEX50YR1DAY	19.12	20.22	0.0000	5.30	5.15	812
NBW2190	FEX50YR1DAY	19.10	20.22	0.0000	10.78	5.50	27284
NBW2210	FEX50YR1DAY	19.47	20.21	0.0000	35.29	31.94	46807
NBW2230	FEX50YR1DAY	19.47	20.21	0.0000	87.30	77.73	84482
NBW2250	FEX50YR1DAY	19.51	20.21	0.0000	15.41	14.89	9605
NBW2270	FEX50YR1DAY	19.57	20.21	0.0000	18.46	14.79	37822
NBW2290	FEX50YR1DAY	19.65	20.21	0.0000	95.65	86.32	197623
NBW2310	FEX50YR1DAY	19.82	20.10	0.0000	95.71	92.74	145630
NBW2330	FEX50YR1DAY	19.82	20.10	0.0000	41.64	27.91	83596
NBW2350	FEX50YR1DAY	16.05	16.54	0.0001	178.71	177.09	78242
NBW2370	FEX50YR1DAY	16.11	16.55	-0.0001	43.00	41.69	56775
NBW2380	FEX50YR1DAY	12.29	16.55	0.0004	323.96	297.17	91908
NBW2385	FEX50YR1DAY	18.49	18.51	0.0000	6.38	6.37	6781
NBW2387	FEX50YR1DAY	16.11	16.56	0.0000	0.72	0.77	482
NBW2390	FEX50YR1DAY	16.42	17.99	0.0001	144.78	146.62	66739
NBW2410	FEX50YR1DAY	16.59	18.41	-0.0002	251.88	250.21	177910
NBW2430	FEX50YR1DAY	16.23	18.46	0.0001	358.94	358.23	111399
NBW2450	FEX50YR1DAY	16.15	18.53	0.0002	163.18	161.27	4396
NBW2470	FEX50YR1DAY	16.43	18.75	0.0002	375.63	372.85	45851
NBW2490	FEX50YR1DAY	16.90	18.75	-0.0004	87.08	315.27	22730
NBW2510	FEX50YR1DA	17.74	18.75	-0.0001	73.18	72.34	7221

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2530	FEX50YR1DAY	17.92	18.70	0.0001	65.94	66.26	2010
NBW2550	FEX50YR1DAY	17.95	18.70	0.0000	2.45	2.90	450
NBW2570	FEX50YR1DAY	17.96	18.70	0.0000	4.94	2.45	12148
NBW2590	FEX50YR1DAY	18.06	18.67	-0.0001	53.94	54.15	1098
NBW2610	FEX50YR1DAY	17.00	18.86	-0.0008	424.30	422.74	129577
NBW2630	FEX50YR1DAY	17.98	18.87	0.0000	213.85	192.53	42325
NBW2650	FEX50YR1DAY	16.97	18.85	-0.0003	27.53	28.58	41099
NBW2670	FEX50YR1DAY	16.42	18.84	0.0001	51.63	35.09	46404
NBW2680	FEX50YR1DAY	17.73	18.48	-0.0001	151.28	150.95	27509
NBW2690	FEX50YR1DAY	15.40	18.30	0.0002	365.18	360.08	108458
NBW2710	FEX50YR1DAY	17.73	18.52	0.0001	3.47	2.32	529
NBW2730	FEX50YR1DAY	18.29	18.73	0.0000	3.33	2.31	6211
NBW2770	FEX50YR1DAY	18.09	18.87	0.0000	13.27	13.29	1310
NBW2775	FEX50YR1DAY	6.59	7.12	0.0000	22.36	19.79	60106
NBW2780	FEX50YR1DAY	18.38	18.85	0.0001	158.59	153.34	175316
NBW2790	FEX50YR1DAY	18.38	18.88	0.0000	292.41	274.29	153691
NBW2810	FEX50YR1DAY	18.39	18.89	-0.0002	108.98	98.55	81640
NBW2830	FEX50YR1DAY	18.40	18.89	0.0000	84.29	61.98	180830
NC01	FEX50YR1DAY	0.00	6.33	0.0001	44.99	44.69	5199
NC01B	FEX50YR1DAY	0.00	5.96	0.0000	33.82	33.77	7120
NC02	FEX50YR1DAY	0.00	8.94	-0.0001	167.43	167.38	11228
NC03	FEX50YR1DAY	0.00	4.97	-0.0002	194.75	194.70	15264
NC04	FEX50YR1DAY	0.00	4.05	0.0000	124.95	122.16	57165

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NC05	FEX50YR1DAY	0.00	4.03	-0.0001	136.98	135.56	66909
NC06	FEX50YR1DAY	0.00	3.99	0.0000	147.74	147.51	29453
NC07	FEX50YR1DAY	0.00	3.99	-0.0001	137.48	137.57	27211
NC08	FEX50YR1DAY	0.00	3.95	0.0000	157.27	157.12	19780
NCL0010	FEX50YR1DAY	2.00	2.00	0.0000	872.15	0.00	0
NCL0030	FEX50YR1DAY	2.36	3.15	0.0001	595.86	595.85	6856
NCL0050	FEX50YR1DAY	2.36	3.15	0.0001	0.95	0.91	439
NCL0070	FEX50YR1DAY	5.20	5.80	0.0000	254.96	252.03	82265
NCL0090	FEX50YR1DAY	6.06	6.38	0.0000	91.08	73.29	100572
NCL0110	FEX50YR1DAY	3.04	3.97	-0.0007	632.95	632.84	6623
NCL0130	FEX50YR1DAY	4.05	4.12	-0.0002	158.75	158.80	565
NCL0150	FEX50YR1DAY	4.95	5.46	-0.0001	159.75	159.83	2802
NCL0170	FEX50YR1DAY	5.08	5.53	-0.0001	101.58	101.62	1472
NCL0190	FEX50YR1DAY	5.08	5.55	0.0000	4.13	3.94	438
NCL0210	FEX50YR1DAY	5.85	6.89	-0.0001	103.16	101.49	42293
NCL0230	FEX50YR1DAY	6.60	7.72	-0.0002	71.51	33.00	91378
NCL0250	FEX50YR1DAY	6.60	7.72	-0.0001	3.79	4.04	606
NCL0270	FEX50YR1DAY	6.60	7.72	0.0001	7.43	5.32	3335
NCL0290	FEX50YR1DAY	5.90	6.93	0.0001	64.66	65.20	924
NCL0310	FEX50YR1DAY	6.10	7.13	0.0005	64.40	64.77	1045
NCL0330	FEX50YR1DAY	5.95	6.89	-0.0001	23.97	29.51	16028
NCL0350	FEX50YR1DAY	6.60	7.72	-0.0005	229.07	178.47	119214
NCL0370	FEX50YR1DAY	7.36	8.05	0.0002	212.30	209.15	39605
NCL0390	FEX50YR1DA	4.02	4.95	-0.0023	457.76	480.72	4339

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0410	FEX50YR1DAY	4.09	5.20	-0.0002	9.11	9.00	819
NCL0430	FEX50YR1DAY	4.23	5.50	-0.0001	9.67	9.36	940
NCL0450	FEX50YR1DAY	4.75	5.63	-0.0011	446.70	446.72	3676
NCL0470	FEX50YR1DAY	5.43	6.23	-0.0016	445.27	445.30	3437
NCL0490	FEX50YR1DAY	6.48	7.12	-0.0010	562.80	565.55	71755
NCL0510	FEX50YR1DAY	6.67	7.42	-0.0003	42.24	40.40	5510
NCL0530	FEX50YR1DAY	8.10	8.60	0.0003	37.26	21.72	1171
NCL0550	FEX50YR1DAY	8.17	8.66	-0.0001	41.25	37.26	72612
NCL0570	FEX50YR1DAY	8.66	9.06	0.0001	22.56	19.27	9479
NCL0590	FEX50YR1DAY	7.00	7.67	0.0011	478.65	479.15	15203
NCL0610	FEX50YR1DAY	7.52	8.23	0.0015	461.45	461.64	3640
NCL0630	FEX50YR1DAY	8.06	8.96	-0.0004	458.20	458.36	4608
NCL0650	FEX50YR1DAY	8.12	9.03	-0.0005	55.36	102.61	1613
NCL0670	FEX50YR1DAY	8.67	9.76	0.0006	120.30	55.36	1693
NCL0690	FEX50YR1DAY	8.76	9.80	0.0002	26.57	35.14	605
NCL0710	FEX50YR1DAY	8.95	9.89	0.0002	28.05	26.13	601
NCL0730	FEX50YR1DAY	9.26	10.06	-0.0001	30.49	28.05	554
NCL0750	FEX50YR1DAY	9.56	10.20	0.0000	215.51	197.42	86950
NCL0770	FEX50YR1DAY	10.12	10.49	0.0001	105.93	105.86	2178
NCL0790	FEX50YR1DAY	8.69	9.81	-0.0003	44.45	101.59	895
NCL0810	FEX50YR1DAY	8.84	10.16	0.0000	48.87	44.45	39500
NCL0830	FEX50YR1DAY	8.93	10.22	0.0009	394.22	396.60	53401
NCL0850	FEX50YR1DAY	9.01	10.23	0.0001	116.27	104.00	36355

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0870	FEX50YR1DAY	9.37	10.39	-0.0002	131.12	130.76	2022
NCL0890	FEX50YR1DAY	9.65	10.53	-0.0001	115.43	115.22	1586
NCL0910	FEX50YR1DAY	9.71	10.48	0.0000	21.29	20.86	19378
NCL0930	FEX50YR1DAY	9.57	11.01	-0.0001	168.02	165.37	13911
NCL0950	FEX50YR1DAY	9.89	11.21	-0.0001	150.76	149.12	12307
NCL0970	FEX50YR1DAY	10.41	11.67	0.0001	46.18	45.02	2265
NCL0990	FEX50YR1DAY	11.00	11.83	0.0001	60.05	59.07	10455
NCL1010	FEX50YR1DAY	11.14	12.31	0.0001	12.80	12.71	638
NCL1030	FEX50YR1DAY	9.67	10.42	-0.0002	23.83	31.04	1482
NCL1050	FEX50YR1DAY	10.46	10.45	0.0000	10.53	9.74	4624
NCL1070	FEX50YR1DAY	9.30	11.46	0.0001	4.33	4.36	612
NCL1090	FEX50YR1DAY	9.76	11.52	0.0000	33.59	6.93	27293
NCL1110	FEX50YR1DAY	9.85	11.09	0.0001	17.32	18.33	16761
NCL1130	FEX50YR1DAY	9.76	11.52	0.0001	38.77	19.13	117397
NCL1150	FEX50YR1DAY	9.76	11.52	0.0001	734.76	730.46	277091
NCL1170	FEX50YR1DAY	10.59	12.60	-0.0008	454.72	377.00	156710
NCL1190	FEX50YR1DAY	10.72	13.06	-0.0001	98.93	98.96	1850
NCL1210	FEX50YR1DAY	10.63	12.62	0.0001	56.86	26.32	58728
NCL1230	FEX50YR1DAY	10.94	13.66	0.0001	98.90	98.93	1432
NCL1250	FEX50YR1DAY	11.11	14.01	0.0002	98.87	98.90	1231
NCL1270	FEX50YR1DAY	11.34	14.42	0.0001	245.53	167.48	206957
NCL1290	FEX50YR1DAY	13.06	14.46	0.0001	213.50	208.06	45658
NCL1310	FEX50YR1DAY	14.77	15.84	0.0001	211.68	208.93	59111
NCL1330	FEX50YR1DA	10.60	12.60	-0.0001	388.49	382.03	91979

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL1350	FEX50YR1DAY	10.63	12.62	0.0001	379.17	372.80	72192
NCL1370	FEX50YR1DAY	10.63	12.65	-0.0001	223.47	221.51	17709
NCL1390	FEX50YR1DAY	10.63	14.41	0.0001	70.74	62.31	36368
NCL1410	FEX50YR1DAY	10.63	14.42	-0.0001	74.63	69.75	10467
NCL1430	FEX50YR1DAY	10.70	12.63	0.0006	604.67	466.45	261171
NCL1450	FEX50YR1DAY	10.93	13.15	0.0018	488.52	488.09	3036
NCL1470	FEX50YR1DAY	12.72	14.61	0.0001	348.47	347.71	4442
NCL1490	FEX50YR1DAY	14.45	14.86	0.0000	8.15	8.12	784
NCL1510	FEX50YR1DAY	11.06	13.15	-0.0057	66.28	72.42	17191
NCL1530	FEX50YR1DAY	12.54	13.15	-0.0003	106.09	104.21	19253
NCL1550	FEX50YR1DAY	13.13	13.51	-0.0001	42.66	41.57	1021
NCL1570	FEX50YR1DAY	13.31	14.09	0.0001	6.66	6.60	504
NCL1590	FEX50YR1DAY	13.70	14.11	0.0000	3.24	2.83	1307
NCL1610	FEX50YR1DAY	13.37	14.28	0.0001	4.30	4.03	469
NCL1630	FEX50YR1DAY	13.57	13.76	-0.0002	93.09	93.06	2929
NCL1650	FEX50YR1DAY	13.68	14.01	0.0002	98.15	98.11	1934
NCL1670	FEX50YR1DAY	14.02	15.05	0.0001	191.28	191.14	14992
NCL1690	FEX50YR1DAY	17.47	17.94	0.0001	67.62	67.58	6932
NCL1710	FEX50YR1DAY	17.89	18.20	0.0001	60.79	60.82	3415
NCL1730	FEX50YR1DAY	18.27	19.36	0.0006	232.81	232.48	43785
NCL1750	FEX50YR1DAY	18.24	19.23	-0.0006	31.42	31.44	513
NCL1770	FEX50YR1DAY	18.07	18.30	0.0001	55.14	55.12	3188
NCL1790	FEX50YR1DAY	15.78	16.64	0.0001	341.09	340.43	5863

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1810	FEX50YR1DAY	18.13	18.48	0.0001	85.46	78.29	53471
NCL1830	FEX50YR1DAY	18.39	18.67	-0.0001	321.72	321.10	6250
NCL1850	FEX50YR1DAY	18.50	18.81	-0.0003	63.63	79.05	909
NCL1870	FEX50YR1DAY	19.01	19.51	0.0001	63.49	63.63	997
NCL1890	FEX50YR1DAY	19.15	19.69	0.0003	67.69	66.49	985
NCL1910	FEX50YR1DAY	19.15	19.69	0.0001	4.37	1.00	528
NCL1930	FEX50YR1DAY	19.91	19.99	0.0000	7.06	7.01	1614
NCL1950	FEX50YR1DAY	19.15	19.69	0.0000	1.00	0.17	503
NCL1970	FEX50YR1DAY	21.67	21.68	0.0000	3.89	3.88	3371
NCL1990	FEX50YR1DAY	19.58	20.27	-0.0002	69.57	67.69	916
NCL2010	FEX50YR1DAY	19.74	20.33	0.0001	38.85	36.63	1104
NCL2030	FEX50YR1DAY	19.76	19.98	0.0001	27.79	23.74	42933
NCL2050	FEX50YR1DAY	19.76	20.38	0.0001	39.44	35.99	1411
NCL2070	FEX50YR1DAY	19.76	19.99	-0.0002	6.73	7.75	1202
NCL2090	FEX50YR1DAY	19.87	20.75	-0.0001	43.29	39.44	1414
NCL2110	FEX50YR1DAY	20.03	20.79	0.0004	43.49	40.11	33116
NCL2130	FEX50YR1DAY	19.87	20.81	0.0001	148.91	159.57	126427
NCL2150	FEX50YR1DAY	20.75	21.56	-0.0003	155.37	140.92	255708
NCL2170	FEX50YR1DAY	19.85	20.79	-0.0002	251.32	249.23	100654
NCL2230	FEX50YR1DAY	19.13	19.79	0.0001	293.12	290.26	51864
NCL2250	FEX50YR1DAY	19.55	20.32	0.0002	264.77	248.81	4443
NCL2270	FEX50YR1DAY	20.05	20.96	0.0001	328.55	327.65	61505
NCL2290	FEX50YR1DAY	19.88	20.79	0.0001	17.08	15.15	19506
NCL2310	FEX50YR1DA	20.45	21.22	0.0001	96.59	96.26	1779

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2330	FEX50YR1DAY	20.74	21.41	0.0001	198.71	186.66	134793
NCL2350	FEX50YR1DAY	20.78	21.44	0.0001	91.65	90.64	14820
NCL2370	FEX50YR1DAY	20.81	21.44	0.0001	89.32	88.79	2298
NCL2390	FEX50YR1DAY	20.84	21.47	0.0001	203.17	164.74	219839
NCL2410	FEX50YR1DAY	21.07	21.49	0.0000	30.64	30.28	1380
NCL2430	FEX50YR1DAY	21.32	21.61	0.0000	29.29	28.93	1472
NCL2450	FEX50YR1DAY	21.25	21.57	0.0000	6.26	6.10	493
NCL2470	FEX50YR1DAY	20.93	21.47	0.0000	28.04	27.68	846
NCL2490	FEX50YR1DAY	21.54	21.62	0.0000	26.20	25.87	1537
NCL2510	FEX50YR1DAY	21.70	21.58	0.0000	201.83	202.03	128715
NCL2530	FEX50YR1DAY	21.70	21.57	0.0000	90.15	91.70	60425
NCL2540	FEX50YR1DAY	0.00	22.27	0.0000	125.50	123.20	59103
NCL2550	FEX50YR1DAY	21.70	21.57	0.0000	100.33	100.77	22397
NCL2570	FEX50YR1DAY	21.51	21.53	0.0001	13.13	12.79	1503
NCL2580	FEX50YR1DAY	0.00	21.50	-0.0001	180.65	179.73	42786
NCL2590	FEX50YR1DAY	21.17	21.50	0.0000	308.59	304.48	173597
NCL2610	FEX50YR1DAY	21.14	21.49	0.0000	212.34	212.14	35962
NCL2630	FEX50YR1DAY	20.86	21.09	0.0000	123.43	118.19	57225
NCL2631	FEX50YR1DAY	0.00	20.95	-0.0001	113.51	98.86	50327
NCL2650	FEX50YR1DAY	21.17	21.65	0.0000	127.68	105.79	156685
NCL2670	FEX50YR1DAY	21.93	22.26	-0.0004	133.80	159.74	71624
NCL2690	FEX50YR1DAY	21.96	22.54	0.0000	90.05	95.30	64735
NCL2710	FEX50YR1DAY	21.96	22.65	0.0000	80.06	71.32	86957

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2730	FEX50YR1DAY	21.95	22.77	0.0000	49.87	48.82	28395
NCL2750	FEX50YR1DAY	21.84	23.15	0.0000	158.38	157.26	50079
NCL2770	FEX50YR1DAY	21.71	22.50	0.0000	40.52	40.53	1389
NCL2780	FEX50YR1DAY	0.00	22.42	0.0000	40.85	40.51	32694
NCL2790	FEX50YR1DAY	21.84	22.42	0.0000	229.40	218.51	158557
NCL2810	FEX50YR1DAY	22.11	22.91	0.0001	153.07	152.30	31718
NCL2830	FEX50YR1DAY	23.09	23.22	-0.0002	32.24	30.84	16073
NCL2835	FEX50YR1DAY	0.00	23.91	0.0000	7.90	7.95	1074
NCL2840	FEX50YR1DAY	0.00	23.83	0.0000	151.27	150.99	28963
NCL2845	FEX50YR1DAY	0.00	24.37	-0.0001	84.52	84.29	19187
NCL2850	FEX50YR1DAY	20.82	21.44	0.0001	16.32	16.51	5155
NCL2870	FEX50YR1DAY	20.83	21.34	0.0001	15.47	15.65	1245
NCL2890	FEX50YR1DAY	20.83	21.25	0.0001	16.97	15.47	26850
NCL2910	FEX50YR1DAY	20.83	21.25	0.0001	118.48	117.84	46822
NCL2930	FEX50YR1DAY	19.55	20.35	0.0003	264.36	266.23	30790
NCL2950	FEX50YR1DAY	19.53	20.35	0.0001	195.34	195.37	34513
NCL2970	FEX50YR1DAY	20.49	20.76	0.0002	86.65	84.37	26948
NCL2990	FEX50YR1DAY	19.33	20.20	0.0001	191.92	191.81	10932
NCL3010	FEX50YR1DAY	19.35	20.20	0.0002	189.32	189.20	310782
NCL3030	FEX50YR1DAY	19.58	20.24	0.0002	186.63	186.67	117138
NCL3050	FEX50YR1DAY	19.94	20.31	0.0002	114.59	106.66	63074
NCL3070	FEX50YR1DAY	20.14	20.38	0.0001	64.04	57.74	37474
NCL3090	FEX50YR1DAY	19.59	20.23	0.0002	181.01	181.09	117788
NCL3110	FEX50YR1DA	19.59	20.23	0.0003	106.64	72.58	147152

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL3130	FEX50YR1DAY	19.59	20.24	0.0002	41.24	21.87	72796
NCL3150	FEX50YR1DAY	19.54	20.22	0.0002	177.35	176.59	83214
NCL3170	FEX50YR1DAY	19.71	20.45	0.0002	142.53	141.76	51416
NCL3190	FEX50YR1DAY	20.31	20.75	0.0002	161.94	149.93	159626
NCL3210	FEX50YR1DAY	20.32	20.75	0.0002	121.16	114.23	76734
NCL3230	FEX50YR1DAY	20.32	20.76	0.0002	99.18	96.82	35134
NCL3250	FEX50YR1DAY	19.11	20.12	0.0002	199.08	180.97	215902
NCL3270	FEX50YR1DAY	19.11	20.13	0.0001	33.88	31.44	22413
NCL3280	FEX50YR1DAY	0.00	20.13	0.0001	51.06	49.57	24864
NCL3290	FEX50YR1DAY	20.16	20.62	0.0001	50.86	48.76	35194
NCL3300	FEX50YR1DAY	0.00	20.13	0.0001	17.40	17.39	11255
NCL3310	FEX50YR1DAY	20.19	20.74	0.0001	3.11	2.35	755
NCL3330	FEX50YR1DAY	20.75	20.79	0.0000	7.49	6.97	437
NCL3350	FEX50YR1DAY	20.51	20.81	0.0001	59.74	57.28	55430
NCL3360	FEX50YR1DAY	0.00	20.81	0.0000	20.28	18.96	25027
NCL3365	FEX50YR1DAY	0.00	20.44	0.0001	57.83	57.09	34406
NCL3370	FEX50YR1DAY	20.64	21.22	0.0001	201.64	199.16	111070
NCL3390	FEX50YR1DAY	20.83	21.25	0.0001	202.32	201.70	44187
NCL3410	FEX50YR1DAY	20.83	21.25	0.0001	2.43	1.81	475
NCL3430	FEX50YR1DAY	20.83	21.25	0.0000	6.19	1.30	5862
NCL3450	FEX50YR1DAY	18.92	20.13	0.0006	481.52	284.29	258178
NCL3460	FEX50YR1DAY	18.92	20.12	-0.0008	126.95	127.04	2956
NCL3470	FEX50YR1DAY	19.11	20.13	0.0001	652.42	383.54	369832

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3490	FEX50YR1DAY	19.15	20.13	-0.0001	190.30	509.40	84455
NCL3510	FEX50YR1DAY	20.64	20.14	0.0001	168.75	170.37	37362
NCL3520	FEX50YR1DAY	0.00	20.14	0.0000	424.09	421.32	112546
NCL3530	FEX50YR1DAY	20.66	20.97	0.0001	232.19	230.10	77342
NCL3550	FEX50YR1DAY	20.66	20.97	0.0001	6.51	2.79	736
NCL3570	FEX50YR1DAY	20.66	21.01	0.0001	3.48	1.46	624
NCL3590	FEX50YR1DAY	20.66	21.01	0.0000	4.35	1.91	7594
NCL3610	FEX50YR1DAY	20.66	20.96	-0.0001	19.37	17.72	1245
NCL3630	FEX50YR1DAY	20.64	20.95	0.0001	376.38	372.37	131489
NCL3635	FEX50YR1DAY	0.00	20.95	0.0001	13.87	11.87	1726
NCL3640	FEX50YR1DAY	0.00	20.95	0.0001	50.08	45.61	61506
NCL3650	FEX50YR1DAY	18.92	20.12	0.0001	5.29	3.94	502
NCL3670	FEX50YR1DAY	18.92	20.12	0.0000	99.23	84.09	107802
NCL3690	FEX50YR1DAY	18.92	20.13	-0.0003	193.93	192.38	3204
NCL3730	FEX50YR1DAY	18.92	20.13	0.0000	478.00	95.62	151156
NCL3740	FEX50YR1DAY	0.00	20.13	0.0001	268.25	104.26	43038
NCL3750	FEX50YR1DAY	18.93	19.63	0.0002	252.69	205.86	293083
NCL3770	FEX50YR1DAY	18.93	19.63	0.0002	75.89	20.38	112662
NCL4000	FEX50YR1DAY	0.00	29.88	0.0000	77.82	77.77	8832
NCL4010	FEX50YR1DAY	0.00	29.64	0.0000	68.55	68.25	15465
NCypEast	FEX50YR1DAY	32.00	29.00	0.0000	17.00	0.00	0
NCypWest	FEX50YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX50YR1DAY	2.00	2.00	0.0000	571.12	0.10	0
NOC0030	FEX50YR1DA	1.14	2.47	-0.0085	571.17	571.12	1526

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NOC0050	FEX50YR1DAY	1.20	2.73	0.0084	494.59	494.70	1940
NOC0070	FEX50YR1DAY	1.45	3.71	-0.0062	478.78	478.85	6792
NOC0090	FEX50YR1DAY	2.91	3.85	-0.0017	126.50	126.59	446
NOC0110	FEX50YR1DAY	1.65	3.79	0.0080	292.92	293.05	455
NOC0130	FEX50YR1DAY	3.06	4.61	0.0050	292.85	292.92	528
NOC0150	FEX50YR1DAY	3.08	4.63	0.0000	4.16	3.93	500
NOC0170	FEX50YR1DAY	4.56	4.91	0.0000	22.76	22.74	1900
NOC0190	FEX50YR1DAY	5.09	5.92	0.0008	291.38	291.52	1939
NOC0210	FEX50YR1DAY	5.68	6.12	-0.0001	45.20	44.27	8029
NOC0230	FEX50YR1DAY	5.12	5.98	-0.0001	10.64	10.34	742
NOC0250	FEX50YR1DAY	5.30	6.45	-0.0001	11.06	10.64	984
NOC0270	FEX50YR1DAY	5.57	7.06	0.0000	8.26	5.16	9414
NOC0290	FEX50YR1DAY	5.11	6.11	0.0002	381.10	381.16	1836
NOC0310	FEX50YR1DAY	5.27	6.52	0.0001	90.96	83.28	28241
NOC0330	FEX50YR1DAY	5.85	6.89	0.0001	385.48	380.80	200327
NOC0350	FEX50YR1DAY	5.89	6.97	0.0001	356.57	327.68	142869
NOC0370	FEX50YR1DAY	6.47	7.32	-0.0001	270.69	269.65	73193
NOC0390	FEX50YR1DAY	6.60	7.72	-0.0001	113.03	99.85	60653
NOC0410	FEX50YR1DAY	6.95	7.71	0.0001	59.45	42.49	80682
NOC0430	FEX50YR1DAY	7.01	7.46	0.0001	62.78	61.58	34469
NOC0450	FEX50YR1DAY	7.62	7.71	0.0001	41.45	40.49	22214
NOC0470	FEX50YR1DAY	8.12	8.23	0.0001	28.46	26.89	27817
NOC0490	FEX50YR1DAY	7.67	7.73	0.0001	6.35	6.29	1051

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0010	FEX50YR1DAY	2.00	2.00	0.0000	676.40	0.00	0
NRU0030	FEX50YR1DAY	2.84	3.63	-0.0005	438.13	382.30	2468
NRU0050	FEX50YR1DAY	4.36	5.82	-0.0013	382.32	438.13	2036
NRU0070	FEX50YR1DAY	5.61	7.60	-0.0010	411.73	382.32	40804
NRU0090	FEX50YR1DAY	5.66	7.60	-0.0002	128.36	90.14	45277
NRU0110	FEX50YR1DAY	6.23	7.65	-0.0001	319.57	296.83	32214
NRU0130	FEX50YR1DAY	7.66	9.28	-0.0002	272.50	272.12	2616
NRU0150	FEX50YR1DAY	7.71	9.34	0.0006	254.02	254.05	1429
NRU0160	FEX50YR1DAY	0.00	14.92	-0.0001	189.29	189.17	4959
NRU0165	FEX50YR1DAY	0.00	15.16	0.0000	7.74	7.39	474
NRU0170	FEX50YR1DAY	14.45	17.53	0.0013	254.47	194.21	110757
NRU0172	FEX50YR1DAY	0.00	17.54	0.0000	8.95	9.94	830
NRU0174	FEX50YR1DAY	0.00	17.56	-0.0001	16.47	8.95	10643
NRU0176	FEX50YR1DAY	0.00	16.32	0.0000	10.45	10.45	761
NRU0178	FEX50YR1DAY	0.00	17.28	0.0000	6.18	6.21	957
NRU0180	FEX50YR1DAY	0.00	17.56	0.0000	239.92	192.34	215201
NRU0190	FEX50YR1DAY	14.45	17.53	-0.0008	17.97	15.47	24214
NRU0210	FEX50YR1DAY	14.45	17.35	-0.0001	24.15	18.21	17392
NRU0230	FEX50YR1DAY	13.39	15.23	0.0001	37.25	36.55	23877
NRU0250	FEX50YR1DAY	14.62	17.53	0.0001	862.39	236.39	61454
NRU0270	FEX50YR1DAY	15.05	17.55	-0.0005	173.79	193.90	15209
NRU0290	FEX50YR1DAY	16.30	19.10	-0.0002	99.05	82.12	108314
NRU0310	FEX50YR1DAY	16.13	17.91	0.0000	98.49	98.66	5962
NRU0330	FEX50YR1DA	18.25	18.61	0.0000	26.02	26.35	1352

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0335	FEX50YR1DAY	0.00	19.46	0.0001	12.80	10.72	18443
NRU0340	FEX50YR1DAY	0.00	19.12	0.0001	104.53	92.67	75522
NRU0343	FEX50YR1DAY	0.00	19.71	0.0001	8.99	8.37	902
NRU0345	FEX50YR1DAY	0.00	19.93	0.0001	96.75	87.57	104607
NRU0350	FEX50YR1DAY	19.50	19.71	0.0001	28.33	19.20	52560
NRU0370	FEX50YR1DAY	19.51	19.72	0.0001	18.13	14.62	29990
NRU0380	FEX50YR1DAY	23.33	19.91	-0.0001	9.91	9.87	470
NRU0390	FEX50YR1DAY	27.00	19.93	0.0000	28.44	9.91	37484
NRU0410	FEX50YR1DAY	19.56	19.81	0.0000	9.08	9.25	1100
NRU0425	FEX50YR1DAY	15.53	16.74	0.0001	8.61	3.39	4982
NRU0430	FEX50YR1DAY	19.61	19.89	0.0000	8.93	9.08	1077
NRU0450	FEX50YR1DAY	19.66	19.98	0.0000	8.79	8.93	1038
NRU0470	FEX50YR1DAY	19.72	20.41	0.0000	8.85	8.79	799
NRU0490	FEX50YR1DAY	20.36	20.77	0.0001	16.79	15.67	51340
NRU0495	FEX50YR1DAY	0.00	21.23	-0.0001	15.21	14.45	18980
NRU0500	FEX50YR1DAY	0.00	21.30	0.0000	4.13	3.83	9086
NRU0510	FEX50YR1DAY	19.67	20.40	0.0000	47.04	33.66	110932
NRU0530	FEX50YR1DAY	16.95	18.26	0.0000	71.96	72.09	2252
NRU0550	FEX50YR1DAY	17.92	18.65	0.0000	156.96	147.64	93498
NRU0570	FEX50YR1DAY	18.16	19.09	0.0000	115.71	114.61	20686
NRU0590	FEX50YR1DAY	18.51	19.69	0.0000	71.95	71.42	31479
NRU0610	FEX50YR1DAY	18.78	19.90	0.0000	73.24	65.93	88783
NRU0612	FEX50YR1DAY	0.00	19.90	0.0000	61.35	61.41	57201

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0615	FEX50YR1DAY	0.00	20.07	0.0001	9.83	8.03	1934
NRU0616	FEX50YR1DAY	0.00	20.40	0.0000	10.34	8.20	26537
NRU0618	FEX50YR1DAY	0.00	20.76	0.0000	20.91	17.23	29670
NRU0620	FEX50YR1DAY	0.00	20.18	0.0001	41.55	37.31	34846
NRU0630	FEX50YR1DAY	18.79	20.06	0.0000	59.29	59.63	47310
NRU0650	FEX50YR1DAY	18.79	20.07	0.0000	86.64	79.36	74656
NRU0670	FEX50YR1DAY	18.78	20.09	0.0002	58.73	58.62	1429
NRU0690	FEX50YR1DAY	18.84	20.11	0.0000	98.74	91.56	84797
NRU0710	FEX50YR1DAY	18.86	20.11	0.0000	166.29	154.37	82971
NRU0730	FEX50YR1DAY	18.85	20.11	0.0000	60.56	47.37	107807
NRU0740	FEX50YR1DAY	0.00	20.11	0.0000	164.50	143.27	46698
NRU0745	FEX50YR1DAY	0.00	20.12	0.0000	153.38	125.88	72114
NRU0750	FEX50YR1DAY	18.87	20.12	0.0000	185.40	51.39	335647
NRU0770	FEX50YR1DAY	18.88	20.12	0.0001	29.43	29.85	1008
NRU0785	FEX50YR1DAY	0.00	20.12	0.0000	123.42	108.53	89832
NRU0790	FEX50YR1DAY	18.88	20.12	0.0002	467.32	168.25	193784
NRU0810	FEX50YR1DAY	18.88	20.12	-0.0002	51.39	48.37	10754
NRU0820	FEX50YR1DAY	0.00	20.11	0.0001	6.01	3.09	442
NRU0830	FEX50YR1DAY	18.99	20.12	-0.0003	104.49	433.15	63265
NRU0850	FEX50YR1DAY	19.11	20.12	-0.0001	72.03	71.77	1188
NRU0870	FEX50YR1DAY	19.32	20.13	-0.0007	18.26	17.83	560
NRU0890	FEX50YR1DAY	19.35	20.13	0.0000	100.99	19.87	86951
NRU0910	FEX50YR1DAY	19.35	20.13	0.0000	3.30	2.98	568
NRU0930	FEX50YR1DA	19.35	20.14	0.0000	3.48	3.30	2178

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0950	FEX50YR1DAY	19.11	20.13	0.0000	125.67	100.71	44083
NRU0955	FEX50YR1DAY	0.00	20.13	0.0000	160.22	116.70	71873
NRU0960	FEX50YR1DAY	0.00	20.13	0.0000	221.49	204.21	47717
NRU0965	FEX50YR1DAY	0.00	20.13	0.0000	259.71	230.81	160540
NRU0970	FEX50YR1DAY	19.34	20.13	0.0000	121.84	71.14	99864
NRU0980	FEX50YR1DAY	0.00	20.13	-0.0009	13.37	8.34	1097
NRU0990	FEX50YR1DAY	19.39	20.13	0.0005	32.01	38.21	440
NRU1010	FEX50YR1DAY	19.70	20.13	0.0001	41.76	32.42	47679
NRU1015	FEX50YR1DAY	0.00	20.60	-0.0001	25.45	12.46	55276
NRU1020	FEX50YR1DAY	0.00	21.73	-0.0060	17.62	94.67	866
NRU1025	FEX50YR1DAY	0.00	21.21	-0.0001	12.13	11.97	724
NRU1030	FEX50YR1DAY	19.70	20.13	0.0001	146.14	111.01	162227
NRU1035	FEX50YR1DAY	0.00	20.15	-0.0005	7.18	45.11	436
NRU1037	FEX50YR1DAY	0.00	20.14	0.0000	4.93	4.55	642
NRU1040	FEX50YR1DAY	0.00	20.13	0.0001	100.77	79.25	104337
NRU1045	FEX50YR1DAY	0.00	21.81	0.0001	23.56	12.64	41984
NRU1046	FEX50YR1DAY	0.00	21.77	0.0060	12.64	11.20	934
NRU1050	FEX50YR1DAY	19.70	20.13	0.0000	163.47	119.35	195449
NRU1070	FEX50YR1DAY	19.83	20.13	0.0000	64.86	59.54	56490
NRU1090	FEX50YR1DAY	18.86	20.12	0.0000	12.19	13.02	919
NRU1110	FEX50YR1DAY	18.86	20.12	0.0001	69.91	30.54	94385
NRU1130	FEX50YR1DAY	18.86	20.12	-0.0002	7.28	7.07	769
NRU1150	FEX50YR1DAY	18.86	20.11	0.0001	81.05	54.03	142252

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1170	FEX50YR1DAY	18.86	20.11	-0.0001	62.62	56.33	179348
NRU1182	FEX50YR1DAY	0.00	20.11	0.0000	25.79	9.86	32375
NRU1184	FEX50YR1DAY	0.00	20.08	0.0000	16.29	16.12	872
NRU1185	FEX50YR1DAY	0.00	20.07	0.0000	27.91	19.31	96888
NRU1186	FEX50YR1DAY	0.00	20.09	0.0000	4.77	4.66	786
NRU1188	FEX50YR1DAY	0.00	20.07	0.0000	29.86	6.69	76737
NRU1190	FEX50YR1DAY	18.86	20.12	-0.0001	2.98	2.93	576
NRU1210	FEX50YR1DAY	18.86	20.12	0.0000	7.09	7.00	892
NRU1220	FEX50YR1DAY	0.00	20.48	0.0000	27.92	23.81	40334
NRU1225	FEX50YR1DAY	0.00	23.03	0.0000	7.46	7.18	8649
NRU1230	FEX50YR1DAY	18.88	20.11	-0.0001	11.71	11.44	873
NRU1232	FEX50YR1DAY	0.00	20.11	-0.0001	8.76	8.49	861
NRU1234	FEX50YR1DAY	0.00	20.11	0.0000	82.49	81.36	13384
NRU1240	FEX50YR1DAY	0.00	20.11	0.0000	47.33	43.54	33749
NRU1250	FEX50YR1DAY	4.07	4.82	-0.0004	296.78	296.76	2104
NRU1270	FEX50YR1DAY	4.78	5.55	-0.0001	291.32	291.32	1667
NRU1290	FEX50YR1DAY	5.41	6.28	-0.0001	275.99	276.07	3103
NRU1310	FEX50YR1DAY	6.42	7.42	0.0001	275.93	275.99	5051
NRU1330	FEX50YR1DAY	8.29	9.68	0.0001	347.34	347.16	3357
NRU1350	FEX50YR1DAY	9.32	11.04	0.0001	340.52	339.46	4006
NRU1370	FEX50YR1DAY	11.03	13.42	0.0001	342.58	331.89	16349
NRU1390	FEX50YR1DAY	11.84	13.49	0.0001	95.08	71.72	47505
NRU1410	FEX50YR1DAY	12.56	14.71	0.0002	270.68	270.76	7222
NRU1430	FEX50YR1DA	15.53	16.74	0.0001	84.70	39.53	115063

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1450	FEX50YR1DAY	15.94	16.36	0.0001	56.54	56.13	12584
NRU1470	FEX50YR1DAY	15.97	16.41	0.0001	6.75	6.80	980
NRU1490	FEX50YR1DAY	16.09	16.62	0.0001	13.78	10.77	22674
NRU1510	FEX50YR1DAY	15.12	17.56	0.0001	228.20	229.30	165894
NRU1530	FEX50YR1DAY	15.71	17.57	-0.0001	93.76	99.89	45237
NRU1550	FEX50YR1DAY	15.40	17.56	0.0000	99.80	102.96	32650
NRU1570	FEX50YR1DAY	16.20	17.96	0.0000	56.71	51.33	29024
NRU1590	FEX50YR1DAY	16.40	17.96	0.0001	12.19	8.43	15559
NRU1610	FEX50YR1DAY	16.56	18.23	0.0000	51.17	39.83	47873
NRU1630	FEX50YR1DAY	16.69	18.23	0.0001	37.04	37.10	1538
NRU1650	FEX50YR1DAY	16.84	18.23	0.0000	44.33	37.04	46334
NRU1670	FEX50YR1DAY	16.89	18.24	0.0000	116.53	35.56	217684
NRU1690	FEX50YR1DAY	16.89	18.11	0.0000	57.22	56.19	26109
NRU1710	FEX50YR1DAY	16.60	18.12	0.0000	34.92	34.66	1425
NRU1730	FEX50YR1DAY	16.58	18.18	0.0000	106.38	26.01	188959
NRU1750	FEX50YR1DAY	16.58	18.18	0.0002	15.64	16.88	720
NRU1770	FEX50YR1DAY	16.58	18.19	0.0000	40.23	38.40	12288
NRU1790	FEX50YR1DAY	17.21	18.35	0.0000	21.80	19.06	35503
NRU1810	FEX50YR1DAY	16.58	18.18	0.0000	14.88	8.61	35724
NRU1830	FEX50YR1DAY	17.12	18.53	0.0001	39.00	25.11	56509
NRU1850	FEX50YR1DAY	17.07	18.20	-0.0001	24.79	24.62	1052
NRU1870	FEX50YR1DAY	17.20	18.34	-0.0001	24.96	24.79	907
NRU1890	FEX50YR1DAY	17.38	18.54	0.0000	65.72	24.96	114452

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1910	FEX50YR1DAY	17.71	18.54	0.0000	30.77	21.73	40919
NRU1930	FEX50YR1DAY	15.71	17.57	-0.0001	63.26	83.10	147358
NRU1950	FEX50YR1DAY	16.43	17.81	0.0000	51.10	51.36	1646
NRU1970	FEX50YR1DAY	16.86	17.95	0.0000	50.86	51.10	1037
NRU1990	FEX50YR1DAY	17.09	18.03	-0.0001	50.61	50.86	5564
NRU2010	FEX50YR1DAY	18.02	18.67	0.0001	12.74	10.88	7354
NRU2030	FEX50YR1DAY	18.39	18.69	-0.0001	17.74	16.59	41391
NRU2050	FEX50YR1DAY	18.40	18.74	0.0001	5.00	3.21	453
NRU2070	FEX50YR1DAY	18.41	18.75	0.0000	7.83	5.00	19823
NRU2090	FEX50YR1DAY	17.16	18.08	-0.0001	45.02	45.24	10711
NRU2110	FEX50YR1DAY	17.28	18.14	0.0001	42.90	43.13	15001
NRU2130	FEX50YR1DAY	17.49	18.23	-0.0001	42.21	42.45	9271
NRU2150	FEX50YR1DAY	17.69	18.50	0.0001	11.96	6.12	51226
NRU2170	FEX50YR1DAY	17.07	18.38	0.0001	3.90	3.96	771
NRU2190	FEX50YR1DAY	17.08	18.39	0.0000	16.72	3.90	51427
NRU2210	FEX50YR1DAY	17.33	18.24	0.0001	8.55	8.72	540
NRU2230	FEX50YR1DAY	17.33	18.25	0.0000	62.66	18.63	144466
NRU2250	FEX50YR1DAY	17.31	18.25	0.0001	13.98	9.54	38713
NRU2270	FEX50YR1DAY	17.61	18.26	0.0001	31.12	30.43	10637
NRU2290	FEX50YR1DAY	17.67	18.27	-0.0001	26.79	27.01	4407
NRU2310	FEX50YR1DAY	17.68	18.26	0.0001	23.40	25.17	13922
NRU2330	FEX50YR1DAY	17.68	18.28	0.0004	32.10	10.08	8418
NRU2350	FEX50YR1DAY	17.68	18.28	-0.0002	6.13	30.86	654
NRU2370	FEX50YR1DA	17.37	18.14	0.0001	5.99	6.13	528

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU2390	FEX50YR1DAY	17.36	18.15	0.0000	15.61	5.99	37021
NRU2410	FEX50YR1DAY	17.72	18.25	0.0001	23.74	23.67	17452
NRU2430	FEX50YR1DAY	17.83	18.25	0.0001	19.08	18.86	12510
NRU2450	FEX50YR1DAY	18.06	18.25	0.0001	8.56	7.40	14913
NRU2470	FEX50YR1DAY	15.72	17.58	0.0000	10.74	10.63	1460
NRU2490	FEX50YR1DAY	15.75	17.63	0.0000	10.93	10.74	1431
NRU2510	FEX50YR1DAY	15.75	17.66	0.0001	9.61	9.68	958
NRU2530	FEX50YR1DAY	15.76	17.81	0.0001	9.54	9.61	582
NRU2550	FEX50YR1DAY	16.53	17.62	0.0001	228.32	223.03	89069
NRU2570	FEX50YR1DAY	17.71	18.65	0.0001	221.14	216.25	105615
NRU2590	FEX50YR1DAY	18.30	18.68	0.0001	36.01	36.25	9891
NRU2610	FEX50YR1DAY	18.62	19.23	0.0001	105.80	105.51	30716
NRU2630	FEX50YR1DAY	19.41	19.68	-0.0002	91.75	90.69	71533
NRU2650	FEX50YR1DAY	19.54	20.10	-0.0001	80.06	78.75	87196
NRU2670	FEX50YR1DAY	16.64	17.14	0.0000	42.17	39.97	18953
NRU2690	FEX50YR1DAY	17.09	18.01	0.0000	264.53	118.03	527304
NSH02	FEX50YR1DAY	0.00	21.30	-0.0004	20.20	97.59	19153
NSH03	FEX50YR1DAY	0.00	20.64	0.0000	5.26	5.20	548
NSH04	FEX50YR1DAY	0.00	20.03	0.0002	83.37	82.41	31430
NSH05	FEX50YR1DAY	0.00	19.80	-0.0030	12.33	11.55	20452
NSH07	FEX50YR1DAY	0.00	8.51	0.0001	76.12	76.07	10508
NSH08	FEX50YR1DAY	0.00	10.32	0.0000	36.34	35.39	7073
NSH09	FEX50YR1DAY	0.00	10.82	0.0000	105.32	105.20	22054

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH10	FEX50YR1DAY	0.00	19.17	0.0000	36.38	35.61	28977
NSH11	FEX50YR1DAY	0.00	21.14	0.0000	11.50	11.43	6788
NSH12	FEX50YR1DAY	0.00	19.22	0.0000	15.61	15.50	8103
NSH13	FEX50YR1DAY	0.00	18.12	0.0000	42.03	41.45	22350
NSH14	FEX50YR1DAY	0.00	17.86	0.0000	12.83	12.72	11125
NSH15	FEX50YR1DAY	0.00	18.75	0.0000	8.22	8.16	5724
NSH17	FEX50YR1DAY	0.00	17.34	0.0000	44.24	44.12	9440
NSH18	FEX50YR1DAY	0.00	15.90	0.0000	40.00	39.90	10428
NSH19	FEX50YR1DAY	0.00	11.72	0.0000	36.00	35.83	14311
NSH20	FEX50YR1DAY	0.00	20.23	0.0000	5.32	5.15	12732
NSH21	FEX50YR1DAY	0.00	11.30	-0.0001	50.46	50.42	11750
NSH22	FEX50YR1DAY	0.00	14.48	0.0000	53.73	53.29	11453
NSH23	FEX50YR1DAY	0.00	18.42	0.0000	18.11	17.85	5203
NSH24	FEX50YR1DAY	0.00	14.48	0.0000	42.86	42.53	9406
NSH25	FEX50YR1DAY	0.00	14.21	-0.0001	29.16	27.86	16233
NSH26	FEX50YR1DAY	0.00	14.10	0.0000	136.48	132.78	72628
NSH27	FEX50YR1DAY	0.00	13.12	0.0000	41.13	38.93	41933
NSH27A	FEX50YR1DAY	0.00	13.06	0.0000	17.36	16.96	921
NSH27AA	FEX50YR1DAY	0.00	13.10	-0.0001	4.50	4.53	550
NSH27B	FEX50YR1DAY	0.00	11.75	-0.0001	16.96	18.52	1033
NSH27C	FEX50YR1DAY	0.00	9.48	0.0004	18.52	17.26	1037
NSH28	FEX50YR1DAY	0.00	10.06	0.0000	61.65	61.25	13907
NSH29	FEX50YR1DAY	0.00	9.55	-0.0002	16.25	13.42	5448
NSH31	FEX50YR1DA	0.00	10.04	0.0001	6.11	4.69	480

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH33	FEX50YR1DAY	0.00	16.79	0.0000	9.64	9.14	13957
NSH34	FEX50YR1DAY	0.00	9.57	0.0001	108.52	108.47	7839
NSH35	FEX50YR1DAY	0.00	8.19	-0.0001	124.14	124.13	5549
NSH36	FEX50YR1DAY	0.00	8.16	-0.0004	22.19	22.13	805
NSH37	FEX50YR1DAY	0.00	18.12	0.0000	27.75	27.70	7292
NSH41	FEX50YR1DAY	0.00	19.20	0.0000	12.11	11.92	1475
NSH42	FEX50YR1DAY	0.00	7.94	-0.0001	158.45	158.43	5824
NSH43	FEX50YR1DAY	0.00	7.94	-0.0005	44.42	44.36	1745
NSH44	FEX50YR1DAY	0.00	9.95	0.0003	80.28	80.28	1115
NSH45	FEX50YR1DAY	0.00	16.68	0.0000	80.16	78.96	37529
NSH48	FEX50YR1DAY	0.00	18.42	0.0000	22.35	22.16	5636
NSH49	FEX50YR1DAY	0.00	20.95	0.0000	25.63	23.21	20969
NSH50	FEX50YR1DAY	0.00	20.07	0.0002	64.62	62.13	23619
NSH51	FEX50YR1DAY	0.00	19.97	0.0001	47.24	27.43	100802
NSH52	FEX50YR1DAY	0.00	20.06	0.0001	108.54	96.16	58637
NSH53	FEX50YR1DAY	0.00	19.97	-0.0001	27.43	24.58	5102
NSH54	FEX50YR1DAY	0.00	20.06	0.0001	75.62	76.28	32339
NSH55	FEX50YR1DAY	0.00	20.07	0.0001	83.31	79.71	36928
NSH56	FEX50YR1DAY	0.00	20.07	-0.0001	28.15	28.26	5660
NSH57	FEX50YR1DAY	0.00	20.11	-0.0001	44.75	43.23	13265
NSH60	FEX50YR1DAY	0.00	20.64	0.0002	21.59	20.62	5555
NSH61	FEX50YR1DAY	0.00	20.12	-0.0002	19.31	19.23	444
NSH65	FEX50YR1DAY	0.00	20.84	0.0000	5.12	4.82	470

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH75	FEX50YR1DAY	0.00	8.30	0.0001	66.40	65.24	17196
NSH80	FEX50YR1DAY	0.00	20.30	0.0000	5.94	6.10	10779
NSH81	FEX50YR1DAY	0.00	20.92	0.0000	1.45	0.52	2788
NSH82	FEX50YR1DAY	0.00	20.96	0.0000	5.57	2.70	9579
NSH83	FEX50YR1DAY	0.00	20.83	0.0000	26.75	26.13	15180
NSR0000	FEX50YR1DAY	2.00	2.00	0.0000	315.26	45.04	0
NSR0005	FEX50YR1DAY	2.00	2.00	0.0000	10.05	0.00	0
NSR0010	FEX50YR1DAY	2.00	2.00	0.0000	523.11	0.00	0
NSR0030	FEX50YR1DAY	2.92	3.72	0.0000	529.87	523.11	221760
NSR0032	FEX50YR1DAY	4.88	5.37	0.0000	18.91	16.28	25235
NSR0034	FEX50YR1DAY	3.63	4.20	0.0000	103.83	89.15	85235
NSR0050	FEX50YR1DAY	3.44	4.38	0.0001	503.19	502.52	118842
NSR0070	FEX50YR1DAY	3.45	4.25	-0.0001	33.65	19.70	66411
NSR0090	FEX50YR1DAY	3.68	4.21	-0.0001	51.59	40.66	47004
NSR0100	FEX50YR1DAY	2.25	3.62	0.0000	10.20	10.05	524
NSR0102	FEX50YR1DAY	4.24	4.57	0.0000	5.58	5.00	3780
NSR0105	FEX50YR1DAY	1.91	3.01	0.0238	315.30	315.26	484
NSR0110	FEX50YR1DAY	3.93	4.63	0.0000	47.17	46.90	30663
NSR0112	FEX50YR1DAY	2.31	3.46	0.0312	314.36	314.35	469
NSR0115	FEX50YR1DAY	4.25	4.43	0.0000	5.11	4.83	9736
NSR0120	FEX50YR1DAY	2.62	3.82	0.0341	312.09	312.12	479
NSR0130	FEX50YR1DAY	4.16	5.05	0.0000	45.17	44.91	41492
NSR0135	FEX50YR1DAY	4.22	5.50	0.0000	38.30	38.19	29836
NSR0140	FEX50YR1DA	3.28	4.59	0.0261	309.73	309.76	2094

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0150	FEX50YR1DAY	3.64	4.81	0.0004	426.91	427.90	29727
NSR0160	FEX50YR1DAY	3.56	4.89	-0.0219	298.89	299.27	20415
NSR0165	FEX50YR1DAY	4.03	5.55	0.0000	86.22	86.02	34204
NSR0170	FEX50YR1DAY	3.70	5.19	0.0000	52.18	52.17	16876
NSR0180	FEX50YR1DAY	3.83	5.34	0.0000	92.42	91.65	39504
NSR0190	FEX50YR1DAY	4.04	5.05	0.0001	57.69	58.14	5113
NSR0210	FEX50YR1DAY	4.26	5.75	0.0001	58.07	57.42	20949
NSR0230	FEX50YR1DAY	4.26	5.76	0.0000	75.80	57.50	146195
NSR0250	FEX50YR1DAY	3.93	5.01	-0.0069	394.94	394.86	12764
NSR0270	FEX50YR1DAY	3.98	5.08	0.0000	165.29	160.77	88048
NSR0280	FEX50YR1DAY	5.41	6.06	0.0019	322.36	322.00	46278
NSR0281	FEX50YR1DAY	5.97	6.76	0.0004	276.58	276.25	22044
NSR0290	FEX50YR1DAY	6.70	7.16	-0.0003	169.92	168.59	43943
NSR0310	FEX50YR1DAY	9.28	9.53	0.0001	147.45	146.10	74376
NSR0330	FEX50YR1DAY	9.65	10.21	0.0001	9.51	9.53	470
NSR0350	FEX50YR1DAY	10.32	11.51	-0.0001	9.51	9.51	446
NSR0370	FEX50YR1DAY	10.35	11.53	0.0000	16.78	9.51	19604
NSR0390	FEX50YR1DAY	11.96	12.37	-0.0001	106.19	105.75	78791
NSR0410	FEX50YR1DAY	12.27	13.10	0.0001	9.32	9.93	510
NSR0430	FEX50YR1DAY	12.28	13.12	0.0000	13.83	9.32	31972
NSR0450	FEX50YR1DAY	13.04	14.15	-0.0001	66.12	66.06	39605
NSR0470	FEX50YR1DAY	13.10	14.59	-0.0001	50.40	50.31	16262
NSR0490	FEX50YR1DAY	4.41	5.19	-0.0091	215.84	211.86	38563

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0510	FEX50YR1DAY	4.48	5.41	-0.0015	117.61	116.80	24506
NSR0530	FEX50YR1DAY	4.55	5.54	0.0002	39.35	38.19	69190
NSR0540	FEX50YR1DAY	4.55	5.61	0.0007	145.82	143.11	112170
NSR0550	FEX50YR1DAY	4.56	5.61	-0.0044	384.79	384.31	32874
NSR0560	FEX50YR1DAY	4.66	5.66	0.0006	176.86	175.24	115208
NSR0570	FEX50YR1DAY	5.28	5.84	0.0002	237.13	236.84	62848
NSR0580	FEX50YR1DAY	6.13	6.82	-0.0001	33.33	19.93	118288
NSR0590	FEX50YR1DAY	6.15	6.83	-0.0001	131.50	130.34	77381
NSR0610	FEX50YR1DAY	6.26	6.89	-0.0001	147.15	139.16	81331
NSR0630	FEX50YR1DAY	6.26	6.88	-0.0001	16.37	16.43	475
NSR0650	FEX50YR1DAY	6.25	6.85	-0.0001	134.95	100.76	215074
NSR0660	FEX50YR1DAY	6.13	6.80	-0.0001	88.80	86.44	77898
NSR0670	FEX50YR1DAY	6.24	6.85	-0.0001	6.59	7.20	520
NSR0680	FEX50YR1DAY	6.14	6.75	-0.0001	115.22	113.55	167572
NSR0690	FEX50YR1DAY	6.24	6.84	-0.0001	6.23	6.59	599
NSR0710	FEX50YR1DAY	6.23	6.84	0.0000	6.16	6.23	861
NSR0730	FEX50YR1DAY	6.29	6.91	0.0001	199.52	171.35	202238
NSR0770	FEX50YR1DAY	6.81	7.79	0.0001	186.82	185.73	29651
NSR0780	FEX50YR1DAY	6.74	7.35	0.0001	76.61	75.67	30049
NSR0790	FEX50YR1DAY	8.35	10.83	-0.0003	442.24	430.00	89343
NSR0791	FEX50YR1DAY	7.13	8.74	0.0002	250.41	250.35	5596
NSR0809	FEX50YR1DAY	12.76	11.91	-0.0004	75.91	93.18	2120
NSR0810	FEX50YR1DAY	13.45	13.73	-0.0001	282.33	282.20	60533
NSR0830	FEX50YR1DA	15.10	15.58	-0.0002	353.57	351.03	166180

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0840	FEX50YR1DAY	16.09	16.36	0.0000	69.73	69.61	53922
NSR0850	FEX50YR1DAY	15.64	16.27	-0.0003	283.55	282.48	82332
NSR0860	FEX50YR1DAY	16.41	16.55	0.0000	13.37	13.41	17237
NSR0869	FEX50YR1DAY	16.03	16.65	0.0001	30.19	29.94	1504
NSR0870	FEX50YR1DAY	16.24	16.86	0.0001	236.22	236.00	50944
NSR0880	FEX50YR1DAY	16.24	16.89	0.0001	101.29	101.00	25358
NSR0881	FEX50YR1DAY	14.14	17.94	0.0005	406.16	403.48	195905
NSR0890	FEX50YR1DAY	4.02	5.04	0.1107	278.81	274.45	114688
NSR0910	FEX50YR1DAY	4.79	5.77	0.0030	219.51	220.50	88768
NSR0930	FEX50YR1DAY	5.54	7.10	0.0000	271.84	50.14	335600
NSR0950	FEX50YR1DAY	5.63	7.11	0.0004	397.89	377.48	183118
NSR0970	FEX50YR1DAY	6.14	7.16	-0.0002	141.48	141.38	3616
NSR0990	FEX50YR1DAY	6.27	7.18	-0.0001	258.06	257.21	4499
NSR1010	FEX50YR1DAY	6.30	7.21	0.0000	62.12	59.66	19673
NSR1030	FEX50YR1DAY	8.54	9.42	0.0002	200.17	199.64	10032
NSR1050	FEX50YR1DAY	8.56	9.50	0.0000	136.16	133.49	30847
NSR1070	FEX50YR1DAY	9.58	9.84	-0.0014	284.98	280.78	74569
NSR1090	FEX50YR1DAY	11.30	11.50	0.0002	168.10	168.11	8672
NSR1110	FEX50YR1DAY	11.57	11.60	0.0000	3.98	3.96	3049
NSR1130	FEX50YR1DAY	11.29	11.43	0.0000	42.95	42.92	16199
NSR1150	FEX50YR1DAY	11.39	11.65	0.0000	9.63	8.44	12838
NSR1170	FEX50YR1DAY	11.38	11.63	0.0000	3.85	3.14	450
NSR1190	FEX50YR1DAY	12.70	13.40	0.0000	167.41	167.40	14296

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1210	FEX50YR1DAY	12.70	13.40	0.0000	33.85	6.50	93632
NSR1230	FEX50YR1DAY	14.76	15.54	0.0000	164.08	164.07	9743
NSR1270	FEX50YR1DAY	14.99	15.72	0.0000	164.10	164.08	6276
NSR1290	FEX50YR1DAY	14.99	15.72	0.0000	12.36	2.29	27258
NSR1310	FEX50YR1DAY	14.99	15.72	0.0000	42.09	13.14	168198
NSR1330	FEX50YR1DAY	15.44	16.49	0.0000	162.40	161.66	23694
NSR1350	FEX50YR1DAY	15.45	16.50	0.0000	52.64	29.58	341348
NSR1370	FEX50YR1DAY	15.56	16.57	0.0001	167.45	159.02	21929
NSR1390	FEX50YR1DAY	15.56	16.57	0.0000	5.59	2.94	8211
NSR1410	FEX50YR1DAY	15.56	16.57	0.0001	36.37	32.14	89407
NSR1430	FEX50YR1DAY	15.76	16.67	0.0000	65.95	62.73	59817
NSR1450	FEX50YR1DAY	15.74	16.67	0.0000	99.94	64.45	161116
NSR1470	FEX50YR1DAY	15.96	16.69	0.0000	67.11	62.25	83534
NSR1490	FEX50YR1DAY	16.21	16.71	0.0000	82.12	60.63	230716
NSR1510	FEX50YR1DAY	16.21	16.71	0.0000	48.00	41.51	62089
NSR1530	FEX50YR1DAY	15.56	16.57	0.0000	8.36	3.97	24526
NSR1550	FEX50YR1DAY	15.68	16.65	0.0001	182.48	175.46	34739
NSR1570	FEX50YR1DAY	15.68	16.65	-0.0001	33.06	25.75	20591
NSR1590	FEX50YR1DAY	15.68	16.65	-0.0001	71.80	79.76	55810
NSR1610	FEX50YR1DAY	15.75	16.71	-0.0002	31.07	21.29	57937
NSR1630	FEX50YR1DAY	15.75	16.71	0.0000	111.56	106.92	21008
NSR1650	FEX50YR1DAY	16.39	17.12	0.0000	4.70	4.70	503
NSR1670	FEX50YR1DAY	15.92	17.30	0.0003	131.21	118.51	89601
NSR1690	FEX50YR1DA	16.24	17.47	0.0000	93.86	90.46	23667

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1710	FEX50YR1DAY	16.25	17.47	0.0000	11.96	10.55	37246
NSR1730	FEX50YR1DAY	16.32	17.51	0.0001	97.47	92.92	20074
NSR1750	FEX50YR1DAY	16.68	17.51	0.0000	4.95	4.95	4158
NSR1770	FEX50YR1DAY	17.23	17.55	0.0000	27.41	14.30	23748
NSR1790	FEX50YR1DAY	17.24	17.55	0.0000	33.69	16.32	41105
NSR1810	FEX50YR1DAY	17.25	17.55	0.0000	11.22	8.70	18509
NSR1830	FEX50YR1DAY	17.25	17.54	0.0000	102.83	99.68	120892
NSR1850	FEX50YR1DAY	16.95	18.25	0.0000	15.79	12.09	14047
NSR1870	FEX50YR1DAY	16.93	18.25	0.0001	101.02	34.34	180486
NSR1890	FEX50YR1DAY	16.05	18.26	0.0001	13.36	13.77	1056
NSR1910	FEX50YR1DAY	15.45	18.26	0.0003	171.53	163.24	172679
NSR1930	FEX50YR1DAY	16.53	17.59	0.0001	71.05	70.04	12964
NSR1950	FEX50YR1DAY	16.70	17.55	-0.0001	27.04	27.15	15433
NSR1970	FEX50YR1DAY	16.84	18.00	0.0000	46.43	30.34	101505
NSR1990	FEX50YR1DAY	16.86	17.83	0.0000	9.16	8.89	949
NSR2010	FEX50YR1DAY	16.91	17.68	0.0000	23.95	12.06	57264
NSR2030	FEX50YR1DAY	16.90	17.52	0.0000	12.06	12.07	751
NSR2050	FEX50YR1DAY	16.88	17.28	0.0000	24.45	21.96	32871
NSR2070	FEX50YR1DAY	16.81	17.28	-0.0001	6.60	6.51	781
NSR2090	FEX50YR1DAY	16.72	17.27	0.0000	6.51	6.43	673
NSR2110	FEX50YR1DAY	16.54	17.26	0.0000	25.56	23.13	39816
NSR2130	FEX50YR1DAY	16.50	16.61	0.0000	24.39	21.57	89433
NSR2150	FEX50YR1DAY	17.60	18.08	0.0000	96.71	62.91	276675

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2170	FEX50YR1DAY	17.62	18.09	0.0004	29.28	29.42	2087
NSR2190	FEX50YR1DAY	17.62	18.10	-0.0003	29.16	29.28	967
NSR2210	FEX50YR1DAY	17.62	18.10	0.0000	97.94	71.24	239757
NSR2230	FEX50YR1DAY	17.62	18.10	0.0004	19.68	19.31	675
NSR2250	FEX50YR1DAY	17.63	18.10	0.0001	25.61	20.37	15062
NSR2270	FEX50YR1DAY	17.63	18.11	0.0001	32.76	22.30	43587
NSR2290	FEX50YR1DAY	17.63	18.11	0.0002	18.71	18.47	888
NSR2310	FEX50YR1DAY	17.63	18.11	0.0000	25.35	19.33	35079
NSR2330	FEX50YR1DAY	17.65	18.33	0.0000	28.44	11.80	55217
NSR2350	FEX50YR1DAY	17.65	18.33	0.0000	35.91	15.04	99986
NSR2370	FEX50YR1DAY	16.66	17.92	0.0000	56.76	51.51	9676
NSR2390	FEX50YR1DAY	18.07	18.14	0.0000	19.52	14.33	71658
NSR2410	FEX50YR1DAY	16.66	17.92	0.0000	63.00	42.81	22485
NSR2430	FEX50YR1DAY	17.99	18.02	0.0000	4.32	4.30	3774
NSR2450	FEX50YR1DAY	18.06	18.27	0.0000	58.02	56.13	30169
NSR3000	FEX50YR1DAY	17.04	18.26	-0.0727	17.73	49.45	55988
NSR3005	FEX50YR1DAY	17.02	18.26	0.1453	49.45	4.09	566
NSR3020	FEX50YR1DAY	17.61	18.04	-0.0001	171.05	170.51	110611
NSR3040	FEX50YR1DAY	16.25	16.90	0.0000	202.91	200.05	130835
NSR3060	FEX50YR1DAY	16.21	16.71	0.0000	50.62	49.54	66981
NSW0010	FEX50YR1DAY	2.00	2.00	0.0000	32.65	0.00	0
NSW0030	FEX50YR1DAY	2.13	3.39	0.0003	32.65	32.65	587
NSW0050	FEX50YR1DAY	4.04	6.26	-0.0003	51.05	32.65	42930
Outfall	FEX50YR1DA	2.00	2.00	0.0000	125.18	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
Outfall_NE	FEX50YR1DAY	21.00	21.03	0.0004	8.78	0.00	0
PondA	FEX50YR1DAY	0.00	20.43	0.0000	31.96	23.91	90570
PondB	FEX50YR1DAY	0.00	17.69	0.0000	205.76	166.89	199365
SH_OUTFALL	FEX50YR1DAY	2.00	2.00	0.0000	461.54	0.00	0
STORAGE1	FEX50YR1DAY	0.00	20.79	0.0000	6.97	1.24	7405
STORAGE10	FEX50YR1DAY	0.00	20.83	0.0000	4.82	0.34	9148
STORAGE11	FEX50YR1DAY	0.00	21.30	0.0003	97.59	0.01	18648
STORAGE12	FEX50YR1DAY	0.00	21.73	0.0004	91.14	5.91	10262
STORAGE13	FEX50YR1DAY	0.00	20.15	0.0001	43.80	0.70	5323
STORAGE14	FEX50YR1DAY	0.00	23.03	0.0000	7.18	0.03	13395
STORAGE2	FEX50YR1DAY	0.00	20.12	0.0001	30.46	2.93	18426
STORAGE4	FEX50YR1DAY	0.00	20.12	0.0002	68.17	3.35	12088
STORAGE5	FEX50YR1DAY	0.00	21.47	0.0000	14.15	6.47	20042
STORAGE8	FEX50YR1DAY	0.00	20.10	0.0000	3.09	1.19	6098
STORAGE9	FEX50YR1DAY	0.00	20.64	0.0014	14.26	2.76	11761
Sevilla1	FEX50YR1DAY	1.20	2.48	0.0000	0.28	0.10	804
Sevilla2	FEX50YR1DAY	1.23	2.29	0.0000	0.13	0.06	610
Sevilla3	FEX50YR1DAY	1.20	2.48	0.0000	0.73	0.28	1339
Sevilla4	FEX50YR1DAY	1.20	2.48	0.0000	1.22	0.73	1450
Shamrock2	FEX50YR1DAY	1.11	2.29	0.0001	125.19	125.18	5389
Shmrck1.1	FEX50YR1DAY	1.38	2.78	-0.0003	127.86	125.41	6206
Shmrck1.2	FEX50YR1DAY	1.20	2.48	0.0001	125.41	125.23	3971
V3	FEX50YR1DAY	6.53	6.60	0.0000	1.05	0.90	36741

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
BC_N02	FEX5YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	FEX5YR1DAY	8.77	8.73	0.0000	0.05	0.01	497
Church2	FEX5YR1DAY	8.77	8.74	0.0000	4.57	3.87	4390
Clark1	FEX5YR1DAY	7.21	7.33	0.0000	0.62	0.28	742
Clark2	FEX5YR1DAY	7.21	7.33	0.0000	47.05	47.03	4366
DM1	FEX5YR1DAY	11.42	11.59	0.0000	4.46	4.58	1384
DM2	FEX5YR1DAY	10.30	10.36	0.0000	4.58	4.36	2114
DM3	FEX5YR1DAY	9.16	9.27	0.0000	4.36	4.57	2979
E_Outlet	FEX5YR1DAY	0.00	16.19	0.0002	67.24	33.40	0
E_Outlet2	FEX5YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	FEX5YR1DAY	1.99	2.39	0.0000	0.34	0.27	763
ElP_con.1	FEX5YR1DAY	2.18	2.49	-0.0001	46.89	46.88	4221
ElPrad.1	FEX5YR1DAY	1.99	2.39	0.0000	0.16	0.10	630
G1	FEX5YR1DAY	14.98	15.22	-0.0005	63.85	48.84	35860
G10	FEX5YR1DAY	8.77	8.73	0.0000	47.07	47.05	4573
G2	FEX5YR1DAY	14.99	15.22	-0.0002	15.24	14.16	32915
G3	FEX5YR1DAY	14.86	15.16	-0.0005	62.99	53.35	27825
G4	FEX5YR1DAY	12.82	13.78	-0.0001	53.35	53.34	2076
G5	FEX5YR1DAY	11.69	12.11	0.0001	53.34	53.34	1864
G6	FEX5YR1DAY	11.00	9.24	0.0000	8.11	0.00	0
G7	FEX5YR1DAY	11.00	11.03	0.0000	53.34	53.32	3601
G8	FEX5YR1DAY	10.07	10.16	0.0000	45.21	45.21	2143
G9	FEX5YR1DAY	9.41	9.58	0.0001	45.21	45.21	1353
H1	FEX5YR1DAY	1.99	2.39	0.0000	0.12	0.11	514
H2.1	FEX5YR1DAY	1.99	2.39	-0.0001	46.88	46.87	6105
Hubert	FEX5YR1DAY	3.16	3.22	0.0000	47.03	46.98	5965
JUNCT1	FEX5YR1DAY	0.00	18.95	0.0000	4.00	3.92	4247
JUNCT10	FEX5YR1DAY	0.00	21.97	0.0000	40.47	40.34	10022
JUNCT2	FEX5YR1DAY	0.00	14.24	0.0000	19.26	19.23	2263
JUNCT3	FEX5YR1DAY	0.00	19.89	0.0000	4.19	4.01	10373
JUNCT4	FEX5YR1DAY	0.00	13.65	0.0000	3.95	3.95	5541
JUNCT6	FEX5YR1DAY	0.00	15.37	0.0000	30.03	30.03	4355
JUNCT7	FEX5YR1DAY	0.00	19.37	0.0000	65.46	65.45	8386
JUNCT7B	FEX5YR1DAY	0.00	18.98	0.0000	65.45	64.86	18387
JUNCT8	FEX5YR1DAY	0.00	19.38	0.0000	107.79	107.92	11632
JUNCT8B	FEX5YR1DAY	0.00	18.98	0.0000	107.39	106.55	26034
JUNCT9	FEX5YR1DAY	0.00	29.44	0.0000	34.75	34.75	9169
L1	FEX5YR1DAY	11.53	11.53	0.0000	0.00	0.00	436
L2	FEX5YR1DAY	11.63	11.63	0.0000	0.00	0.00	436
L3	FEX5YR1DAY	10.43	10.43	0.0000	0.00	0.00	436
L4	FEX5YR1DAY	8.43	8.43	0.0000	0.00	0.00	436
L5	FEX5YR1DAY	7.63	7.63	0.0000	0.00	0.00	436
L6	FEX5YR1DAY	6.93	6.93	0.0000	0.00	0.00	436
Lois	FEX5YR1DAY	4.82	4.73	0.0000	47.03	47.03	6808
M1	FEX5YR1DAY	2.58	2.75	0.0000	0.18	0.04	718
M1.1	FEX5YR1DAY	6.33	6.33	0.0000	0.00	0.00	436
M1.2	FEX5YR1DAY	7.03	7.03	0.0000	0.00	0.00	436

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
M1.3	FEX5YR1DAY	7.13	7.13	0.0000	0.00	0.00	436
M2	FEX5YR1DAY	2.58	2.75	0.0000	0.52	0.23	1056
M3	FEX5YR1DAY	2.58	2.75	0.0000	0.71	0.54	1177
M4	FEX5YR1DAY	2.58	2.75	0.0000	1.08	0.89	908
M5.1	FEX5YR1DAY	2.57	2.75	0.0000	46.98	46.93	6162
M6	FEX5YR1DAY	2.58	2.75	0.0000	0.34	0.22	558
Marjory_Pump	FEX5YR1DAY	0.00	33.33	0.0102	3.62	2.76	496
N01	FEX5YR1DAY	0.00	20.19	0.0000	15.22	7.67	23865
N01A	FEX5YR1DAY	0.00	20.17	-0.0001	7.67	7.42	437
N02	FEX5YR1DAY	0.00	16.58	0.0001	16.59	16.36	876
N03	FEX5YR1DAY	0.00	16.68	0.0000	2.45	2.48	597
N04	FEX5YR1DAY	0.00	17.56	0.0000	4.39	4.29	999
N05	FEX5YR1DAY	0.00	16.56	0.0000	93.38	93.43	4415
N06	FEX5YR1DAY	0.00	15.58	0.0001	75.72	75.88	3292
N07A	FEX5YR1DAY	0.00	13.38	-0.0001	78.64	78.79	4248
N08A	FEX5YR1DAY	0.00	11.94	0.0003	100.91	97.94	9318
N09	FEX5YR1DAY	0.00	10.50	0.0001	7.78	8.13	467
N09A	FEX5YR1DAY	0.00	10.42	0.0002	103.13	103.18	1361
N10	FEX5YR1DAY	2.00	2.00	0.0000	190.46	0.00	0
N11	FEX5YR1DAY	0.00	16.33	-0.0006	55.70	67.24	99248
NBB0010	FEX5YR1DAY	2.00	2.00	0.0000	119.38	0.00	0
NBB0030	FEX5YR1DAY	5.03	6.19	-0.0003	119.38	119.38	557
NBB0050	FEX5YR1DAY	9.15	10.39	-0.0001	131.51	119.38	20713
NBB0070	FEX5YR1DAY	11.30	12.41	0.0001	109.43	108.78	2549
NBB0090	FEX5YR1DAY	12.67	13.49	0.0001	93.26	93.90	1994
NBB0110	FEX5YR1DAY	13.46	14.20	0.0001	90.93	91.29	1981
NBB0130	FEX5YR1DAY	15.26	16.04	-0.0002	32.65	26.78	27496
NBB0150	FEX5YR1DAY	14.01	14.68	0.0001	70.34	70.57	1936
NBB0170	FEX5YR1DAY	14.74	15.31	0.0001	70.11	70.34	1452
NBB0190	FEX5YR1DAY	15.42	15.89	0.0001	69.88	70.11	5800
NBB0210	FEX5YR1DAY	15.70	16.15	0.0001	67.52	67.73	1556
NBB0230	FEX5YR1DAY	16.02	16.45	0.0001	67.31	67.52	1635
NBB0250	FEX5YR1DAY	16.31	16.70	0.0001	66.48	66.67	2036
NBB0270	FEX5YR1DAY	17.05	17.15	0.0001	66.17	66.48	5938
NBB0290	FEX5YR1DAY	17.06	17.16	0.0002	57.04	54.02	1258
NBB0310	FEX5YR1DAY	17.07	17.17	-0.0002	145.55	98.36	275561
NBB0330	FEX5YR1DAY	16.57	16.63	0.0002	34.83	34.48	7806
NBB0350	FEX5YR1DAY	16.45	16.54	0.0002	25.13	26.35	1396
NBB0370	FEX5YR1DAY	16.33	16.45	0.0002	56.39	48.02	45617
NBB0390	FEX5YR1DAY	16.32	16.45	0.0002	19.89	20.90	1838
NBB0410	FEX5YR1DAY	16.30	16.43	-0.0002	53.83	49.83	33345
NBB0430	FEX5YR1DAY	15.45	15.50	-0.0002	67.95	73.56	67343
NBW0010	FEX5YR1DAY	2.00	2.00	0.0000	584.25	0.00	0
NBW0030	FEX5YR1DAY	3.39	3.50	0.0000	584.33	584.25	39762
NBW0050	FEX5YR1DAY	3.92	3.88	0.0000	8.12	5.76	5143
NBW0070	FEX5YR1DAY	3.57	3.69	0.0000	183.92	184.55	27965

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0090	FEX5YR1DAY	3.66	3.71	0.0000	5.59	4.33	7467
NBW0130	FEX5YR1DAY	3.73	3.87	0.0000	181.31	181.65	14255
NBW0150	FEX5YR1DAY	3.93	3.91	0.0001	9.23	8.87	442
NBW0170	FEX5YR1DAY	3.98	3.92	0.0000	4.22	3.81	3580
NBW0190	FEX5YR1DAY	3.89	4.01	0.0001	178.98	179.14	5850
NBW0210	FEX5YR1DAY	6.25	6.28	0.0000	7.32	7.17	5421
NBW0230	FEX5YR1DAY	4.01	4.14	-0.0001	177.80	177.87	2956
NBW0250	FEX5YR1DAY	4.88	5.04	0.0000	176.68	176.72	5423
NBW0270	FEX5YR1DAY	5.49	5.42	0.0001	32.26	28.82	16010
NBW0290	FEX5YR1DAY	5.91	5.87	0.0000	25.19	24.67	12568
NBW0310	FEX5YR1DAY	6.38	6.26	0.0000	8.49	8.44	743
NBW0330	FEX5YR1DAY	5.50	5.73	0.0000	170.54	170.64	21549
NBW0350	FEX5YR1DAY	4.97	4.95	0.0000	6.85	6.84	2493
NBW0370	FEX5YR1DAY	5.52	5.74	-0.0001	9.65	8.76	2207
NBW0390	FEX5YR1DAY	5.52	5.74	-0.0001	8.41	7.75	11410
NBW0410	FEX5YR1DAY	5.54	5.78	-0.0002	165.40	165.67	3446
NBW0430	FEX5YR1DAY	5.89	6.11	-0.0001	4.86	3.91	2283
NBW0450	FEX5YR1DAY	5.89	6.11	0.0001	166.01	165.40	10790
NBW0470	FEX5YR1DAY	5.89	6.11	-0.0001	3.54	2.61	1335
NBW0490	FEX5YR1DAY	5.92	6.15	-0.0002	164.17	164.53	2743
NBW0510	FEX5YR1DAY	6.72	6.60	0.0000	2.68	2.67	1662
NBW0530	FEX5YR1DAY	6.22	6.49	0.0000	163.87	163.78	4802
NBW0550	FEX5YR1DAY	6.72	7.00	0.0000	106.98	93.76	133209
NBW0570	FEX5YR1DAY	7.09	7.14	0.0000	114.75	114.34	7188
NBW0590	FEX5YR1DAY	10.03	9.96	-0.0004	145.66	144.53	79758
NBW0610	FEX5YR1DAY	6.45	6.70	-0.0001	145.91	145.88	7331
NBW0630	FEX5YR1DAY	6.22	6.49	0.0000	3.49	1.87	11356
NBW0650	FEX5YR1DAY	6.66	6.94	0.0000	146.74	145.87	20499
NBW0670	FEX5YR1DAY	6.66	6.94	0.0000	4.92	2.55	15355
NBW0690	FEX5YR1DAY	6.71	6.99	-0.0001	106.33	107.52	9002
NBW0710	FEX5YR1DAY	6.71	6.99	0.0000	12.02	9.71	20881
NBW0730	FEX5YR1DAY	6.72	6.99	-0.0001	104.42	102.70	134394
NBW0750	FEX5YR1DAY	7.06	7.19	0.0001	100.40	96.81	80323
NBW0770	FEX5YR1DAY	7.06	7.19	-0.0002	20.03	15.35	12020
NBW0790	FEX5YR1DAY	8.11	7.80	0.0000	17.05	16.75	874
NBW0810	FEX5YR1DAY	7.06	7.20	0.0000	44.72	33.48	22950
NBW0830	FEX5YR1DAY	8.41	7.84	0.0001	27.34	26.98	1328
NBW0850	FEX5YR1DAY	10.17	8.53	0.0001	25.20	24.81	756
NBW0870	FEX5YR1DAY	7.06	7.22	0.0001	49.28	47.98	87597
NBW0890	FEX5YR1DAY	7.06	7.20	0.0002	16.89	17.51	1027
NBW0910	FEX5YR1DAY	7.06	7.20	-0.0001	71.76	71.33	91092
NBW0930	FEX5YR1DAY	8.03	7.47	-0.0001	36.98	36.63	1301
NBW0950	FEX5YR1DAY	8.82	7.85	-0.0001	40.05	36.98	24330
NBW0970	FEX5YR1DAY	8.82	7.86	0.0001	31.64	31.50	9549
NBW0990	FEX5YR1DAY	8.82	7.93	-0.0003	22.23	22.33	785
NBW1010	FEX5YR1DAY	8.83	8.46	-0.0001	31.25	31.24	1191
NBW1030	FEX5YR1DAY	9.19	9.92	-0.0001	50.06	30.87	42329

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1050	FEX5YR1DAY	9.30	9.94	-0.0001	19.01	18.66	900
NBW1070	FEX5YR1DAY	9.34	9.94	-0.0001	89.04	78.83	59198
NBW1090	FEX5YR1DAY	3.78	3.88	0.0000	393.47	391.78	12134
NBW1130	FEX5YR1DAY	4.51	4.55	-0.0001	18.00	12.75	15272
NBW1150	FEX5YR1DAY	4.53	4.56	0.0000	14.71	11.95	40171
NBW1169	FEX5YR1DAY	4.09	4.16	0.0000	380.82	379.44	16335
NBW1170	FEX5YR1DAY	4.30	4.39	0.0001	376.13	374.51	5967
NBW1190	FEX5YR1DAY	6.13	6.02	-0.0001	21.49	20.30	49134
NBW1210	FEX5YR1DAY	7.17	7.06	-0.0003	79.02	44.66	90706
NBW1230	FEX5YR1DAY	7.17	7.07	-0.0002	107.42	65.80	143876
NBW1250	FEX5YR1DAY	4.74	4.83	0.0001	345.44	343.17	7384
NBW1270	FEX5YR1DAY	6.14	6.02	-0.0001	9.05	9.55	13939
NBW1310	FEX5YR1DAY	5.21	5.26	-0.0001	374.88	344.72	8354
NBW1330	FEX5YR1DAY	7.56	8.16	0.0013	305.94	332.89	3123
NBW1350	FEX5YR1DAY	10.95	11.53	0.0002	29.08	28.02	1516
NBW1351	FEX5YR1DAY	8.89	9.67	0.0004	259.35	259.08	8277
NBW1352	FEX5YR1DAY	9.96	10.88	0.0006	250.96	250.69	7956
NBW1353	FEX5YR1DAY	11.01	12.08	0.0005	249.70	244.02	8196
NBW1370	FEX5YR1DAY	10.02	10.44	0.0004	203.56	201.28	6358
NBW1390	FEX5YR1DAY	15.24	15.32	-0.0003	232.28	229.65	121931
NBW1410	FEX5YR1DAY	15.58	15.60	0.0003	188.52	184.39	21703
NBW1430	FEX5YR1DAY	15.79	15.76	-0.0002	158.14	165.50	19990
NBW1450	FEX5YR1DAY	16.94	16.92	0.0002	202.78	202.51	105865
NBW1460	FEX5YR1DAY	16.43	16.42	0.0002	154.86	155.41	4273
NBW1470	FEX5YR1DAY	17.14	17.18	-0.0005	209.12	204.41	149209
NBW1480	FEX5YR1DAY	18.11	18.14	0.0001	10.10	8.38	15475
NBW1490	FEX5YR1DAY	17.86	17.96	0.0001	135.10	132.07	58564
NBW1510	FEX5YR1DAY	18.12	18.19	0.0004	148.24	148.65	17635
NBW1530	FEX5YR1DAY	17.92	18.01	0.0001	17.64	12.17	1182
NBW1550	FEX5YR1DAY	17.75	17.83	0.0001	30.23	28.76	12640
NBW1570	FEX5YR1DAY	18.21	18.34	0.0002	146.64	147.03	2604
NBW1590	FEX5YR1DAY	18.12	18.20	0.0001	35.60	32.51	16859
NBW1610	FEX5YR1DAY	18.13	18.20	0.0001	29.95	29.20	7358
NBW1630	FEX5YR1DAY	18.13	18.18	0.0001	15.40	15.26	1762
NBW1650	FEX5YR1DAY	18.81	18.96	0.0001	13.21	11.69	7579
NBW1670	FEX5YR1DAY	18.89	19.01	0.0001	26.26	25.04	7603
NBW1690	FEX5YR1DAY	19.03	19.03	0.0001	16.07	15.32	8036
NBW1710	FEX5YR1DAY	19.26	19.03	0.0001	3.83	1.30	998
NBW1730	FEX5YR1DAY	18.65	18.96	0.0004	152.53	137.16	201885
NBW1750	FEX5YR1DAY	18.82	18.97	-0.0001	103.20	100.29	29395
NBW1770	FEX5YR1DAY	18.82	18.97	0.0001	93.30	82.87	71704
NBW1790	FEX5YR1DAY	18.91	19.00	0.0001	21.41	21.12	2600
NBW1820	FEX5YR1DAY	18.72	18.77	0.0000	45.85	31.91	87890
NBW1830	FEX5YR1DAY	18.74	18.98	-0.0001	75.15	75.41	14846
NBW1840	FEX5YR1DAY	18.39	18.44	0.0000	73.14	63.55	84058
NBW1850	FEX5YR1DAY	18.74	18.99	-0.0001	85.78	74.32	84887
NBW1860	FEX5YR1DAY	18.39	18.44	0.0000	10.30	6.98	17176

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1870	FEX5YR1DAY	18.72	18.78	-0.0002	24.00	14.84	27629
NBW1890	FEX5YR1DAY	19.06	19.13	0.0002	57.69	58.02	2613
NBW1910	FEX5YR1DAY	19.27	19.24	0.0001	57.41	57.69	2618
NBW1930	FEX5YR1DAY	19.27	19.26	0.0001	56.79	57.05	5493
NBW1950	FEX5YR1DAY	18.97	19.00	0.0001	4.65	2.20	450
NBW1970	FEX5YR1DAY	18.96	18.99	0.0000	8.67	8.55	2853
NBW1990	FEX5YR1DAY	19.27	19.31	0.0001	54.54	55.47	54819
NBW2010	FEX5YR1DAY	19.65	19.48	0.0001	10.20	9.09	6861
NBW2030	FEX5YR1DAY	19.65	19.48	0.0001	9.83	9.03	15428
NBW2050	FEX5YR1DAY	19.26	19.39	0.0001	50.49	51.39	59894
NBW2060	FEX5YR1DAY	0.00	19.52	0.0000	15.26	13.10	26363
NBW2070	FEX5YR1DAY	19.26	19.39	0.0001	66.47	59.06	97868
NBW2090	FEX5YR1DAY	19.10	18.97	0.0001	38.37	38.36	11637
NBW2110	FEX5YR1DAY	18.92	18.96	0.0001	112.87	94.89	128483
NBW2130	FEX5YR1DAY	18.92	18.97	-0.0001	29.21	24.83	32093
NBW2140	FEX5YR1DAY	20.00	18.98	-0.0001	5.13	5.13	584
NBW2145	FEX5YR1DAY	0.00	19.21	-0.0008	14.94	74.28	19747
NBW2150	FEX5YR1DAY	19.26	19.58	0.0001	51.46	51.06	15477
NBW2170	FEX5YR1DAY	19.12	19.64	0.0002	10.52	4.08	864
NBW2190	FEX5YR1DAY	19.10	19.67	0.0001	5.57	4.48	5388
NBW2210	FEX5YR1DAY	19.47	19.66	0.0001	27.17	24.86	5714
NBW2230	FEX5YR1DAY	19.47	19.70	0.0001	35.16	34.32	40740
NBW2250	FEX5YR1DAY	19.51	19.68	0.0001	16.88	16.37	2376
NBW2270	FEX5YR1DAY	19.57	19.71	0.0001	17.69	15.96	8471
NBW2290	FEX5YR1DAY	19.65	19.71	0.0001	26.72	21.27	76813
NBW2310	FEX5YR1DAY	19.82	19.74	0.0001	23.14	17.56	84997
NBW2330	FEX5YR1DAY	19.82	19.75	-0.0001	19.48	9.42	45920
NBW2350	FEX5YR1DAY	16.05	16.11	0.0001	63.00	62.56	31250
NBW2370	FEX5YR1DAY	16.11	16.15	-0.0001	13.66	11.50	58692
NBW2380	FEX5YR1DAY	12.29	13.54	0.0004	249.72	244.23	10756
NBW2385	FEX5YR1DAY	18.49	18.49	0.0000	3.26	3.25	6479
NBW2387	FEX5YR1DAY	16.11	15.74	0.0000	0.44	0.42	478
NBW2390	FEX5YR1DAY	16.42	16.74	0.0001	40.10	39.99	2672
NBW2410	FEX5YR1DAY	16.59	17.68	-0.0001	39.41	31.09	78747
NBW2430	FEX5YR1DAY	16.23	17.68	0.0001	84.29	81.92	38643
NBW2450	FEX5YR1DAY	16.15	17.62	-0.0003	161.46	158.92	4396
NBW2470	FEX5YR1DAY	16.43	17.75	0.0001	123.32	117.72	34470
NBW2490	FEX5YR1DAY	16.90	17.75	-0.0002	78.05	77.66	19387
NBW2510	FEX5YR1DAY	17.74	17.84	0.0001	74.52	73.81	2032
NBW2530	FEX5YR1DAY	17.92	18.01	0.0001	64.92	65.22	2011
NBW2550	FEX5YR1DAY	17.95	18.02	0.0001	2.49	2.90	450
NBW2570	FEX5YR1DAY	17.96	18.03	0.0000	2.66	2.49	3613
NBW2590	FEX5YR1DAY	18.06	18.13	0.0002	53.26	53.46	1098
NBW2610	FEX5YR1DAY	17.00	17.78	-0.0007	128.75	121.38	48852
NBW2630	FEX5YR1DAY	17.98	18.01	0.0001	122.47	120.39	38750
NBW2650	FEX5YR1DAY	16.97	17.77	-0.0003	28.43	29.28	13073
NBW2670	FEX5YR1DAY	16.42	17.73	0.0001	30.27	31.17	9078

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2680	FEX5YR1DAY	17.73	17.81	-0.0001	32.47	31.38	20403
NBW2690	FEX5YR1DAY	15.40	17.10	0.0002	247.13	241.20	40484
NBW2710	FEX5YR1DAY	17.73	17.82	-0.0001	2.66	3.60	533
NBW2730	FEX5YR1DAY	18.29	18.27	0.0000	1.78	0.46	4356
NBW2770	FEX5YR1DAY	18.09	18.12	0.0001	13.27	13.30	1310
NBW2775	FEX5YR1DAY	6.59	6.51	0.0000	9.61	5.34	23735
NBW2780	FEX5YR1DAY	18.38	18.42	-0.0003	45.91	39.25	63608
NBW2790	FEX5YR1DAY	18.38	18.43	0.0000	138.90	139.30	85914
NBW2810	FEX5YR1DAY	18.39	18.44	-0.0001	52.71	52.98	68037
NBW2830	FEX5YR1DAY	18.40	18.45	-0.0001	43.63	34.47	107544
NC01	FEX5YR1DAY	0.00	4.06	0.0000	10.68	10.61	3211
NC01B	FEX5YR1DAY	0.00	5.80	0.0000	11.09	10.95	4337
NC02	FEX5YR1DAY	0.00	8.08	-0.0001	108.45	108.46	1890
NC03	FEX5YR1DAY	0.00	4.70	0.0002	122.76	122.75	2240
NC04	FEX5YR1DAY	0.00	3.33	0.0000	31.63	29.45	22337
NC05	FEX5YR1DAY	0.00	3.32	-0.0001	31.83	29.87	35647
NC06	FEX5YR1DAY	0.00	3.25	0.0000	31.79	31.05	15886
NC07	FEX5YR1DAY	0.00	3.24	-0.0001	22.60	22.29	15026
NC08	FEX5YR1DAY	0.00	3.21	0.0000	25.58	25.38	11576
NCL0010	FEX5YR1DAY	2.00	2.00	0.0000	570.74	0.00	0
NCL0030	FEX5YR1DAY	2.36	2.80	-0.0002	496.57	496.54	6856
NCL0050	FEX5YR1DAY	2.36	2.80	0.0000	0.40	0.95	439
NCL0070	FEX5YR1DAY	5.20	5.28	0.0000	94.41	93.59	36238
NCL0090	FEX5YR1DAY	6.06	6.02	-0.0001	41.97	29.38	61874
NCL0110	FEX5YR1DAY	3.04	3.38	-0.0007	572.22	572.21	6623
NCL0130	FEX5YR1DAY	4.05	3.48	-0.0002	119.60	119.66	565
NCL0150	FEX5YR1DAY	4.95	4.33	0.0000	119.60	119.60	2802
NCL0170	FEX5YR1DAY	5.08	4.44	-0.0001	62.66	62.96	1380
NCL0190	FEX5YR1DAY	5.08	4.45	0.0000	2.22	1.98	438
NCL0210	FEX5YR1DAY	5.85	4.83	-0.0001	92.15	92.74	1357
NCL0230	FEX5YR1DAY	6.60	6.28	-0.0001	32.77	29.88	13155
NCL0250	FEX5YR1DAY	6.60	6.28	0.0001	3.28	3.40	590
NCL0270	FEX5YR1DAY	6.60	6.29	0.0001	4.01	3.96	1157
NCL0290	FEX5YR1DAY	5.90	4.96	0.0001	58.94	59.13	924
NCL0310	FEX5YR1DAY	6.10	5.57	0.0010	58.77	58.94	1045
NCL0330	FEX5YR1DAY	5.95	5.57	-0.0001	3.54	5.09	4177
NCL0350	FEX5YR1DAY	6.60	6.29	-0.0005	90.98	75.65	41325
NCL0370	FEX5YR1DAY	7.36	7.34	0.0002	62.42	61.42	13445
NCL0390	FEX5YR1DAY	4.02	4.28	-0.0022	437.98	471.49	4339
NCL0410	FEX5YR1DAY	4.09	4.35	-0.0002	5.00	4.90	819
NCL0430	FEX5YR1DAY	4.23	4.44	0.0000	5.18	5.00	639
NCL0450	FEX5YR1DAY	4.75	4.95	-0.0011	431.73	431.87	3676
NCL0470	FEX5YR1DAY	5.43	5.56	-0.0010	429.31	429.44	3437
NCL0490	FEX5YR1DAY	6.48	6.52	-0.0006	456.10	457.90	28802
NCL0510	FEX5YR1DAY	6.67	6.68	0.0002	31.26	31.02	1146
NCL0530	FEX5YR1DAY	8.10	7.78	0.0004	40.47	19.15	1175
NCL0550	FEX5YR1DAY	8.17	7.83	-0.0002	23.47	40.47	11660

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0570	FEX5YR1DAY	8.66	8.01	0.0001	11.85	11.54	840
NCL0590	FEX5YR1DAY	7.00	7.04	-0.0009	414.98	415.17	3392
NCL0610	FEX5YR1DAY	7.52	7.60	0.0007	410.27	410.37	3640
NCL0630	FEX5YR1DAY	8.06	8.18	-0.0004	408.80	408.89	4608
NCL0650	FEX5YR1DAY	8.12	8.24	-0.0003	48.39	102.62	1613
NCL0670	FEX5YR1DAY	8.67	8.75	0.0005	132.33	48.39	1694
NCL0690	FEX5YR1DAY	8.76	8.83	0.0002	34.20	35.14	605
NCL0710	FEX5YR1DAY	8.95	8.98	0.0002	34.07	33.72	601
NCL0730	FEX5YR1DAY	9.26	9.25	-0.0001	34.74	34.07	554
NCL0750	FEX5YR1DAY	9.56	9.53	0.0000	74.77	65.17	45685
NCL0770	FEX5YR1DAY	10.12	10.06	0.0000	46.98	46.73	2178
NCL0790	FEX5YR1DAY	8.69	8.78	0.0005	28.62	101.59	895
NCL0810	FEX5YR1DAY	8.84	8.94	0.0001	28.66	28.62	1379
NCL0830	FEX5YR1DAY	8.93	9.20	0.0005	364.49	366.17	27768
NCL0850	FEX5YR1DAY	9.01	9.23	0.0001	76.85	72.99	9834
NCL0870	FEX5YR1DAY	9.37	9.35	-0.0001	94.36	94.08	2022
NCL0890	FEX5YR1DAY	9.65	9.45	-0.0001	80.48	80.08	1591
NCL0910	FEX5YR1DAY	9.71	9.45	0.0001	5.91	5.43	489
NCL0930	FEX5YR1DAY	9.57	9.65	-0.0001	75.49	75.06	2111
NCL0950	FEX5YR1DAY	9.89	9.92	0.0001	60.97	60.69	3155
NCL0970	FEX5YR1DAY	10.41	10.15	0.0000	37.31	36.90	2267
NCL0990	FEX5YR1DAY	11.00	10.52	0.0000	25.06	24.64	1493
NCL1010	FEX5YR1DAY	11.14	10.60	0.0000	5.57	5.19	650
NCL1030	FEX5YR1DAY	9.67	9.37	-0.0002	21.36	33.52	1470
NCL1050	FEX5YR1DAY	10.46	9.38	0.0001	5.66	5.18	622
NCL1070	FEX5YR1DAY	9.30	10.11	0.0001	3.75	3.82	619
NCL1090	FEX5YR1DAY	9.76	10.25	0.0000	35.42	8.79	18418
NCL1110	FEX5YR1DAY	9.85	9.93	0.0001	16.99	17.09	2095
NCL1130	FEX5YR1DAY	9.76	10.25	0.0001	17.87	16.43	35520
NCL1150	FEX5YR1DAY	9.76	10.25	0.0001	436.58	445.01	189324
NCL1170	FEX5YR1DAY	10.59	11.32	0.0005	385.35	354.45	95336
NCL1190	FEX5YR1DAY	10.72	11.36	0.0001	65.48	65.06	1853
NCL1210	FEX5YR1DAY	10.63	11.34	0.0001	32.86	8.75	51010
NCL1230	FEX5YR1DAY	10.94	11.43	0.0001	65.91	65.48	1432
NCL1250	FEX5YR1DAY	11.11	11.50	0.0001	66.34	65.91	1231
NCL1270	FEX5YR1DAY	11.34	11.61	0.0001	67.87	67.36	1217
NCL1290	FEX5YR1DAY	13.06	12.88	0.0001	38.02	36.97	2387
NCL1310	FEX5YR1DAY	14.77	14.64	0.0001	29.26	26.75	7140
NCL1330	FEX5YR1DAY	10.60	11.32	-0.0002	162.83	167.15	78112
NCL1350	FEX5YR1DAY	10.63	11.34	0.0001	169.91	161.47	56207
NCL1370	FEX5YR1DAY	10.63	11.34	-0.0001	29.43	29.01	1860
NCL1390	FEX5YR1DAY	10.63	11.35	0.0001	9.18	6.35	1792
NCL1410	FEX5YR1DAY	10.63	11.35	0.0001	4.95	4.70	1719
NCL1430	FEX5YR1DAY	10.70	11.41	0.0005	454.87	391.70	159335
NCL1450	FEX5YR1DAY	10.93	12.00	0.0012	416.78	416.40	3036
NCL1470	FEX5YR1DAY	12.72	13.37	0.0002	335.61	335.10	4426
NCL1490	FEX5YR1DAY	14.45	14.46	0.0000	4.16	4.13	776

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1510	FEX5YR1DAY	11.06	12.07	0.0006	54.61	72.43	863
NCL1530	FEX5YR1DAY	12.54	12.69	-0.0003	63.38	62.89	8738
NCL1550	FEX5YR1DAY	13.13	13.16	-0.0001	42.55	41.58	1021
NCL1570	FEX5YR1DAY	13.31	13.26	0.0001	4.09	3.15	504
NCL1590	FEX5YR1DAY	13.70	13.69	0.0000	1.58	1.57	1307
NCL1610	FEX5YR1DAY	13.37	13.31	0.0001	2.47	1.80	469
NCL1630	FEX5YR1DAY	13.57	13.52	-0.0003	58.73	58.72	2663
NCL1650	FEX5YR1DAY	13.68	13.62	0.0002	58.29	58.31	1293
NCL1670	FEX5YR1DAY	14.02	13.97	0.0001	31.60	31.60	1395
NCL1690	FEX5YR1DAY	17.47	17.42	0.0001	41.11	41.11	1470
NCL1710	FEX5YR1DAY	17.89	17.85	0.0001	38.43	38.47	2503
NCL1730	FEX5YR1DAY	18.27	18.30	0.0002	52.17	52.39	6557
NCL1750	FEX5YR1DAY	18.24	18.27	-0.0002	15.48	14.98	513
NCL1770	FEX5YR1DAY	18.07	18.05	0.0001	23.80	23.79	2460
NCL1790	FEX5YR1DAY	15.78	15.25	0.0002	332.07	331.50	5863
NCL1810	FEX5YR1DAY	18.13	18.12	-0.0001	44.28	39.80	21218
NCL1830	FEX5YR1DAY	18.39	17.09	0.0002	309.12	308.55	6250
NCL1850	FEX5YR1DAY	18.50	17.29	-0.0003	69.67	79.05	910
NCL1870	FEX5YR1DAY	19.01	18.28	0.0002	69.49	69.67	1004
NCL1890	FEX5YR1DAY	19.15	18.53	0.0003	69.31	69.49	984
NCL1910	FEX5YR1DAY	19.15	18.53	0.0001	3.93	0.86	532
NCL1930	FEX5YR1DAY	19.91	19.88	0.0000	3.81	3.80	1607
NCL1950	FEX5YR1DAY	19.15	18.53	0.0000	0.48	0.13	501
NCL1970	FEX5YR1DAY	21.67	21.65	0.0000	2.10	2.09	3144
NCL1990	FEX5YR1DAY	19.58	19.35	-0.0002	69.68	69.04	918
NCL2010	FEX5YR1DAY	19.74	19.62	0.0001	44.59	43.10	1104
NCL2030	FEX5YR1DAY	19.76	19.62	0.0001	11.66	6.91	24304
NCL2050	FEX5YR1DAY	19.76	19.66	0.0001	41.28	39.37	1411
NCL2070	FEX5YR1DAY	19.76	19.63	-0.0001	2.83	2.68	1105
NCL2090	FEX5YR1DAY	19.87	19.88	0.0001	43.62	41.28	1414
NCL2110	FEX5YR1DAY	20.03	19.94	0.0004	23.44	23.05	1563
NCL2130	FEX5YR1DAY	19.87	19.90	0.0001	53.26	57.17	28100
NCL2150	FEX5YR1DAY	20.75	21.06	-0.0003	54.33	50.28	132748
NCL2170	FEX5YR1DAY	19.85	19.88	0.0001	83.28	83.19	18850
NCL2230	FEX5YR1DAY	19.13	18.17	0.0004	243.42	238.75	5806
NCL2250	FEX5YR1DAY	19.55	18.97	0.0002	240.61	234.15	4443
NCL2270	FEX5YR1DAY	20.05	20.21	0.0001	138.21	138.36	10954
NCL2290	FEX5YR1DAY	19.88	19.92	0.0001	9.58	9.43	1347
NCL2310	FEX5YR1DAY	20.45	20.66	0.0001	102.76	102.00	1780
NCL2330	FEX5YR1DAY	20.74	20.98	0.0001	120.76	113.77	78340
NCL2350	FEX5YR1DAY	20.78	21.01	0.0001	94.45	93.20	4162
NCL2370	FEX5YR1DAY	20.81	21.02	0.0001	91.01	89.66	2298
NCL2390	FEX5YR1DAY	20.84	21.06	0.0000	114.33	101.04	102566
NCL2410	FEX5YR1DAY	21.07	21.12	0.0000	30.35	29.41	1380
NCL2430	FEX5YR1DAY	21.32	21.20	0.0000	31.01	30.02	1472
NCL2450	FEX5YR1DAY	21.25	21.17	0.0001	4.69	4.46	493
NCL2470	FEX5YR1DAY	20.93	21.07	0.0000	19.28	18.62	846

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2490	FEX5YR1DAY	21.54	21.24	0.0000	27.94	26.84	1524
NCL2510	FEX5YR1DAY	21.70	21.25	0.0001	83.27	82.42	74551
NCL2530	FEX5YR1DAY	21.70	21.25	0.0001	38.67	36.81	37953
NCL2540	FEX5YR1DAY	0.00	21.95	0.0000	55.88	55.25	38495
NCL2550	FEX5YR1DAY	21.70	21.25	0.0001	42.01	42.44	11598
NCL2570	FEX5YR1DAY	21.51	21.24	0.0001	14.75	13.43	1503
NCL2580	FEX5YR1DAY	0.00	21.23	-0.0001	86.10	85.01	27889
NCL2590	FEX5YR1DAY	21.17	21.23	0.0001	143.04	140.34	113353
NCL2610	FEX5YR1DAY	21.14	21.22	0.0001	98.26	98.03	25627
NCL2630	FEX5YR1DAY	20.86	20.82	0.0001	66.24	65.18	41705
NCL2631	FEX5YR1DAY	0.00	20.53	0.0001	73.20	60.17	37401
NCL2650	FEX5YR1DAY	21.17	21.38	0.0001	79.05	67.76	96733
NCL2670	FEX5YR1DAY	21.93	22.12	-0.0001	87.92	90.15	52784
NCL2690	FEX5YR1DAY	21.96	22.29	-0.0002	53.87	60.57	47549
NCL2710	FEX5YR1DAY	21.96	22.35	-0.0001	40.26	51.57	61679
NCL2730	FEX5YR1DAY	21.95	22.47	-0.0001	28.50	29.33	6332
NCL2750	FEX5YR1DAY	21.84	22.82	0.0000	71.38	70.75	19928
NCL2770	FEX5YR1DAY	21.71	22.32	0.0000	23.26	23.27	1389
NCL2780	FEX5YR1DAY	0.00	22.10	0.0000	12.55	12.25	21046
NCL2790	FEX5YR1DAY	21.84	22.17	0.0000	109.19	104.28	100726
NCL2810	FEX5YR1DAY	22.11	22.70	0.0000	67.22	66.67	18489
NCL2830	FEX5YR1DAY	23.09	22.73	-0.0001	14.76	14.69	1241
NCL2835	FEX5YR1DAY	0.00	23.73	0.0000	7.73	7.82	1081
NCL2840	FEX5YR1DAY	0.00	23.69	0.0000	67.13	66.88	22170
NCL2845	FEX5YR1DAY	0.00	24.23	-0.0001	36.56	36.37	14160
NCL2850	FEX5YR1DAY	20.82	21.03	0.0000	18.19	18.47	1361
NCL2870	FEX5YR1DAY	20.83	21.02	0.0000	17.42	17.56	1245
NCL2890	FEX5YR1DAY	20.83	21.02	-0.0001	15.23	17.42	18118
NCL2910	FEX5YR1DAY	20.83	21.02	0.0000	51.37	50.97	41711
NCL2930	FEX5YR1DAY	19.55	19.00	0.0003	179.80	181.28	2979
NCL2950	FEX5YR1DAY	19.53	19.09	0.0002	178.59	179.09	5719
NCL2970	FEX5YR1DAY	20.49	20.47	0.0002	45.52	44.48	9985
NCL2990	FEX5YR1DAY	19.33	19.14	0.0002	174.63	175.43	5886
NCL3010	FEX5YR1DAY	19.35	19.24	0.0002	169.65	170.22	96428
NCL3030	FEX5YR1DAY	19.58	19.32	0.0002	166.77	167.46	18932
NCL3050	FEX5YR1DAY	19.94	19.88	0.0002	62.45	58.61	25539
NCL3070	FEX5YR1DAY	20.14	20.10	0.0000	33.67	32.24	15009
NCL3090	FEX5YR1DAY	19.59	19.33	0.0002	160.48	161.01	57236
NCL3110	FEX5YR1DAY	19.59	19.35	0.0002	56.20	39.47	65992
NCL3130	FEX5YR1DAY	19.59	19.35	0.0002	21.52	18.55	20500
NCL3150	FEX5YR1DAY	19.54	19.32	0.0002	155.12	155.89	12480
NCL3170	FEX5YR1DAY	19.71	20.13	0.0002	53.27	53.00	21259
NCL3190	FEX5YR1DAY	20.31	20.33	0.0001	57.92	50.26	104664
NCL3210	FEX5YR1DAY	20.32	20.34	0.0001	39.01	32.62	48748
NCL3230	FEX5YR1DAY	20.32	20.35	0.0002	26.23	25.30	16638
NCL3250	FEX5YR1DAY	19.11	18.96	0.0002	147.87	148.27	107347
NCL3270	FEX5YR1DAY	19.11	19.07	0.0001	25.51	25.24	1736

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3280	FEX5YR1DAY	0.00	19.14	0.0001	23.92	23.21	999
NCL3290	FEX5YR1DAY	20.16	19.65	0.0001	20.80	19.44	1660
NCL3300	FEX5YR1DAY	0.00	19.63	0.0001	3.74	3.55	1027
NCL3310	FEX5YR1DAY	20.19	19.63	0.0000	2.60	1.77	758
NCL3330	FEX5YR1DAY	20.75	19.59	0.0000	4.43	4.25	437
NCL3350	FEX5YR1DAY	20.51	20.51	0.0000	18.98	16.10	33524
NCL3360	FEX5YR1DAY	0.00	20.46	0.0000	5.47	3.27	14017
NCL3365	FEX5YR1DAY	0.00	20.14	0.0000	14.66	14.42	18168
NCL3370	FEX5YR1DAY	20.64	20.91	-0.0002	83.69	78.15	86073
NCL3390	FEX5YR1DAY	20.83	21.02	0.0000	78.78	78.33	39999
NCL3410	FEX5YR1DAY	20.83	21.02	0.0000	2.07	1.77	476
NCL3430	FEX5YR1DAY	20.83	21.02	0.0000	4.49	0.79	3996
NCL3450	FEX5YR1DAY	18.92	18.97	0.0006	273.83	217.15	187898
NCL3460	FEX5YR1DAY	18.92	18.97	-0.0008	126.89	130.73	2955
NCL3470	FEX5YR1DAY	19.11	18.97	0.0001	204.92	169.48	218666
NCL3490	FEX5YR1DAY	19.15	18.98	0.0001	91.19	87.49	38624
NCL3510	FEX5YR1DAY	20.64	19.67	0.0001	74.76	74.13	19108
NCL3520	FEX5YR1DAY	0.00	19.38	0.0000	172.84	172.81	20933
NCL3530	FEX5YR1DAY	20.66	20.54	0.0001	103.53	101.59	58344
NCL3550	FEX5YR1DAY	20.66	20.54	0.0001	5.27	2.15	736
NCL3570	FEX5YR1DAY	20.66	20.54	0.0001	2.93	0.98	623
NCL3590	FEX5YR1DAY	20.66	20.58	0.0000	2.42	0.86	4792
NCL3610	FEX5YR1DAY	20.66	20.53	0.0001	18.54	17.23	1245
NCL3630	FEX5YR1DAY	20.64	20.53	0.0001	162.56	158.53	108724
NCL3635	FEX5YR1DAY	0.00	20.53	0.0001	14.32	11.12	1726
NCL3640	FEX5YR1DAY	0.00	20.53	0.0001	19.66	18.77	28385
NCL3650	FEX5YR1DAY	18.92	18.96	0.0000	3.14	3.20	501
NCL3670	FEX5YR1DAY	18.92	18.96	0.0000	9.01	12.58	35290
NCL3690	FEX5YR1DAY	18.92	18.97	0.0003	217.15	216.71	3204
NCL3730	FEX5YR1DAY	18.92	18.97	0.0000	315.40	95.82	136531
NCL3740	FEX5YR1DAY	0.00	18.97	0.0000	67.60	57.75	36240
NCL3750	FEX5YR1DAY	18.93	18.96	0.0002	181.99	79.10	192469
NCL3770	FEX5YR1DAY	18.93	18.96	0.0002	65.87	26.79	88365
NCL4000	FEX5YR1DAY	0.00	29.73	0.0000	34.78	34.75	5855
NCL4010	FEX5YR1DAY	0.00	29.43	0.0000	28.09	27.89	13148
NCypEast	FEX5YR1DAY	32.00	29.00	0.0000	7.58	0.00	0
NCypWest	FEX5YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX5YR1DAY	2.00	2.00	0.0000	414.92	75.24	0
NOC0030	FEX5YR1DAY	1.14	2.25	-0.0343	415.00	414.92	504
NOC0050	FEX5YR1DAY	1.20	2.40	-0.0253	374.69	374.83	530
NOC0070	FEX5YR1DAY	1.45	2.98	0.0075	364.93	364.68	516
NOC0090	FEX5YR1DAY	2.91	3.20	0.0046	124.13	124.26	446
NOC0110	FEX5YR1DAY	1.65	3.03	0.0053	228.82	229.13	455
NOC0130	FEX5YR1DAY	3.06	3.57	0.0017	228.81	228.82	528
NOC0150	FEX5YR1DAY	3.08	3.58	0.0000	2.57	2.46	500
NOC0170	FEX5YR1DAY	4.56	4.78	0.0000	12.25	12.24	1311
NOC0190	FEX5YR1DAY	5.09	4.41	-0.0004	226.45	226.36	1077

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0210	FEX5YR1DAY	5.68	5.38	-0.0001	24.23	23.76	781
NOC0230	FEX5YR1DAY	5.12	4.45	0.0000	7.22	7.20	742
NOC0250	FEX5YR1DAY	5.30	4.73	0.0000	7.41	7.22	984
NOC0270	FEX5YR1DAY	5.57	5.14	0.0000	4.40	3.95	675
NOC0290	FEX5YR1DAY	5.11	4.51	-0.0003	252.11	252.21	1836
NOC0310	FEX5YR1DAY	5.27	4.69	-0.0001	48.92	48.85	450
NOC0330	FEX5YR1DAY	5.85	4.83	0.0001	209.38	209.69	10113
NOC0350	FEX5YR1DAY	5.89	4.97	-0.0001	145.04	145.24	1837
NOC0370	FEX5YR1DAY	6.47	6.22	-0.0001	92.41	93.34	7558
NOC0390	FEX5YR1DAY	6.60	6.29	-0.0001	54.12	52.09	8113
NOC0410	FEX5YR1DAY	6.95	6.62	0.0000	47.73	42.55	14208
NOC0430	FEX5YR1DAY	7.01	6.77	0.0000	30.75	28.44	9079
NOC0450	FEX5YR1DAY	7.62	7.03	0.0000	20.57	20.50	2411
NOC0470	FEX5YR1DAY	8.12	7.60	0.0001	12.54	13.06	6830
NOC0490	FEX5YR1DAY	7.67	7.03	0.0000	5.18	4.91	1052
NRU0010	FEX5YR1DAY	2.00	2.00	0.0000	548.78	0.00	0
NRU0030	FEX5YR1DAY	2.84	2.98	-0.0002	281.81	281.80	2468
NRU0050	FEX5YR1DAY	4.36	4.60	0.0001	281.81	281.81	2036
NRU0070	FEX5YR1DAY	5.61	5.57	-0.0006	283.75	281.81	11919
NRU0090	FEX5YR1DAY	5.66	5.63	0.0002	62.08	56.57	11656
NRU0110	FEX5YR1DAY	6.23	6.05	-0.0001	221.36	219.49	8999
NRU0130	FEX5YR1DAY	7.66	6.97	0.0002	200.59	200.08	2616
NRU0150	FEX5YR1DAY	7.71	7.00	-0.0006	191.20	191.71	1436
NRU0160	FEX5YR1DAY	0.00	13.33	0.0001	156.13	156.12	4959
NRU0165	FEX5YR1DAY	0.00	13.45	0.0000	3.77	3.35	474
NRU0170	FEX5YR1DAY	14.45	15.12	0.0002	163.72	153.71	18644
NRU0172	FEX5YR1DAY	0.00	15.17	0.0000	6.61	6.66	829
NRU0174	FEX5YR1DAY	0.00	15.29	0.0000	6.56	6.61	1137
NRU0176	FEX5YR1DAY	0.00	15.66	0.0000	6.52	6.56	761
NRU0178	FEX5YR1DAY	0.00	16.05	0.0000	7.75	6.52	957
NRU0180	FEX5YR1DAY	0.00	16.19	0.0001	33.03	20.53	79073
NRU0190	FEX5YR1DAY	14.45	15.27	-0.0002	15.50	14.60	632
NRU0210	FEX5YR1DAY	14.45	15.35	0.0002	13.37	12.30	654
NRU0230	FEX5YR1DAY	13.39	15.09	-0.0001	18.29	16.88	19757
NRU0250	FEX5YR1DAY	14.62	15.13	0.0001	133.19	130.25	10229
NRU0270	FEX5YR1DAY	15.05	15.73	0.0001	116.28	116.38	2594
NRU0290	FEX5YR1DAY	16.30	18.19	-0.0003	33.91	26.84	42403
NRU0310	FEX5YR1DAY	16.13	16.45	0.0001	96.19	96.48	2501
NRU0330	FEX5YR1DAY	18.25	17.69	0.0001	29.02	29.27	1352
NRU0335	FEX5YR1DAY	0.00	19.14	0.0001	6.66	4.63	9213
NRU0340	FEX5YR1DAY	0.00	18.54	0.0001	45.73	45.40	24141
NRU0343	FEX5YR1DAY	0.00	19.27	0.0001	10.38	8.73	903
NRU0345	FEX5YR1DAY	0.00	19.52	-0.0001	34.34	30.53	65548
NRU0350	FEX5YR1DAY	19.50	18.96	0.0001	16.84	17.11	5524
NRU0370	FEX5YR1DAY	19.51	19.15	0.0001	15.01	16.06	13402
NRU0380	FEX5YR1DAY	23.33	19.19	0.0001	8.03	8.31	470
NRU0390	FEX5YR1DAY	27.00	19.20	0.0000	16.32	8.03	29105

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0410	FEX5YR1DAY	19.56	19.30	0.0001	9.62	9.92	1100
NRU0425	FEX5YR1DAY	15.53	15.81	0.0001	5.74	5.19	4975
NRU0430	FEX5YR1DAY	19.61	19.42	0.0001	9.41	9.62	1077
NRU0450	FEX5YR1DAY	19.66	19.56	0.0001	9.25	9.41	1038
NRU0470	FEX5YR1DAY	19.72	20.17	0.0001	9.69	9.25	799
NRU0490	FEX5YR1DAY	20.36	20.62	0.0001	9.22	7.44	30954
NRU0495	FEX5YR1DAY	0.00	21.05	-0.0001	7.52	5.49	12053
NRU0500	FEX5YR1DAY	0.00	21.24	0.0000	2.10	2.08	6625
NRU0510	FEX5YR1DAY	19.67	20.16	0.0001	18.39	12.63	63769
NRU0530	FEX5YR1DAY	16.95	17.28	0.0001	65.68	65.96	2252
NRU0550	FEX5YR1DAY	17.92	18.17	0.0001	77.99	65.68	65340
NRU0570	FEX5YR1DAY	18.16	18.35	0.0001	62.74	62.85	1523
NRU0590	FEX5YR1DAY	18.51	18.57	0.0001	61.82	61.93	1745
NRU0610	FEX5YR1DAY	18.78	18.75	0.0001	61.35	61.46	3331
NRU0612	FEX5YR1DAY	0.00	18.75	-0.0001	57.68	57.79	1566
NRU0615	FEX5YR1DAY	0.00	19.49	0.0001	11.49	8.01	1917
NRU0616	FEX5YR1DAY	0.00	20.16	0.0000	5.93	5.03	7745
NRU0618	FEX5YR1DAY	0.00	20.49	0.0000	8.97	6.84	16529
NRU0620	FEX5YR1DAY	0.00	19.84	0.0001	14.00	13.46	18820
NRU0630	FEX5YR1DAY	18.79	18.82	0.0001	56.29	56.37	2525
NRU0650	FEX5YR1DAY	18.79	18.86	0.0001	55.68	55.76	14699
NRU0670	FEX5YR1DAY	18.78	18.89	0.0001	54.59	54.68	1429
NRU0690	FEX5YR1DAY	18.84	18.94	0.0001	54.51	54.59	20178
NRU0710	FEX5YR1DAY	18.86	18.94	0.0001	83.58	75.99	37758
NRU0730	FEX5YR1DAY	18.85	18.95	0.0001	23.15	21.34	31906
NRU0740	FEX5YR1DAY	0.00	18.95	0.0001	82.34	75.38	32380
NRU0745	FEX5YR1DAY	0.00	18.96	0.0001	80.47	57.87	44732
NRU0750	FEX5YR1DAY	18.87	18.96	0.0001	117.22	46.24	228269
NRU0770	FEX5YR1DAY	18.88	18.96	0.0001	27.62	27.90	1008
NRU0785	FEX5YR1DAY	0.00	18.96	0.0001	93.64	83.08	56638
NRU0790	FEX5YR1DAY	18.88	18.96	0.0001	134.21	110.84	125318
NRU0810	FEX5YR1DAY	18.88	18.96	0.0001	18.83	16.60	10744
NRU0820	FEX5YR1DAY	0.00	18.95	0.0001	5.85	2.91	442
NRU0830	FEX5YR1DAY	18.99	18.97	0.0001	47.60	42.64	32776
NRU0850	FEX5YR1DAY	19.11	18.97	0.0001	61.27	61.16	1187
NRU0870	FEX5YR1DAY	19.32	18.97	-0.0007	15.58	17.18	560
NRU0890	FEX5YR1DAY	19.35	18.97	0.0000	52.55	15.58	64568
NRU0910	FEX5YR1DAY	19.35	18.98	0.0000	1.38	1.05	573
NRU0930	FEX5YR1DAY	19.35	19.50	0.0000	1.51	1.38	1742
NRU0950	FEX5YR1DAY	19.11	18.97	0.0001	69.32	62.09	35202
NRU0955	FEX5YR1DAY	0.00	18.97	0.0001	83.40	71.18	50957
NRU0960	FEX5YR1DAY	0.00	18.98	0.0001	108.80	105.66	37141
NRU0965	FEX5YR1DAY	0.00	18.98	0.0001	124.06	119.73	62752
NRU0970	FEX5YR1DAY	19.34	18.97	0.0001	21.77	10.35	70736
NRU0980	FEX5YR1DAY	0.00	18.97	-0.0009	12.50	7.58	1097
NRU0990	FEX5YR1DAY	19.39	18.98	0.0005	33.78	35.98	440
NRU1010	FEX5YR1DAY	19.70	18.98	-0.0002	34.26	33.78	18631

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1015	FEX5YR1DAY	0.00	19.41	-0.0001	15.10	11.62	13783
NRU1020	FEX5YR1DAY	0.00	20.39	-0.0060	15.48	81.66	866
NRU1025	FEX5YR1DAY	0.00	20.01	0.0000	10.18	9.83	724
NRU1030	FEX5YR1DAY	19.70	18.98	0.0001	53.44	37.15	105027
NRU1035	FEX5YR1DAY	0.00	19.13	0.0000	4.10	3.74	436
NRU1037	FEX5YR1DAY	0.00	18.98	0.0000	1.37	0.88	640
NRU1040	FEX5YR1DAY	0.00	18.98	0.0001	42.65	29.87	50371
NRU1045	FEX5YR1DAY	0.00	20.46	-0.0001	12.67	11.59	7165
NRU1046	FEX5YR1DAY	0.00	20.43	0.0060	11.59	10.50	931
NRU1050	FEX5YR1DAY	19.70	18.98	-0.0001	48.01	39.11	69055
NRU1070	FEX5YR1DAY	19.83	19.07	0.0000	19.68	17.79	10231
NRU1090	FEX5YR1DAY	18.86	18.96	0.0001	14.26	13.68	919
NRU1110	FEX5YR1DAY	18.86	18.96	0.0001	46.96	36.44	70888
NRU1130	FEX5YR1DAY	18.86	18.96	-0.0001	10.44	9.03	769
NRU1150	FEX5YR1DAY	18.86	18.96	0.0001	32.24	31.28	64056
NRU1170	FEX5YR1DAY	18.86	18.96	-0.0001	24.22	21.39	26552
NRU1182	FEX5YR1DAY	0.00	18.97	0.0001	9.47	8.87	6243
NRU1184	FEX5YR1DAY	0.00	18.97	0.0001	10.49	10.43	873
NRU1185	FEX5YR1DAY	0.00	19.03	0.0001	9.69	5.15	25498
NRU1186	FEX5YR1DAY	0.00	18.97	0.0001	5.44	4.58	791
NRU1188	FEX5YR1DAY	0.00	18.97	0.0000	11.60	4.34	44886
NRU1190	FEX5YR1DAY	18.86	18.98	0.0001	5.77	3.35	576
NRU1210	FEX5YR1DAY	18.86	19.04	0.0001	9.95	7.22	907
NRU1220	FEX5YR1DAY	0.00	20.16	0.0001	12.32	8.58	20371
NRU1225	FEX5YR1DAY	0.00	20.79	0.0000	3.23	3.12	436
NRU1230	FEX5YR1DAY	18.88	18.96	0.0001	12.17	11.86	877
NRU1232	FEX5YR1DAY	0.00	18.96	0.0001	8.89	8.61	863
NRU1234	FEX5YR1DAY	0.00	18.95	0.0001	12.21	12.37	12444
NRU1240	FEX5YR1DAY	0.00	18.95	0.0001	14.85	15.65	9681
NRU1250	FEX5YR1DAY	4.07	4.39	0.0002	268.26	268.24	2104
NRU1270	FEX5YR1DAY	4.78	5.02	-0.0001	265.29	265.28	1667
NRU1290	FEX5YR1DAY	5.41	5.62	-0.0001	255.81	255.90	3103
NRU1310	FEX5YR1DAY	6.42	6.60	0.0000	256.68	255.81	5053
NRU1330	FEX5YR1DAY	8.29	8.35	0.0000	290.76	290.78	3357
NRU1350	FEX5YR1DAY	9.32	9.37	0.0000	287.58	287.58	2409
NRU1370	FEX5YR1DAY	11.03	11.12	0.0001	283.72	283.73	5323
NRU1390	FEX5YR1DAY	11.84	12.17	-0.0001	49.57	46.12	9594
NRU1410	FEX5YR1DAY	12.56	12.53	0.0001	234.68	234.99	7502
NRU1430	FEX5YR1DAY	15.53	15.81	-0.0001	49.09	32.29	45472
NRU1450	FEX5YR1DAY	15.94	16.01	-0.0001	31.69	31.17	4319
NRU1470	FEX5YR1DAY	15.97	16.06	-0.0001	6.51	6.52	981
NRU1490	FEX5YR1DAY	16.09	16.26	-0.0001	7.43	6.51	5848
NRU1510	FEX5YR1DAY	15.12	14.88	0.0001	174.84	176.13	10570
NRU1530	FEX5YR1DAY	15.71	15.49	-0.0001	73.47	73.82	3588
NRU1550	FEX5YR1DAY	15.40	15.37	0.0000	65.58	65.57	1677
NRU1570	FEX5YR1DAY	16.20	16.39	0.0000	50.30	49.74	1398
NRU1590	FEX5YR1DAY	16.40	16.55	0.0000	6.27	5.79	1284

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1610	FEX5YR1DAY	16.56	16.88	0.0001	42.79	41.10	1573
NRU1630	FEX5YR1DAY	16.69	17.07	0.0001	31.67	31.85	1538
NRU1650	FEX5YR1DAY	16.84	17.24	0.0001	31.49	31.67	11708
NRU1670	FEX5YR1DAY	16.89	17.30	0.0001	62.44	31.45	117880
NRU1690	FEX5YR1DAY	16.89	17.29	0.0001	38.06	37.66	2552
NRU1710	FEX5YR1DAY	16.60	16.87	0.0001	32.33	32.15	1314
NRU1730	FEX5YR1DAY	16.58	16.71	0.0000	76.83	22.69	121139
NRU1750	FEX5YR1DAY	16.58	16.71	-0.0002	17.96	17.59	720
NRU1770	FEX5YR1DAY	16.58	16.71	0.0000	25.33	25.19	1725
NRU1790	FEX5YR1DAY	17.21	17.04	0.0000	6.96	6.61	1120
NRU1810	FEX5YR1DAY	16.58	16.71	0.0000	6.90	5.48	17274
NRU1830	FEX5YR1DAY	17.12	17.05	0.0000	16.95	16.43	1513
NRU1850	FEX5YR1DAY	17.07	17.49	0.0001	24.38	24.18	1047
NRU1870	FEX5YR1DAY	17.20	17.62	0.0001	24.60	24.38	908
NRU1890	FEX5YR1DAY	17.38	17.80	0.0001	38.96	24.60	24620
NRU1910	FEX5YR1DAY	17.71	17.85	0.0001	16.02	14.90	4338
NRU1930	FEX5YR1DAY	15.71	15.49	-0.0001	50.85	56.66	19485
NRU1950	FEX5YR1DAY	16.43	16.07	0.0000	49.01	49.23	1646
NRU1970	FEX5YR1DAY	16.86	16.42	0.0000	48.81	49.01	1037
NRU1990	FEX5YR1DAY	17.09	16.61	0.0000	48.76	48.81	1719
NRU2010	FEX5YR1DAY	18.02	17.63	0.0000	12.27	11.96	1368
NRU2030	FEX5YR1DAY	18.39	18.07	0.0001	9.89	9.00	9106
NRU2050	FEX5YR1DAY	18.40	18.09	0.0001	3.43	3.02	453
NRU2070	FEX5YR1DAY	18.41	18.12	0.0000	3.44	3.43	6565
NRU2090	FEX5YR1DAY	17.16	16.67	-0.0001	34.24	34.24	983
NRU2110	FEX5YR1DAY	17.28	16.78	0.0000	33.34	33.17	1563
NRU2130	FEX5YR1DAY	17.49	16.99	0.0000	34.19	34.13	1851
NRU2150	FEX5YR1DAY	17.69	17.20	0.0000	5.51	5.06	2666
NRU2170	FEX5YR1DAY	17.07	16.86	0.0000	2.98	3.16	772
NRU2190	FEX5YR1DAY	17.08	16.88	0.0000	7.42	2.98	26572
NRU2210	FEX5YR1DAY	17.33	16.97	0.0001	5.04	2.16	538
NRU2230	FEX5YR1DAY	17.33	16.52	0.0000	13.57	0.06	78409
NRU2250	FEX5YR1DAY	17.31	16.52	0.0001	2.17	1.74	11393
NRU2270	FEX5YR1DAY	17.61	17.09	0.0000	28.68	28.63	1283
NRU2290	FEX5YR1DAY	17.67	17.14	0.0000	20.37	20.41	1150
NRU2310	FEX5YR1DAY	17.68	17.15	0.0001	13.85	14.22	1734
NRU2330	FEX5YR1DAY	17.68	17.15	0.0001	33.03	7.46	757
NRU2350	FEX5YR1DAY	17.68	17.15	-0.0001	3.83	30.39	654
NRU2370	FEX5YR1DAY	17.37	16.81	0.0000	3.57	3.83	528
NRU2390	FEX5YR1DAY	17.36	16.75	0.0000	5.84	3.57	32234
NRU2410	FEX5YR1DAY	17.72	17.18	0.0001	7.98	6.94	1098
NRU2430	FEX5YR1DAY	17.83	17.20	0.0001	5.79	5.96	925
NRU2450	FEX5YR1DAY	18.06	17.21	0.0001	2.90	1.17	588
NRU2470	FEX5YR1DAY	15.72	15.49	-0.0001	7.77	4.59	1457
NRU2490	FEX5YR1DAY	15.75	15.49	0.0000	5.84	5.49	1418
NRU2510	FEX5YR1DAY	15.75	15.49	0.0001	5.49	3.59	946
NRU2530	FEX5YR1DAY	15.76	15.49	0.0001	3.59	0.27	582

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2550	FEX5YR1DAY	16.53	15.70	0.0001	55.26	53.90	2428
NRU2570	FEX5YR1DAY	17.71	17.10	0.0001	47.23	46.34	2070
NRU2590	FEX5YR1DAY	18.30	17.98	0.0001	35.23	36.10	2009
NRU2610	FEX5YR1DAY	18.62	18.55	0.0001	37.27	34.82	10055
NRU2630	FEX5YR1DAY	19.41	19.20	-0.0002	28.04	29.58	37020
NRU2650	FEX5YR1DAY	19.54	19.63	-0.0002	20.01	18.65	27945
NRU2670	FEX5YR1DAY	16.64	16.72	0.0000	23.28	22.88	2724
NRU2690	FEX5YR1DAY	17.09	17.19	0.0000	137.04	83.67	228542
NSH02	FEX5YR1DAY	0.00	20.72	-0.0001	10.29	10.01	2586
NSH03	FEX5YR1DAY	0.00	20.10	0.0002	0.26	0.28	548
NSH04	FEX5YR1DAY	0.00	16.99	0.0002	73.82	73.80	4614
NSH05	FEX5YR1DAY	0.00	19.55	-0.0030	4.99	3.98	7846
NSH07	FEX5YR1DAY	0.00	8.23	-0.0001	27.73	27.01	9216
NSH08	FEX5YR1DAY	0.00	7.54	0.0000	16.55	16.35	2088
NSH09	FEX5YR1DAY	0.00	10.50	0.0001	46.72	43.25	10451
NSH10	FEX5YR1DAY	0.00	19.02	0.0000	13.93	13.70	23377
NSH11	FEX5YR1DAY	0.00	21.06	0.0000	5.83	5.73	6377
NSH12	FEX5YR1DAY	0.00	19.11	0.0000	5.84	5.74	7551
NSH13	FEX5YR1DAY	0.00	17.94	0.0000	19.09	18.65	18541
NSH14	FEX5YR1DAY	0.00	17.80	0.0000	7.45	7.26	10601
NSH15	FEX5YR1DAY	0.00	18.68	0.0000	4.15	4.11	5639
NSH17	FEX5YR1DAY	0.00	17.20	0.0000	19.48	19.42	8649
NSH18	FEX5YR1DAY	0.00	15.77	0.0000	18.16	18.07	9657
NSH19	FEX5YR1DAY	0.00	11.59	0.0000	15.41	15.25	11863
NSH20	FEX5YR1DAY	0.00	20.18	0.0000	2.56	2.38	11087
NSH21	FEX5YR1DAY	0.00	10.91	-0.0001	9.86	7.58	5906
NSH22	FEX5YR1DAY	0.00	14.24	0.0000	28.41	27.44	8311
NSH23	FEX5YR1DAY	0.00	18.18	0.0000	8.69	8.62	3021
NSH24	FEX5YR1DAY	0.00	14.24	0.0000	20.09	19.26	7407
NSH25	FEX5YR1DAY	0.00	13.98	0.0000	12.96	11.27	10040
NSH26	FEX5YR1DAY	0.00	13.87	0.0001	68.36	61.52	55569
NSH27	FEX5YR1DAY	0.00	12.91	0.0000	14.90	8.87	35208
NSH27A	FEX5YR1DAY	0.00	12.82	0.0000	18.66	17.53	921
NSH27AA	FEX5YR1DAY	0.00	12.86	0.0000	4.51	4.55	553
NSH27B	FEX5YR1DAY	0.00	11.49	0.0001	17.53	18.79	1033
NSH27C	FEX5YR1DAY	0.00	9.20	-0.0002	18.79	17.41	1037
NSH28	FEX5YR1DAY	0.00	9.47	0.0000	11.48	7.30	8600
NSH29	FEX5YR1DAY	0.00	7.43	-0.0001	8.46	11.85	648
NSH31	FEX5YR1DAY	0.00	9.45	0.0001	6.68	4.41	480
NSH33	FEX5YR1DAY	0.00	16.64	0.0000	4.20	3.95	9233
NSH34	FEX5YR1DAY	0.00	9.25	0.0000	38.15	38.12	3866
NSH35	FEX5YR1DAY	0.00	7.92	0.0001	29.70	29.68	3228
NSH36	FEX5YR1DAY	0.00	7.89	0.0003	22.00	21.65	805
NSH37	FEX5YR1DAY	0.00	18.02	0.0000	11.80	11.74	6743
NSH41	FEX5YR1DAY	0.00	18.96	0.0000	3.64	3.63	449
NSH42	FEX5YR1DAY	0.00	3.75	-0.0001	51.01	50.99	447
NSH43	FEX5YR1DAY	0.00	4.05	-0.0002	30.52	31.01	507

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH44	FEX5YR1DAY	0.00	9.59	0.0002	38.22	38.22	670
NSH45	FEX5YR1DAY	0.00	16.37	0.0000	34.64	33.70	21492
NSH48	FEX5YR1DAY	0.00	18.20	0.0000	11.06	11.03	2961
NSH49	FEX5YR1DAY	0.00	20.73	0.0000	12.66	11.73	14783
NSH50	FEX5YR1DAY	0.00	19.02	0.0001	28.74	28.54	3029
NSH51	FEX5YR1DAY	0.00	17.88	0.0001	23.38	21.40	952
NSH52	FEX5YR1DAY	0.00	17.41	0.0001	64.15	64.06	1772
NSH53	FEX5YR1DAY	0.00	17.54	-0.0001	21.40	19.73	1023
NSH54	FEX5YR1DAY	0.00	17.13	0.0001	66.20	66.18	1343
NSH55	FEX5YR1DAY	0.00	17.52	0.0001	27.70	27.84	1595
NSH56	FEX5YR1DAY	0.00	18.22	0.0001	27.20	27.31	891
NSH57	FEX5YR1DAY	0.00	18.95	-0.0001	26.72	27.20	4582
NSH60	FEX5YR1DAY	0.00	19.34	-0.0001	10.99	13.45	436
NSH61	FEX5YR1DAY	0.00	19.13	-0.0002	8.14	11.79	444
NSH65	FEX5YR1DAY	0.00	20.06	0.0000	2.23	2.17	436
NSH75	FEX5YR1DAY	0.00	4.77	0.0000	35.21	29.62	6291
NSH80	FEX5YR1DAY	0.00	20.23	0.0000	3.01	2.44	10535
NSH81	FEX5YR1DAY	0.00	20.33	0.0000	0.26	0.00	1880
NSH82	FEX5YR1DAY	0.00	20.78	0.0000	1.46	0.06	5181
NSH83	FEX5YR1DAY	0.00	20.60	0.0000	13.87	13.13	13808
NSR0000	FEX5YR1DAY	2.00	2.00	0.0000	264.78	0.00	0
NSR0005	FEX5YR1DAY	2.00	2.00	0.0000	4.99	0.00	0
NSR0010	FEX5YR1DAY	2.00	2.00	0.0000	344.62	0.00	0
NSR0030	FEX5YR1DAY	2.92	3.06	0.0000	361.04	344.62	216521
NSR0032	FEX5YR1DAY	4.88	5.04	0.0000	9.09	4.42	18964
NSR0034	FEX5YR1DAY	3.63	3.72	0.0000	48.14	44.78	24216
NSR0050	FEX5YR1DAY	3.44	3.55	0.0000	331.52	321.07	86177
NSR0070	FEX5YR1DAY	3.45	3.56	0.0001	25.25	22.16	26499
NSR0090	FEX5YR1DAY	3.68	3.74	-0.0001	26.85	24.66	10104
NSR0100	FEX5YR1DAY	2.25	2.38	0.0000	5.01	4.99	524
NSR0102	FEX5YR1DAY	4.24	4.32	0.0000	3.01	2.68	2355
NSR0105	FEX5YR1DAY	1.91	2.71	-0.0105	264.83	264.78	484
NSR0110	FEX5YR1DAY	3.93	4.03	0.0000	12.90	12.42	2239
NSR0112	FEX5YR1DAY	2.31	3.03	-0.0231	263.58	263.59	457
NSR0115	FEX5YR1DAY	4.25	4.32	0.0000	1.91	1.58	7794
NSR0120	FEX5YR1DAY	2.62	3.28	-0.0193	261.01	261.06	479
NSR0130	FEX5YR1DAY	4.16	4.30	0.0000	8.08	6.57	5248
NSR0135	FEX5YR1DAY	4.22	4.38	0.0000	3.03	2.71	438
NSR0140	FEX5YR1DAY	3.28	3.81	-0.0073	258.24	258.25	477
NSR0150	FEX5YR1DAY	3.64	3.77	0.0003	310.22	308.95	28856
NSR0160	FEX5YR1DAY	3.56	4.03	-0.0026	256.09	256.16	1813
NSR0165	FEX5YR1DAY	4.03	4.00	0.0000	2.62	2.17	440
NSR0170	FEX5YR1DAY	3.70	3.80	0.0000	4.60	3.24	1761
NSR0180	FEX5YR1DAY	3.83	3.95	0.0000	5.52	4.61	2823
NSR0190	FEX5YR1DAY	4.04	3.82	-0.0001	17.74	17.08	2181
NSR0210	FEX5YR1DAY	4.26	3.85	-0.0001	16.11	15.17	2854
NSR0230	FEX5YR1DAY	4.26	3.86	0.0000	16.76	12.69	8426

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0250	FEX5YR1DAY	3.93	4.02	-0.0056	296.27	295.48	12764
NSR0270	FEX5YR1DAY	3.98	4.10	0.0000	57.80	57.40	14241
NSR0280	FEX5YR1DAY	5.41	5.72	0.0006	216.87	215.67	21122
NSR0281	FEX5YR1DAY	5.97	6.31	0.0004	212.51	211.75	11195
NSR0290	FEX5YR1DAY	6.70	6.70	-0.0011	75.49	73.43	18415
NSR0310	FEX5YR1DAY	9.28	9.26	0.0001	64.10	62.49	63500
NSR0330	FEX5YR1DAY	9.65	9.63	0.0001	6.86	6.86	470
NSR0350	FEX5YR1DAY	10.32	10.30	0.0001	7.85	6.86	446
NSR0370	FEX5YR1DAY	10.35	10.35	0.0000	8.50	7.85	6557
NSR0390	FEX5YR1DAY	11.96	12.10	0.0001	29.09	27.48	41327
NSR0410	FEX5YR1DAY	12.27	12.36	0.0001	7.76	8.27	510
NSR0430	FEX5YR1DAY	12.28	12.38	0.0000	7.03	7.76	17648
NSR0450	FEX5YR1DAY	13.04	13.87	-0.0001	23.17	21.19	20991
NSR0470	FEX5YR1DAY	13.10	14.07	0.0001	15.52	15.46	1160
NSR0490	FEX5YR1DAY	4.41	4.51	-0.0074	128.38	128.22	16468
NSR0510	FEX5YR1DAY	4.48	4.66	-0.0015	61.48	61.70	12130
NSR0530	FEX5YR1DAY	4.55	4.69	-0.0004	8.22	7.81	4257
NSR0540	FEX5YR1DAY	4.55	4.83	-0.0004	58.64	55.67	63541
NSR0550	FEX5YR1DAY	4.56	4.85	0.0011	306.18	305.80	10219
NSR0560	FEX5YR1DAY	4.66	4.89	0.0002	93.78	99.00	51258
NSR0570	FEX5YR1DAY	5.28	5.36	0.0002	85.12	86.40	38263
NSR0580	FEX5YR1DAY	6.13	6.09	-0.0001	16.06	10.89	57957
NSR0590	FEX5YR1DAY	6.15	6.21	-0.0001	83.73	81.87	33414
NSR0610	FEX5YR1DAY	6.26	6.28	0.0001	35.42	32.19	48041
NSR0630	FEX5YR1DAY	6.26	6.28	-0.0001	16.53	16.60	475
NSR0650	FEX5YR1DAY	6.25	6.27	0.0001	35.86	18.71	147745
NSR0660	FEX5YR1DAY	6.13	5.99	-0.0001	16.97	7.21	51311
NSR0670	FEX5YR1DAY	6.24	6.26	-0.0001	6.94	7.67	520
NSR0680	FEX5YR1DAY	6.14	6.08	-0.0001	14.20	6.44	77270
NSR0690	FEX5YR1DAY	6.24	6.25	-0.0001	6.52	6.94	599
NSR0710	FEX5YR1DAY	6.23	6.24	0.0000	6.44	6.52	861
NSR0730	FEX5YR1DAY	6.29	6.32	0.0000	120.34	97.86	138673
NSR0770	FEX5YR1DAY	6.81	6.98	0.0001	94.82	93.73	8881
NSR0780	FEX5YR1DAY	6.74	6.75	-0.0001	8.55	8.16	14025
NSR0790	FEX5YR1DAY	8.35	9.06	-0.0003	308.63	296.45	26606
NSR0791	FEX5YR1DAY	7.13	7.65	-0.0002	204.79	204.76	5596
NSR0809	FEX5YR1DAY	12.76	10.12	0.0004	71.20	93.64	2126
NSR0810	FEX5YR1DAY	13.45	13.43	-0.0002	141.02	140.22	60184
NSR0830	FEX5YR1DAY	15.10	15.18	-0.0001	146.87	140.35	123428
NSR0840	FEX5YR1DAY	16.09	16.07	0.0001	21.04	21.21	32800
NSR0850	FEX5YR1DAY	15.64	15.72	-0.0003	104.96	100.06	78393
NSR0860	FEX5YR1DAY	16.41	16.42	0.0000	6.94	6.84	11812
NSR0869	FEX5YR1DAY	16.03	16.12	0.0001	30.30	30.08	1505
NSR0870	FEX5YR1DAY	16.24	16.37	0.0001	73.35	73.89	31345
NSR0880	FEX5YR1DAY	16.24	16.38	0.0000	27.08	26.11	10853
NSR0881	FEX5YR1DAY	14.14	15.67	0.0004	249.00	236.59	13396
NSR0890	FEX5YR1DAY	4.02	4.10	0.1101	260.66	313.94	38191

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0910	FEX5YR1DAY	4.79	4.81	-0.0031	171.97	172.44	16808
NSR0930	FEX5YR1DAY	5.54	5.48	0.0000	68.30	25.41	194280
NSR0950	FEX5YR1DAY	5.63	5.61	0.0004	199.77	198.92	23266
NSR0970	FEX5YR1DAY	6.14	6.12	-0.0002	136.50	136.69	3616
NSR0990	FEX5YR1DAY	6.27	6.24	-0.0001	166.95	167.01	4130
NSR1010	FEX5YR1DAY	6.30	6.28	0.0000	30.19	29.92	9408
NSR1030	FEX5YR1DAY	8.54	8.49	0.0001	137.16	137.10	9310
NSR1050	FEX5YR1DAY	8.56	8.51	0.0000	31.33	30.71	20981
NSR1070	FEX5YR1DAY	9.58	9.56	-0.0004	166.68	166.14	22568
NSR1090	FEX5YR1DAY	11.30	11.35	-0.0004	136.31	136.33	7971
NSR1110	FEX5YR1DAY	11.57	11.57	0.0000	2.07	2.06	2903
NSR1130	FEX5YR1DAY	11.29	11.31	0.0000	17.39	16.14	14177
NSR1150	FEX5YR1DAY	11.39	11.40	0.0000	5.16	4.73	6865
NSR1170	FEX5YR1DAY	11.38	11.39	0.0000	4.73	3.82	451
NSR1190	FEX5YR1DAY	12.70	12.96	0.0000	135.52	135.49	13034
NSR1210	FEX5YR1DAY	12.70	12.97	-0.0001	17.72	10.08	64821
NSR1230	FEX5YR1DAY	14.76	14.97	0.0000	134.29	134.22	9552
NSR1270	FEX5YR1DAY	14.99	15.19	0.0000	134.37	134.29	6261
NSR1290	FEX5YR1DAY	14.99	15.19	0.0000	7.98	2.58	18600
NSR1310	FEX5YR1DAY	14.99	15.19	0.0000	22.05	15.67	55088
NSR1330	FEX5YR1DAY	15.44	15.71	0.0000	135.08	132.85	22440
NSR1350	FEX5YR1DAY	15.45	15.72	0.0000	24.94	22.69	57060
NSR1370	FEX5YR1DAY	15.56	15.82	0.0000	128.47	121.20	21929
NSR1390	FEX5YR1DAY	15.56	15.83	0.0000	2.91	2.91	3920
NSR1410	FEX5YR1DAY	15.56	15.83	-0.0001	25.62	24.01	7801
NSR1430	FEX5YR1DAY	15.76	15.96	0.0000	38.65	36.00	22932
NSR1450	FEX5YR1DAY	15.74	15.95	0.0000	47.36	35.87	80159
NSR1470	FEX5YR1DAY	15.96	16.03	0.0000	37.29	35.36	28540
NSR1490	FEX5YR1DAY	16.21	16.21	0.0000	45.69	31.98	118678
NSR1510	FEX5YR1DAY	16.21	16.22	0.0000	25.01	22.67	27161
NSR1530	FEX5YR1DAY	15.56	15.82	0.0000	4.35	2.82	6292
NSR1550	FEX5YR1DAY	15.68	15.93	0.0000	131.06	115.57	33565
NSR1570	FEX5YR1DAY	15.68	15.93	0.0000	3.05	1.49	3098
NSR1590	FEX5YR1DAY	15.68	15.93	-0.0001	43.56	40.74	20238
NSR1610	FEX5YR1DAY	15.75	16.00	-0.0001	16.17	14.90	11256
NSR1630	FEX5YR1DAY	15.75	16.00	0.0000	97.69	82.82	19421
NSR1650	FEX5YR1DAY	16.39	17.07	0.0000	2.45	2.45	436
NSR1670	FEX5YR1DAY	15.92	16.31	-0.0003	36.12	30.64	29129
NSR1690	FEX5YR1DAY	16.24	16.49	0.0000	88.17	71.39	20486
NSR1710	FEX5YR1DAY	16.25	16.49	0.0000	6.26	5.84	2596
NSR1730	FEX5YR1DAY	16.32	16.56	0.0001	87.93	81.50	9663
NSR1750	FEX5YR1DAY	16.68	16.68	0.0000	2.58	2.58	436
NSR1770	FEX5YR1DAY	17.23	17.37	0.0000	25.24	15.55	19293
NSR1790	FEX5YR1DAY	17.24	17.38	0.0000	29.06	17.41	33039
NSR1810	FEX5YR1DAY	17.25	17.38	0.0000	9.60	7.83	12905
NSR1830	FEX5YR1DAY	17.25	17.38	0.0000	43.34	32.91	84966
NSR1850	FEX5YR1DAY	16.95	17.15	0.0000	7.41	7.67	13140

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1870	FEX5YR1DAY	16.93	17.15	0.0001	29.21	23.70	54489
NSR1890	FEX5YR1DAY	16.05	17.13	0.0000	13.14	13.54	1056
NSR1910	FEX5YR1DAY	15.45	17.11	0.0004	53.41	49.01	34988
NSR1930	FEX5YR1DAY	16.53	16.74	-0.0002	65.91	65.51	1836
NSR1950	FEX5YR1DAY	16.70	16.90	0.0001	20.96	20.41	5130
NSR1970	FEX5YR1DAY	16.84	17.14	-0.0001	23.18	19.81	36044
NSR1990	FEX5YR1DAY	16.86	17.10	0.0000	10.28	9.31	949
NSR2010	FEX5YR1DAY	16.91	17.06	-0.0001	12.46	10.28	29468
NSR2030	FEX5YR1DAY	16.90	16.99	-0.0001	7.92	7.93	751
NSR2050	FEX5YR1DAY	16.88	16.89	0.0000	11.48	10.97	15670
NSR2070	FEX5YR1DAY	16.81	16.82	0.0000	6.16	6.17	781
NSR2090	FEX5YR1DAY	16.72	16.72	0.0000	6.17	6.17	673
NSR2110	FEX5YR1DAY	16.54	16.54	0.0000	14.95	14.26	15181
NSR2130	FEX5YR1DAY	16.50	16.50	0.0000	14.48	9.71	89428
NSR2150	FEX5YR1DAY	17.60	16.99	0.0000	48.52	41.99	123972
NSR2170	FEX5YR1DAY	17.62	17.12	0.0000	30.16	30.04	2087
NSR2190	FEX5YR1DAY	17.62	17.17	-0.0001	30.27	30.16	967
NSR2210	FEX5YR1DAY	17.62	17.26	0.0000	37.48	26.12	81509
NSR2230	FEX5YR1DAY	17.62	17.21	-0.0001	21.09	20.56	675
NSR2250	FEX5YR1DAY	17.63	17.26	-0.0001	22.52	21.09	10559
NSR2270	FEX5YR1DAY	17.63	17.27	-0.0001	25.02	20.68	20887
NSR2290	FEX5YR1DAY	17.63	17.28	-0.0001	18.01	17.73	888
NSR2310	FEX5YR1DAY	17.63	17.30	0.0000	19.36	18.01	14530
NSR2330	FEX5YR1DAY	17.65	17.78	0.0000	18.83	12.89	29725
NSR2350	FEX5YR1DAY	17.65	17.79	0.0001	19.29	11.83	34770
NSR2370	FEX5YR1DAY	16.66	16.76	0.0000	21.68	16.87	9676
NSR2390	FEX5YR1DAY	18.07	17.99	0.0000	10.04	3.24	58979
NSR2410	FEX5YR1DAY	16.66	16.76	0.0000	32.95	21.68	17708
NSR2430	FEX5YR1DAY	17.99	17.98	0.0000	2.25	2.24	2699
NSR2450	FEX5YR1DAY	18.06	18.07	0.0000	29.86	29.35	15280
NSR3000	FEX5YR1DAY	17.04	17.15	-0.0727	6.65	49.45	1108
NSR3005	FEX5YR1DAY	17.02	17.15	0.1453	49.45	4.01	566
NSR3020	FEX5YR1DAY	17.61	17.71	-0.0001	32.32	29.93	67988
NSR3040	FEX5YR1DAY	16.25	16.38	0.0000	59.81	55.31	36198
NSR3060	FEX5YR1DAY	16.21	16.21	-0.0001	18.27	16.53	41771
NSW0010	FEX5YR1DAY	2.00	2.00	0.0000	22.74	0.00	0
NSW0030	FEX5YR1DAY	2.13	2.67	0.0003	22.77	22.74	587
NSW0050	FEX5YR1DAY	4.04	4.07	-0.0001	22.99	22.77	959
Outfall	FEX5YR1DAY	2.00	2.00	0.0000	46.88	0.00	0
Outfall_NE	FEX5YR1DAY	21.00	19.86	0.0002	8.45	0.00	0
PondA	FEX5YR1DAY	0.00	20.10	0.0000	16.43	2.30	61954
PondB	FEX5YR1DAY	0.00	16.36	0.0000	132.73	75.69	84364
SH_OUTFALL	FEX5YR1DAY	2.00	2.00	0.0000	196.22	0.00	0
STORAGE1	FEX5YR1DAY	0.00	19.59	0.0000	4.25	1.20	7405
STORAGE10	FEX5YR1DAY	0.00	20.06	0.0000	2.17	0.00	9148
STORAGE11	FEX5YR1DAY	0.00	20.72	0.0001	10.01	0.01	18648
STORAGE12	FEX5YR1DAY	0.00	20.39	0.0003	77.78	5.91	10262

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
STORAGE13	FEX5YR1DAY	0.00	19.13	0.0000	3.74	0.58	5323
STORAGE14	FEX5YR1DAY	0.00	20.79	0.0000	3.12	0.00	13395
STORAGE2	FEX5YR1DAY	0.00	18.96	0.0001	12.58	2.63	18426
STORAGE4	FEX5YR1DAY	0.00	19.21	0.0002	70.83	3.40	12088
STORAGE5	FEX5YR1DAY	0.00	21.07	0.0000	18.62	4.64	19962
STORAGE8	FEX5YR1DAY	0.00	18.91	0.0000	2.91	0.99	6098
STORAGE9	FEX5YR1DAY	0.00	19.34	0.0008	9.24	2.31	11761
Sevilla1	FEX5YR1DAY	1.20	2.07	0.0000	0.03	0.03	804
Sevilla2	FEX5YR1DAY	1.23	2.04	0.0000	0.01	0.01	609
Sevilla3	FEX5YR1DAY	1.20	2.07	0.0000	0.08	0.08	1339
Sevilla4	FEX5YR1DAY	1.20	2.07	0.0000	0.14	0.14	1450
Shamrock2	FEX5YR1DAY	1.11	2.04	-0.0001	46.92	46.88	5389
Shmrck1.1	FEX5YR1DAY	1.38	2.13	0.0000	46.86	46.91	6206
Shmrck1.2	FEX5YR1DAY	1.20	2.07	0.0001	46.91	46.92	3971
V3	FEX5YR1DAY	6.53	6.53	0.0000	0.00	0.00	436
BC_N02	FEX5YR8HR	0.00	18.00	0.0000	0.00	0.00	0
Church1	FEX5YR8HR	8.77	8.91	0.0000	0.16	0.05	518
Church2	FEX5YR8HR	8.77	8.91	0.0000	4.03	3.69	4390
Clark1	FEX5YR8HR	7.21	7.51	0.0000	0.49	0.29	742
Clark2	FEX5YR8HR	7.21	7.51	0.0000	52.02	52.01	4366
DM1	FEX5YR8HR	11.42	11.51	0.0000	4.10	4.11	1371
DM2	FEX5YR8HR	10.30	10.33	0.0000	4.11	4.04	2100
DM3	FEX5YR8HR	9.16	9.21	0.0000	4.04	4.03	2968
E_Outlet	FEX5YR8HR	0.00	16.05	0.0003	67.56	18.81	0
E_Outlet2	FEX5YR8HR	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	FEX5YR8HR	1.99	2.46	0.0000	0.26	0.27	763
ElP_con.1	FEX5YR8HR	2.18	2.57	-0.0001	51.93	51.93	4221
ElPrad.1	FEX5YR8HR	1.99	2.46	0.0000	0.12	0.11	632
G1	FEX5YR8HR	14.98	15.40	-0.0005	60.25	47.82	37911
G10	FEX5YR8HR	8.77	8.90	0.0000	52.03	52.02	4602
G2	FEX5YR8HR	14.99	15.39	-0.0003	15.01	14.60	32943
G3	FEX5YR8HR	14.86	15.34	-0.0005	61.89	61.79	27826
G4	FEX5YR8HR	12.82	14.34	-0.0001	61.79	60.19	57230
G5	FEX5YR8HR	11.69	12.42	0.0000	58.67	58.67	1864
G6	FEX5YR8HR	11.00	9.24	0.0000	9.13	0.00	0
G7	FEX5YR8HR	11.00	11.24	0.0000	58.67	58.66	3601
G8	FEX5YR8HR	10.07	10.32	0.0000	49.53	49.53	2143
G9	FEX5YR8HR	9.41	9.70	0.0000	49.53	49.53	1353
H1	FEX5YR8HR	1.99	2.46	0.0000	0.10	0.11	514
H2.1	FEX5YR8HR	1.99	2.46	0.0000	51.93	51.91	6105
Hubert	FEX5YR8HR	3.16	3.33	0.0000	52.01	51.98	5965
JUNCT1	FEX5YR8HR	0.00	18.90	0.0000	2.70	2.69	3883
JUNCT10	FEX5YR8HR	0.00	21.91	0.0000	34.18	34.14	9131
JUNCT2	FEX5YR8HR	0.00	14.13	0.0000	14.49	14.49	1626
JUNCT3	FEX5YR8HR	0.00	19.87	0.0000	3.39	3.21	10370
JUNCT4	FEX5YR8HR	0.00	13.62	0.0000	2.96	2.95	5152
JUNCT6	FEX5YR8HR	0.00	15.22	0.0000	20.54	20.51	4221

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
JUNCT7	FEX5YR8HR	0.00	19.35	0.0000	62.08	62.07	8386
JUNCT7B	FEX5YR8HR	0.00	19.23	0.0000	62.07	61.04	18391
JUNCT8	FEX5YR8HR	0.00	19.36	0.0000	102.10	102.35	11632
JUNCT8B	FEX5YR8HR	0.00	19.23	0.0000	101.66	100.07	26038
JUNCT9	FEX5YR8HR	0.00	29.39	0.0000	27.86	27.89	9025
L1	FEX5YR8HR	11.53	11.59	0.0000	1.52	0.78	51695
L2	FEX5YR8HR	11.63	11.63	0.0000	0.00	0.00	436
L3	FEX5YR8HR	10.43	10.43	0.0000	0.00	0.00	436
L4	FEX5YR8HR	8.43	8.43	0.0000	0.00	0.00	436
L5	FEX5YR8HR	7.63	7.63	0.0000	0.00	0.00	436
L6	FEX5YR8HR	6.93	6.93	0.0000	0.00	0.00	436
Lois	FEX5YR8HR	4.82	4.81	0.0000	52.01	52.01	6808
M1	FEX5YR8HR	2.58	2.85	0.0000	0.33	0.35	743
M1.1	FEX5YR8HR	6.33	6.37	0.0000	0.54	0.33	18605
M1.2	FEX5YR8HR	7.03	7.06	0.0000	0.49	0.54	17036
M1.3	FEX5YR8HR	7.13	7.18	0.0000	0.78	0.49	28487
M2	FEX5YR8HR	2.58	2.85	0.0000	0.42	0.45	1064
M3	FEX5YR8HR	2.58	2.85	0.0000	0.55	0.74	1165
M4	FEX5YR8HR	2.58	2.85	0.0000	0.87	1.08	908
M5.1	FEX5YR8HR	2.57	2.85	0.0000	51.98	51.95	6162
M6	FEX5YR8HR	2.58	2.85	0.0000	0.29	0.22	558
Marjory_Pump	FEX5YR8HR	0.00	31.43	0.0102	3.62	2.55	496
N01	FEX5YR8HR	0.00	20.28	0.0000	10.93	6.97	25403
N01A	FEX5YR8HR	0.00	20.26	0.0000	6.97	6.79	437
N02	FEX5YR8HR	0.00	17.25	-0.0001	13.68	13.06	7255
N03	FEX5YR8HR	0.00	17.33	0.0000	4.15	4.18	919
N04	FEX5YR8HR	0.00	17.40	0.0000	3.15	3.14	649
N05	FEX5YR8HR	0.00	17.19	0.0000	77.82	77.15	4413
N06	FEX5YR8HR	0.00	16.18	0.0001	78.04	78.17	3292
N07A	FEX5YR8HR	0.00	13.72	-0.0001	80.91	81.05	4247
N08A	FEX5YR8HR	0.00	11.89	0.0001	99.14	99.27	9321
N09	FEX5YR8HR	0.00	10.41	0.0000	6.64	6.45	468
N09A	FEX5YR8HR	0.00	10.36	-0.0001	103.09	103.12	1361
N10	FEX5YR8HR	2.00	2.00	0.0000	183.37	0.00	0
N11	FEX5YR8HR	0.00	16.30	-0.0003	46.33	67.56	94464
NBB0010	FEX5YR8HR	2.00	2.00	0.0000	115.76	0.00	0
NBB0030	FEX5YR8HR	5.03	5.94	-0.0002	115.77	115.76	557
NBB0050	FEX5YR8HR	9.15	9.89	-0.0001	117.85	115.77	9639
NBB0070	FEX5YR8HR	11.30	11.97	0.0000	104.56	104.42	2549
NBB0090	FEX5YR8HR	12.67	13.20	0.0001	93.30	93.55	1994
NBB0110	FEX5YR8HR	13.46	13.94	0.0001	90.37	90.56	1982
NBB0130	FEX5YR8HR	15.26	15.78	-0.0001	27.14	24.55	23652
NBB0150	FEX5YR8HR	14.01	14.44	0.0001	70.31	70.49	1935
NBB0170	FEX5YR8HR	14.74	15.11	0.0001	70.14	70.31	1452
NBB0190	FEX5YR8HR	15.42	15.73	0.0001	69.97	70.14	1785
NBB0210	FEX5YR8HR	15.70	16.03	0.0001	67.19	67.36	1555

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBB0230	FEX5YR8HR	16.02	16.38	0.0001	67.02	67.19	1635
NBB0250	FEX5YR8HR	16.31	16.65	0.0001	66.09	66.26	2036
NBB0270	FEX5YR8HR	17.05	17.17	0.0001	65.69	66.09	6175
NBB0290	FEX5YR8HR	17.06	17.17	0.0001	53.26	53.48	1258
NBB0310	FEX5YR8HR	17.07	17.18	-0.0001	117.83	96.84	277871
NBB0330	FEX5YR8HR	16.57	16.64	0.0001	34.61	34.40	8447
NBB0350	FEX5YR8HR	16.45	16.57	0.0001	24.73	25.69	1396
NBB0370	FEX5YR8HR	16.33	16.50	0.0001	55.50	48.10	48235
NBB0390	FEX5YR8HR	16.32	16.50	0.0001	18.59	19.38	1833
NBB0410	FEX5YR8HR	16.30	16.49	-0.0002	53.52	49.79	33798
NBB0430	FEX5YR8HR	15.45	15.56	-0.0002	68.72	69.46	65326
NBW0010	FEX5YR8HR	2.00	2.00	0.0000	595.07	0.00	0
NBW0030	FEX5YR8HR	3.39	3.53	0.0000	595.25	595.07	40210
NBW0050	FEX5YR8HR	3.92	3.83	0.0000	6.29	5.39	4943
NBW0070	FEX5YR8HR	3.57	3.75	0.0000	198.78	199.78	28584
NBW0090	FEX5YR8HR	3.66	3.70	0.0000	4.27	3.87	6870
NBW0130	FEX5YR8HR	3.73	3.95	0.0000	196.59	196.81	14301
NBW0150	FEX5YR8HR	3.93	3.97	0.0001	6.45	6.35	442
NBW0170	FEX5YR8HR	3.98	3.97	0.0000	2.92	2.58	3791
NBW0190	FEX5YR8HR	3.89	4.11	-0.0001	194.14	194.20	5879
NBW0210	FEX5YR8HR	6.25	6.22	0.0000	5.07	5.05	4655
NBW0230	FEX5YR8HR	4.01	4.25	-0.0001	192.61	192.69	3131
NBW0250	FEX5YR8HR	4.88	5.20	0.0000	191.28	191.33	5475
NBW0270	FEX5YR8HR	5.49	5.38	0.0000	25.82	24.54	14143
NBW0290	FEX5YR8HR	5.91	5.83	0.0000	19.94	19.84	9870
NBW0310	FEX5YR8HR	6.38	6.08	0.0000	6.72	6.71	743
NBW0330	FEX5YR8HR	5.50	5.92	0.0000	184.37	184.39	22115
NBW0350	FEX5YR8HR	4.97	4.92	0.0000	4.84	4.83	2454
NBW0370	FEX5YR8HR	5.52	5.93	0.0001	6.30	5.82	3108
NBW0390	FEX5YR8HR	5.52	5.93	0.0001	5.94	5.07	15559
NBW0410	FEX5YR8HR	5.54	5.97	-0.0001	179.31	179.61	3446
NBW0430	FEX5YR8HR	5.89	6.32	0.0001	3.55	3.19	3674
NBW0450	FEX5YR8HR	5.89	6.32	0.0000	180.05	179.31	11225
NBW0470	FEX5YR8HR	5.89	6.32	-0.0001	2.59	2.23	2789
NBW0490	FEX5YR8HR	5.92	6.36	-0.0001	177.89	178.19	3040
NBW0510	FEX5YR8HR	6.72	6.58	0.0000	2.05	2.05	1649
NBW0530	FEX5YR8HR	6.22	6.70	0.0000	177.63	177.42	4799
NBW0550	FEX5YR8HR	6.72	7.25	0.0000	117.37	108.27	151745
NBW0570	FEX5YR8HR	7.09	7.25	0.0000	108.90	108.46	8961
NBW0590	FEX5YR8HR	10.03	9.94	-0.0004	135.83	134.94	78626
NBW0610	FEX5YR8HR	6.45	6.91	0.0000	158.78	158.78	7838
NBW0630	FEX5YR8HR	6.22	6.70	0.0000	2.82	2.04	13219
NBW0650	FEX5YR8HR	6.66	7.20	0.0000	159.60	158.73	20814
NBW0670	FEX5YR8HR	6.66	7.20	0.0000	4.44	3.61	20191
NBW0690	FEX5YR8HR	6.71	7.24	0.0001	117.07	118.06	9288
NBW0710	FEX5YR8HR	6.71	7.24	0.0000	8.34	6.71	27579
NBW0730	FEX5YR8HR	6.72	7.25	0.0000	107.66	113.07	153799

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0750	FEX5YR8HR	7.06	7.34	0.0001	116.73	111.38	83940
NBW0770	FEX5YR8HR	7.06	7.34	-0.0001	14.44	11.90	14759
NBW0790	FEX5YR8HR	8.11	7.68	0.0000	12.31	12.16	761
NBW0810	FEX5YR8HR	7.06	7.34	0.0000	30.44	24.21	24911
NBW0830	FEX5YR8HR	8.41	7.69	0.0000	20.03	19.89	1326
NBW0850	FEX5YR8HR	10.17	8.07	0.0000	18.38	18.26	755
NBW0870	FEX5YR8HR	7.06	7.37	0.0000	60.82	55.85	106108
NBW0890	FEX5YR8HR	7.06	7.35	-0.0002	18.56	19.45	1027
NBW0910	FEX5YR8HR	7.06	7.35	0.0000	84.01	81.21	100790
NBW0930	FEX5YR8HR	8.03	7.65	0.0000	37.67	37.65	1301
NBW0950	FEX5YR8HR	8.82	8.08	-0.0001	40.68	37.67	37970
NBW0970	FEX5YR8HR	8.82	8.09	0.0001	32.72	32.38	11972
NBW0990	FEX5YR8HR	8.82	8.14	-0.0001	21.61	21.71	785
NBW1010	FEX5YR8HR	8.83	8.53	0.0000	31.86	31.85	1189
NBW1030	FEX5YR8HR	9.19	10.00	-0.0001	48.51	31.04	43747
NBW1050	FEX5YR8HR	9.30	10.01	0.0001	18.76	18.44	900
NBW1070	FEX5YR8HR	9.34	10.02	-0.0001	89.50	84.72	60247
NBW1090	FEX5YR8HR	3.78	3.91	0.0000	391.66	391.49	12182
NBW1130	FEX5YR8HR	4.51	4.50	0.0000	13.63	11.20	14307
NBW1150	FEX5YR8HR	4.53	4.51	0.0000	11.28	9.21	38575
NBW1169	FEX5YR8HR	4.09	4.19	0.0000	379.71	379.53	16397
NBW1170	FEX5YR8HR	4.30	4.41	-0.0001	373.10	373.03	5983
NBW1190	FEX5YR8HR	6.13	6.22	-0.0001	28.22	26.89	50461
NBW1210	FEX5YR8HR	7.17	7.11	-0.0003	76.31	48.67	96216
NBW1230	FEX5YR8HR	7.17	7.12	-0.0002	99.22	63.86	146418
NBW1250	FEX5YR8HR	4.74	4.84	-0.0001	341.33	339.67	7384
NBW1270	FEX5YR8HR	6.14	6.22	-0.0001	6.91	6.98	14011
NBW1310	FEX5YR8HR	5.21	5.26	-0.0001	367.49	340.69	8354
NBW1330	FEX5YR8HR	7.56	8.04	0.0011	302.09	325.94	3090
NBW1350	FEX5YR8HR	10.95	9.79	-0.0001	20.13	20.76	490
NBW1351	FEX5YR8HR	8.89	9.57	0.0002	256.00	255.64	8277
NBW1352	FEX5YR8HR	9.96	10.81	-0.0004	250.03	250.24	7956
NBW1353	FEX5YR8HR	11.01	12.03	-0.0005	246.99	247.17	5636
NBW1370	FEX5YR8HR	10.02	10.33	0.0004	199.36	199.22	6358
NBW1390	FEX5YR8HR	15.24	15.31	-0.0004	229.98	226.68	121936
NBW1410	FEX5YR8HR	15.58	15.60	0.0002	179.81	176.11	21490
NBW1430	FEX5YR8HR	15.79	15.76	-0.0002	157.24	164.58	19919
NBW1450	FEX5YR8HR	16.94	16.91	0.0002	197.82	197.66	105181
NBW1460	FEX5YR8HR	16.43	16.41	-0.0002	153.34	153.97	3519
NBW1470	FEX5YR8HR	17.14	17.16	-0.0004	202.18	198.93	144741
NBW1480	FEX5YR8HR	18.11	18.13	0.0000	7.72	7.43	15286
NBW1490	FEX5YR8HR	17.86	17.95	0.0001	134.40	130.79	57753
NBW1510	FEX5YR8HR	18.12	18.19	0.0002	151.45	151.70	17480
NBW1530	FEX5YR8HR	17.92	18.03	0.0001	14.55	12.17	1237
NBW1550	FEX5YR8HR	17.75	17.87	0.0001	22.93	21.36	11885
NBW1570	FEX5YR8HR	18.21	18.34	0.0002	149.81	150.06	2604
NBW1590	FEX5YR8HR	18.12	18.19	0.0001	33.44	30.95	16733

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1610	FEX5YR8HR	18.13	18.20	0.0001	23.00	22.70	7246
NBW1630	FEX5YR8HR	18.13	18.18	0.0001	14.58	14.57	1681
NBW1650	FEX5YR8HR	18.81	18.96	0.0001	10.43	10.15	7442
NBW1670	FEX5YR8HR	18.89	18.97	0.0001	18.51	18.12	6833
NBW1690	FEX5YR8HR	19.03	18.97	0.0001	11.05	10.97	7975
NBW1710	FEX5YR8HR	19.26	18.97	0.0001	3.16	1.11	998
NBW1730	FEX5YR8HR	18.65	18.95	0.0003	140.56	139.48	200089
NBW1750	FEX5YR8HR	18.82	18.96	0.0001	75.58	71.19	28978
NBW1770	FEX5YR8HR	18.82	18.97	0.0001	64.07	59.34	70927
NBW1790	FEX5YR8HR	18.91	18.97	0.0001	14.78	14.68	2176
NBW1820	FEX5YR8HR	18.72	18.76	0.0000	37.68	31.15	86542
NBW1830	FEX5YR8HR	18.74	18.97	0.0001	77.18	77.39	14343
NBW1840	FEX5YR8HR	18.39	18.45	-0.0001	68.29	63.92	84748
NBW1850	FEX5YR8HR	18.74	18.97	-0.0001	77.02	76.16	83961
NBW1860	FEX5YR8HR	18.39	18.45	-0.0001	7.87	7.40	17293
NBW1870	FEX5YR8HR	18.72	18.77	-0.0001	20.13	13.86	27239
NBW1890	FEX5YR8HR	19.06	19.08	0.0001	60.11	60.35	2614
NBW1910	FEX5YR8HR	19.27	19.16	-0.0001	59.88	60.11	2400
NBW1930	FEX5YR8HR	19.27	19.19	0.0000	59.30	59.52	4634
NBW1950	FEX5YR8HR	18.97	18.99	0.0000	3.82	1.95	450
NBW1970	FEX5YR8HR	18.96	18.99	0.0000	6.73	6.72	2371
NBW1990	FEX5YR8HR	19.27	19.27	0.0000	56.41	57.96	51430
NBW2010	FEX5YR8HR	19.65	19.44	0.0000	9.93	8.89	5682
NBW2030	FEX5YR8HR	19.65	19.44	0.0000	8.74	8.77	13661
NBW2050	FEX5YR8HR	19.26	19.37	0.0001	52.22	53.31	58481
NBW2060	FEX5YR8HR	0.00	19.48	0.0000	10.70	10.35	24377
NBW2070	FEX5YR8HR	19.26	19.37	0.0001	65.36	58.24	95580
NBW2090	FEX5YR8HR	19.10	19.22	0.0001	37.92	37.89	19098
NBW2110	FEX5YR8HR	18.92	19.22	0.0000	117.88	94.01	168890
NBW2130	FEX5YR8HR	18.92	19.22	-0.0001	31.46	25.15	34173
NBW2140	FEX5YR8HR	20.00	19.23	0.0000	5.14	5.40	609
NBW2145	FEX5YR8HR	0.00	19.24	-0.0005	11.61	51.07	21271
NBW2150	FEX5YR8HR	19.26	19.57	0.0000	50.50	50.12	15214
NBW2170	FEX5YR8HR	19.12	19.63	0.0001	6.71	2.96	798
NBW2190	FEX5YR8HR	19.10	19.66	0.0000	3.57	3.06	5091
NBW2210	FEX5YR8HR	19.47	19.65	-0.0001	23.89	22.42	5502
NBW2230	FEX5YR8HR	19.47	19.70	0.0001	34.09	33.42	40438
NBW2250	FEX5YR8HR	19.51	19.68	0.0000	15.21	15.35	2635
NBW2270	FEX5YR8HR	19.57	19.70	0.0001	14.98	14.97	8280
NBW2290	FEX5YR8HR	19.65	19.70	0.0000	20.79	20.71	75820
NBW2310	FEX5YR8HR	19.82	19.75	0.0001	21.90	18.50	85662
NBW2330	FEX5YR8HR	19.82	19.75	-0.0001	13.90	10.03	46303
NBW2350	FEX5YR8HR	16.05	16.10	0.0001	62.83	62.31	30957
NBW2370	FEX5YR8HR	16.11	16.15	-0.0001	11.64	11.20	58826
NBW2380	FEX5YR8HR	12.29	13.54	-0.0003	244.76	244.96	10756
NBW2385	FEX5YR8HR	18.49	18.48	0.0000	2.27	2.27	6442
NBW2387	FEX5YR8HR	16.11	15.70	0.0000	0.35	0.34	476

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2390	FEX5YR8HR	16.42	16.75	0.0001	40.19	40.14	2672
NBW2410	FEX5YR8HR	16.59	17.72	0.0001	41.16	34.75	82944
NBW2430	FEX5YR8HR	16.23	17.73	-0.0001	89.26	87.46	38240
NBW2450	FEX5YR8HR	16.15	17.68	-0.0001	150.52	158.81	4396
NBW2470	FEX5YR8HR	16.43	17.80	-0.0001	129.05	121.69	34681
NBW2490	FEX5YR8HR	16.90	17.80	-0.0002	72.52	72.38	19564
NBW2510	FEX5YR8HR	17.74	17.87	0.0000	70.21	69.97	2032
NBW2530	FEX5YR8HR	17.92	18.03	0.0001	65.38	65.62	2011
NBW2550	FEX5YR8HR	17.95	18.04	0.0000	1.72	2.90	450
NBW2570	FEX5YR8HR	17.96	18.04	0.0000	1.82	1.72	3679
NBW2590	FEX5YR8HR	18.06	18.13	0.0001	53.57	53.74	1098
NBW2610	FEX5YR8HR	17.00	17.83	-0.0007	131.77	124.06	51031
NBW2630	FEX5YR8HR	17.98	18.03	0.0001	125.22	122.95	39067
NBW2650	FEX5YR8HR	16.97	17.82	-0.0003	28.24	29.06	12943
NBW2670	FEX5YR8HR	16.42	17.79	-0.0001	30.16	31.02	10246
NBW2680	FEX5YR8HR	17.73	17.82	-0.0001	31.76	32.64	21150
NBW2690	FEX5YR8HR	15.40	17.18	0.0002	232.51	235.05	43265
NBW2710	FEX5YR8HR	17.73	17.82	-0.0001	2.17	3.44	533
NBW2730	FEX5YR8HR	18.29	18.28	0.0000	1.22	0.49	4356
NBW2770	FEX5YR8HR	18.09	18.14	0.0000	13.31	13.37	1309
NBW2775	FEX5YR8HR	6.59	6.51	0.0000	7.66	4.90	23787
NBW2780	FEX5YR8HR	18.38	18.43	-0.0003	48.00	40.19	65257
NBW2790	FEX5YR8HR	18.38	18.44	-0.0001	141.46	142.02	86446
NBW2810	FEX5YR8HR	18.39	18.45	-0.0002	54.44	54.61	68124
NBW2830	FEX5YR8HR	18.40	18.45	-0.0001	37.10	35.46	108288
NC01	FEX5YR8HR	0.00	3.84	0.0000	7.92	7.85	3210
NC01B	FEX5YR8HR	0.00	5.78	0.0000	8.96	8.93	4078
NC02	FEX5YR8HR	0.00	8.01	-0.0001	107.71	107.72	1891
NC03	FEX5YR8HR	0.00	4.68	-0.0002	120.46	120.45	2072
NC04	FEX5YR8HR	0.00	3.30	0.0000	27.98	26.50	21315
NC05	FEX5YR8HR	0.00	3.29	-0.0001	28.04	26.60	34820
NC06	FEX5YR8HR	0.00	3.20	0.0000	27.89	27.31	15176
NC07	FEX5YR8HR	0.00	3.18	0.0000	18.92	18.69	13825
NC08	FEX5YR8HR	0.00	3.16	0.0000	21.41	21.26	10303
NCL0010	FEX5YR8HR	2.00	2.00	0.0000	534.20	0.00	0
NCL0030	FEX5YR8HR	2.36	2.71	-0.0002	468.99	468.96	6856
NCL0050	FEX5YR8HR	2.36	2.71	0.0000	0.88	0.77	439
NCL0070	FEX5YR8HR	5.20	5.21	0.0000	83.76	82.77	31023
NCL0090	FEX5YR8HR	6.06	5.98	-0.0001	30.10	25.96	57604
NCL0110	FEX5YR8HR	3.04	3.23	-0.0006	551.47	551.42	6623
NCL0130	FEX5YR8HR	4.05	3.30	-0.0002	99.46	99.57	565
NCL0150	FEX5YR8HR	4.95	3.83	0.0000	99.51	99.46	2802
NCL0170	FEX5YR8HR	5.08	3.93	-0.0001	57.39	57.74	1380
NCL0190	FEX5YR8HR	5.08	3.93	0.0000	1.52	1.51	438
NCL0210	FEX5YR8HR	5.85	4.26	-0.0001	75.13	75.30	1234
NCL0230	FEX5YR8HR	6.60	4.93	0.0000	18.48	18.32	564
NCL0250	FEX5YR8HR	6.60	4.93	0.0000	0.64	0.81	538

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0270	FEX5YR8HR	6.60	5.79	0.0000	2.74	2.75	1001
NCL0290	FEX5YR8HR	5.90	4.41	-0.0001	52.69	52.83	924
NCL0310	FEX5YR8HR	6.10	5.07	0.0010	52.60	52.69	1045
NCL0330	FEX5YR8HR	5.95	5.07	0.0000	0.77	1.94	513
NCL0350	FEX5YR8HR	6.60	5.69	-0.0005	61.83	59.56	14904
NCL0370	FEX5YR8HR	7.36	7.17	-0.0001	44.89	44.54	9466
NCL0390	FEX5YR8HR	4.02	4.14	-0.0021	441.73	468.94	4339
NCL0410	FEX5YR8HR	4.09	4.18	-0.0002	3.52	3.50	819
NCL0430	FEX5YR8HR	4.23	4.23	0.0000	3.56	3.52	639
NCL0450	FEX5YR8HR	4.75	4.83	-0.0012	435.51	435.56	3676
NCL0470	FEX5YR8HR	5.43	5.48	-0.0011	431.95	431.99	3437
NCL0490	FEX5YR8HR	6.48	6.48	-0.0010	454.80	455.82	26791
NCL0510	FEX5YR8HR	6.67	6.59	-0.0001	24.76	24.70	1151
NCL0530	FEX5YR8HR	8.10	7.36	0.0004	40.47	16.15	1178
NCL0550	FEX5YR8HR	8.17	7.40	-0.0002	16.30	40.47	877
NCL0570	FEX5YR8HR	8.66	7.52	0.0000	8.18	8.10	839
NCL0590	FEX5YR8HR	7.00	7.01	0.0008	417.96	417.96	3392
NCL0610	FEX5YR8HR	7.52	7.57	0.0007	411.92	411.94	3640
NCL0630	FEX5YR8HR	8.06	8.16	0.0003	409.70	409.80	4608
NCL0650	FEX5YR8HR	8.12	8.21	-0.0003	46.28	102.60	1613
NCL0670	FEX5YR8HR	8.67	8.72	0.0002	126.49	46.28	1692
NCL0690	FEX5YR8HR	8.76	8.79	-0.0003	28.10	35.14	605
NCL0710	FEX5YR8HR	8.95	8.93	0.0002	29.09	27.71	601
NCL0730	FEX5YR8HR	9.26	9.18	-0.0001	30.76	29.09	554
NCL0750	FEX5YR8HR	9.56	9.42	0.0000	51.49	49.47	39883
NCL0770	FEX5YR8HR	10.12	9.94	0.0000	33.35	33.28	2178
NCL0790	FEX5YR8HR	8.69	8.74	-0.0003	28.33	101.59	895
NCL0810	FEX5YR8HR	8.84	8.89	0.0001	28.22	28.33	1379
NCL0830	FEX5YR8HR	8.93	9.17	-0.0008	360.87	363.15	27200
NCL0850	FEX5YR8HR	9.01	9.19	-0.0001	59.00	56.37	9386
NCL0870	FEX5YR8HR	9.37	9.28	0.0002	79.20	79.06	2022
NCL0890	FEX5YR8HR	9.65	9.35	-0.0001	60.21	60.06	1587
NCL0910	FEX5YR8HR	9.71	9.35	-0.0001	4.05	3.90	483
NCL0930	FEX5YR8HR	9.57	9.48	-0.0001	56.47	56.31	2106
NCL0950	FEX5YR8HR	9.89	9.64	0.0000	46.03	45.87	3155
NCL0970	FEX5YR8HR	10.41	9.84	0.0000	27.86	27.69	2250
NCL0990	FEX5YR8HR	11.00	10.02	0.0000	18.91	18.67	1483
NCL1010	FEX5YR8HR	11.14	10.07	0.0000	4.07	3.99	649
NCL1030	FEX5YR8HR	9.67	9.32	-0.0002	21.26	33.52	1479
NCL1050	FEX5YR8HR	10.46	9.33	-0.0001	3.88	3.73	600
NCL1070	FEX5YR8HR	9.30	10.11	0.0001	3.69	3.76	621
NCL1090	FEX5YR8HR	9.76	10.24	0.0000	22.00	8.76	18401
NCL1110	FEX5YR8HR	9.85	9.93	0.0000	16.82	16.92	2088
NCL1130	FEX5YR8HR	9.76	10.24	0.0000	16.95	16.15	35337
NCL1150	FEX5YR8HR	9.76	10.24	0.0001	426.30	433.68	189032
NCL1170	FEX5YR8HR	10.59	11.28	0.0005	368.70	345.89	93168
NCL1190	FEX5YR8HR	10.72	11.33	0.0001	53.87	53.67	1850

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1210	FEX5YR8HR	10.63	11.30	0.0001	19.73	8.06	50422
NCL1230	FEX5YR8HR	10.94	11.42	0.0001	54.06	53.87	1432
NCL1250	FEX5YR8HR	11.11	11.49	-0.0001	54.26	54.06	1231
NCL1270	FEX5YR8HR	11.34	11.60	0.0001	57.54	57.35	1227
NCL1290	FEX5YR8HR	13.06	12.68	0.0000	29.02	28.67	1165
NCL1310	FEX5YR8HR	14.77	14.40	0.0000	21.26	20.40	3853
NCL1330	FEX5YR8HR	10.60	11.28	0.0001	152.23	158.44	77738
NCL1350	FEX5YR8HR	10.63	11.30	0.0001	156.13	150.57	54679
NCL1370	FEX5YR8HR	10.63	11.30	-0.0001	17.99	17.63	1667
NCL1390	FEX5YR8HR	10.63	11.31	0.0001	6.30	6.07	1591
NCL1410	FEX5YR8HR	10.63	11.31	-0.0001	4.70	4.50	1325
NCL1430	FEX5YR8HR	10.70	11.37	0.0005	426.96	384.27	154978
NCL1450	FEX5YR8HR	10.93	11.94	0.0008	392.00	391.83	3036
NCL1470	FEX5YR8HR	12.72	13.28	0.0002	327.26	327.03	4450
NCL1490	FEX5YR8HR	14.45	14.31	0.0000	2.90	2.89	762
NCL1510	FEX5YR8HR	11.06	12.00	0.0004	47.27	72.41	862
NCL1530	FEX5YR8HR	12.54	12.62	-0.0003	55.85	55.28	7619
NCL1550	FEX5YR8HR	13.13	13.09	-0.0001	39.24	38.92	1021
NCL1570	FEX5YR8HR	13.31	13.18	0.0000	2.57	2.52	504
NCL1590	FEX5YR8HR	13.70	13.67	0.0000	1.12	1.12	1307
NCL1610	FEX5YR8HR	13.37	13.21	0.0000	1.53	1.46	469
NCL1630	FEX5YR8HR	13.57	13.46	0.0002	53.06	51.08	2663
NCL1650	FEX5YR8HR	13.68	13.54	-0.0002	50.26	52.20	1293
NCL1670	FEX5YR8HR	14.02	13.71	0.0000	16.71	16.70	926
NCL1690	FEX5YR8HR	17.47	17.20	0.0000	36.55	36.52	1258
NCL1710	FEX5YR8HR	17.89	17.56	0.0000	35.24	34.39	614
NCL1730	FEX5YR8HR	18.27	17.89	-0.0001	39.64	39.44	2126
NCL1750	FEX5YR8HR	18.24	17.88	0.0002	11.59	10.72	513
NCL1770	FEX5YR8HR	18.07	17.84	0.0000	12.91	12.46	1901
NCL1790	FEX5YR8HR	15.78	15.14	0.0001	324.58	324.38	5864
NCL1810	FEX5YR8HR	18.13	17.95	-0.0001	30.68	29.71	14251
NCL1830	FEX5YR8HR	18.39	16.94	0.0001	302.86	302.68	6250
NCL1850	FEX5YR8HR	18.50	17.14	-0.0003	71.09	79.05	911
NCL1870	FEX5YR8HR	19.01	18.08	0.0001	70.95	71.09	1003
NCL1890	FEX5YR8HR	19.15	18.32	-0.0003	70.83	70.95	984
NCL1910	FEX5YR8HR	19.15	18.32	0.0000	1.54	0.69	527
NCL1930	FEX5YR8HR	19.91	19.85	0.0000	2.62	2.61	1501
NCL1950	FEX5YR8HR	19.15	18.32	0.0000	0.38	0.18	498
NCL1970	FEX5YR8HR	21.67	21.63	0.0000	1.44	1.44	3025
NCL1990	FEX5YR8HR	19.58	19.18	-0.0002	70.58	70.68	918
NCL2010	FEX5YR8HR	19.74	19.46	0.0000	40.30	39.48	1104
NCL2030	FEX5YR8HR	19.76	19.47	0.0000	7.58	6.89	16854
NCL2050	FEX5YR8HR	19.76	19.51	0.0000	36.66	36.70	1412
NCL2070	FEX5YR8HR	19.76	19.47	0.0000	2.27	2.09	1008
NCL2090	FEX5YR8HR	19.87	19.75	0.0001	37.72	36.65	1414
NCL2110	FEX5YR8HR	20.03	19.75	-0.0001	16.05	16.40	873
NCL2130	FEX5YR8HR	19.87	19.82	0.0000	62.44	63.65	23309

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2150	FEX5YR8HR	20.75	21.12	-0.0004	71.35	59.49	144689
NCL2170	FEX5YR8HR	19.85	19.80	0.0001	79.72	79.81	15807
NCL2230	FEX5YR8HR	19.13	18.03	0.0001	238.11	238.95	5806
NCL2250	FEX5YR8HR	19.55	18.81	0.0002	244.24	236.85	4443
NCL2270	FEX5YR8HR	20.05	20.07	0.0001	120.48	120.53	7475
NCL2290	FEX5YR8HR	19.88	19.82	0.0001	9.74	9.74	1165
NCL2310	FEX5YR8HR	20.45	20.60	0.0001	99.55	98.98	1780
NCL2330	FEX5YR8HR	20.74	20.96	0.0000	118.27	113.46	75515
NCL2350	FEX5YR8HR	20.78	20.99	0.0000	92.70	91.70	3869
NCL2370	FEX5YR8HR	20.81	21.00	0.0001	89.84	88.85	2298
NCL2390	FEX5YR8HR	20.84	21.04	0.0000	108.57	100.24	98877
NCL2410	FEX5YR8HR	21.07	21.10	0.0000	29.87	29.31	1380
NCL2430	FEX5YR8HR	21.32	21.17	0.0000	29.21	28.46	1473
NCL2450	FEX5YR8HR	21.25	21.14	0.0000	4.10	3.95	493
NCL2470	FEX5YR8HR	20.93	21.05	0.0000	14.15	13.69	846
NCL2490	FEX5YR8HR	21.54	21.19	0.0001	26.78	26.25	1524
NCL2510	FEX5YR8HR	21.70	21.20	0.0000	68.62	67.52	68206
NCL2530	FEX5YR8HR	21.70	21.20	0.0000	33.46	33.13	34902
NCL2540	FEX5YR8HR	0.00	21.89	0.0000	46.21	45.77	35055
NCL2550	FEX5YR8HR	21.70	21.20	0.0000	29.09	28.89	10455
NCL2570	FEX5YR8HR	21.51	21.19	-0.0001	13.78	13.88	1503
NCL2580	FEX5YR8HR	0.00	21.19	0.0000	72.71	72.39	26196
NCL2590	FEX5YR8HR	21.17	21.18	0.0000	123.68	121.45	106150
NCL2610	FEX5YR8HR	21.14	21.18	0.0000	85.48	85.22	24193
NCL2630	FEX5YR8HR	20.86	20.80	0.0000	60.22	57.96	40603
NCL2631	FEX5YR8HR	0.00	20.50	0.0001	64.45	57.35	36672
NCL2650	FEX5YR8HR	21.17	21.37	0.0000	72.07	66.55	95553
NCL2670	FEX5YR8HR	21.93	22.14	-0.0002	74.91	92.27	54985
NCL2690	FEX5YR8HR	21.96	22.22	-0.0001	38.83	41.91	43046
NCL2710	FEX5YR8HR	21.96	22.24	-0.0001	32.18	34.65	53144
NCL2730	FEX5YR8HR	21.95	22.26	0.0000	26.19	26.58	2607
NCL2750	FEX5YR8HR	21.84	22.24	0.0000	23.61	23.70	1469
NCL2770	FEX5YR8HR	21.71	22.14	0.0000	22.57	22.65	1389
NCL2780	FEX5YR8HR	0.00	22.04	0.0000	8.82	8.58	17901
NCL2790	FEX5YR8HR	21.84	22.12	0.0000	86.67	85.19	89027
NCL2810	FEX5YR8HR	22.11	22.63	-0.0001	50.16	49.62	15634
NCL2830	FEX5YR8HR	23.09	22.66	-0.0001	11.95	11.97	1242
NCL2835	FEX5YR8HR	0.00	23.68	0.0000	7.95	7.97	1113
NCL2840	FEX5YR8HR	0.00	23.64	0.0000	50.21	50.14	20300
NCL2845	FEX5YR8HR	0.00	24.18	0.0000	27.16	27.10	12903
NCL2850	FEX5YR8HR	20.82	21.01	0.0000	16.10	16.38	1361
NCL2870	FEX5YR8HR	20.83	21.00	0.0000	15.28	15.55	1251
NCL2890	FEX5YR8HR	20.83	20.99	0.0000	15.00	15.28	17254
NCL2910	FEX5YR8HR	20.83	20.99	0.0000	45.74	45.43	41264
NCL2930	FEX5YR8HR	19.55	18.84	0.0002	187.47	190.50	2979
NCL2950	FEX5YR8HR	19.53	18.97	0.0001	186.78	187.21	5717
NCL2970	FEX5YR8HR	20.49	20.33	0.0001	31.42	31.24	5766

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2990	FEX5YR8HR	19.33	19.02	0.0001	184.66	185.48	5883
NCL3010	FEX5YR8HR	19.35	19.16	0.0001	181.19	181.85	80190
NCL3030	FEX5YR8HR	19.58	19.24	0.0001	179.59	180.48	14505
NCL3050	FEX5YR8HR	19.94	19.80	0.0001	49.75	48.03	21311
NCL3070	FEX5YR8HR	20.14	20.01	0.0000	23.24	23.04	10887
NCL3090	FEX5YR8HR	19.59	19.26	0.0001	175.95	176.72	52751
NCL3110	FEX5YR8HR	19.59	19.28	0.0002	42.53	34.21	60793
NCL3130	FEX5YR8HR	19.59	19.28	0.0001	14.89	17.23	17704
NCL3150	FEX5YR8HR	19.54	19.26	0.0001	173.56	174.18	9529
NCL3170	FEX5YR8HR	19.71	20.11	0.0001	50.91	50.52	19712
NCL3190	FEX5YR8HR	20.31	20.31	0.0001	55.52	47.25	101189
NCL3210	FEX5YR8HR	20.32	20.32	0.0001	37.41	30.72	47285
NCL3230	FEX5YR8HR	20.32	20.33	0.0001	23.16	22.09	15650
NCL3250	FEX5YR8HR	19.11	19.22	0.0001	161.47	170.19	132948
NCL3270	FEX5YR8HR	19.11	19.29	0.0001	22.27	22.09	1736
NCL3280	FEX5YR8HR	0.00	19.34	0.0000	21.18	20.56	999
NCL3290	FEX5YR8HR	20.16	19.64	0.0000	19.05	17.92	1659
NCL3300	FEX5YR8HR	0.00	19.62	0.0000	2.60	2.56	982
NCL3310	FEX5YR8HR	20.19	19.64	0.0000	1.59	2.03	759
NCL3330	FEX5YR8HR	20.75	19.77	0.0000	3.20	2.99	437
NCL3350	FEX5YR8HR	20.51	20.48	0.0000	17.62	14.64	31250
NCL3360	FEX5YR8HR	0.00	20.45	0.0000	3.78	2.93	13615
NCL3365	FEX5YR8HR	0.00	20.13	0.0000	13.86	13.61	17669
NCL3370	FEX5YR8HR	20.64	20.88	-0.0001	72.76	68.38	83708
NCL3390	FEX5YR8HR	20.83	20.99	0.0000	66.94	66.53	39226
NCL3410	FEX5YR8HR	20.83	20.99	0.0000	1.89	1.57	476
NCL3430	FEX5YR8HR	20.83	20.99	0.0000	2.65	0.96	3874
NCL3450	FEX5YR8HR	18.92	19.23	0.0007	252.18	194.54	198416
NCL3460	FEX5YR8HR	18.92	19.22	-0.0007	130.61	130.72	2956
NCL3470	FEX5YR8HR	19.11	19.23	0.0001	199.27	153.25	250369
NCL3490	FEX5YR8HR	19.15	19.23	0.0001	88.75	84.36	46081
NCL3510	FEX5YR8HR	20.64	19.65	0.0001	71.81	71.17	18377
NCL3520	FEX5YR8HR	0.00	19.37	0.0000	163.36	163.44	20130
NCL3530	FEX5YR8HR	20.66	20.51	0.0000	94.65	92.65	57320
NCL3550	FEX5YR8HR	20.66	20.51	0.0000	3.50	1.42	736
NCL3570	FEX5YR8HR	20.66	20.52	0.0000	2.10	0.93	623
NCL3590	FEX5YR8HR	20.66	20.58	0.0000	2.16	0.90	4792
NCL3610	FEX5YR8HR	20.66	20.51	0.0001	18.85	17.50	1245
NCL3630	FEX5YR8HR	20.64	20.50	0.0001	152.18	148.20	107264
NCL3635	FEX5YR8HR	0.00	20.50	0.0001	13.88	11.87	1803
NCL3640	FEX5YR8HR	0.00	20.51	0.0001	17.97	14.71	26222
NCL3650	FEX5YR8HR	18.92	19.22	0.0000	3.44	3.62	500
NCL3670	FEX5YR8HR	18.92	19.22	0.0000	6.62	16.27	58745
NCL3690	FEX5YR8HR	18.92	19.23	0.0003	194.54	194.15	3204
NCL3730	FEX5YR8HR	18.92	19.23	0.0000	281.52	103.42	139812
NCL3740	FEX5YR8HR	0.00	19.23	0.0000	62.81	50.71	39597
NCL3750	FEX5YR8HR	18.93	18.95	0.0001	107.77	66.96	190963

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3770	FEX5YR8HR	18.93	18.95	0.0001	38.68	22.60	87879
NCL4000	FEX5YR8HR	0.00	29.69	0.0000	27.87	27.86	5149
NCL4010	FEX5YR8HR	0.00	29.39	0.0000	21.42	21.35	12670
NCypEast	FEX5YR8HR	32.00	29.00	0.0000	5.98	0.00	0
NCypWest	FEX5YR8HR	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEX5YR8HR	2.00	2.00	0.0000	369.24	15.15	0
NOC0030	FEX5YR8HR	1.14	2.20	0.0192	369.37	369.24	504
NOC0050	FEX5YR8HR	1.20	2.32	-0.0168	340.16	340.31	530
NOC0070	FEX5YR8HR	1.45	2.80	-0.0067	333.02	332.72	516
NOC0090	FEX5YR8HR	2.91	3.04	0.0036	125.61	125.74	446
NOC0110	FEX5YR8HR	1.65	2.84	-0.0049	196.93	197.29	455
NOC0130	FEX5YR8HR	3.06	3.24	0.0016	196.91	196.93	528
NOC0150	FEX5YR8HR	3.08	3.25	0.0000	1.94	1.94	499
NOC0170	FEX5YR8HR	4.56	4.69	0.0000	8.39	8.39	1219
NOC0190	FEX5YR8HR	5.09	3.87	-0.0004	195.12	194.99	1077
NOC0210	FEX5YR8HR	5.68	4.36	-0.0001	16.62	16.53	781
NOC0230	FEX5YR8HR	5.12	3.89	-0.0001	5.38	5.57	742
NOC0250	FEX5YR8HR	5.30	4.05	0.0000	5.43	5.38	984
NOC0270	FEX5YR8HR	5.57	4.27	0.0000	3.03	2.94	675
NOC0290	FEX5YR8HR	5.11	3.94	-0.0004	213.82	213.93	1836
NOC0310	FEX5YR8HR	5.27	4.06	-0.0003	38.94	38.92	450
NOC0330	FEX5YR8HR	5.85	4.18	-0.0001	174.90	174.91	2431
NOC0350	FEX5YR8HR	5.89	4.37	0.0001	123.21	123.06	1837
NOC0370	FEX5YR8HR	6.47	5.60	-0.0001	81.86	81.93	2022
NOC0390	FEX5YR8HR	6.60	5.71	-0.0001	49.40	49.63	2171
NOC0410	FEX5YR8HR	6.95	6.12	0.0000	41.95	41.71	2501
NOC0430	FEX5YR8HR	7.01	6.30	0.0000	28.69	29.51	1806
NOC0450	FEX5YR8HR	7.62	6.53	0.0000	21.44	23.37	2420
NOC0470	FEX5YR8HR	8.12	7.07	0.0001	11.49	12.51	726
NOC0490	FEX5YR8HR	7.67	6.54	0.0000	3.05	5.29	1052
NRU0010	FEX5YR8HR	2.00	2.00	0.0000	518.17	0.00	0
NRU0030	FEX5YR8HR	2.84	2.75	-0.0002	254.18	254.06	2468
NRU0050	FEX5YR8HR	4.36	4.36	-0.0002	254.10	254.18	2036
NRU0070	FEX5YR8HR	5.61	5.15	-0.0010	254.64	254.10	5884
NRU0090	FEX5YR8HR	5.66	5.36	-0.0001	45.06	43.75	7875
NRU0110	FEX5YR8HR	6.23	5.65	-0.0002	203.90	203.08	6548
NRU0130	FEX5YR8HR	7.66	6.45	-0.0002	187.57	187.05	2616
NRU0150	FEX5YR8HR	7.71	6.48	-0.0005	179.63	179.98	1376
NRU0160	FEX5YR8HR	0.00	13.19	0.0000	152.22	152.22	4959
NRU0165	FEX5YR8HR	0.00	13.28	0.0000	2.62	2.51	474
NRU0170	FEX5YR8HR	14.45	14.90	0.0002	153.45	150.08	14217
NRU0172	FEX5YR8HR	0.00	14.98	0.0000	6.80	6.89	831
NRU0174	FEX5YR8HR	0.00	15.16	0.0000	6.72	6.80	1533
NRU0176	FEX5YR8HR	0.00	15.62	0.0000	6.66	6.72	762
NRU0178	FEX5YR8HR	0.00	16.07	-0.0001	7.13	6.66	959
NRU0180	FEX5YR8HR	0.00	16.21	-0.0001	29.38	23.04	83176
NRU0190	FEX5YR8HR	14.45	15.05	-0.0001	14.27	13.98	517

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0210	FEX5YR8HR	14.45	15.14	0.0000	11.97	11.21	602
NRU0230	FEX5YR8HR	13.39	15.05	-0.0001	12.39	12.13	18332
NRU0250	FEX5YR8HR	14.62	14.92	-0.0001	127.05	125.58	6762
NRU0270	FEX5YR8HR	15.05	15.63	0.0001	114.31	114.22	2616
NRU0290	FEX5YR8HR	16.30	18.08	-0.0002	30.77	24.66	35239
NRU0310	FEX5YR8HR	16.13	16.35	0.0001	96.89	97.11	2502
NRU0330	FEX5YR8HR	18.25	17.63	0.0000	28.80	28.99	1352
NRU0335	FEX5YR8HR	0.00	18.98	0.0000	4.61	4.15	3918
NRU0340	FEX5YR8HR	0.00	18.52	0.0000	44.15	43.91	22623
NRU0343	FEX5YR8HR	0.00	19.26	-0.0001	9.98	8.61	918
NRU0345	FEX5YR8HR	0.00	19.50	-0.0001	33.56	29.34	64656
NRU0350	FEX5YR8HR	19.50	18.94	0.0000	16.17	16.43	4797
NRU0370	FEX5YR8HR	19.51	19.15	0.0000	14.46	15.25	13292
NRU0380	FEX5YR8HR	23.33	19.19	0.0001	7.54	7.79	470
NRU0390	FEX5YR8HR	27.00	19.20	0.0000	9.83	7.54	29130
NRU0410	FEX5YR8HR	19.56	19.30	0.0000	9.45	9.66	1100
NRU0425	FEX5YR8HR	15.53	15.70	0.0000	4.25	3.11	4945
NRU0430	FEX5YR8HR	19.61	19.42	0.0000	9.26	9.45	1077
NRU0450	FEX5YR8HR	19.66	19.55	0.0000	9.09	9.26	1039
NRU0470	FEX5YR8HR	19.72	20.16	0.0000	8.93	9.09	799
NRU0490	FEX5YR8HR	20.36	20.61	0.0001	7.89	7.02	28314
NRU0495	FEX5YR8HR	0.00	21.01	-0.0001	5.27	4.48	10115
NRU0500	FEX5YR8HR	0.00	21.21	0.0000	1.47	1.48	5616
NRU0510	FEX5YR8HR	19.67	20.15	-0.0001	15.65	12.40	63385
NRU0530	FEX5YR8HR	16.95	17.18	0.0001	66.66	66.87	2252
NRU0550	FEX5YR8HR	17.92	18.08	0.0001	70.00	66.66	60486
NRU0570	FEX5YR8HR	18.16	18.26	0.0001	65.11	65.30	1524
NRU0590	FEX5YR8HR	18.51	18.63	0.0001	64.84	65.01	1745
NRU0610	FEX5YR8HR	18.78	18.97	0.0001	64.64	64.80	11123
NRU0612	FEX5YR8HR	0.00	19.04	-0.0001	63.33	63.48	4628
NRU0615	FEX5YR8HR	0.00	19.54	0.0001	9.73	8.47	1945
NRU0616	FEX5YR8HR	0.00	20.16	0.0000	5.11	4.62	7708
NRU0618	FEX5YR8HR	0.00	20.47	0.0000	6.56	6.00	16033
NRU0620	FEX5YR8HR	0.00	19.83	0.0000	14.08	13.33	18602
NRU0630	FEX5YR8HR	18.79	19.11	0.0001	62.90	63.04	8994
NRU0650	FEX5YR8HR	18.79	19.15	0.0001	62.75	62.89	22638
NRU0670	FEX5YR8HR	18.78	19.17	0.0001	62.54	62.68	1429
NRU0690	FEX5YR8HR	18.84	19.20	0.0001	62.28	62.54	28469
NRU0710	FEX5YR8HR	18.86	19.21	0.0001	65.71	62.28	46850
NRU0730	FEX5YR8HR	18.85	19.21	0.0001	19.35	17.25	41294
NRU0740	FEX5YR8HR	0.00	19.21	0.0001	63.97	60.73	34026
NRU0745	FEX5YR8HR	0.00	19.21	0.0001	58.42	58.23	49543
NRU0750	FEX5YR8HR	18.87	19.21	0.0001	81.63	53.59	245347
NRU0770	FEX5YR8HR	18.88	19.22	-0.0001	30.21	30.20	1008
NRU0785	FEX5YR8HR	0.00	19.22	0.0001	91.23	77.94	61733
NRU0790	FEX5YR8HR	18.88	19.22	0.0001	136.38	106.81	140986
NRU0810	FEX5YR8HR	18.88	19.22	-0.0001	20.22	16.76	10746

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0820	FEX5YR8HR	0.00	19.21	0.0003	5.65	2.70	442
NRU0830	FEX5YR8HR	18.99	19.22	-0.0001	48.79	42.25	37572
NRU0850	FEX5YR8HR	19.11	19.22	-0.0002	59.44	59.33	1188
NRU0870	FEX5YR8HR	19.32	19.23	-0.0007	16.67	17.19	560
NRU0890	FEX5YR8HR	19.35	19.23	0.0000	39.60	20.13	68906
NRU0910	FEX5YR8HR	19.35	19.23	0.0000	1.07	0.96	571
NRU0930	FEX5YR8HR	19.35	19.44	0.0000	1.10	1.07	1742
NRU0950	FEX5YR8HR	19.11	19.23	0.0000	63.98	55.36	36874
NRU0955	FEX5YR8HR	0.00	19.23	0.0000	80.42	65.80	56131
NRU0960	FEX5YR8HR	0.00	19.23	0.0000	104.02	99.71	39877
NRU0965	FEX5YR8HR	0.00	19.23	0.0000	118.95	112.83	87515
NRU0970	FEX5YR8HR	19.34	19.23	0.0000	21.72	12.12	81738
NRU0980	FEX5YR8HR	0.00	19.23	0.0007	12.89	8.47	1097
NRU0990	FEX5YR8HR	19.39	19.23	0.0004	30.66	34.86	440
NRU1010	FEX5YR8HR	19.70	19.23	-0.0001	30.99	30.66	27412
NRU1015	FEX5YR8HR	0.00	19.45	0.0000	14.34	11.40	14782
NRU1020	FEX5YR8HR	0.00	20.36	-0.0060	10.57	61.12	866
NRU1025	FEX5YR8HR	0.00	20.00	0.0000	9.76	9.60	724
NRU1030	FEX5YR8HR	19.70	19.23	0.0001	43.09	35.68	119410
NRU1035	FEX5YR8HR	0.00	19.42	0.0000	2.72	2.49	436
NRU1037	FEX5YR8HR	0.00	19.24	0.0000	1.09	0.91	643
NRU1040	FEX5YR8HR	0.00	19.23	-0.0001	32.99	28.03	64886
NRU1045	FEX5YR8HR	0.00	20.42	-0.0001	8.68	7.84	6840
NRU1046	FEX5YR8HR	0.00	20.40	0.0060	7.84	7.27	958
NRU1050	FEX5YR8HR	19.70	19.23	0.0000	36.85	32.24	90379
NRU1070	FEX5YR8HR	19.83	19.24	0.0000	13.75	12.89	18374
NRU1090	FEX5YR8HR	18.86	19.22	0.0001	12.37	13.23	919
NRU1110	FEX5YR8HR	18.86	19.22	0.0001	33.75	23.15	79713
NRU1130	FEX5YR8HR	18.86	19.22	0.0001	9.02	8.28	772
NRU1150	FEX5YR8HR	18.86	19.22	0.0001	26.73	22.13	78380
NRU1170	FEX5YR8HR	18.86	19.22	0.0001	18.79	17.97	47207
NRU1182	FEX5YR8HR	0.00	19.21	0.0001	8.84	8.56	9329
NRU1184	FEX5YR8HR	0.00	19.21	0.0001	11.29	11.23	873
NRU1185	FEX5YR8HR	0.00	19.18	0.0000	7.44	4.66	35541
NRU1186	FEX5YR8HR	0.00	19.22	0.0001	4.72	4.30	791
NRU1188	FEX5YR8HR	0.00	19.21	0.0000	12.94	6.08	52358
NRU1190	FEX5YR8HR	18.86	19.23	0.0001	4.25	3.25	576
NRU1210	FEX5YR8HR	18.86	19.24	0.0001	7.95	7.06	907
NRU1220	FEX5YR8HR	0.00	20.09	0.0000	9.51	7.33	17127
NRU1225	FEX5YR8HR	0.00	20.70	0.0000	2.36	2.28	436
NRU1230	FEX5YR8HR	18.88	19.21	-0.0001	11.52	10.45	879
NRU1232	FEX5YR8HR	0.00	19.21	0.0001	8.57	8.35	866
NRU1234	FEX5YR8HR	0.00	19.21	0.0001	20.78	20.59	13481
NRU1240	FEX5YR8HR	0.00	19.21	0.0001	16.09	16.19	11930
NRU1250	FEX5YR8HR	4.07	4.32	-0.0005	264.38	264.37	2104
NRU1270	FEX5YR8HR	4.78	4.94	0.0001	262.24	262.22	1667
NRU1290	FEX5YR8HR	5.41	5.53	0.0001	254.36	254.40	3103

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1310	FEX5YR8HR	6.42	6.46	0.0000	254.34	254.36	5052
NRU1330	FEX5YR8HR	8.29	8.20	0.0000	282.03	281.95	3357
NRU1350	FEX5YR8HR	9.32	9.23	0.0000	279.18	279.16	2409
NRU1370	FEX5YR8HR	11.03	10.88	0.0000	275.76	275.72	5323
NRU1390	FEX5YR8HR	11.84	11.57	0.0000	34.29	34.02	1238
NRU1410	FEX5YR8HR	12.56	12.29	0.0000	232.78	233.14	7463
NRU1430	FEX5YR8HR	15.53	15.70	-0.0001	37.37	30.34	38800
NRU1450	FEX5YR8HR	15.94	15.94	0.0000	22.58	22.41	3702
NRU1470	FEX5YR8HR	15.97	15.97	0.0000	4.98	5.10	981
NRU1490	FEX5YR8HR	16.09	16.09	0.0000	5.08	4.98	2107
NRU1510	FEX5YR8HR	15.12	14.68	0.0000	172.90	173.61	10594
NRU1530	FEX5YR8HR	15.71	15.40	0.0000	73.52	73.85	3221
NRU1550	FEX5YR8HR	15.40	15.33	0.0000	60.23	60.22	1678
NRU1570	FEX5YR8HR	16.20	16.29	0.0000	45.86	45.69	1398
NRU1590	FEX5YR8HR	16.40	16.42	0.0000	4.36	4.19	1257
NRU1610	FEX5YR8HR	16.56	16.77	0.0000	39.69	38.82	1573
NRU1630	FEX5YR8HR	16.69	16.96	0.0000	33.41	33.53	1538
NRU1650	FEX5YR8HR	16.84	17.14	0.0000	33.30	33.41	8009
NRU1670	FEX5YR8HR	16.89	17.21	0.0000	34.17	31.52	107995
NRU1690	FEX5YR8HR	16.89	17.20	0.0000	32.01	31.84	2563
NRU1710	FEX5YR8HR	16.60	17.06	0.0000	28.74	28.56	1426
NRU1730	FEX5YR8HR	16.58	17.04	0.0000	60.49	26.17	136941
NRU1750	FEX5YR8HR	16.58	17.04	0.0002	14.53	16.90	720
NRU1770	FEX5YR8HR	16.58	17.05	0.0000	18.46	18.37	3248
NRU1790	FEX5YR8HR	17.21	17.06	0.0000	4.98	4.91	1129
NRU1810	FEX5YR8HR	16.58	17.04	0.0000	7.54	3.51	18769
NRU1830	FEX5YR8HR	17.12	17.06	0.0000	11.95	11.89	1562
NRU1850	FEX5YR8HR	17.07	17.36	0.0000	21.68	21.55	1087
NRU1870	FEX5YR8HR	17.20	17.48	0.0000	21.81	21.68	908
NRU1890	FEX5YR8HR	17.38	17.62	0.0000	27.43	21.81	18021
NRU1910	FEX5YR8HR	17.71	17.73	0.0001	11.09	10.71	2764
NRU1930	FEX5YR8HR	15.71	15.41	0.0000	50.40	53.09	16223
NRU1950	FEX5YR8HR	16.43	15.97	0.0000	48.45	48.54	1645
NRU1970	FEX5YR8HR	16.86	16.31	0.0000	48.36	48.45	1037
NRU1990	FEX5YR8HR	17.09	16.50	0.0000	48.28	48.36	1719
NRU2010	FEX5YR8HR	18.02	17.49	0.0000	11.43	11.50	1363
NRU2030	FEX5YR8HR	18.39	17.95	0.0001	8.94	8.26	5592
NRU2050	FEX5YR8HR	18.40	17.97	-0.0001	2.42	2.98	453
NRU2070	FEX5YR8HR	18.41	18.00	0.0000	2.44	2.42	594
NRU2090	FEX5YR8HR	17.16	16.56	0.0000	34.04	34.15	983
NRU2110	FEX5YR8HR	17.28	16.66	0.0000	32.71	32.66	1563
NRU2130	FEX5YR8HR	17.49	16.87	0.0000	32.91	32.88	1850
NRU2150	FEX5YR8HR	17.69	17.08	0.0000	5.17	4.79	1667
NRU2170	FEX5YR8HR	17.07	16.94	0.0000	3.08	3.23	774
NRU2190	FEX5YR8HR	17.08	16.98	0.0000	5.91	3.08	26919
NRU2210	FEX5YR8HR	17.33	16.86	-0.0001	2.27	1.83	538
NRU2230	FEX5YR8HR	17.33	16.45	0.0000	9.56	0.30	77991

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2250	FEX5YR8HR	17.31	16.45	0.0000	1.74	1.12	11119
NRU2270	FEX5YR8HR	17.61	16.96	0.0000	27.57	27.54	1283
NRU2290	FEX5YR8HR	17.67	17.00	0.0000	19.96	20.07	1150
NRU2310	FEX5YR8HR	17.68	17.02	0.0000	14.40	14.50	1271
NRU2330	FEX5YR8HR	17.68	17.02	0.0002	32.78	7.44	756
NRU2350	FEX5YR8HR	17.68	17.02	-0.0001	3.80	30.12	654
NRU2370	FEX5YR8HR	17.37	16.76	0.0000	3.57	3.80	528
NRU2390	FEX5YR8HR	17.36	16.77	0.0000	5.33	3.57	32234
NRU2410	FEX5YR8HR	17.72	17.05	0.0000	6.69	6.80	1098
NRU2430	FEX5YR8HR	17.83	17.07	0.0000	5.72	5.83	925
NRU2450	FEX5YR8HR	18.06	17.08	0.0000	2.12	1.15	588
NRU2470	FEX5YR8HR	15.72	15.40	0.0000	4.66	3.53	1614
NRU2490	FEX5YR8HR	15.75	15.41	0.0000	4.69	4.34	1418
NRU2510	FEX5YR8HR	15.75	15.41	0.0000	4.34	2.73	945
NRU2530	FEX5YR8HR	15.76	15.41	0.0000	2.73	0.21	582
NRU2550	FEX5YR8HR	16.53	15.38	0.0000	49.25	48.55	2426
NRU2570	FEX5YR8HR	17.71	16.57	0.0000	42.27	41.59	1979
NRU2590	FEX5YR8HR	18.30	17.55	0.0000	33.16	33.59	1454
NRU2610	FEX5YR8HR	18.62	18.23	0.0000	32.05	32.48	2865
NRU2630	FEX5YR8HR	19.41	19.14	-0.0001	27.78	27.31	30223
NRU2650	FEX5YR8HR	19.54	19.62	-0.0001	21.19	18.70	27054
NRU2670	FEX5YR8HR	16.64	16.61	0.0000	21.78	21.73	2044
NRU2690	FEX5YR8HR	17.09	17.19	-0.0001	113.99	76.00	231012
NSH02	FEX5YR8HR	0.00	20.68	-0.0001	7.17	6.96	2123
NSH03	FEX5YR8HR	0.00	20.16	0.0000	0.19	0.11	548
NSH04	FEX5YR8HR	0.00	17.87	0.0000	62.96	62.43	4614
NSH05	FEX5YR8HR	0.00	19.38	-0.0030	3.69	3.62	1481
NSH07	FEX5YR8HR	0.00	8.15	-0.0001	23.08	22.39	7411
NSH08	FEX5YR8HR	0.00	7.32	0.0000	12.84	12.78	1929
NSH09	FEX5YR8HR	0.00	10.43	-0.0001	40.32	38.27	9664
NSH10	FEX5YR8HR	0.00	19.01	0.0000	11.90	11.81	22879
NSH11	FEX5YR8HR	0.00	21.03	0.0000	4.07	4.05	6072
NSH12	FEX5YR8HR	0.00	19.07	0.0000	4.10	4.08	7146
NSH13	FEX5YR8HR	0.00	17.90	0.0000	15.58	15.42	18544
NSH14	FEX5YR8HR	0.00	17.77	0.0000	6.03	6.00	10576
NSH15	FEX5YR8HR	0.00	18.67	0.0000	3.06	3.06	5521
NSH17	FEX5YR8HR	0.00	17.16	0.0000	14.68	14.66	8185
NSH18	FEX5YR8HR	0.00	15.74	0.0000	13.83	13.81	8836
NSH19	FEX5YR8HR	0.00	11.55	0.0000	11.37	11.33	10048
NSH20	FEX5YR8HR	0.00	20.16	0.0000	1.81	1.78	10642
NSH21	FEX5YR8HR	0.00	10.97	-0.0001	9.57	7.63	6739
NSH22	FEX5YR8HR	0.00	14.14	0.0000	21.56	21.49	6782
NSH23	FEX5YR8HR	0.00	18.11	0.0000	5.51	5.50	2655
NSH24	FEX5YR8HR	0.00	14.14	0.0000	14.56	14.49	6242
NSH25	FEX5YR8HR	0.00	13.96	-0.0001	10.04	9.91	9426
NSH26	FEX5YR8HR	0.00	13.84	0.0000	54.63	53.72	53655
NSH27	FEX5YR8HR	0.00	12.92	0.0000	12.64	9.58	35567

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH27A	FEX5YR8HR	0.00	12.83	0.0000	17.49	16.98	921
NSH27AA	FEX5YR8HR	0.00	12.87	0.0000	4.49	4.51	551
NSH27B	FEX5YR8HR	0.00	11.50	-0.0001	16.98	18.53	1033
NSH27C	FEX5YR8HR	0.00	9.20	0.0001	18.53	17.35	1037
NSH28	FEX5YR8HR	0.00	9.45	0.0000	7.95	6.70	8502
NSH29	FEX5YR8HR	0.00	7.43	-0.0001	5.86	11.85	648
NSH31	FEX5YR8HR	0.00	9.43	0.0000	5.46	4.27	480
NSH33	FEX5YR8HR	0.00	16.60	0.0000	2.98	2.96	4727
NSH34	FEX5YR8HR	0.00	9.20	0.0001	31.42	31.40	3114
NSH35	FEX5YR8HR	0.00	7.90	0.0000	24.13	24.11	3037
NSH36	FEX5YR8HR	0.00	7.87	0.0002	21.83	21.62	804
NSH37	FEX5YR8HR	0.00	17.99	0.0000	8.44	8.43	6612
NSH41	FEX5YR8HR	0.00	18.91	0.0000	2.45	2.45	436
NSH42	FEX5YR8HR	0.00	3.31	0.0001	44.10	44.09	447
NSH43	FEX5YR8HR	0.00	3.57	-0.0001	27.96	28.34	507
NSH44	FEX5YR8HR	0.00	9.53	-0.0001	33.94	33.94	670
NSH45	FEX5YR8HR	0.00	16.30	0.0000	29.33	29.02	19014
NSH48	FEX5YR8HR	0.00	18.15	0.0000	7.81	7.81	2646
NSH49	FEX5YR8HR	0.00	20.67	0.0000	8.97	8.86	12694
NSH50	FEX5YR8HR	0.00	18.36	0.0002	27.50	22.43	2530
NSH51	FEX5YR8HR	0.00	18.25	0.0000	16.41	15.46	952
NSH52	FEX5YR8HR	0.00	18.23	0.0000	56.77	56.32	2069
NSH53	FEX5YR8HR	0.00	18.24	-0.0001	15.46	14.67	1023
NSH54	FEX5YR8HR	0.00	18.09	0.0000	57.84	57.42	1343
NSH55	FEX5YR8HR	0.00	18.72	-0.0001	36.10	36.43	7891
NSH56	FEX5YR8HR	0.00	18.90	0.0000	28.37	28.51	5631
NSH57	FEX5YR8HR	0.00	19.21	-0.0001	27.77	28.37	5707
NSH60	FEX5YR8HR	0.00	18.42	0.0000	7.66	7.58	436
NSH61	FEX5YR8HR	0.00	18.36	-0.0002	6.74	14.53	444
NSH65	FEX5YR8HR	0.00	19.96	0.0000	1.63	1.55	436
NSH75	FEX5YR8HR	0.00	4.18	0.0000	27.93	27.27	5529
NSH80	FEX5YR8HR	0.00	20.20	0.0000	2.10	2.01	9607
NSH81	FEX5YR8HR	0.00	20.29	0.0000	0.19	0.00	1742
NSH82	FEX5YR8HR	0.00	20.80	0.0000	1.04	0.14	5297
NSH83	FEX5YR8HR	0.00	20.54	0.0000	10.50	10.36	12413
NSR0000	FEX5YR8HR	2.00	2.00	0.0000	265.09	16.63	0
NSR0005	FEX5YR8HR	2.00	2.00	0.0000	3.87	0.00	0
NSR0010	FEX5YR8HR	2.00	2.00	0.0000	352.46	0.00	0
NSR0030	FEX5YR8HR	2.92	3.09	0.0000	362.83	352.46	216796
NSR0032	FEX5YR8HR	4.88	5.00	0.0000	6.44	4.21	18434
NSR0034	FEX5YR8HR	3.63	3.59	0.0000	37.11	36.50	13686
NSR0050	FEX5YR8HR	3.44	3.58	0.0000	331.11	323.35	86846
NSR0070	FEX5YR8HR	3.45	3.58	0.0001	18.94	18.38	27456
NSR0090	FEX5YR8HR	3.68	3.63	0.0000	18.59	18.07	7488
NSR0100	FEX5YR8HR	2.25	2.23	0.0000	3.87	3.87	524
NSR0102	FEX5YR8HR	4.24	4.28	0.0000	2.59	2.54	2188
NSR0105	FEX5YR8HR	1.91	2.71	0.0338	265.15	265.09	484

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0110	FEX5YR8HR	3.93	4.01	0.0000	10.59	10.40	2013
NSR0112	FEX5YR8HR	2.31	3.03	-0.0474	263.82	263.80	457
NSR0115	FEX5YR8HR	4.25	4.30	0.0000	1.32	1.30	7177
NSR0120	FEX5YR8HR	2.62	3.28	-0.0235	261.22	261.29	479
NSR0130	FEX5YR8HR	4.16	4.21	0.0000	6.12	5.60	4024
NSR0135	FEX5YR8HR	4.22	4.26	0.0000	2.10	2.01	438
NSR0140	FEX5YR8HR	3.28	3.82	-0.0078	258.38	258.37	477
NSR0150	FEX5YR8HR	3.64	3.80	0.0002	312.24	311.69	28856
NSR0160	FEX5YR8HR	3.56	4.04	-0.0056	256.09	256.15	1813
NSR0165	FEX5YR8HR	4.03	4.04	0.0000	1.81	1.67	440
NSR0170	FEX5YR8HR	3.70	3.84	0.0000	3.37	2.87	1907
NSR0180	FEX5YR8HR	3.83	3.94	0.0000	3.82	3.35	2784
NSR0190	FEX5YR8HR	4.04	3.87	-0.0001	14.09	13.85	2181
NSR0210	FEX5YR8HR	4.26	3.90	-0.0001	13.06	12.41	2873
NSR0230	FEX5YR8HR	4.26	3.91	0.0000	12.67	11.25	9079
NSR0250	FEX5YR8HR	3.93	4.05	0.0067	296.38	296.13	12764
NSR0270	FEX5YR8HR	3.98	4.12	0.0000	59.01	58.77	15055
NSR0280	FEX5YR8HR	5.41	5.71	0.0006	213.23	212.05	20556
NSR0281	FEX5YR8HR	5.97	6.28	0.0004	208.91	208.26	10641
NSR0290	FEX5YR8HR	6.70	6.64	-0.0005	70.47	69.05	17707
NSR0310	FEX5YR8HR	9.28	9.24	0.0000	59.57	59.01	63300
NSR0330	FEX5YR8HR	9.65	9.56	0.0001	6.43	6.44	470
NSR0350	FEX5YR8HR	10.32	10.16	0.0001	6.47	6.43	446
NSR0370	FEX5YR8HR	10.35	10.23	0.0000	7.09	6.47	5787
NSR0390	FEX5YR8HR	11.96	12.07	0.0000	27.23	25.79	20158
NSR0410	FEX5YR8HR	12.27	12.30	0.0000	6.89	7.11	510
NSR0430	FEX5YR8HR	12.28	12.32	0.0000	5.86	6.89	17196
NSR0450	FEX5YR8HR	13.04	13.73	-0.0001	20.10	19.59	2380
NSR0470	FEX5YR8HR	13.10	13.88	0.0000	13.52	13.38	1156
NSR0490	FEX5YR8HR	4.41	4.52	0.0067	127.73	127.57	16572
NSR0510	FEX5YR8HR	4.48	4.66	0.0011	61.69	61.86	12190
NSR0530	FEX5YR8HR	4.55	4.70	0.0000	6.28	5.77	4344
NSR0540	FEX5YR8HR	4.55	4.83	0.0002	57.71	55.62	63791
NSR0550	FEX5YR8HR	4.56	4.85	-0.0015	306.20	305.87	10236
NSR0560	FEX5YR8HR	4.66	4.89	0.0003	95.80	99.85	51464
NSR0570	FEX5YR8HR	5.28	5.36	0.0001	87.67	88.85	48066
NSR0580	FEX5YR8HR	6.13	6.22	-0.0001	12.36	10.21	71478
NSR0590	FEX5YR8HR	6.15	6.26	-0.0001	84.12	83.82	35056
NSR0610	FEX5YR8HR	6.26	6.33	-0.0001	36.24	32.42	49774
NSR0630	FEX5YR8HR	6.26	6.33	0.0000	16.42	16.49	475
NSR0650	FEX5YR8HR	6.25	6.32	0.0000	37.57	23.35	154819
NSR0660	FEX5YR8HR	6.13	6.22	-0.0001	28.43	10.26	62428
NSR0670	FEX5YR8HR	6.24	6.31	-0.0001	7.52	8.46	520
NSR0680	FEX5YR8HR	6.14	6.22	-0.0001	11.16	6.94	109460
NSR0690	FEX5YR8HR	6.24	6.30	0.0000	6.94	7.52	599
NSR0710	FEX5YR8HR	6.23	6.29	0.0000	6.85	6.94	861
NSR0730	FEX5YR8HR	6.29	6.36	0.0000	110.50	97.69	143632

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0770	FEX5YR8HR	6.81	6.97	0.0001	92.23	91.56	8768
NSR0780	FEX5YR8HR	6.74	6.74	0.0000	7.72	7.21	14091
NSR0790	FEX5YR8HR	8.35	8.95	-0.0003	300.34	290.76	25896
NSR0791	FEX5YR8HR	7.13	7.59	-0.0002	201.51	201.48	5596
NSR0809	FEX5YR8HR	12.76	10.02	0.0004	70.82	94.11	2124
NSR0810	FEX5YR8HR	13.45	13.40	-0.0002	133.34	132.77	59873
NSR0830	FEX5YR8HR	15.10	15.15	-0.0001	135.04	130.88	118412
NSR0840	FEX5YR8HR	16.09	16.07	0.0000	21.20	21.37	33520
NSR0850	FEX5YR8HR	15.64	15.69	-0.0003	94.74	91.40	71651
NSR0860	FEX5YR8HR	16.41	16.39	0.0000	5.30	5.34	6118
NSR0869	FEX5YR8HR	16.03	16.07	0.0001	30.00	29.87	1505
NSR0870	FEX5YR8HR	16.24	16.27	0.0001	60.53	60.36	27426
NSR0880	FEX5YR8HR	16.24	16.28	0.0000	19.78	19.70	9172
NSR0881	FEX5YR8HR	14.14	15.75	0.0004	236.93	237.39	13396
NSR0890	FEX5YR8HR	4.02	4.13	-0.1165	250.99	257.38	39064
NSR0910	FEX5YR8HR	4.79	4.87	0.0031	181.74	182.63	19664
NSR0930	FEX5YR8HR	5.54	5.75	0.0000	73.82	28.37	236130
NSR0950	FEX5YR8HR	5.63	5.76	-0.0004	204.50	203.86	28475
NSR0970	FEX5YR8HR	6.14	6.20	-0.0002	138.12	138.28	3616
NSR0990	FEX5YR8HR	6.27	6.32	-0.0001	175.15	175.20	4244
NSR1010	FEX5YR8HR	6.30	6.35	0.0000	33.22	32.67	10241
NSR1030	FEX5YR8HR	8.54	8.58	-0.0001	142.69	142.54	9336
NSR1050	FEX5YR8HR	8.56	8.60	0.0000	40.47	39.07	21781
NSR1070	FEX5YR8HR	9.58	9.59	-0.0002	176.78	176.00	23383
NSR1090	FEX5YR8HR	11.30	11.39	0.0002	144.58	144.63	8165
NSR1110	FEX5YR8HR	11.57	11.55	0.0000	1.43	1.43	2841
NSR1130	FEX5YR8HR	11.29	11.33	0.0000	17.43	17.43	14456
NSR1150	FEX5YR8HR	11.39	11.44	0.0000	3.54	3.19	7475
NSR1170	FEX5YR8HR	11.38	11.43	0.0000	3.19	2.70	451
NSR1190	FEX5YR8HR	12.70	13.07	0.0000	143.34	143.34	13251
NSR1210	FEX5YR8HR	12.70	13.08	0.0000	15.63	8.05	72506
NSR1230	FEX5YR8HR	14.76	15.10	0.0000	140.59	140.55	9597
NSR1270	FEX5YR8HR	14.99	15.31	0.0000	140.65	140.59	6276
NSR1290	FEX5YR8HR	14.99	15.31	0.0000	5.55	2.67	21915
NSR1310	FEX5YR8HR	14.99	15.31	0.0000	15.24	10.35	74133
NSR1330	FEX5YR8HR	15.44	15.86	0.0000	137.47	136.56	22440
NSR1350	FEX5YR8HR	15.45	15.87	0.0000	22.76	18.11	90218
NSR1370	FEX5YR8HR	15.56	15.97	0.0000	127.41	125.09	21929
NSR1390	FEX5YR8HR	15.56	15.97	0.0000	2.01	1.82	4233
NSR1410	FEX5YR8HR	15.56	15.97	-0.0001	18.43	17.70	16956
NSR1430	FEX5YR8HR	15.76	16.08	0.0000	37.93	34.95	29606
NSR1450	FEX5YR8HR	15.74	16.08	0.0000	48.68	33.56	88840
NSR1470	FEX5YR8HR	15.96	16.11	0.0000	36.91	34.67	32174
NSR1490	FEX5YR8HR	16.21	16.22	0.0000	38.66	31.37	119490
NSR1510	FEX5YR8HR	16.21	16.22	0.0000	23.39	22.81	27106
NSR1530	FEX5YR8HR	15.56	15.97	0.0000	3.01	2.12	8195
NSR1550	FEX5YR8HR	15.68	16.07	0.0001	123.03	117.93	33612

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1570	FEX5YR8HR	15.68	16.07	0.0000	2.11	1.62	34037
NSR1590	FEX5YR8HR	15.68	16.07	-0.0001	36.72	41.08	27062
NSR1610	FEX5YR8HR	15.75	16.13	0.0000	13.25	12.02	15353
NSR1630	FEX5YR8HR	15.75	16.13	0.0000	88.89	82.25	19964
NSR1650	FEX5YR8HR	16.39	17.06	0.0000	1.70	1.70	436
NSR1670	FEX5YR8HR	15.92	16.32	0.0001	33.83	29.00	29403
NSR1690	FEX5YR8HR	16.24	16.65	0.0000	79.99	72.96	21428
NSR1710	FEX5YR8HR	16.25	16.65	0.0000	4.33	4.22	6058
NSR1730	FEX5YR8HR	16.32	16.71	0.0000	79.52	75.66	10091
NSR1750	FEX5YR8HR	16.68	16.72	0.0000	1.78	1.78	511
NSR1770	FEX5YR8HR	17.23	17.37	0.0000	20.38	14.97	19146
NSR1790	FEX5YR8HR	17.24	17.37	0.0000	21.24	15.02	32738
NSR1810	FEX5YR8HR	17.25	17.38	0.0000	8.30	7.39	12722
NSR1830	FEX5YR8HR	17.25	17.37	0.0000	34.75	31.02	83556
NSR1850	FEX5YR8HR	16.95	17.22	0.0000	7.21	7.81	13408
NSR1870	FEX5YR8HR	16.93	17.22	0.0001	24.04	21.90	60180
NSR1890	FEX5YR8HR	16.05	17.21	0.0000	13.20	13.46	1056
NSR1910	FEX5YR8HR	15.45	17.20	0.0002	47.17	39.90	40991
NSR1930	FEX5YR8HR	16.53	16.90	0.0000	60.52	60.28	2803
NSR1950	FEX5YR8HR	16.70	16.97	0.0000	18.58	18.24	6298
NSR1970	FEX5YR8HR	16.84	17.16	0.0000	22.01	18.91	37369
NSR1990	FEX5YR8HR	16.86	17.11	0.0000	9.81	9.20	949
NSR2010	FEX5YR8HR	16.91	17.08	0.0000	10.65	9.81	30340
NSR2030	FEX5YR8HR	16.90	17.01	0.0000	8.05	8.05	751
NSR2050	FEX5YR8HR	16.88	16.89	0.0000	11.45	10.96	15489
NSR2070	FEX5YR8HR	16.81	16.82	0.0000	6.17	6.17	782
NSR2090	FEX5YR8HR	16.72	16.72	0.0000	6.17	6.17	697
NSR2110	FEX5YR8HR	16.54	16.53	0.0000	12.53	12.45	14548
NSR2130	FEX5YR8HR	16.50	16.49	0.0000	9.82	9.53	88744
NSR2150	FEX5YR8HR	17.60	17.15	0.0000	45.61	44.11	154303
NSR2170	FEX5YR8HR	17.62	17.24	0.0001	29.61	29.47	2088
NSR2190	FEX5YR8HR	17.62	17.27	0.0000	29.74	29.61	967
NSR2210	FEX5YR8HR	17.62	17.33	0.0000	34.39	27.32	89311
NSR2230	FEX5YR8HR	17.62	17.30	0.0000	18.98	18.60	675
NSR2250	FEX5YR8HR	17.63	17.34	0.0000	19.48	18.98	11155
NSR2270	FEX5YR8HR	17.63	17.34	0.0000	20.19	18.46	21940
NSR2290	FEX5YR8HR	17.63	17.35	0.0001	16.01	15.74	888
NSR2310	FEX5YR8HR	17.63	17.36	0.0000	16.33	16.01	16724
NSR2330	FEX5YR8HR	17.65	17.74	0.0000	14.33	12.08	26629
NSR2350	FEX5YR8HR	17.65	17.75	0.0000	13.22	9.84	31855
NSR2370	FEX5YR8HR	16.66	16.92	0.0000	18.38	15.80	9676
NSR2390	FEX5YR8HR	18.07	17.99	0.0000	6.98	3.25	58993
NSR2410	FEX5YR8HR	16.66	16.92	0.0000	23.21	17.57	18388
NSR2430	FEX5YR8HR	17.99	17.96	0.0000	1.56	1.55	2318
NSR2450	FEX5YR8HR	18.06	17.99	0.0000	20.74	20.69	12032
NSR3000	FEX5YR8HR	17.04	17.22	-0.0727	4.55	49.45	1399
NSR3005	FEX5YR8HR	17.02	17.22	0.1453	49.45	3.50	566

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR3020	FEX5YR8HR	17.61	17.68	-0.0001	22.15	22.04	61473
NSR3040	FEX5YR8HR	16.25	16.29	0.0000	45.76	45.55	31495
NSR3060	FEX5YR8HR	16.21	16.22	-0.0001	17.91	16.78	41932
NSW0010	FEX5YR8HR	2.00	2.00	0.0000	16.53	0.00	0
NSW0030	FEX5YR8HR	2.13	2.36	0.0003	16.53	16.53	587
NSW0050	FEX5YR8HR	4.04	3.09	-0.0001	16.56	16.53	959
Outfall	FEX5YR8HR	2.00	2.00	0.0000	51.94	0.00	0
Outfall_NE	FEX5YR8HR	21.00	20.99	0.0018	8.26	0.00	0
PondA	FEX5YR8HR	0.00	20.16	0.0000	12.47	3.92	67464
PondB	FEX5YR8HR	0.00	16.86	0.0000	121.40	91.30	117808
SH_OUTFALL	FEX5YR8HR	2.00	2.00	0.0000	180.38	0.00	0
STORAGE1	FEX5YR8HR	0.00	19.77	0.0000	2.99	1.38	7405
STORAGE10	FEX5YR8HR	0.00	19.96	0.0000	1.55	0.00	9148
STORAGE11	FEX5YR8HR	0.00	20.68	0.0000	6.96	0.01	18648
STORAGE12	FEX5YR8HR	0.00	20.36	0.0002	56.90	5.91	10262
STORAGE13	FEX5YR8HR	0.00	19.42	0.0000	2.49	0.73	5323
STORAGE14	FEX5YR8HR	0.00	20.70	0.0000	2.28	0.00	13395
STORAGE2	FEX5YR8HR	0.00	19.22	0.0001	16.27	3.32	18426
STORAGE4	FEX5YR8HR	0.00	19.24	0.0001	47.60	4.04	12088
STORAGE5	FEX5YR8HR	0.00	21.05	0.0000	13.69	3.05	19945
STORAGE8	FEX5YR8HR	0.00	19.20	0.0000	2.70	1.34	6098
STORAGE9	FEX5YR8HR	0.00	18.42	0.0000	5.32	1.05	11761
Sevilla1	FEX5YR8HR	1.20	2.09	0.0000	0.02	0.03	804
Sevilla2	FEX5YR8HR	1.23	2.05	0.0000	0.01	0.01	609
Sevilla3	FEX5YR8HR	1.20	2.09	0.0000	0.06	0.09	1339
Sevilla4	FEX5YR8HR	1.20	2.09	0.0000	0.11	0.15	1450
Shamrock2	FEX5YR8HR	1.11	2.05	-0.0001	51.98	51.94	5389
Shmrck1.1	FEX5YR8HR	1.38	2.16	0.0001	51.91	51.94	6206
Shmrck1.2	FEX5YR8HR	1.20	2.09	-0.0001	51.94	51.98	3971
V3	FEX5YR8HR	6.53	6.53	0.0000	0.00	0.00	436
BC_N02	FEXMilton	0.00	18.00	0.0000	46.02	0.00	0
Church1	FEXMilton	8.77	10.66	0.0000	0.68	0.41	533
Church2	FEXMilton	8.77	10.66	0.0000	9.99	9.92	4390
Clark1	FEXMilton	7.21	8.27	0.0000	0.54	0.57	743
Clark2	FEXMilton	7.21	8.27	-0.0001	67.52	69.00	22818
DM1	FEXMilton	11.42	12.12	0.0000	10.17	10.19	1417
DM2	FEXMilton	10.30	11.00	0.0000	10.19	10.08	2201
DM3	FEXMilton	9.16	10.71	0.0000	10.08	9.99	2967
E_Outlet	FEXMilton	0.00	16.23	-0.0006	218.75	2.07	0
E_Outlet2	FEXMilton	0.00	17.00	0.0000	159.20	0.00	0
ElP_Hes.1	FEXMilton	1.99	4.30	0.0000	1.50	1.30	763
ElP_con.1	FEXMilton	2.18	4.59	0.0007	101.27	107.00	4221
ElPrad.1	FEXMilton	1.99	4.30	0.0000	0.68	0.44	632
G1	FEXMilton	14.98	16.24	-0.0046	149.64	109.11	37910
G10	FEXMilton	8.77	10.62	-0.0001	67.53	67.52	4600
G2	FEXMilton	14.99	16.19	-0.0002	47.47	47.60	32965
G3	FEXMilton	14.86	16.17	-0.0010	156.60	156.39	27815

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
G4	FEXMilton	12.82	15.15	-0.0001	156.39	156.33	57231
G5	FEXMilton	11.69	14.03	-0.0003	100.70	100.24	46586
G6	FEXMilton	11.00	9.24	0.0000	14.97	0.00	0
G7	FEXMilton	11.00	12.47	0.0000	72.67	72.70	3601
G8	FEXMilton	10.07	11.42	0.0000	59.49	59.07	2143
G9	FEXMilton	9.41	10.90	0.0000	59.07	58.65	1353
H1	FEXMilton	1.99	5.37	-0.0002	45.69	45.64	16515
H2.1	FEXMilton	1.99	4.30	0.0010	146.85	150.29	6108
Hubert	FEXMilton	3.16	5.41	-0.0001	68.81	73.96	13136
JUNCT1	FEXMilton	0.00	19.03	0.0000	6.80	6.79	4359
JUNCT10	FEXMilton	0.00	22.07	0.0000	51.31	51.23	10612
JUNCT2	FEXMilton	0.00	14.30	0.0000	23.26	23.25	2512
JUNCT3	FEXMilton	0.00	20.44	0.0000	32.52	32.34	14609
JUNCT4	FEXMilton	0.00	13.67	0.0000	5.49	5.49	5541
JUNCT6	FEXMilton	0.00	18.46	-0.0079	1385.78	1675.72	10295
JUNCT7	FEXMilton	0.00	20.63	0.0044	376.07	422.96	8395
JUNCT7B	FEXMilton	0.00	20.63	-0.0003	100.51	89.07	18410
JUNCT8	FEXMilton	0.00	20.63	0.0015	199.63	149.87	11640
JUNCT8B	FEXMilton	0.00	20.63	0.0003	149.87	146.13	26056
JUNCT9	FEXMilton	0.00	29.51	0.0000	48.49	48.51	9415
L1	FEXMilton	11.53	12.08	0.0000	55.62	55.58	51697
L2	FEXMilton	11.63	11.78	0.0000	13.17	13.16	41892
L3	FEXMilton	10.43	10.72	0.0000	34.49	34.41	43595
L4	FEXMilton	8.43	8.67	0.0000	17.02	16.97	50837
L5	FEXMilton	7.63	7.78	0.0000	7.39	7.37	43662
L6	FEXMilton	6.93	7.04	0.0000	3.33	3.31	43812
Lois	FEXMilton	4.82	5.94	-0.0001	69.00	68.81	6808
M1	FEXMilton	2.58	6.68	0.0002	65.89	65.87	24863
M1.1	FEXMilton	6.33	7.05	0.0000	65.96	65.89	35218
M1.2	FEXMilton	7.03	7.43	0.0000	48.64	48.58	28583
M1.3	FEXMilton	7.13	7.73	0.0000	42.41	42.37	28488
M2	FEXMilton	2.58	6.20	-0.0002	79.49	79.07	60686
M3	FEXMilton	2.58	5.88	-0.0005	80.91	79.54	39412
M4	FEXMilton	2.58	5.71	-0.0007	80.45	79.95	53060
M5.1	FEXMilton	2.57	5.12	0.0005	101.76	101.32	6163
M6	FEXMilton	2.58	5.12	0.0001	1.64	0.69	558
Marjory_Pump	FEXMilton	0.00	41.34	0.0102	3.62	3.52	496
N01	FEXMilton	0.00	20.86	0.0000	19.97	19.04	37228
N01A	FEXMilton	0.00	20.84	0.0001	5.71	5.71	437
N02	FEXMilton	0.00	18.97	-0.0002	73.85	71.03	74276
N03	FEXMilton	0.00	20.11	-0.0001	43.94	43.47	29746
N04	FEXMilton	0.00	20.13	-0.0001	21.58	18.05	25676
N05	FEXMilton	0.00	18.91	0.0000	95.17	95.05	4393
N06	FEXMilton	0.00	17.98	-0.0002	85.70	85.76	3292
N07A	FEXMilton	0.00	17.53	-0.0001	86.10	86.15	4248
N08A	FEXMilton	0.00	16.16	0.0002	146.85	146.10	31036

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N09	FEXMilton	0.00	14.10	0.0000	31.72	31.71	2164
N09A	FEXMilton	0.00	13.55	0.0005	143.67	143.68	1361
N10	FEXMilton	2.00	1.90	0.0003	362.78	1.23	0
N11	FEXMilton	0.00	18.13	-0.0004	234.58	218.75	599302
NBB0010	FEXMilton	2.00	1.90	0.0009	140.71	1.98	0
NBB0030	FEXMilton	5.03	7.25	-0.0658	140.72	140.71	6478
NBB0050	FEXMilton	9.15	13.07	-0.0003	181.65	140.72	108727
NBB0070	FEXMilton	11.30	13.94	-0.0001	110.18	109.70	2588
NBB0090	FEXMilton	12.67	14.10	-0.0001	114.87	114.74	3019
NBB0110	FEXMilton	13.46	15.31	-0.0001	106.94	106.92	1986
NBB0130	FEXMilton	15.26	16.76	-0.0004	42.22	39.53	49225
NBB0150	FEXMilton	14.01	15.79	-0.0001	76.67	76.79	1934
NBB0170	FEXMilton	14.74	16.47	-0.0001	76.56	76.67	1453
NBB0190	FEXMilton	15.42	17.14	-0.0001	76.46	76.56	78340
NBB0210	FEXMilton	15.70	17.16	0.0001	75.82	75.91	1556
NBB0230	FEXMilton	16.02	17.18	-0.0001	75.74	75.82	11179
NBB0250	FEXMilton	16.31	17.57	0.0000	75.50	75.58	2036
NBB0270	FEXMilton	17.05	18.13	0.0001	73.48	75.50	44321
NBB0290	FEXMilton	17.06	18.14	-0.0001	55.29	56.18	1258
NBB0310	FEXMilton	17.07	18.14	-0.0001	160.41	117.32	625438
NBB0330	FEXMilton	16.57	17.41	-0.0001	43.24	40.10	49892
NBB0350	FEXMilton	16.45	17.41	0.0002	27.79	28.54	1397
NBB0370	FEXMilton	16.33	17.40	-0.0001	66.90	61.83	81741
NBB0390	FEXMilton	16.32	17.40	-0.0001	20.80	21.40	1834
NBB0410	FEXMilton	16.30	17.40	-0.0002	60.34	56.46	70059
NBB0430	FEXMilton	15.45	16.25	-0.0002	125.83	164.97	64099
NBW0010	FEXMilton	2.00	1.82	0.0004	1006.60	15.06	0
NBW0030	FEXMilton	3.39	5.12	-0.0124	1006.79	1006.60	75886
NBW0050	FEXMilton	3.92	5.48	0.0000	99.57	97.76	71608
NBW0070	FEXMilton	3.57	5.57	-0.0002	340.46	519.20	82221
NBW0090	FEXMilton	3.66	5.42	0.0000	60.82	62.59	54670
NBW0130	FEXMilton	3.73	5.67	0.0000	364.91	366.53	14687
NBW0150	FEXMilton	3.93	5.47	-0.0001	57.81	57.99	25349
NBW0170	FEXMilton	3.98	5.45	0.0001	58.99	59.43	54142
NBW0190	FEXMilton	3.89	5.80	-0.0001	364.37	364.91	5985
NBW0210	FEXMilton	6.25	6.26	0.0000	6.41	6.36	5138
NBW0230	FEXMilton	4.01	6.18	0.0001	363.68	364.42	9090
NBW0250	FEXMilton	4.88	7.05	0.0000	361.65	361.86	5687
NBW0270	FEXMilton	5.49	7.21	0.0000	98.33	97.33	75384
NBW0290	FEXMilton	5.91	7.21	0.0000	32.28	28.95	118953
NBW0310	FEXMilton	6.38	7.41	0.0000	14.62	10.40	42218
NBW0330	FEXMilton	5.50	7.50	0.0000	349.92	350.05	24909
NBW0350	FEXMilton	4.97	6.18	0.0000	7.16	6.76	24591
NBW0370	FEXMilton	5.52	7.51	-0.0001	5.57	6.95	24460
NBW0390	FEXMilton	5.52	7.51	-0.0001	8.84	5.57	80333
NBW0410	FEXMilton	5.54	7.67	0.0001	348.48	348.63	3446
NBW0430	FEXMilton	5.89	8.13	0.0000	6.47	4.97	67542

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0450	FEXMilton	5.89	8.13	-0.0001	349.01	348.48	12762
NBW0470	FEXMilton	5.89	8.13	0.0000	4.82	3.90	53451
NBW0490	FEXMilton	5.92	8.29	-0.0001	347.93	347.76	3147
NBW0510	FEXMilton	6.72	8.29	0.0000	5.37	4.26	41943
NBW0530	FEXMilton	6.22	8.69	-0.0001	348.63	348.69	4801
NBW0550	FEXMilton	6.72	10.13	0.0000	328.06	351.83	439662
NBW0570	FEXMilton	7.09	10.10	0.0000	200.71	168.10	202490
NBW0590	FEXMilton	10.03	10.22	-0.0001	325.74	328.00	86118
NBW0610	FEXMilton	6.45	8.92	0.0000	319.39	319.20	11358
NBW0630	FEXMilton	6.22	8.69	0.0000	14.17	9.29	94129
NBW0650	FEXMilton	6.66	10.09	0.0001	332.90	321.49	24044
NBW0670	FEXMilton	6.66	10.09	0.0000	12.16	6.67	43638
NBW0690	FEXMilton	6.71	10.11	0.0001	298.35	296.37	12508
NBW0710	FEXMilton	6.71	10.11	0.0000	22.28	17.21	135559
NBW0730	FEXMilton	6.72	10.12	-0.0001	321.60	291.85	344865
NBW0750	FEXMilton	7.06	10.13	0.0001	334.57	326.44	163396
NBW0770	FEXMilton	7.06	10.13	-0.0002	23.32	15.60	40281
NBW0790	FEXMilton	8.11	10.13	0.0000	20.61	20.22	33309
NBW0810	FEXMilton	7.06	10.13	0.0001	46.99	33.41	85090
NBW0830	FEXMilton	8.41	10.13	0.0001	31.28	30.85	19101
NBW0850	FEXMilton	10.17	10.14	0.0000	29.80	29.08	21446
NBW0870	FEXMilton	7.06	10.15	0.0000	390.83	345.90	341731
NBW0890	FEXMilton	7.06	10.13	-0.0003	18.94	19.88	1027
NBW0910	FEXMilton	7.06	10.14	0.0001	340.21	325.83	190970
NBW0930	FEXMilton	8.03	9.94	0.0001	40.72	40.66	1301
NBW0950	FEXMilton	8.82	9.66	-0.0001	78.77	72.51	220087
NBW0970	FEXMilton	8.82	9.66	0.0003	41.38	43.21	41784
NBW0990	FEXMilton	8.82	9.66	-0.0005	18.90	18.79	785
NBW1010	FEXMilton	8.83	9.67	-0.0001	39.38	39.30	3311
NBW1030	FEXMilton	9.19	11.71	0.0000	51.68	45.58	82080
NBW1050	FEXMilton	9.30	11.71	0.0001	18.09	17.86	900
NBW1070	FEXMilton	9.34	11.71	0.0000	424.51	427.06	76554
NBW1090	FEXMilton	3.78	5.52	-0.0001	442.94	437.58	21533
NBW1130	FEXMilton	4.51	5.53	0.0000	206.73	206.53	34924
NBW1150	FEXMilton	4.53	5.61	-0.0001	225.78	225.09	73018
NBW1169	FEXMilton	4.09	5.65	0.0000	424.31	421.51	24370
NBW1170	FEXMilton	4.30	5.78	-0.0001	418.57	416.61	10063
NBW1190	FEXMilton	6.13	6.84	-0.0001	72.02	68.62	78436
NBW1210	FEXMilton	7.17	7.74	-0.0002	282.04	280.02	166255
NBW1230	FEXMilton	7.17	7.78	-0.0001	274.04	268.75	238118
NBW1250	FEXMilton	4.74	6.30	-0.0001	377.93	375.84	8635
NBW1270	FEXMilton	6.14	6.84	-0.0001	31.77	31.02	54626
NBW1310	FEXMilton	5.21	6.48	0.0002	392.58	356.40	8702
NBW1330	FEXMilton	7.56	8.82	0.0029	314.33	350.73	3096
NBW1350	FEXMilton	10.95	11.61	-0.0002	27.19	26.97	12605
NBW1351	FEXMilton	8.89	11.06	0.0002	308.24	307.68	28656
NBW1352	FEXMilton	9.96	12.95	-0.0008	302.86	302.85	7956

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1353	FEXMilton	11.01	14.83	-0.0005	298.36	298.37	8196
NBW1370	FEXMilton	10.02	10.88	-0.0006	199.20	208.75	31096
NBW1390	FEXMilton	15.24	15.52	-0.0002	355.76	355.13	186142
NBW1410	FEXMilton	15.58	15.81	-0.0002	206.22	206.20	31196
NBW1430	FEXMilton	15.79	15.91	-0.0002	184.75	184.55	29355
NBW1450	FEXMilton	16.94	17.09	-0.0003	280.36	279.85	117494
NBW1460	FEXMilton	16.43	16.61	-0.0002	148.33	148.90	4273
NBW1470	FEXMilton	17.14	17.39	-0.0004	317.91	317.10	216831
NBW1480	FEXMilton	18.11	18.17	-0.0001	13.40	13.38	16323
NBW1490	FEXMilton	17.86	18.30	0.0002	216.50	216.31	122483
NBW1510	FEXMilton	18.12	18.67	-0.0002	168.50	168.65	38269
NBW1530	FEXMilton	17.92	18.75	0.0000	12.69	12.23	1219
NBW1550	FEXMilton	17.75	18.86	0.0000	39.45	33.05	57839
NBW1570	FEXMilton	18.21	18.86	-0.0002	167.64	167.78	2604
NBW1590	FEXMilton	18.12	18.65	0.0000	71.24	71.91	23391
NBW1610	FEXMilton	18.13	18.65	0.0000	19.81	19.67	27442
NBW1630	FEXMilton	18.13	18.38	0.0000	30.70	30.70	1815
NBW1650	FEXMilton	18.81	19.74	0.0000	15.38	10.34	52043
NBW1670	FEXMilton	18.89	19.75	0.0000	19.89	15.70	46278
NBW1690	FEXMilton	19.03	19.75	0.0000	13.46	10.95	31215
NBW1710	FEXMilton	19.26	19.75	0.0000	2.07	0.96	998
NBW1730	FEXMilton	18.65	19.65	-0.0003	423.80	420.33	348543
NBW1750	FEXMilton	18.82	19.73	-0.0001	186.15	183.28	91425
NBW1770	FEXMilton	18.82	19.75	0.0000	109.95	101.40	197155
NBW1790	FEXMilton	18.91	19.75	0.0000	19.95	16.26	49256
NBW1820	FEXMilton	18.72	19.45	0.0000	142.74	140.54	189275
NBW1830	FEXMilton	18.74	19.66	0.0000	81.66	81.55	95079
NBW1840	FEXMilton	18.39	19.00	0.0000	168.17	162.19	155050
NBW1850	FEXMilton	18.74	19.70	0.0000	229.62	229.67	161722
NBW1860	FEXMilton	18.39	19.00	-0.0001	34.83	37.99	25214
NBW1870	FEXMilton	18.72	19.46	-0.0001	48.08	48.93	42379
NBW1890	FEXMilton	19.06	20.07	0.0000	67.91	68.09	2613
NBW1910	FEXMilton	19.27	20.31	0.0001	76.30	75.41	16147
NBW1930	FEXMilton	19.27	20.31	0.0000	67.51	67.67	51334
NBW1950	FEXMilton	18.97	19.71	0.0000	2.26	1.90	450
NBW1970	FEXMilton	18.96	19.70	0.0000	9.97	8.76	17819
NBW1990	FEXMilton	19.27	20.22	0.0000	168.07	165.03	186527
NBW2010	FEXMilton	19.65	20.11	-0.0001	32.88	35.07	13512
NBW2030	FEXMilton	19.65	20.10	-0.0001	66.61	64.74	106265
NBW2050	FEXMilton	19.26	20.54	0.0000	125.03	134.37	163689
NBW2060	FEXMilton	0.00	20.53	0.0000	56.81	55.23	99889
NBW2070	FEXMilton	19.26	20.54	0.0000	228.38	225.70	229805
NBW2090	FEXMilton	19.10	20.62	0.0000	69.03	67.26	117125
NBW2110	FEXMilton	18.92	20.62	0.0000	151.20	125.77	256791
NBW2130	FEXMilton	18.92	20.62	-0.0001	25.42	28.89	42699
NBW2140	FEXMilton	20.00	20.62	0.0001	4.34	5.44	609
NBW2145	FEXMilton	0.00	20.62	-0.0003	20.98	18.80	115948

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2150	FEXMilton	19.26	20.54	-0.0001	135.29	133.95	42308
NBW2170	FEXMilton	19.12	20.54	-0.0012	5.91	11.60	798
NBW2190	FEXMilton	19.10	20.61	0.0000	14.36	13.59	59404
NBW2210	FEXMilton	19.47	20.53	0.0000	32.36	28.68	71296
NBW2230	FEXMilton	19.47	20.53	0.0000	151.21	146.17	134622
NBW2250	FEXMilton	19.51	20.53	0.0000	19.17	19.23	24907
NBW2270	FEXMilton	19.57	20.53	0.0000	35.64	36.28	77909
NBW2290	FEXMilton	19.65	20.53	0.0000	181.74	175.97	285928
NBW2310	FEXMilton	19.82	20.49	-0.0001	204.64	202.64	216631
NBW2330	FEXMilton	19.82	20.49	-0.0001	31.03	29.25	122105
NBW2350	FEXMilton	16.05	16.58	-0.0001	189.67	189.15	78893
NBW2370	FEXMilton	16.11	16.59	-0.0001	32.80	31.48	59950
NBW2380	FEXMilton	12.29	16.60	-0.0004	320.21	318.57	94282
NBW2385	FEXMilton	18.49	18.49	0.0000	3.15	3.14	6475
NBW2387	FEXMilton	16.11	16.60	0.0000	0.46	0.80	478
NBW2390	FEXMilton	16.42	17.99	-0.0001	151.08	152.56	66863
NBW2410	FEXMilton	16.59	18.46	-0.0003	279.24	278.00	186395
NBW2430	FEXMilton	16.23	18.52	-0.0001	407.93	407.42	122539
NBW2450	FEXMilton	16.15	18.61	-0.0002	170.42	171.38	4396
NBW2470	FEXMilton	16.43	18.86	-0.0003	429.09	431.71	47265
NBW2490	FEXMilton	16.90	18.86	-0.0003	67.45	296.70	23666
NBW2510	FEXMilton	17.74	18.85	-0.0001	66.09	66.83	9481
NBW2530	FEXMilton	17.92	18.75	-0.0001	64.60	65.35	2010
NBW2550	FEXMilton	17.95	18.73	-0.0001	1.33	3.11	450
NBW2570	FEXMilton	17.96	18.72	0.0000	2.59	2.54	12396
NBW2590	FEXMilton	18.06	18.69	0.0001	52.69	53.16	1098
NBW2610	FEXMilton	17.00	18.98	-0.0009	491.11	489.04	138575
NBW2630	FEXMilton	17.98	18.98	0.0000	154.62	142.35	43713
NBW2650	FEXMilton	16.97	18.96	-0.0004	28.93	32.26	47512
NBW2670	FEXMilton	16.42	18.95	-0.0001	36.33	31.47	51571
NBW2680	FEXMilton	17.73	18.59	-0.0002	202.28	202.15	27897
NBW2690	FEXMilton	15.40	18.38	-0.0002	412.11	410.93	118863
NBW2710	FEXMilton	17.73	18.61	-0.0001	1.60	2.59	540
NBW2730	FEXMilton	18.29	18.68	0.0000	1.70	1.52	5945
NBW2770	FEXMilton	18.09	18.99	0.0001	13.32	13.37	1310
NBW2775	FEXMilton	6.59	7.44	0.0000	89.31	89.43	81154
NBW2780	FEXMilton	18.38	18.95	-0.0001	200.96	199.25	205171
NBW2790	FEXMilton	18.38	18.99	-0.0001	258.62	257.64	179052
NBW2810	FEXMilton	18.39	19.00	-0.0002	88.07	85.58	88775
NBW2830	FEXMilton	18.40	19.00	-0.0001	53.13	39.68	210612
NC01	FEXMilton	0.00	6.21	0.0001	32.38	32.36	4584
NC01B	FEXMilton	0.00	5.90	0.0000	22.65	22.64	6172
NC02	FEXMilton	0.00	8.96	-0.0003	172.46	172.46	11736
NC03	FEXMilton	0.00	4.96	-0.0671	199.17	199.14	15357
NC04	FEXMilton	0.00	3.92	-0.0357	114.45	112.75	47731
NC05	FEXMilton	0.00	3.89	-0.0352	119.42	118.38	60193
NC06	FEXMilton	0.00	3.84	-0.0371	126.07	125.85	25875

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NC07	FEXMilton	0.00	3.83	-0.0351	111.16	111.14	24251
NC08	FEXMilton	0.00	3.79	-0.0346	123.56	123.51	17791
NCL0010	FEXMilton	2.00	1.82	0.0004	580.32	8.99	0
NCL0030	FEXMilton	2.36	2.39	-0.0861	489.89	461.16	7619
NCL0050	FEXMilton	2.36	2.39	-0.0002	1.31	8.55	590
NCL0070	FEXMilton	5.20	5.45	-0.0001	133.93	133.78	49262
NCL0090	FEXMilton	6.06	6.17	-0.0001	47.66	43.75	75756
NCL0110	FEXMilton	3.04	2.86	0.0015	670.26	657.38	7710
NCL0130	FEXMilton	4.05	2.97	-0.0005	124.93	124.99	3232
NCL0150	FEXMilton	4.95	3.80	-0.0004	124.93	124.93	3131
NCL0170	FEXMilton	5.08	3.95	-0.0002	87.08	87.19	1705
NCL0190	FEXMilton	5.08	3.95	-0.0003	1.55	2.96	571
NCL0210	FEXMilton	5.85	4.57	-0.0002	104.12	104.34	1485
NCL0230	FEXMilton	6.60	6.81	-0.0003	41.09	34.80	35923
NCL0250	FEXMilton	6.60	6.82	0.0001	2.94	1.94	567
NCL0270	FEXMilton	6.60	6.82	0.0001	3.15	3.06	2028
NCL0290	FEXMilton	5.90	4.78	-0.0003	66.88	66.95	1049
NCL0310	FEXMilton	6.10	5.71	-0.0004	70.26	70.31	1207
NCL0330	FEXMilton	5.95	5.69	-0.0003	6.73	6.71	5442
NCL0350	FEXMilton	6.60	6.82	0.0002	115.52	95.57	71068
NCL0370	FEXMilton	7.36	7.53	0.0001	89.41	88.86	19561
NCL0390	FEXMilton	4.02	3.94	0.0036	512.43	560.34	4340
NCL0410	FEXMilton	4.09	3.98	-0.0002	4.64	5.56	897
NCL0430	FEXMilton	4.23	4.02	-0.0001	3.83	3.72	639
NCL0450	FEXMilton	4.75	4.77	-0.0031	498.34	511.85	3676
NCL0470	FEXMilton	5.43	5.53	-0.0025	493.74	493.92	3437
NCL0490	FEXMilton	6.48	6.77	-0.0040	548.19	558.43	41894
NCL0510	FEXMilton	6.67	6.87	-0.0005	27.90	27.81	1168
NCL0530	FEXMilton	8.10	7.78	0.0003	40.46	17.58	1175
NCL0550	FEXMilton	8.17	7.82	-0.0001	19.68	40.46	11397
NCL0570	FEXMilton	8.66	7.97	0.0001	10.04	9.88	839
NCL0590	FEXMilton	7.00	7.47	0.0015	515.43	515.54	7143
NCL0610	FEXMilton	7.52	8.18	0.0008	507.32	507.39	3640
NCL0630	FEXMilton	8.06	9.07	0.0008	503.89	504.08	8217
NCL0650	FEXMilton	8.12	9.12	-0.0003	49.28	102.61	1613
NCL0670	FEXMilton	8.67	9.65	-0.0007	121.46	49.28	1692
NCL0690	FEXMilton	8.76	9.66	0.0006	25.13	35.14	605
NCL0710	FEXMilton	8.95	9.67	0.0002	25.47	24.85	600
NCL0730	FEXMilton	9.26	9.69	-0.0002	26.31	25.47	554
NCL0750	FEXMilton	9.56	9.71	0.0000	91.29	87.03	54126
NCL0770	FEXMilton	10.12	10.17	0.0000	53.92	53.90	2178
NCL0790	FEXMilton	8.69	9.70	-0.0005	43.66	101.59	895
NCL0810	FEXMilton	8.84	10.05	0.0000	45.36	43.66	33877
NCL0830	FEXMilton	8.93	10.39	0.0010	398.50	397.22	59464
NCL0850	FEXMilton	9.01	10.40	0.0002	77.11	69.88	39963
NCL0870	FEXMilton	9.37	10.45	-0.0007	100.94	100.79	2022
NCL0890	FEXMilton	9.65	10.49	-0.0011	78.82	78.67	1587

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0910	FEXMilton	9.71	10.44	0.0001	17.18	16.79	18721
NCL0930	FEXMilton	9.57	10.66	-0.0001	86.75	86.42	3987
NCL0950	FEXMilton	9.89	10.80	-0.0001	84.28	84.10	3221
NCL0970	FEXMilton	10.41	11.05	0.0000	36.20	36.16	2258
NCL0990	FEXMilton	11.00	11.40	0.0000	30.83	30.74	3525
NCL1010	FEXMilton	11.14	11.53	0.0000	6.56	6.54	638
NCL1030	FEXMilton	9.67	10.49	-0.0002	26.42	32.09	1743
NCL1050	FEXMilton	10.46	10.50	0.0001	4.61	4.36	5263
NCL1070	FEXMilton	9.30	11.79	0.0000	4.25	4.24	621
NCL1090	FEXMilton	9.76	11.81	0.0000	11.70	6.83	36111
NCL1110	FEXMilton	9.85	11.66	0.0000	23.85	20.19	53040
NCL1130	FEXMilton	9.76	11.81	0.0000	36.61	27.52	130668
NCL1150	FEXMilton	9.76	11.81	0.0001	825.91	811.69	309399
NCL1170	FEXMilton	10.59	12.89	0.0008	400.72	399.39	171623
NCL1190	FEXMilton	10.72	13.25	-0.0001	87.20	87.22	1850
NCL1210	FEXMilton	10.63	12.91	-0.0001	18.91	24.88	59164
NCL1230	FEXMilton	10.94	13.72	-0.0001	87.19	87.20	1432
NCL1250	FEXMilton	11.11	13.99	-0.0001	87.17	87.19	1231
NCL1270	FEXMilton	11.34	14.31	-0.0001	190.41	146.33	199816
NCL1290	FEXMilton	13.06	14.35	0.0000	158.10	152.57	39667
NCL1310	FEXMilton	14.77	15.60	0.0001	149.66	148.74	47592
NCL1330	FEXMilton	10.60	12.89	-0.0002	480.93	468.95	95438
NCL1350	FEXMilton	10.63	12.90	0.0001	441.57	434.98	72627
NCL1370	FEXMilton	10.63	12.94	0.0001	288.13	285.77	23537
NCL1390	FEXMilton	10.63	14.30	0.0000	62.99	54.61	35887
NCL1410	FEXMilton	10.63	14.30	0.0002	61.20	61.69	10467
NCL1430	FEXMilton	10.70	12.91	-0.0009	503.65	458.39	277569
NCL1450	FEXMilton	10.93	13.37	-0.0010	411.76	411.61	3036
NCL1470	FEXMilton	12.72	14.80	-0.0001	337.59	337.35	4450
NCL1490	FEXMilton	14.45	14.82	0.0000	3.68	3.57	745
NCL1510	FEXMilton	11.06	13.34	0.0004	43.80	72.41	20591
NCL1530	FEXMilton	12.54	13.32	-0.0002	123.87	123.77	24507
NCL1550	FEXMilton	13.13	13.58	-0.0002	36.63	36.56	1023
NCL1570	FEXMilton	13.31	13.65	0.0000	3.40	3.36	505
NCL1590	FEXMilton	13.70	13.69	0.0000	1.52	1.51	1307
NCL1610	FEXMilton	13.37	13.67	0.0000	1.94	1.89	468
NCL1630	FEXMilton	13.57	13.77	0.0002	91.01	90.99	2758
NCL1650	FEXMilton	13.68	14.02	-0.0001	97.86	97.85	1957
NCL1670	FEXMilton	14.02	15.26	0.0000	252.31	252.26	18716
NCL1690	FEXMilton	17.47	17.95	0.0000	68.35	68.19	7002
NCL1710	FEXMilton	17.89	18.23	-0.0001	64.83	64.96	3522
NCL1730	FEXMilton	18.27	19.59	0.0002	294.47	294.22	54252
NCL1750	FEXMilton	18.24	19.43	-0.0002	33.90	33.91	513
NCL1770	FEXMilton	18.07	18.24	-0.0001	46.17	46.17	3136
NCL1790	FEXMilton	15.78	16.76	0.0001	334.25	334.05	5863
NCL1810	FEXMilton	18.13	18.16	0.0000	38.41	36.92	23691
NCL1830	FEXMilton	18.39	18.74	0.0001	317.89	317.83	6250

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1850	FEXMilton	18.50	18.90	-0.0002	69.42	79.05	910
NCL1870	FEXMilton	19.01	19.66	-0.0001	69.47	69.42	995
NCL1890	FEXMilton	19.15	19.85	-0.0004	69.61	69.56	981
NCL1910	FEXMilton	19.15	19.85	0.0000	2.21	1.64	534
NCL1930	FEXMilton	19.91	19.98	0.0000	3.09	3.00	1369
NCL1950	FEXMilton	19.15	19.85	0.0000	0.22	0.39	508
NCL1970	FEXMilton	21.67	21.64	0.0000	1.70	1.70	3104
NCL1990	FEXMilton	19.58	20.47	-0.0002	69.67	69.61	918
NCL2010	FEXMilton	19.74	20.51	0.0000	29.99	29.90	1104
NCL2030	FEXMilton	19.76	19.98	-0.0001	24.10	23.53	42771
NCL2050	FEXMilton	19.76	20.56	0.0000	28.25	27.59	1411
NCL2070	FEXMilton	19.76	19.98	-0.0001	7.76	8.65	1202
NCL2090	FEXMilton	19.87	20.98	0.0001	29.40	28.25	1414
NCL2110	FEXMilton	20.03	21.04	-0.0001	21.13	16.39	64486
NCL2130	FEXMilton	19.87	21.03	0.0000	79.92	71.23	162642
NCL2150	FEXMilton	20.75	20.18	0.0002	83.63	285.18	22625
NCL2170	FEXMilton	19.85	21.04	-0.0001	378.77	377.40	130547
NCL2230	FEXMilton	19.13	19.83	0.0000	283.37	281.16	54639
NCL2250	FEXMilton	19.55	20.31	0.0002	269.06	263.45	4444
NCL2270	FEXMilton	20.05	20.87	0.0000	284.46	283.72	53747
NCL2290	FEXMilton	19.88	21.04	0.0000	7.23	7.20	31909
NCL2310	FEXMilton	20.45	20.98	0.0000	96.08	95.80	1780
NCL2330	FEXMilton	20.74	21.05	0.0000	103.40	96.08	88774
NCL2350	FEXMilton	20.78	21.07	0.0000	91.44	90.48	5512
NCL2370	FEXMilton	20.81	21.08	-0.0001	89.21	88.75	2298
NCL2390	FEXMilton	20.84	21.08	0.0000	84.24	78.96	108706
NCL2410	FEXMilton	21.07	21.20	0.0000	30.52	30.15	1380
NCL2430	FEXMilton	21.32	21.34	0.0000	29.12	28.70	1472
NCL2450	FEXMilton	21.25	21.28	0.0000	4.97	4.92	493
NCL2470	FEXMilton	20.93	21.11	0.0000	15.98	15.84	846
NCL2490	FEXMilton	21.54	21.39	0.0000	26.14	25.74	1524
NCL2510	FEXMilton	21.70	21.40	0.0000	127.45	127.65	94493
NCL2530	FEXMilton	21.70	21.40	0.0000	55.38	55.50	46508
NCL2540	FEXMilton	0.00	22.08	-0.0001	80.17	79.52	46360
NCL2550	FEXMilton	21.70	21.39	0.0000	66.10	66.15	15937
NCL2570	FEXMilton	21.51	21.36	0.0001	13.19	12.68	1503
NCL2580	FEXMilton	0.00	21.35	-0.0001	120.31	119.64	33947
NCL2590	FEXMilton	21.17	21.35	0.0000	202.33	200.65	137196
NCL2610	FEXMilton	21.14	21.34	0.0000	139.07	138.97	29788
NCL2630	FEXMilton	20.86	20.98	0.0000	84.53	83.24	51309
NCL2631	FEXMilton	0.00	20.78	0.0001	75.74	74.45	45069
NCL2650	FEXMilton	21.17	21.16	0.0000	46.68	43.25	54456
NCL2670	FEXMilton	21.93	21.91	-0.0001	127.11	151.21	31388
NCL2690	FEXMilton	21.96	22.04	0.0000	71.58	75.73	28199
NCL2710	FEXMilton	21.96	22.26	0.0000	60.03	58.33	54703
NCL2730	FEXMilton	21.95	22.53	0.0000	40.35	39.84	8423
NCL2750	FEXMilton	21.84	22.98	0.0000	106.96	106.29	33593

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2770	FEXMilton	21.71	22.41	-0.0001	29.48	29.49	1389
NCL2780	FEXMilton	0.00	22.25	0.0001	23.99	22.72	26931
NCL2790	FEXMilton	21.84	22.26	0.0000	139.94	136.84	118016
NCL2810	FEXMilton	22.11	22.76	-0.0001	86.51	86.28	21880
NCL2830	FEXMilton	23.09	22.85	-0.0001	16.82	16.79	2154
NCL2835	FEXMilton	0.00	23.78	0.0000	7.49	7.35	1091
NCL2840	FEXMilton	0.00	23.73	0.0000	86.74	86.64	24050
NCL2845	FEXMilton	0.00	24.27	0.0000	48.06	47.99	15574
NCL2850	FEXMilton	20.82	21.11	0.0000	17.11	17.22	1361
NCL2870	FEXMilton	20.83	21.11	-0.0001	16.01	16.15	1246
NCL2890	FEXMilton	20.83	21.12	0.0000	15.89	16.01	21538
NCL2910	FEXMilton	20.83	21.11	0.0000	73.27	73.14	43452
NCL2930	FEXMilton	19.55	20.34	-0.0003	230.36	231.17	30022
NCL2950	FEXMilton	19.53	20.34	0.0000	210.08	210.18	34019
NCL2970	FEXMilton	20.49	20.53	0.0001	44.35	43.99	11857
NCL2990	FEXMilton	19.33	20.28	-0.0001	207.58	207.68	12290
NCL3010	FEXMilton	19.35	20.32	0.0000	199.32	199.58	331518
NCL3030	FEXMilton	19.58	20.49	0.0000	199.20	199.30	152124
NCL3050	FEXMilton	19.94	20.51	0.0000	63.55	56.40	92250
NCL3070	FEXMilton	20.14	20.51	0.0000	32.76	29.92	51572
NCL3090	FEXMilton	19.59	20.54	0.0000	198.75	198.79	144942
NCL3110	FEXMilton	19.59	20.54	0.0002	63.70	45.92	175260
NCL3130	FEXMilton	19.59	20.54	-0.0001	21.19	17.23	105854
NCL3150	FEXMilton	19.54	20.54	0.0000	198.59	198.62	101949
NCL3170	FEXMilton	19.71	20.55	0.0000	100.82	97.15	62527
NCL3190	FEXMilton	20.31	20.59	-0.0001	99.29	96.30	139038
NCL3210	FEXMilton	20.32	20.59	-0.0001	69.32	68.05	61771
NCL3230	FEXMilton	20.32	20.59	0.0000	53.29	52.78	26721
NCL3250	FEXMilton	19.11	20.62	0.0001	181.26	198.07	256323
NCL3270	FEXMilton	19.11	20.62	-0.0001	22.63	20.44	25191
NCL3280	FEXMilton	0.00	20.62	0.0000	32.67	28.55	31579
NCL3290	FEXMilton	20.16	20.62	0.0000	31.19	29.66	35331
NCL3300	FEXMilton	0.00	20.63	0.0000	16.84	15.50	22573
NCL3310	FEXMilton	20.19	20.69	-0.0001	2.82	2.71	758
NCL3330	FEXMilton	20.75	20.77	0.0001	3.02	2.97	437
NCL3350	FEXMilton	20.51	20.70	0.0000	35.79	35.31	48731
NCL3360	FEXMilton	0.00	20.70	0.0000	12.72	12.51	21227
NCL3365	FEXMilton	0.00	20.64	0.0000	32.87	29.53	43655
NCL3370	FEXMilton	20.64	21.06	-0.0001	131.16	130.74	97097
NCL3390	FEXMilton	20.83	21.11	0.0000	124.09	124.04	42043
NCL3410	FEXMilton	20.83	21.11	0.0000	1.28	1.32	476
NCL3430	FEXMilton	20.83	21.11	0.0000	1.49	0.92	4476
NCL3450	FEXMilton	18.92	20.62	0.0007	224.06	190.48	261797
NCL3460	FEXMilton	18.92	20.62	-0.0007	130.78	130.89	2956
NCL3470	FEXMilton	19.11	20.62	0.0001	385.20	282.33	432738
NCL3490	FEXMilton	19.15	20.63	-0.0001	74.52	265.00	105097
NCL3510	FEXMilton	20.64	20.63	0.0000	108.58	101.97	46006

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3520	FEXMilton	0.00	20.63	-0.0002	356.11	466.13	155746
NCL3530	FEXMilton	20.66	20.78	0.0000	160.31	159.48	68887
NCL3550	FEXMilton	20.66	20.79	-0.0001	2.51	1.47	736
NCL3570	FEXMilton	20.66	20.90	-0.0001	1.69	1.42	624
NCL3590	FEXMilton	20.66	20.91	0.0000	1.82	1.44	6650
NCL3610	FEXMilton	20.66	20.78	-0.0001	23.34	23.30	1245
NCL3630	FEXMilton	20.64	20.77	0.0000	266.42	265.97	121443
NCL3635	FEXMilton	0.00	20.77	-0.0001	15.80	14.45	1750
NCL3640	FEXMilton	0.00	20.78	0.0000	33.01	32.76	48183
NCL3650	FEXMilton	18.92	20.62	0.0000	3.68	3.87	502
NCL3670	FEXMilton	18.92	20.62	0.0000	132.46	119.58	110511
NCL3690	FEXMilton	18.92	20.62	-0.0002	103.34	103.68	3204
NCL3730	FEXMilton	18.92	20.62	0.0000	120.83	103.34	154885
NCL3740	FEXMilton	0.00	20.62	0.0002	206.04	32.57	52279
NCL3750	FEXMilton	18.93	19.71	-0.0001	236.85	229.01	301570
NCL3770	FEXMilton	18.93	19.71	-0.0001	23.89	22.90	114721
NCL4000	FEXMilton	0.00	29.79	0.0000	48.51	48.49	7128
NCL4010	FEXMilton	0.00	29.51	0.0000	40.65	40.56	13968
NCypEast	FEXMilton	32.00	29.00	0.0000	10.62	0.00	0
NCypWest	FEXMilton	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEXMilton	2.00	1.82	0.0004	538.16	520.83	0
NOC0030	FEXMilton	1.14	2.00	-2.7964	1727.61	1143.19	3873
NOC0050	FEXMilton	1.20	2.00	0.0263	523.32	1207.65	5161
NOC0070	FEXMilton	1.45	2.00	0.0251	42648.20	519.17	4366
NOC0090	FEXMilton	2.91	2.30	0.0059	216.01	215.51	968
NOC0110	FEXMilton	1.65	2.00	-0.0838	318.42	42441.34	1412
NOC0130	FEXMilton	3.06	2.52	-0.0075	280.84	280.86	2699
NOC0150	FEXMilton	3.08	2.53	0.0000	1.97	2.08	540
NOC0170	FEXMilton	4.56	4.69	0.0000	8.58	8.58	1221
NOC0190	FEXMilton	5.09	3.80	0.0008	279.18	279.08	2578
NOC0210	FEXMilton	5.68	4.21	-0.0003	17.08	16.72	1224
NOC0230	FEXMilton	5.12	3.82	-0.0007	5.10	10.34	815
NOC0250	FEXMilton	5.30	3.95	-0.0003	5.36	5.10	998
NOC0270	FEXMilton	5.57	4.14	0.0000	3.13	2.80	680
NOC0290	FEXMilton	5.11	3.98	-0.0011	312.01	312.08	2224
NOC0310	FEXMilton	5.27	4.08	-0.0023	39.24	39.01	520
NOC0330	FEXMilton	5.85	4.56	-0.0020	279.00	278.73	4058
NOC0350	FEXMilton	5.89	4.96	-0.0034	216.09	216.10	3333
NOC0370	FEXMilton	6.47	6.73	-0.0015	173.39	173.58	25801
NOC0390	FEXMilton	6.60	6.82	-0.0015	48.05	46.20	23028
NOC0410	FEXMilton	6.95	6.96	-0.0003	44.06	39.83	28771
NOC0430	FEXMilton	7.01	7.03	0.0000	34.37	33.63	14056
NOC0450	FEXMilton	7.62	7.43	0.0000	29.08	29.00	10560
NOC0470	FEXMilton	8.12	8.04	0.0000	20.40	19.99	20868
NOC0490	FEXMilton	7.67	7.43	-0.0001	3.67	3.64	1051
NRU0010	FEXMilton	2.00	1.90	0.0009	641.83	4.89	0
NRU0030	FEXMilton	2.84	3.48	-0.0875	346.69	346.69	2468

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0050	FEXMilton	4.36	4.98	-0.0002	346.69	346.69	2036
NRU0070	FEXMilton	5.61	6.45	-0.0010	347.33	346.69	21444
NRU0090	FEXMilton	5.66	6.46	-0.0002	69.87	64.85	23774
NRU0110	FEXMilton	6.23	6.71	-0.0002	284.30	284.70	19664
NRU0130	FEXMilton	7.66	8.32	-0.0002	279.25	278.92	2616
NRU0150	FEXMilton	7.71	8.38	-0.0005	276.68	276.98	1317
NRU0160	FEXMilton	0.00	15.60	0.0001	203.20	203.20	4959
NRU0165	FEXMilton	0.00	17.08	0.0000	108.23	108.20	14646
NRU0170	FEXMilton	14.45	18.45	0.0001	365.44	312.08	173548
NRU0172	FEXMilton	0.00	18.45	0.0000	9.30	10.53	830
NRU0174	FEXMilton	0.00	18.47	-0.0001	14.16	9.30	10649
NRU0176	FEXMilton	0.00	16.51	0.0000	65.33	65.33	762
NRU0178	FEXMilton	0.00	18.03	-0.0001	6.54	6.60	958
NRU0180	FEXMilton	0.00	18.47	-0.0001	332.27	329.52	370454
NRU0190	FEXMilton	14.45	18.44	0.0001	63.56	62.65	41505
NRU0210	FEXMilton	14.45	18.13	-0.0001	17.59	13.45	39843
NRU0230	FEXMilton	13.39	15.14	0.0001	23.78	23.76	21377
NRU0250	FEXMilton	14.62	18.45	-0.0004	884.03	399.29	128887
NRU0270	FEXMilton	15.05	18.46	0.0021	1450.49	1248.83	42519
NRU0290	FEXMilton	16.30	19.12	-0.0001	83.49	80.39	109037
NRU0310	FEXMilton	16.13	18.47	0.0001	96.66	96.00	23886
NRU0330	FEXMilton	18.25	18.78	0.0000	26.81	26.80	1352
NRU0335	FEXMilton	0.00	19.34	0.0000	7.06	7.14	14646
NRU0340	FEXMilton	0.00	19.13	0.0000	90.69	85.94	82250
NRU0343	FEXMilton	0.00	19.68	0.0000	7.39	7.25	903
NRU0345	FEXMilton	0.00	19.87	0.0000	78.33	77.50	97415
NRU0350	FEXMilton	19.50	19.78	0.0000	23.37	22.15	55491
NRU0370	FEXMilton	19.51	19.78	0.0000	17.84	16.81	31321
NRU0380	FEXMilton	23.33	20.03	-0.0003	10.95	10.94	470
NRU0390	FEXMilton	27.00	20.06	0.0000	16.29	10.95	39676
NRU0410	FEXMilton	19.56	19.87	0.0000	9.63	10.08	1101
NRU0425	FEXMilton	15.53	16.41	0.0000	2.96	2.87	4982
NRU0430	FEXMilton	19.61	19.94	0.0000	9.21	9.63	1077
NRU0450	FEXMilton	19.66	20.02	0.0000	8.84	9.21	1041
NRU0470	FEXMilton	19.72	20.39	0.0000	8.63	8.84	799
NRU0490	FEXMilton	20.36	20.75	0.0001	12.95	14.04	47032
NRU0495	FEXMilton	0.00	21.16	-0.0001	8.65	8.44	16341
NRU0500	FEXMilton	0.00	21.24	0.0000	2.31	2.26	7259
NRU0510	FEXMilton	19.67	20.38	-0.0001	32.63	31.12	104351
NRU0530	FEXMilton	16.95	18.71	0.0000	77.04	77.39	2252
NRU0550	FEXMilton	17.92	19.00	-0.0001	205.83	202.61	114267
NRU0570	FEXMilton	18.16	19.51	-0.0001	182.79	182.35	37625
NRU0590	FEXMilton	18.51	20.11	0.0000	159.86	159.59	60791
NRU0610	FEXMilton	18.78	20.37	0.0000	159.80	158.28	178542
NRU0612	FEXMilton	0.00	20.40	0.0000	111.32	109.90	130974
NRU0615	FEXMilton	0.00	20.43	0.0000	13.29	13.29	2016
NRU0616	FEXMilton	0.00	20.38	0.0000	7.12	8.01	28532

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0618	FEXMilton	0.00	20.62	0.0000	13.03	13.24	20722
NRU0620	FEXMilton	0.00	20.16	0.0000	35.37	35.41	33903
NRU0630	FEXMilton	18.79	20.52	0.0001	85.79	85.59	115726
NRU0650	FEXMilton	18.79	20.54	0.0000	109.36	107.74	147840
NRU0670	FEXMilton	18.78	20.56	0.0002	67.19	67.27	1429
NRU0690	FEXMilton	18.84	20.60	0.0000	87.92	85.53	127755
NRU0710	FEXMilton	18.86	20.61	0.0000	61.70	64.10	129953
NRU0730	FEXMilton	18.85	20.60	-0.0001	73.49	68.83	227594
NRU0740	FEXMilton	0.00	20.61	0.0000	58.37	61.62	71011
NRU0745	FEXMilton	0.00	20.61	0.0000	53.74	58.37	81610
NRU0750	FEXMilton	18.87	20.61	0.0000	78.43	54.15	359381
NRU0770	FEXMilton	18.88	20.61	0.0002	29.79	30.21	1008
NRU0785	FEXMilton	0.00	20.61	0.0000	138.40	129.91	99467
NRU0790	FEXMilton	18.88	20.62	0.0001	433.51	149.00	236001
NRU0810	FEXMilton	18.88	20.61	-0.0001	33.50	32.55	10759
NRU0820	FEXMilton	0.00	20.61	0.0003	4.02	1.99	442
NRU0830	FEXMilton	18.99	20.62	-0.0005	82.44	430.07	79691
NRU0850	FEXMilton	19.11	20.62	0.0001	46.60	46.52	1188
NRU0870	FEXMilton	19.32	20.62	0.0010	17.57	17.20	560
NRU0890	FEXMilton	19.35	20.62	0.0000	27.33	20.15	97418
NRU0910	FEXMilton	19.35	20.69	0.0001	2.89	1.68	569
NRU0930	FEXMilton	19.35	20.69	0.0000	2.18	2.89	7648
NRU0950	FEXMilton	19.11	20.62	0.0000	73.17	65.78	53174
NRU0955	FEXMilton	0.00	20.62	0.0000	63.23	53.21	84719
NRU0960	FEXMilton	0.00	20.62	0.0000	76.17	70.99	54450
NRU0965	FEXMilton	0.00	20.63	0.0000	169.50	142.38	177319
NRU0970	FEXMilton	19.34	20.62	0.0000	51.42	34.36	105875
NRU0980	FEXMilton	0.00	20.62	0.0007	14.68	9.38	1097
NRU0990	FEXMilton	19.39	20.62	0.0004	24.86	31.34	440
NRU1010	FEXMilton	19.70	20.62	-0.0001	24.66	24.86	54928
NRU1015	FEXMilton	0.00	21.22	-0.0001	17.17	10.13	79953
NRU1020	FEXMilton	0.00	22.05	-0.0060	9.74	36.21	866
NRU1025	FEXMilton	0.00	21.70	-0.0001	9.66	9.61	724
NRU1030	FEXMilton	19.70	20.62	-0.0001	79.78	49.03	183311
NRU1035	FEXMilton	0.00	20.79	-0.0002	3.81	5.84	436
NRU1037	FEXMilton	0.00	20.78	0.0000	2.89	2.80	643
NRU1040	FEXMilton	0.00	20.62	-0.0001	57.34	37.91	119051
NRU1045	FEXMilton	0.00	22.10	-0.0001	12.58	6.31	44921
NRU1046	FEXMilton	0.00	22.07	0.0060	6.31	6.36	936
NRU1050	FEXMilton	19.70	20.62	0.0000	111.21	97.01	241851
NRU1070	FEXMilton	19.83	20.61	0.0000	114.00	113.78	72238
NRU1090	FEXMilton	18.86	20.61	0.0000	13.73	13.58	919
NRU1110	FEXMilton	18.86	20.61	-0.0001	65.25	59.67	98707
NRU1130	FEXMilton	18.86	20.61	-0.0002	7.40	7.22	772
NRU1150	FEXMilton	18.86	20.61	0.0001	69.27	62.31	169801
NRU1170	FEXMilton	18.86	20.61	-0.0002	44.92	17.38	252699
NRU1182	FEXMilton	0.00	20.61	0.0000	9.90	8.50	37470

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1184	FEXMilton	0.00	20.60	0.0000	8.05	8.03	872
NRU1185	FEXMilton	0.00	20.60	0.0000	22.96	18.55	135849
NRU1186	FEXMilton	0.00	20.61	0.0000	4.42	4.19	786
NRU1188	FEXMilton	0.00	20.60	0.0000	14.88	9.59	80150
NRU1190	FEXMilton	18.86	20.61	0.0000	3.22	3.24	576
NRU1210	FEXMilton	18.86	20.61	0.0000	6.44	6.43	897
NRU1220	FEXMilton	0.00	20.61	-0.0001	22.20	21.62	52028
NRU1225	FEXMilton	0.00	23.20	0.0000	4.75	4.58	13422
NRU1230	FEXMilton	18.88	20.61	-0.0001	9.98	9.89	877
NRU1232	FEXMilton	0.00	20.61	-0.0001	8.63	8.54	865
NRU1234	FEXMilton	0.00	20.61	0.0000	67.76	68.11	13569
NRU1240	FEXMilton	0.00	20.61	0.0000	32.85	33.45	47276
NRU1250	FEXMilton	4.07	3.10	-0.0685	296.63	296.62	2102
NRU1270	FEXMilton	4.78	4.67	-0.0002	293.37	293.37	1665
NRU1290	FEXMilton	5.41	5.48	-0.0001	290.07	290.07	3103
NRU1310	FEXMilton	6.42	6.68	-0.0001	290.06	290.07	5052
NRU1330	FEXMilton	8.29	9.20	0.0000	363.52	363.53	3507
NRU1350	FEXMilton	9.32	10.76	0.0000	362.64	362.70	2459
NRU1370	FEXMilton	11.03	13.60	0.0000	362.50	361.78	20815
NRU1390	FEXMilton	11.84	13.74	-0.0001	122.16	120.20	60896
NRU1410	FEXMilton	12.56	14.81	0.0000	268.70	268.71	7429
NRU1430	FEXMilton	15.53	16.41	-0.0001	47.31	32.53	86657
NRU1450	FEXMilton	15.94	16.24	0.0000	39.30	39.28	9057
NRU1470	FEXMilton	15.97	16.28	0.0000	6.35	6.30	981
NRU1490	FEXMilton	16.09	16.46	0.0000	7.83	6.95	13926
NRU1510	FEXMilton	15.12	18.47	-0.0001	257.07	247.79	227733
NRU1530	FEXMilton	15.71	18.47	-0.0001	96.42	103.65	61329
NRU1550	FEXMilton	15.40	18.47	0.0001	116.55	123.74	81132
NRU1570	FEXMilton	16.20	18.55	0.0000	47.97	50.65	62446
NRU1590	FEXMilton	16.40	18.55	0.0000	6.38	3.83	29829
NRU1610	FEXMilton	16.56	18.58	0.0000	45.73	46.24	64844
NRU1630	FEXMilton	16.69	18.59	-0.0001	41.16	41.25	1538
NRU1650	FEXMilton	16.84	18.59	0.0000	41.07	41.16	66464
NRU1670	FEXMilton	16.89	18.59	0.0000	49.15	41.07	257886
NRU1690	FEXMilton	16.89	18.54	0.0000	53.79	51.07	66795
NRU1710	FEXMilton	16.60	18.61	0.0000	32.76	32.89	1426
NRU1730	FEXMilton	16.58	18.74	0.0000	40.83	32.76	208831
NRU1750	FEXMilton	16.58	18.74	-0.0001	10.54	16.87	720
NRU1770	FEXMilton	16.58	18.75	0.0001	28.43	26.26	24908
NRU1790	FEXMilton	17.21	18.75	0.0000	19.86	16.90	63700
NRU1810	FEXMilton	16.58	18.74	0.0000	6.18	3.90	47255
NRU1830	FEXMilton	17.12	18.78	0.0000	19.43	14.62	88210
NRU1850	FEXMilton	17.07	18.64	-0.0001	20.17	20.13	1063
NRU1870	FEXMilton	17.20	18.70	-0.0001	20.21	20.17	907
NRU1890	FEXMilton	17.38	18.78	0.0000	35.51	20.21	155626
NRU1910	FEXMilton	17.71	18.78	0.0000	15.94	11.60	71874
NRU1930	FEXMilton	15.71	18.47	-0.0001	63.05	86.12	205403

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1950	FEXMilton	16.43	18.50	-0.0001	53.04	53.03	1646
NRU1970	FEXMilton	16.86	18.51	-0.0001	53.06	53.04	1037
NRU1990	FEXMilton	17.09	18.52	-0.0001	67.25	66.63	25074
NRU2010	FEXMilton	18.02	18.71	0.0000	10.32	10.44	8110
NRU2030	FEXMilton	18.39	18.75	-0.0001	15.05	14.73	46174
NRU2050	FEXMilton	18.40	18.76	0.0000	3.13	3.30	453
NRU2070	FEXMilton	18.41	18.77	0.0000	4.40	3.13	19918
NRU2090	FEXMilton	17.16	18.63	-0.0001	53.11	51.75	33957
NRU2110	FEXMilton	17.28	18.78	0.0000	47.48	45.84	32374
NRU2130	FEXMilton	17.49	18.81	0.0000	41.52	42.02	18670
NRU2150	FEXMilton	17.69	18.81	-0.0001	9.25	7.45	76533
NRU2170	FEXMilton	17.07	18.79	0.0000	4.24	4.32	778
NRU2190	FEXMilton	17.08	18.79	0.0000	12.63	5.90	83566
NRU2210	FEXMilton	17.33	18.80	-0.0001	9.01	9.79	541
NRU2230	FEXMilton	17.33	18.80	0.0000	42.94	27.87	187171
NRU2250	FEXMilton	17.31	18.80	0.0001	18.88	10.84	61549
NRU2270	FEXMilton	17.61	18.82	0.0000	29.86	29.84	45981
NRU2290	FEXMilton	17.67	18.83	0.0000	25.96	26.33	25636
NRU2310	FEXMilton	17.68	18.84	0.0000	22.65	25.21	23091
NRU2330	FEXMilton	17.68	18.86	0.0002	31.36	8.58	23357
NRU2350	FEXMilton	17.68	18.86	-0.0002	7.63	30.86	653
NRU2370	FEXMilton	17.37	18.97	0.0000	7.43	7.63	528
NRU2390	FEXMilton	17.36	18.98	-0.0001	9.17	7.43	49188
NRU2410	FEXMilton	17.72	18.80	0.0000	18.04	17.37	48593
NRU2430	FEXMilton	17.83	18.80	0.0000	18.13	15.89	33355
NRU2450	FEXMilton	18.06	18.80	0.0000	9.76	9.06	39051
NRU2470	FEXMilton	15.72	18.47	-0.0002	19.33	19.18	1459
NRU2490	FEXMilton	15.75	18.48	0.0001	19.59	19.33	3153
NRU2510	FEXMilton	15.75	18.52	0.0000	10.76	10.68	962
NRU2530	FEXMilton	15.76	18.71	0.0000	10.84	10.76	582
NRU2550	FEXMilton	16.53	18.48	-0.0001	329.78	310.12	175011
NRU2570	FEXMilton	17.71	18.99	0.0000	315.62	312.87	137642
NRU2590	FEXMilton	18.30	19.00	0.0000	34.26	34.81	10394
NRU2610	FEXMilton	18.62	19.60	-0.0001	189.71	189.67	48212
NRU2630	FEXMilton	19.41	20.07	-0.0002	183.74	182.10	146501
NRU2650	FEXMilton	19.54	20.48	-0.0002	191.51	190.62	152499
NRU2670	FEXMilton	16.64	16.93	-0.0001	26.98	26.86	8968
NRU2690	FEXMilton	17.09	18.14	-0.0001	168.69	92.63	601652
NSH02	FEXMilton	0.00	21.29	-0.0003	11.31	35.80	18720
NSH03	FEXMilton	0.00	20.69	0.0000	5.13	5.11	548
NSH04	FEXMilton	0.00	20.58	0.0000	81.25	82.77	58147
NSH05	FEXMilton	0.00	19.76	-0.0030	8.95	8.82	20030
NSH07	FEXMilton	0.00	8.43	0.0001	58.68	58.67	10450
NSH08	FEXMilton	0.00	8.87	0.0000	22.23	22.03	2228
NSH09	FEXMilton	0.00	10.74	-0.0001	80.64	80.58	19235
NSH10	FEXMilton	0.00	19.12	0.0000	27.68	27.60	27575
NSH11	FEXMilton	0.00	21.07	0.0000	6.47	6.45	6483

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH12	FEXMilton	0.00	19.18	0.0000	10.58	10.58	7603
NSH13	FEXMilton	0.00	18.05	0.0000	31.91	31.85	20547
NSH14	FEXMilton	0.00	17.82	0.0000	8.64	8.63	10689
NSH15	FEXMilton	0.00	18.70	0.0000	4.84	4.82	5674
NSH17	FEXMilton	0.00	17.25	0.0000	27.59	27.59	9021
NSH18	FEXMilton	0.00	15.82	0.0000	25.19	25.19	9991
NSH19	FEXMilton	0.00	11.63	0.0000	21.09	21.08	13331
NSH20	FEXMilton	0.00	20.19	0.0000	3.15	3.10	11547
NSH21	FEXMilton	0.00	11.23	-0.0001	29.15	29.15	11076
NSH22	FEXMilton	0.00	14.31	0.0000	32.30	32.24	9393
NSH23	FEXMilton	0.00	18.21	0.0000	9.61	9.59	3266
NSH24	FEXMilton	0.00	14.31	0.0000	23.43	23.32	7896
NSH25	FEXMilton	0.00	14.05	-0.0001	14.84	14.73	11815
NSH26	FEXMilton	0.00	13.95	0.0001	81.89	81.64	61393
NSH27	FEXMilton	0.00	13.04	0.0000	22.93	22.91	39424
NSH27A	FEXMilton	0.00	12.97	0.0000	16.63	16.60	921
NSH27AA	FEXMilton	0.00	13.01	-0.0001	4.39	4.50	554
NSH27B	FEXMilton	0.00	11.66	-0.0001	16.60	16.61	1033
NSH27C	FEXMilton	0.00	9.40	-0.0008	16.61	16.64	1037
NSH28	FEXMilton	0.00	9.87	0.0000	34.97	34.96	10486
NSH29	FEXMilton	0.00	8.88	0.0000	8.42	8.32	648
NSH31	FEXMilton	0.00	9.85	0.0000	4.62	4.58	480
NSH33	FEXMilton	0.00	16.70	0.0000	5.52	5.49	10850
NSH34	FEXMilton	0.00	9.39	0.0000	60.64	60.64	5658
NSH35	FEXMilton	0.00	8.08	0.0000	74.54	74.56	4613
NSH36	FEXMilton	0.00	8.07	0.0005	18.92	18.89	805
NSH37	FEXMilton	0.00	18.05	0.0000	15.82	15.81	6877
NSH41	FEXMilton	0.00	19.04	0.0000	6.24	6.24	798
NSH42	FEXMilton	0.00	7.74	-0.1409	103.59	103.58	4750
NSH43	FEXMilton	0.00	7.75	-0.0004	39.91	48.55	1745
NSH44	FEXMilton	0.00	9.77	0.0000	51.90	51.90	776
NSH45	FEXMilton	0.00	16.59	0.0000	62.26	62.11	32737
NSH48	FEXMilton	0.00	18.23	0.0000	12.49	12.48	3254
NSH49	FEXMilton	0.00	20.83	0.0000	16.66	16.35	17511
NSH50	FEXMilton	0.00	20.60	0.0002	46.86	42.09	33267
NSH51	FEXMilton	0.00	20.21	0.0000	48.89	47.26	141460
NSH52	FEXMilton	0.00	20.60	-0.0001	116.58	103.67	92071
NSH53	FEXMilton	0.00	20.21	-0.0001	31.53	31.90	5102
NSH54	FEXMilton	0.00	20.59	0.0000	79.29	80.65	48579
NSH55	FEXMilton	0.00	20.60	-0.0001	84.42	86.15	58290
NSH56	FEXMilton	0.00	20.60	-0.0001	30.06	30.13	5865
NSH57	FEXMilton	0.00	20.61	-0.0001	33.59	33.98	25895
NSH60	FEXMilton	0.00	20.67	0.0001	12.68	17.13	6047
NSH61	FEXMilton	0.00	20.63	-0.0003	15.77	16.26	444
NSH65	FEXMilton	0.00	21.63	-0.0001	3.26	5.75	470
NSH75	FEXMilton	0.00	8.15	-0.0001	44.39	41.66	12354
NSH80	FEXMilton	0.00	20.60	0.0000	3.81	3.34	13692

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH81	FEXMilton	0.00	20.88	0.0000	0.38	0.37	2614
NSH82	FEXMilton	0.00	20.89	0.0000	1.86	1.84	6523
NSH83	FEXMilton	0.00	20.71	0.0000	19.46	19.17	13213
NSR0000	FEXMilton	2.00	1.82	0.0004	368.74	53.79	0
NSR0005	FEXMilton	2.00	1.82	0.0004	5.23	0.14	0
NSR0010	FEXMilton	2.00	1.82	0.0004	534.71	31.63	0
NSR0030	FEXMilton	2.92	3.65	-0.0013	538.27	534.71	219002
NSR0032	FEXMilton	4.88	5.25	0.0000	9.22	8.30	22668
NSR0034	FEXMilton	3.63	3.79	0.0000	50.26	49.01	30259
NSR0050	FEXMilton	3.44	4.36	0.0000	514.96	512.38	117932
NSR0070	FEXMilton	3.45	4.22	0.0001	18.70	18.35	64488
NSR0090	FEXMilton	3.68	3.80	0.0000	23.80	23.35	12255
NSR0100	FEXMilton	2.25	2.34	-0.0081	5.25	5.23	577
NSR0102	FEXMilton	4.24	4.33	0.0000	2.79	2.70	2404
NSR0105	FEXMilton	1.91	2.00	-1.0231	470.88	386.77	2851
NSR0110	FEXMilton	3.93	4.56	0.0000	38.53	38.22	27494
NSR0112	FEXMilton	2.31	2.36	0.0786	367.48	470.88	1491
NSR0115	FEXMilton	4.25	4.33	0.0000	1.67	1.60	7882
NSR0120	FEXMilton	2.62	2.84	0.0641	365.15	365.19	2596
NSR0130	FEXMilton	4.16	5.01	0.0000	36.22	36.06	38494
NSR0135	FEXMilton	4.22	5.45	0.0000	31.18	31.11	27941
NSR0140	FEXMilton	3.28	3.90	0.0151	362.63	362.65	2501
NSR0150	FEXMilton	3.64	4.83	0.0000	448.28	448.04	29727
NSR0160	FEXMilton	3.56	4.32	-0.0081	354.40	354.69	15791
NSR0165	FEXMilton	4.03	5.50	0.0000	69.41	69.30	33141
NSR0170	FEXMilton	3.70	5.17	0.0000	41.84	41.82	16593
NSR0180	FEXMilton	3.83	5.50	-0.0001	99.92	97.31	45503
NSR0190	FEXMilton	4.04	5.09	0.0002	59.38	59.89	5113
NSR0210	FEXMilton	4.26	5.84	-0.0001	60.71	59.28	21504
NSR0230	FEXMilton	4.26	5.84	0.0000	72.70	59.99	153942
NSR0250	FEXMilton	3.93	5.05	0.0021	416.04	415.55	12764
NSR0270	FEXMilton	3.98	5.13	0.0000	178.31	174.08	94131
NSR0280	FEXMilton	5.41	6.06	-0.0015	325.45	325.29	45905
NSR0281	FEXMilton	5.97	6.75	-0.0023	275.75	275.62	21988
NSR0290	FEXMilton	6.70	7.25	-0.0006	126.56	123.08	45263
NSR0310	FEXMilton	9.28	9.46	0.0000	117.49	117.14	68504
NSR0330	FEXMilton	9.65	9.95	-0.0001	8.03	8.01	470
NSR0350	FEXMilton	10.32	10.86	-0.0001	8.04	8.03	446
NSR0370	FEXMilton	10.35	10.89	0.0000	9.73	8.04	10401
NSR0390	FEXMilton	11.96	12.39	-0.0001	113.94	113.80	79258
NSR0410	FEXMilton	12.27	12.94	-0.0001	8.02	9.01	510
NSR0430	FEXMilton	12.28	12.96	0.0000	8.00	8.02	26709
NSR0450	FEXMilton	13.04	14.17	-0.0001	71.63	71.55	40649
NSR0470	FEXMilton	13.10	14.62	-0.0002	55.45	55.41	16479
NSR0490	FEXMilton	4.41	5.24	-0.0007	226.38	224.35	41054
NSR0510	FEXMilton	4.48	5.40	-0.0005	107.37	105.95	24429
NSR0530	FEXMilton	4.55	5.49	-0.0002	32.25	31.28	65179

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0540	FEXMilton	4.55	5.55	-0.0007	127.07	123.66	109778
NSR0550	FEXMilton	4.56	5.56	0.0034	408.61	407.69	41251
NSR0560	FEXMilton	4.66	5.61	-0.0006	191.69	189.36	109558
NSR0570	FEXMilton	5.28	5.83	-0.0002	252.58	252.18	62766
NSR0580	FEXMilton	6.13	6.84	-0.0001	18.31	10.49	119915
NSR0590	FEXMilton	6.15	6.85	-0.0001	135.61	135.01	78222
NSR0610	FEXMilton	6.26	6.91	-0.0004	133.22	131.55	82066
NSR0630	FEXMilton	6.26	6.90	-0.0002	20.61	20.69	786
NSR0650	FEXMilton	6.25	6.88	-0.0001	100.09	94.22	216992
NSR0660	FEXMilton	6.13	6.83	-0.0001	92.87	92.30	78408
NSR0670	FEXMilton	6.24	6.87	0.0001	8.88	9.94	545
NSR0680	FEXMilton	6.14	6.77	-0.0002	124.07	123.60	169086
NSR0690	FEXMilton	6.24	6.87	0.0001	8.11	8.88	622
NSR0710	FEXMilton	6.23	6.86	0.0000	7.79	8.11	921
NSR0730	FEXMilton	6.29	6.93	-0.0001	178.84	174.05	203761
NSR0770	FEXMilton	6.81	7.80	0.0002	188.93	188.74	29797
NSR0780	FEXMilton	6.74	7.36	-0.0001	75.85	75.47	30049
NSR0790	FEXMilton	8.35	10.85	-0.0003	436.58	435.58	89813
NSR0791	FEXMilton	7.13	8.75	0.0004	249.37	249.37	5596
NSR0809	FEXMilton	12.76	11.93	-0.0009	74.48	96.36	2123
NSR0810	FEXMilton	13.45	13.75	-0.0002	296.97	296.89	59813
NSR0830	FEXMilton	15.10	15.63	-0.0002	381.90	381.00	172760
NSR0840	FEXMilton	16.09	16.41	0.0000	82.90	83.08	56555
NSR0850	FEXMilton	15.64	16.34	-0.0002	311.52	311.30	82334
NSR0860	FEXMilton	16.41	16.59	0.0000	12.45	12.40	17739
NSR0869	FEXMilton	16.03	16.72	-0.0001	28.27	28.17	1504
NSR0870	FEXMilton	16.24	16.92	-0.0001	266.60	266.56	52821
NSR0880	FEXMilton	16.24	16.95	-0.0001	115.15	115.07	26695
NSR0881	FEXMilton	14.14	18.02	-0.0004	451.35	450.72	197436
NSR0890	FEXMilton	4.02	5.08	-0.0177	268.85	421.37	120425
NSR0910	FEXMilton	4.79	5.85	0.0005	236.68	229.79	93345
NSR0930	FEXMilton	5.54	7.25	0.0000	123.92	56.80	337345
NSR0950	FEXMilton	5.63	7.25	0.0005	311.10	280.45	201103
NSR0970	FEXMilton	6.14	7.31	0.0002	148.21	148.82	3616
NSR0990	FEXMilton	6.27	7.32	0.0000	235.94	235.40	4544
NSR1010	FEXMilton	6.30	7.35	0.0000	53.69	51.77	20690
NSR1030	FEXMilton	8.54	9.24	0.0002	184.63	184.30	10007
NSR1050	FEXMilton	8.56	9.30	0.0000	109.71	108.83	27506
NSR1070	FEXMilton	9.58	9.78	-0.0007	243.46	243.02	66496
NSR1090	FEXMilton	11.30	11.52	0.0002	176.34	176.36	8774
NSR1110	FEXMilton	11.57	11.56	0.0000	1.94	1.93	2891
NSR1130	FEXMilton	11.29	11.41	0.0000	36.60	36.59	15763
NSR1150	FEXMilton	11.39	11.58	0.0000	4.61	4.39	10608
NSR1170	FEXMilton	11.38	11.57	0.0000	1.96	2.33	450
NSR1190	FEXMilton	12.70	13.50	0.0000	174.90	174.90	14785
NSR1210	FEXMilton	12.70	13.50	0.0001	16.42	9.25	102835
NSR1230	FEXMilton	14.76	15.63	0.0000	169.14	169.15	9777

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1270	FEXMilton	14.99	15.81	0.0000	169.14	169.14	6276
NSR1290	FEXMilton	14.99	15.81	0.0000	3.28	1.87	28401
NSR1310	FEXMilton	14.99	15.81	0.0000	20.41	9.19	189219
NSR1330	FEXMilton	15.44	16.59	0.0000	162.89	162.51	23747
NSR1350	FEXMilton	15.45	16.60	0.0000	31.09	30.76	383361
NSR1370	FEXMilton	15.56	16.67	-0.0001	155.31	152.30	21929
NSR1390	FEXMilton	15.56	16.67	0.0000	2.72	1.99	10997
NSR1410	FEXMilton	15.56	16.67	0.0002	18.60	15.12	104998
NSR1430	FEXMilton	15.76	16.76	0.0000	61.83	60.78	63041
NSR1450	FEXMilton	15.74	16.76	0.0000	68.72	64.99	174224
NSR1470	FEXMilton	15.96	16.77	0.0000	61.35	58.66	92406
NSR1490	FEXMilton	16.21	16.79	0.0000	66.45	55.59	245564
NSR1510	FEXMilton	16.21	16.79	0.0000	37.69	35.40	76250
NSR1530	FEXMilton	15.56	16.67	0.0001	4.07	2.78	28135
NSR1550	FEXMilton	15.68	16.75	0.0001	187.63	182.57	34955
NSR1570	FEXMilton	15.68	16.74	-0.0002	42.61	33.23	20471
NSR1590	FEXMilton	15.68	16.75	0.0002	68.74	81.94	62721
NSR1610	FEXMilton	15.75	16.80	0.0008	32.05	10.42	65156
NSR1630	FEXMilton	15.75	16.80	0.0002	110.69	109.32	21008
NSR1650	FEXMilton	16.39	17.07	0.0000	2.29	2.29	436
NSR1670	FEXMilton	15.92	16.97	0.0002	80.81	80.20	48809
NSR1690	FEXMilton	16.24	17.68	0.0000	96.35	95.99	24231
NSR1710	FEXMilton	16.25	17.69	0.0000	5.81	3.27	50604
NSR1730	FEXMilton	16.32	17.72	0.0000	102.41	101.01	24568
NSR1750	FEXMilton	16.68	17.72	0.0000	2.41	2.04	7290
NSR1770	FEXMilton	17.23	17.48	0.0000	15.26	12.76	22079
NSR1790	FEXMilton	17.24	17.48	0.0000	15.33	15.21	37935
NSR1810	FEXMilton	17.25	17.48	0.0000	7.35	7.05	16161
NSR1830	FEXMilton	17.25	17.48	0.0000	64.89	64.53	106159
NSR1850	FEXMilton	16.95	18.32	-0.0001	15.71	12.58	14068
NSR1870	FEXMilton	16.93	18.32	0.0001	70.79	37.37	188376
NSR1890	FEXMilton	16.05	18.32	-0.0001	13.45	13.78	1056
NSR1910	FEXMilton	15.45	18.32	-0.0005	196.95	195.92	183610
NSR1930	FEXMilton	16.53	17.78	0.0001	82.92	83.20	16728
NSR1950	FEXMilton	16.70	17.74	-0.0001	26.28	26.49	17557
NSR1970	FEXMilton	16.84	18.13	0.0000	35.44	27.81	117302
NSR1990	FEXMilton	16.86	17.98	0.0001	8.85	8.71	949
NSR2010	FEXMilton	16.91	17.85	-0.0001	18.18	12.34	66694
NSR2030	FEXMilton	16.90	17.68	-0.0001	12.34	12.36	751
NSR2050	FEXMilton	16.88	17.42	0.0000	20.27	18.24	38390
NSR2070	FEXMilton	16.81	17.41	0.0001	6.23	6.17	781
NSR2090	FEXMilton	16.72	17.41	0.0000	6.17	6.12	679
NSR2110	FEXMilton	16.54	17.40	0.0000	16.16	13.38	45228
NSR2130	FEXMilton	16.50	16.61	-0.0001	19.06	17.95	88580
NSR2150	FEXMilton	17.60	18.52	0.0000	95.09	78.66	299590
NSR2170	FEXMilton	17.62	18.53	-0.0021	39.68	40.11	2087
NSR2190	FEXMilton	17.62	18.53	0.0020	39.27	39.68	967

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2210	FEXMilton	17.62	18.53	0.0000	104.71	71.44	439659
NSR2230	FEXMilton	17.62	18.53	-0.0007	18.39	18.69	675
NSR2250	FEXMilton	17.63	18.53	-0.0001	16.14	18.95	16003
NSR2270	FEXMilton	17.63	18.54	-0.0001	17.52	16.14	65289
NSR2290	FEXMilton	17.63	18.54	-0.0001	12.91	12.80	888
NSR2310	FEXMilton	17.63	18.54	0.0000	14.88	12.91	50906
NSR2330	FEXMilton	17.65	18.57	0.0000	14.99	10.07	58293
NSR2350	FEXMilton	17.65	18.57	-0.0001	17.46	8.48	122759
NSR2370	FEXMilton	16.66	17.91	-0.0001	37.27	35.62	9676
NSR2390	FEXMilton	18.07	18.07	0.0000	9.61	8.78	65882
NSR2410	FEXMilton	16.66	17.91	0.0000	33.63	28.50	22277
NSR2430	FEXMilton	17.99	17.98	0.0000	2.15	2.15	2661
NSR2450	FEXMilton	18.06	18.08	0.0000	30.30	30.14	15569
NSR3000	FEXMilton	17.04	18.32	-0.0727	12.40	49.45	58189
NSR3005	FEXMilton	17.02	18.32	0.1453	49.45	3.39	566
NSR3020	FEXMilton	17.61	18.09	-0.0001	202.11	201.96	118282
NSR3040	FEXMilton	16.25	16.96	-0.0001	233.81	232.83	140629
NSR3060	FEXMilton	16.21	16.79	-0.0001	64.28	63.33	66878
NSW0010	FEXMilton	2.00	1.82	0.0007	27.97	0.35	0
NSW0030	FEXMilton	2.13	2.61	-0.0349	27.99	27.97	1389
NSW0050	FEXMilton	4.04	4.72	-0.0001	28.45	27.99	1532
Outfall	FEXMilton	2.00	1.82	0.0004	148.70	4.18	0
Outfall_NE	FEXMilton	21.00	20.03	-0.0005	8.36	0.00	0
PondA	FEXMilton	0.00	20.47	0.0000	31.13	30.51	94730
PondB	FEXMilton	0.00	18.13	0.0000	212.92	192.00	268266
SH_OUTFALL	FEXMilton	2.00	1.90	0.0003	308.38	0.43	0
STORAGE1	FEXMilton	0.00	20.77	0.0000	2.36	1.39	7405
STORAGE10	FEXMilton	0.00	21.63	0.0000	3.65	0.46	9148
STORAGE11	FEXMilton	0.00	21.29	0.0001	35.80	0.01	18648
STORAGE12	FEXMilton	0.00	22.05	0.0001	31.92	5.91	10262
STORAGE13	FEXMilton	0.00	20.79	0.0001	5.10	0.73	5323
STORAGE14	FEXMilton	0.00	23.20	0.0000	2.17	0.16	13395
STORAGE2	FEXMilton	0.00	20.62	0.0001	15.82	3.55	18426
STORAGE4	FEXMilton	0.00	20.62	0.0000	15.15	4.06	12088
STORAGE5	FEXMilton	0.00	21.11	0.0000	4.08	2.44	20006
STORAGE8	FEXMilton	0.00	20.61	0.0000	1.99	1.34	6098
STORAGE9	FEXMilton	0.00	20.67	0.0007	8.37	4.07	11761
Sevilla1	FEXMilton	1.20	2.30	-0.0001	0.53	1.93	804
Sevilla2	FEXMilton	1.23	2.00	0.0000	0.51	2.48	660
Sevilla3	FEXMilton	1.20	2.30	0.0000	1.93	5.67	1341
Sevilla4	FEXMilton	1.20	2.30	-0.0001	5.67	12.20	1493
Shamrock2	FEXMilton	1.11	2.00	-0.0360	145.77	151.54	5390
Shmrck1.1	FEXMilton	1.38	2.78	0.0002	150.28	146.53	6206
Shmrck1.2	FEXMilton	1.20	2.30	-0.0001	146.53	146.03	4023
V3	FEXMilton	6.53	6.62	0.0000	1.44	1.39	36755
BC_N02	FEXVerification	0.00	18.00	0.0000	0.00	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Church1	FEXVerification	8.77	8.63	0.0000	0.00	0.00	436
Church2	FEXVerification	8.77	8.21	0.0000	1.90	1.54	4390
Clark1	FEXVerification	7.21	6.61	0.0000	0.14	0.05	709
Clark2	FEXVerification	7.21	6.63	0.0000	29.58	29.53	4366
DM1	FEXVerification	11.42	11.27	0.0000	1.86	1.97	1274
DM2	FEXVerification	10.30	10.01	0.0000	1.97	1.77	1909
DM3	FEXVerification	9.16	9.06	0.0000	1.77	1.90	2968
E_Outlet	FEXVerification	0.00	15.62	0.0001	36.09	21.06	0
E_Outlet2	FEXVerification	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	FEXVerification	1.99	2.17	0.0000	0.23	0.15	763
ElP_con.1	FEXVerification	2.18	2.22	-0.0001	28.81	28.77	4221
ElPrad.1	FEXVerification	1.99	2.17	0.0000	0.11	0.06	613
G1	FEXVerification	14.98	14.05	-0.0005	30.14	29.48	24938
G10	FEXVerification	8.77	8.10	0.0000	29.61	29.58	4602
G2	FEXVerification	14.99	14.77	-0.0001	5.35	3.78	32676
G3	FEXVerification	14.86	13.06	0.0000	31.86	31.85	2179
G4	FEXVerification	12.82	11.75	0.0000	31.85	31.84	2076
G5	FEXVerification	11.69	10.93	0.0000	31.84	31.83	1865
G6	FEXVerification	11.00	9.24	0.0000	3.69	0.00	0
G7	FEXVerification	11.00	10.25	0.0000	31.83	31.82	3599
G8	FEXVerification	10.07	9.47	0.0000	28.12	28.11	2144
G9	FEXVerification	9.41	8.99	0.0000	28.11	28.10	1352
H1	FEXVerification	1.99	2.17	0.0000	0.09	0.06	510
H2.1	FEXVerificatio	1.99	2.17	0.0000	28.77	28.75	6105

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
Hubert	FEXVerification	3.16	2.79	0.0000	29.38	29.25	5965
JUNCT1	FEXVerification	0.00	18.86	0.0000	1.97	1.86	3227
JUNCT10	FEXVerification	0.00	21.84	0.0000	27.84	27.71	8319
JUNCT2	FEXVerification	0.00	13.87	0.0000	5.78	5.75	1486
JUNCT3	FEXVerification	0.00	19.64	0.0000	0.01	0.00	801
JUNCT4	FEXVerification	0.00	13.58	0.0000	1.59	1.54	3960
JUNCT6	FEXVerification	0.00	14.97	0.0000	3.40	3.40	2518
JUNCT7	FEXVerification	0.00	18.83	0.0000	14.32	14.31	3716
JUNCT7B	FEXVerification	0.00	18.49	0.0000	15.65	15.45	11714
JUNCT8	FEXVerification	0.00	19.06	0.0000	37.81	37.89	8364
JUNCT8B	FEXVerification	0.00	18.52	0.0000	37.89	37.58	20067
JUNCT9	FEXVerification	0.00	29.38	0.0000	25.30	25.27	8976
L1	FEXVerification	11.53	11.53	0.0000	0.00	0.00	436
L2	FEXVerification	11.63	11.63	0.0000	0.00	0.00	436
L3	FEXVerification	10.43	10.43	0.0000	0.00	0.00	436
L4	FEXVerification	8.43	8.43	0.0000	0.00	0.00	436
L5	FEXVerification	7.63	7.63	0.0000	0.00	0.00	436
L6	FEXVerification	6.93	6.93	0.0000	0.00	0.00	436
Lois	FEXVerification	4.82	4.40	0.0000	29.39	29.38	6808
M1	FEXVerification	2.58	2.46	0.0000	0.00	0.00	436
M1.1	FEXVerification	6.33	6.33	0.0000	0.00	0.00	436
M1.2	FEXVerification	7.03	7.03	0.0000	0.00	0.00	436
M1.3	FEXVerification	7.13	7.13	0.0000	0.00	0.00	436

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
M2	FEXVerification	2.58	2.38	0.0000	0.26	0.09	888
M3	FEXVerification	2.58	2.39	0.0000	0.48	0.30	1154
M4	FEXVerification	2.58	2.39	0.0000	0.79	0.52	900
M5.1	FEXVerification	2.57	2.39	0.0000	29.25	29.11	6162
M6	FEXVerification	2.58	2.39	0.0000	0.26	0.15	558
Marjory_Pump	FEXVerification	0.00	24.09	0.0102	3.62	1.61	496
N01	FEXVerification	0.00	19.52	0.0000	7.87	6.06	11270
N01A	FEXVerification	0.00	19.04	0.0000	6.06	5.87	437
N02	FEXVerification	0.00	13.72	-0.0001	7.52	9.08	689
N03	FEXVerification	0.00	16.19	0.0000	0.29	0.25	562
N04	FEXVerification	0.00	17.27	0.0000	2.26	2.22	559
N05	FEXVerification	0.00	13.30	0.0000	42.74	42.43	4417
N06	FEXVerification	0.00	11.31	0.0001	32.05	32.04	3285
N07A	FEXVerification	0.00	7.75	-0.0001	36.81	36.77	4247
N08A	FEXVerification	0.00	5.37	0.0001	47.27	51.61	1954
N09	FEXVerification	0.00	8.27	0.0000	3.50	3.48	465
N09A	FEXVerification	0.00	4.13	-0.0001	53.27	48.91	1360
N10	FEXVerification	2.00	2.00	0.0000	79.97	0.00	0
N11	FEXVerification	0.00	15.51	-0.0002	26.44	36.09	25171
NBB0010	FEXVerification	2.00	2.00	0.0000	89.29	0.00	0
NBB0030	FEXVerification	5.03	4.35	-0.0003	89.30	89.29	557
NBB0050	FEXVerification	9.15	6.69	-0.0001	89.36	89.30	2226
NBB0070	FEXVerification	11.30	8.04	0.0001	83.71	83.77	2549
NBB0090	FEXVerificatio	12.67	9.07	0.0001	80.96	81.09	1996

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBB0110	FEXVerification	13.46	9.72	0.0001	78.68	78.85	1984
NBB0130	FEXVerification	15.26	12.04	0.0000	12.73	12.65	833
NBB0150	FEXVerification	14.01	10.38	0.0001	64.08	64.06	1936
NBB0170	FEXVerification	14.74	11.26	0.0001	65.52	64.08	1452
NBB0190	FEXVerification	15.42	12.09	0.0001	67.08	65.52	1476
NBB0210	FEXVerification	15.70	12.76	0.0001	58.98	58.53	1556
NBB0230	FEXVerification	16.02	13.54	0.0001	60.60	58.98	1635
NBB0250	FEXVerification	16.31	14.29	0.0001	59.48	57.60	2036
NBB0270	FEXVerification	17.05	15.27	0.0001	62.50	59.48	1836
NBB0290	FEXVerification	17.06	15.80	0.0001	61.39	57.21	1258
NBB0310	FEXVerification	17.07	16.30	0.0001	86.98	71.08	86072
NBB0330	FEXVerification	16.57	16.14	0.0001	23.26	24.44	1624
NBB0350	FEXVerification	16.45	15.99	0.0001	21.75	22.77	1396
NBB0370	FEXVerification	16.33	15.85	0.0001	29.61	28.93	10447
NBB0390	FEXVerification	16.32	15.82	0.0001	18.65	19.42	1837
NBB0410	FEXVerification	16.30	15.74	-0.0002	33.36	31.60	16541
NBB0430	FEXVerification	15.45	15.35	-0.0002	35.10	33.87	64553
NBW0010	FEXVerification	2.00	2.00	0.0000	526.28	0.00	0
NBW0030	FEXVerification	3.39	3.32	0.0000	526.68	526.28	38008
NBW0050	FEXVerification	3.92	3.55	0.0000	5.58	4.40	3712
NBW0070	FEXVerification	3.57	3.45	0.0000	149.79	150.43	25444
NBW0090	FEXVerification	3.66	3.53	0.0000	3.78	3.27	2553
NBW0130	FEXVerification	3.73	3.59	0.0000	146.40	146.53	14023

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0150	FEXVerification	3.93	3.64	0.0000	6.25	6.04	442
NBW0170	FEXVerification	3.98	3.65	0.0000	2.75	2.52	1335
NBW0190	FEXVerification	3.89	3.72	-0.0001	142.64	142.67	5756
NBW0210	FEXVerification	6.25	6.21	0.0000	4.76	4.73	4529
NBW0230	FEXVerification	4.01	3.81	-0.0001	140.24	140.33	2784
NBW0250	FEXVerification	4.88	4.57	0.0000	138.47	138.56	5273
NBW0270	FEXVerification	5.49	5.26	0.0000	24.19	22.42	11382
NBW0290	FEXVerification	5.91	5.81	0.0000	19.03	18.68	11193
NBW0310	FEXVerification	6.38	6.03	0.0000	6.43	6.38	743
NBW0330	FEXVerification	5.50	5.14	0.0000	126.46	126.93	19420
NBW0350	FEXVerification	4.97	4.92	0.0000	4.68	4.68	2451
NBW0370	FEXVerification	5.52	5.15	0.0001	6.70	6.21	1017
NBW0390	FEXVerification	5.52	5.15	0.0000	5.75	5.30	3462
NBW0410	FEXVerification	5.54	5.17	-0.0001	119.78	120.08	3446
NBW0430	FEXVerification	5.89	5.46	0.0001	3.58	3.11	847
NBW0450	FEXVerification	5.89	5.46	0.0001	120.31	119.78	10182
NBW0470	FEXVerification	5.89	5.46	-0.0001	2.61	2.16	834
NBW0490	FEXVerification	5.92	5.49	-0.0001	118.05	118.37	2658
NBW0510	FEXVerification	6.72	6.59	0.0000	2.13	2.13	1653
NBW0530	FEXVerification	6.22	5.76	0.0000	117.48	117.39	4801
NBW0550	FEXVerification	6.72	6.16	0.0000	68.13	52.84	76391
NBW0570	FEXVerification	7.09	6.73	0.0000	71.66	71.53	3478
NBW0590	FEXVerification	10.03	9.77	-0.0004	70.89	68.48	58793
NBW0610	FEXVerificatio	6.45	5.95	0.0000	101.53	101.37	6403

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBW0630	FEXVerification	6.22	5.77	0.0000	2.02	1.72	5373
NBW0650	FEXVerification	6.66	6.07	0.0000	103.26	101.45	18971
NBW0670	FEXVerification	6.66	6.07	0.0000	2.73	2.13	6755
NBW0690	FEXVerification	6.71	6.14	0.0000	86.29	81.58	8048
NBW0710	FEXVerification	6.71	6.14	0.0000	7.95	7.93	9031
NBW0730	FEXVerification	6.72	6.15	0.0000	90.04	80.36	49727
NBW0750	FEXVerification	7.06	6.78	0.0001	70.57	43.18	68521
NBW0770	FEXVerification	7.06	6.79	-0.0001	14.15	12.09	8027
NBW0790	FEXVerification	8.11	7.21	0.0000	12.23	11.98	770
NBW0810	FEXVerification	7.06	6.79	0.0000	33.37	26.54	17242
NBW0830	FEXVerification	8.41	7.06	0.0000	17.51	17.26	1329
NBW0850	FEXVerification	10.17	7.34	0.0000	16.29	16.02	755
NBW0870	FEXVerification	7.06	6.79	0.0001	16.89	11.63	42535
NBW0890	FEXVerification	7.06	6.79	0.0001	17.35	18.13	1027
NBW0910	FEXVerification	7.06	6.79	0.0000	35.06	22.66	62309
NBW0930	FEXVerification	8.03	6.87	0.0000	25.79	25.58	1301
NBW0950	FEXVerification	8.82	7.01	0.0000	26.01	25.79	889
NBW0970	FEXVerification	8.82	7.04	0.0001	15.51	15.58	1019
NBW0990	FEXVerification	8.82	7.07	-0.0001	15.06	15.10	785
NBW1010	FEXVerification	8.83	7.36	0.0000	15.03	15.06	1121
NBW1030	FEXVerification	9.19	7.69	0.0000	14.61	14.64	1103
NBW1050	FEXVerification	9.30	7.92	0.0000	13.90	13.91	900
NBW1070	FEXVerification	9.34	8.00	0.0000	13.94	13.90	767

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1090	FEXVerification	3.78	3.66	0.0000	370.39	368.78	11788
NBW1130	FEXVerification	4.51	4.24	0.0000	12.79	11.78	8943
NBW1150	FEXVerification	4.53	4.31	0.0000	10.35	8.68	13961
NBW1169	FEXVerification	4.09	3.94	0.0000	358.29	355.80	15834
NBW1170	FEXVerification	4.30	4.18	-0.0001	354.20	353.26	5810
NBW1190	FEXVerification	6.13	5.42	-0.0001	11.14	6.62	28426
NBW1210	FEXVerification	7.17	5.69	-0.0002	32.67	30.02	31579
NBW1230	FEXVerification	7.17	6.20	-0.0001	32.27	24.27	79887
NBW1250	FEXVerification	4.74	4.58	0.0001	323.18	321.59	7383
NBW1270	FEXVerification	6.14	5.68	0.0000	6.35	6.43	7975
NBW1310	FEXVerification	5.21	5.08	0.0000	324.30	322.65	7844
NBW1330	FEXVerification	7.56	7.38	0.0002	285.78	285.76	3120
NBW1350	FEXVerification	10.95	9.09	0.0002	19.18	21.04	496
NBW1351	FEXVerification	8.89	8.57	-0.0003	247.61	247.28	8277
NBW1352	FEXVerification	9.96	9.72	-0.0006	241.79	241.42	7956
NBW1353	FEXVerification	11.01	10.88	0.0005	236.43	236.03	5636
NBW1370	FEXVerification	10.02	9.73	0.0003	206.41	196.72	6358
NBW1390	FEXVerification	15.24	15.09	-0.0005	203.20	189.43	68486
NBW1410	FEXVerification	15.58	15.46	0.0003	185.04	182.07	17908
NBW1430	FEXVerification	15.79	15.69	-0.0002	150.39	157.29	19111
NBW1450	FEXVerification	16.94	16.80	-0.0005	159.77	156.94	95277
NBW1460	FEXVerification	16.43	16.30	-0.0002	145.48	146.32	3527
NBW1470	FEXVerification	17.14	17.03	-0.0002	160.66	153.39	99204
NBW1480	FEXVerificatio	18.11	17.99	-0.0001	7.08	4.91	11583

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBW1490	FEXVerification	17.86	17.62	0.0002	108.51	102.87	13794
NBW1510	FEXVerification	18.12	17.83	0.0004	141.57	128.90	7480
NBW1530	FEXVerification	17.92	17.59	0.0001	16.90	12.16	1253
NBW1550	FEXVerification	17.75	17.45	0.0001	18.03	17.90	7879
NBW1570	FEXVerification	18.21	17.93	0.0002	139.88	133.62	2604
NBW1590	FEXVerification	18.12	17.93	0.0001	27.37	25.27	9777
NBW1610	FEXVerification	18.13	17.97	0.0001	24.24	23.87	2890
NBW1630	FEXVerification	18.13	18.02	0.0001	12.48	12.37	1549
NBW1650	FEXVerification	18.81	18.74	0.0001	11.21	9.86	2564
NBW1670	FEXVerification	18.89	18.81	0.0001	16.47	16.30	4256
NBW1690	FEXVerification	19.03	18.94	0.0001	10.05	9.73	7953
NBW1710	FEXVerification	19.26	18.94	0.0001	4.74	1.61	998
NBW1730	FEXVerification	18.65	18.27	0.0005	127.91	123.06	92144
NBW1750	FEXVerification	18.82	18.30	0.0001	69.63	69.42	5679
NBW1770	FEXVerification	18.82	18.73	0.0001	60.90	54.40	38466
NBW1790	FEXVerification	18.91	18.85	0.0001	14.61	14.52	1891
NBW1820	FEXVerification	18.72	18.55	0.0001	33.10	21.60	63334
NBW1830	FEXVerification	18.74	18.46	0.0001	70.48	71.22	1977
NBW1840	FEXVerification	18.39	18.30	0.0001	49.23	40.08	68585
NBW1850	FEXVerification	18.74	18.48	0.0001	69.55	70.22	45449
NBW1860	FEXVerification	18.39	18.30	-0.0001	7.44	4.75	15139
NBW1870	FEXVerification	18.72	18.55	-0.0002	24.82	16.89	21170
NBW1890	FEXVerification	19.06	18.64	0.0001	52.64	53.31	2614

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1910	FEXVerification	19.27	18.75	0.0001	51.99	52.64	1873
NBW1930	FEXVerification	19.27	18.86	0.0001	51.19	51.84	2155
NBW1950	FEXVerification	18.97	18.92	0.0001	4.60	2.44	451
NBW1970	FEXVerification	18.96	18.93	0.0000	6.09	6.02	1967
NBW1990	FEXVerification	19.27	19.01	0.0001	48.32	49.75	32467
NBW2010	FEXVerification	19.65	19.14	0.0001	8.35	8.08	1423
NBW2030	FEXVerification	19.65	19.14	0.0001	7.14	7.18	3277
NBW2050	FEXVerification	19.26	19.11	0.0002	43.66	45.34	40446
NBW2060	FEXVerification	0.00	19.46	0.0000	10.98	9.27	22942
NBW2070	FEXVerification	19.26	19.11	0.0001	44.46	41.95	66181
NBW2090	FEXVerification	19.10	18.66	0.0001	30.20	30.18	5443
NBW2110	FEXVerification	18.92	18.20	0.0001	42.38	39.77	45551
NBW2130	FEXVerification	18.92	18.20	0.0000	21.43	10.63	22596
NBW2140	FEXVerification	20.00	18.27	0.0000	5.02	4.85	606
NBW2145	FEXVerification	0.00	18.35	0.0000	13.40	12.77	436
NBW2150	FEXVerification	19.26	19.38	0.0001	33.08	32.80	8667
NBW2170	FEXVerification	19.12	19.40	0.0003	15.70	5.62	798
NBW2190	FEXVerification	19.10	19.41	0.0002	8.39	3.49	565
NBW2210	FEXVerification	19.47	19.47	0.0001	30.69	30.79	1885
NBW2230	FEXVerification	19.47	19.57	-0.0001	19.58	17.55	35020
NBW2250	FEXVerification	19.51	19.51	0.0001	25.39	25.74	2752
NBW2270	FEXVerification	19.57	19.56	0.0002	24.98	25.32	2581
NBW2290	FEXVerification	19.65	19.60	-0.0002	19.54	13.51	57830
NBW2310	FEXVerificatio	19.82	19.65	-0.0002	16.82	17.29	68272

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBW2330	FEXVerification	19.82	19.65	-0.0002	14.30	11.44	37138
NBW2350	FEXVerification	16.05	15.87	0.0001	44.10	43.37	4144
NBW2370	FEXVerification	16.11	16.06	-0.0001	9.61	7.48	57661
NBW2380	FEXVerification	12.29	12.30	0.0004	235.68	232.26	10756
NBW2385	FEXVerification	18.49	18.48	0.0000	2.17	2.17	6438
NBW2387	FEXVerification	16.11	15.70	0.0000	0.34	0.33	476
NBW2390	FEXVerification	16.42	16.26	0.0001	31.45	31.31	2672
NBW2410	FEXVerification	16.59	16.59	0.0001	26.78	25.98	2374
NBW2430	FEXVerification	16.23	16.50	0.0001	40.10	39.63	4026
NBW2450	FEXVerification	16.15	16.43	-0.0002	154.57	156.84	4396
NBW2470	FEXVerification	16.43	16.54	0.0001	77.45	75.79	22012
NBW2490	FEXVerification	16.90	16.85	0.0001	74.20	74.15	5954
NBW2510	FEXVerification	17.74	17.32	0.0001	71.46	71.23	2032
NBW2530	FEXVerification	17.92	17.58	0.0001	60.31	60.98	2010
NBW2550	FEXVerification	17.95	17.61	0.0000	1.74	2.90	450
NBW2570	FEXVerification	17.96	17.66	0.0000	1.75	1.74	3049
NBW2590	FEXVerification	18.06	17.74	0.0002	48.98	49.57	1098
NBW2610	FEXVerification	17.00	16.98	-0.0004	84.60	88.37	22730
NBW2630	FEXVerification	17.98	17.86	0.0001	78.73	78.38	40519
NBW2650	FEXVerification	16.97	16.95	-0.0002	26.39	26.93	2160
NBW2670	FEXVerification	16.42	16.37	-0.0001	28.36	29.19	1830
NBW2680	FEXVerification	17.73	17.27	-0.0001	27.73	28.39	2112
NBW2690	FEXVerification	15.40	15.66	0.0002	231.87	228.13	7486

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2710	FEXVerification	17.73	17.27	-0.0001	1.44	2.75	510
NBW2730	FEXVerification	18.29	17.83	0.0000	1.25	0.05	3920
NBW2770	FEXVerification	18.09	17.97	0.0001	14.31	13.37	1310
NBW2775	FEXVerification	6.59	6.22	0.0000	7.40	5.32	12679
NBW2780	FEXVerification	18.38	18.06	-0.0002	27.48	24.12	19358
NBW2790	FEXVerification	18.38	18.29	-0.0001	90.87	90.07	75860
NBW2810	FEXVerification	18.39	18.30	-0.0002	36.43	36.29	66176
NBW2830	FEXVerification	18.40	18.30	-0.0001	31.71	24.14	92677
NC01	FEXVerification	0.00	3.60	0.0000	5.24	5.19	699
NC01B	FEXVerification	0.00	5.60	0.0000	5.25	5.03	1876
NC02	FEXVerification	0.00	3.33	0.0000	50.49	50.49	1891
NC03	FEXVerification	0.00	2.62	0.0001	54.13	54.13	1239
NC04	FEXVerification	0.00	2.88	0.0000	9.73	9.03	5538
NC05	FEXVerification	0.00	2.51	0.0000	6.76	6.74	437
NC06	FEXVerification	0.00	2.44	0.0000	6.57	6.55	437
NC07	FEXVerification	0.00	2.11	0.0000	3.09	3.08	437
NC08	FEXVerification	0.00	2.61	0.0000	7.28	7.24	568
NCL0010	FEXVerification	2.00	2.00	0.0000	463.01	0.00	0
NCL0030	FEXVerification	2.36	2.62	-0.0001	437.19	437.20	6856
NCL0050	FEXVerification	2.36	2.62	0.0000	0.42	0.92	439
NCL0070	FEXVerification	5.20	4.83	-0.0001	48.13	47.62	9086
NCL0090	FEXVerification	6.06	5.86	-0.0002	28.51	20.92	46943
NCL0110	FEXVerification	3.04	3.07	0.0005	520.07	519.98	6623
NCL0130	FEXVerificatio	4.05	3.12	0.0002	78.81	78.92	565

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL0150	FEXVerification	4.95	3.44	0.0000	78.85	78.81	2802
NCL0170	FEXVerification	5.08	3.52	0.0000	50.88	50.99	1380
NCL0190	FEXVerification	5.08	3.52	0.0000	1.41	1.46	438
NCL0210	FEXVerification	5.85	3.82	0.0000	47.01	47.06	1234
NCL0230	FEXVerification	6.60	3.99	0.0000	10.32	9.84	530
NCL0250	FEXVerification	6.60	4.13	0.0000	0.00	0.00	436
NCL0270	FEXVerification	6.60	5.77	0.0000	2.45	2.44	977
NCL0290	FEXVerification	5.90	3.88	-0.0001	33.93	34.04	924
NCL0310	FEXVerification	6.10	4.16	0.0003	38.28	33.93	1045
NCL0330	FEXVerification	5.95	4.16	0.0000	0.85	1.22	513
NCL0350	FEXVerification	6.60	4.41	-0.0002	33.20	38.18	1373
NCL0370	FEXVerification	7.36	6.49	-0.0001	25.71	25.36	1195
NCL0390	FEXVerification	4.02	3.94	0.0012	436.49	461.19	4339
NCL0410	FEXVerification	4.09	3.97	-0.0001	3.13	3.75	819
NCL0430	FEXVerification	4.23	4.01	0.0000	3.21	3.13	639
NCL0450	FEXVerification	4.75	4.61	0.0017	429.20	436.06	3676
NCL0470	FEXVerification	5.43	5.23	-0.0011	417.40	429.38	3437
NCL0490	FEXVerification	6.48	6.20	0.0005	420.00	421.15	15945
NCL0510	FEXVerification	6.67	6.27	0.0002	20.56	20.40	1152
NCL0530	FEXVerification	8.10	6.79	0.0004	40.47	13.33	1191
NCL0550	FEXVerification	8.17	6.81	-0.0001	13.87	40.47	880
NCL0570	FEXVerification	8.66	6.89	0.0000	7.43	6.74	840
NCL0590	FEXVerification	7.00	6.68	0.0007	398.21	398.48	3392

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0610	FEXVerification	7.52	7.18	0.0007	397.16	397.41	3640
NCL0630	FEXVerification	8.06	7.70	-0.0004	396.59	396.84	4608
NCL0650	FEXVerification	8.12	7.75	-0.0003	45.92	102.60	1613
NCL0670	FEXVerification	8.67	8.25	0.0003	130.71	45.92	1693
NCL0690	FEXVerification	8.76	8.35	0.0001	32.24	35.14	605
NCL0710	FEXVerification	8.95	8.55	0.0001	32.34	31.79	600
NCL0730	FEXVerification	9.26	8.90	-0.0001	33.92	32.34	554
NCL0750	FEXVerification	9.56	9.26	0.0000	41.54	36.18	31317
NCL0770	FEXVerification	10.12	9.82	0.0000	29.80	29.63	2177
NCL0790	FEXVerification	8.69	8.27	-0.0005	29.28	101.59	895
NCL0810	FEXVerification	8.84	8.39	0.0001	29.14	29.28	1379
NCL0830	FEXVerification	8.93	8.60	-0.0006	365.48	367.05	15698
NCL0850	FEXVerification	9.01	8.65	0.0001	50.37	48.29	4521
NCL0870	FEXVerification	9.37	8.71	0.0001	68.68	68.44	2022
NCL0890	FEXVerification	9.65	8.75	0.0001	53.89	53.63	1590
NCL0910	FEXVerification	9.71	8.76	0.0001	3.91	3.11	488
NCL0930	FEXVerification	9.57	8.85	0.0001	51.07	50.79	2109
NCL0950	FEXVerification	9.89	8.98	0.0001	43.14	42.26	3142
NCL0970	FEXVerification	10.41	9.11	0.0000	25.13	22.94	2265
NCL0990	FEXVerification	11.00	9.32	0.0000	16.76	17.03	1495
NCL1010	FEXVerification	11.14	9.37	0.0000	3.56	3.65	632
NCL1030	FEXVerification	9.67	8.73	-0.0002	17.63	33.51	1475
NCL1050	FEXVerification	10.46	8.73	0.0001	4.55	2.98	614
NCL1070	FEXVerificatio	9.30	8.73	0.0001	3.29	1.09	625

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL1090	FEXVerification	9.76	9.64	0.0000	28.02	12.22	15774
NCL1110	FEXVerification	9.85	9.29	0.0001	16.88	17.03	2041
NCL1130	FEXVerification	9.76	9.64	0.0001	14.76	16.70	12593
NCL1150	FEXVerification	9.76	9.64	0.0001	365.81	382.65	144400
NCL1170	FEXVerification	10.59	10.68	0.0005	375.25	359.30	65208
NCL1190	FEXVerification	10.72	10.71	0.0001	46.07	45.77	1850
NCL1210	FEXVerification	10.63	10.71	0.0001	16.63	11.38	39824
NCL1230	FEXVerification	10.94	10.75	0.0001	46.36	46.07	1432
NCL1250	FEXVerification	11.11	10.77	0.0001	46.66	46.36	1231
NCL1270	FEXVerification	11.34	10.81	0.0001	46.96	46.66	1221
NCL1290	FEXVerification	13.06	11.58	0.0000	26.53	25.34	1408
NCL1310	FEXVerification	14.77	13.05	0.0000	18.65	18.91	788
NCL1330	FEXVerification	10.60	10.68	0.0001	102.39	108.22	68403
NCL1350	FEXVerification	10.63	10.71	0.0001	106.54	101.75	36015
NCL1370	FEXVerification	10.63	10.71	-0.0002	11.29	20.42	812
NCL1390	FEXVerification	10.63	10.72	0.0001	8.64	3.99	563
NCL1410	FEXVerification	10.63	10.72	0.0001	4.37	1.40	513
NCL1430	FEXVerification	10.70	10.84	0.0007	388.78	352.90	106651
NCL1450	FEXVerification	10.93	11.36	0.0017	373.20	372.96	3036
NCL1470	FEXVerification	12.72	12.60	0.0003	328.42	326.48	4439
NCL1490	FEXVerification	14.45	14.27	0.0000	2.58	2.56	756
NCL1510	FEXVerification	11.06	11.43	0.0006	43.58	72.40	862
NCL1530	FEXVerification	12.54	12.18	0.0002	38.79	38.52	3343

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1550	FEXVerification	13.13	12.70	-0.0001	37.58	37.53	1021
NCL1570	FEXVerification	13.31	12.72	0.0001	3.70	2.15	504
NCL1590	FEXVerification	13.70	13.66	0.0000	0.99	0.97	1307
NCL1610	FEXVerification	13.37	12.73	0.0000	1.60	1.46	469
NCL1630	FEXVerification	13.57	13.14	-0.0002	53.01	36.64	881
NCL1650	FEXVerification	13.68	13.18	0.0002	36.30	52.05	1293
NCL1670	FEXVerification	14.02	13.20	0.0001	6.06	5.38	592
NCL1690	FEXVerification	17.47	16.21	0.0000	31.97	31.72	1258
NCL1710	FEXVerification	17.89	16.51	0.0000	30.80	30.36	614
NCL1730	FEXVerification	18.27	16.80	0.0001	28.07	27.55	567
NCL1750	FEXVerification	18.24	16.80	-0.0002	11.34	11.19	513
NCL1770	FEXVerification	18.07	16.83	0.0000	11.52	11.34	487
NCL1790	FEXVerification	15.78	14.38	0.0001	328.54	326.19	5864
NCL1810	FEXVerification	18.13	17.68	-0.0001	27.55	26.22	6086
NCL1830	FEXVerification	18.39	16.09	0.0001	307.79	305.18	6250
NCL1850	FEXVerification	18.50	16.33	-0.0003	73.36	79.05	911
NCL1870	FEXVerification	19.01	17.55	0.0001	73.06	73.36	1005
NCL1890	FEXVerification	19.15	17.87	0.0003	72.82	73.06	983
NCL1910	FEXVerification	19.15	17.87	0.0000	2.32	1.27	538
NCL1930	FEXVerification	19.91	19.84	0.0000	2.33	2.32	1488
NCL1950	FEXVerification	19.15	17.80	0.0000	0.03	0.00	489
NCL1970	FEXVerification	21.67	21.63	0.0000	1.31	1.28	2975
NCL1990	FEXVerification	19.58	18.92	-0.0002	72.48	72.63	916
NCL2010	FEXVerificatio	19.74	19.28	0.0000	42.44	41.55	1109

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL2030	FEXVerification	19.76	19.31	-0.0001	6.11	7.49	9735
NCL2050	FEXVerification	19.76	19.32	0.0000	39.21	38.09	1416
NCL2070	FEXVerification	19.76	19.32	0.0000	2.00	2.75	915
NCL2090	FEXVerification	19.87	19.53	0.0002	40.58	39.21	1415
NCL2110	FEXVerification	20.03	19.55	-0.0005	16.17	17.05	873
NCL2130	FEXVerification	19.87	19.58	-0.0001	33.78	30.02	10583
NCL2150	FEXVerification	20.75	19.98	0.0007	38.55	111.40	7549
NCL2170	FEXVerification	19.85	19.61	-0.0001	95.85	94.72	10816
NCL2230	FEXVerification	19.13	17.07	0.0002	261.24	258.48	5806
NCL2250	FEXVerification	19.55	17.82	0.0001	245.50	242.82	4441
NCL2270	FEXVerification	20.05	18.94	0.0001	112.48	109.16	2533
NCL2290	FEXVerification	19.88	19.03	0.0001	5.21	4.57	782
NCL2310	FEXVerification	20.45	19.82	0.0001	101.61	101.13	1780
NCL2330	FEXVerification	20.74	20.41	0.0001	102.37	101.61	24200
NCL2350	FEXVerification	20.78	20.52	0.0001	92.99	91.75	1888
NCL2370	FEXVerification	20.81	20.58	0.0000	89.76	88.28	2300
NCL2390	FEXVerification	20.84	20.69	0.0001	83.42	80.74	35978
NCL2410	FEXVerification	21.07	20.79	0.0000	30.26	29.46	1380
NCL2430	FEXVerification	21.32	20.90	0.0000	30.77	29.91	1474
NCL2450	FEXVerification	21.25	20.87	0.0001	4.50	4.41	493
NCL2470	FEXVerification	20.93	20.74	0.0000	14.55	14.10	756
NCL2490	FEXVerification	21.54	21.01	0.0001	27.82	26.83	1524
NCL2510	FEXVerification	21.70	21.08	-0.0001	54.06	50.91	58785

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2530	FEXVerification	21.70	21.09	0.0001	25.77	24.65	29451
NCL2540	FEXVerification	0.00	21.82	0.0000	36.30	35.27	31953
NCL2550	FEXVerification	21.70	21.09	0.0001	20.61	20.19	9037
NCL2570	FEXVerification	21.51	21.08	0.0001	19.42	19.76	1503
NCL2580	FEXVerification	0.00	21.08	0.0001	56.09	53.15	22783
NCL2590	FEXVerification	21.17	21.07	0.0001	90.30	83.45	89961
NCL2610	FEXVerification	21.14	21.07	0.0001	59.52	59.10	20599
NCL2630	FEXVerification	20.86	20.67	0.0001	44.22	43.18	30728
NCL2631	FEXVerification	0.00	20.18	-0.0001	46.66	43.03	28812
NCL2650	FEXVerification	21.17	21.19	0.0001	56.14	47.61	58855
NCL2670	FEXVerification	21.93	21.97	0.0001	35.52	35.00	36571
NCL2690	FEXVerification	21.96	22.07	0.0001	26.35	23.69	30628
NCL2710	FEXVerification	21.96	22.10	0.0001	25.32	21.75	40830
NCL2730	FEXVerification	21.95	22.12	0.0001	20.27	20.88	2003
NCL2750	FEXVerification	21.84	22.12	0.0001	19.29	20.03	1469
NCL2770	FEXVerification	21.71	22.07	0.0001	18.52	19.17	1389
NCL2780	FEXVerification	0.00	21.99	0.0000	7.47	6.53	15532
NCL2790	FEXVerification	21.84	22.06	0.0000	72.00	66.94	78779
NCL2810	FEXVerification	22.11	22.58	-0.0001	42.68	41.07	13082
NCL2830	FEXVerification	23.09	22.59	0.0000	11.37	11.11	1239
NCL2835	FEXVerification	0.00	23.66	0.0000	7.12	7.41	1153
NCL2840	FEXVerification	0.00	23.63	0.0000	45.16	44.65	19623
NCL2845	FEXVerification	0.00	24.17	0.0000	25.48	24.28	12430
NCL2850	FEXVerificatio	20.82	20.64	0.0000	21.67	22.36	1361

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL2870	FEXVerification	20.83	20.74	0.0000	20.93	21.59	1253
NCL2890	FEXVerification	20.83	20.84	0.0000	19.96	20.93	13692
NCL2910	FEXVerification	20.83	20.84	-0.0001	28.43	20.55	39324
NCL2930	FEXVerification	19.55	17.86	0.0003	164.39	160.97	2979
NCL2950	FEXVerification	19.53	18.04	0.0001	159.73	154.88	5719
NCL2970	FEXVerification	20.49	20.26	0.0002	32.63	31.69	4111
NCL2990	FEXVerification	19.33	18.15	0.0001	145.77	149.93	5902
NCL3010	FEXVerification	19.35	18.25	0.0001	136.20	141.93	5987
NCL3030	FEXVerification	19.58	18.29	0.0002	129.74	135.61	6657
NCL3050	FEXVerification	19.94	19.48	0.0002	43.24	41.89	3692
NCL3070	FEXVerification	20.14	19.95	0.0000	24.15	21.84	8788
NCL3090	FEXVerification	19.59	18.29	0.0002	121.20	126.51	12589
NCL3110	FEXVerification	19.59	18.79	0.0002	40.66	31.48	28119
NCL3130	FEXVerification	19.59	18.82	0.0001	15.42	17.23	4182
NCL3150	FEXVerification	19.54	18.23	0.0002	117.96	119.02	5803
NCL3170	FEXVerification	19.71	19.23	0.0001	40.86	38.72	2278
NCL3190	FEXVerification	20.31	19.90	-0.0002	38.73	33.66	45503
NCL3210	FEXVerification	20.32	19.95	-0.0002	26.11	21.81	23657
NCL3230	FEXVerification	20.32	20.01	0.0001	8.46	8.10	4855
NCL3250	FEXVerification	19.11	17.83	0.0002	111.42	112.21	18710
NCL3270	FEXVerification	19.11	18.25	0.0001	25.03	24.86	1736
NCL3280	FEXVerification	0.00	18.38	0.0001	23.37	22.91	999
NCL3290	FEXVerification	20.16	19.00	0.0000	20.41	19.26	1658

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3300	FEXVerification	0.00	19.10	0.0000	2.68	2.05	737
NCL3310	FEXVerification	20.19	18.97	0.0000	2.00	1.89	751
NCL3330	FEXVerification	20.75	18.70	0.0000	2.83	2.83	437
NCL3350	FEXVerification	20.51	19.98	0.0000	16.05	13.14	6311
NCL3360	FEXVerification	0.00	20.21	0.0000	3.92	3.10	4635
NCL3365	FEXVerification	0.00	19.99	0.0001	6.79	5.59	10210
NCL3370	FEXVerification	20.64	20.57	-0.0003	24.82	15.88	63880
NCL3390	FEXVerification	20.83	20.84	-0.0001	24.62	22.87	34079
NCL3410	FEXVerification	20.83	20.84	0.0001	3.04	3.01	477
NCL3430	FEXVerification	20.83	20.84	0.0000	3.43	1.51	3230
NCL3450	FEXVerification	18.92	17.43	0.0008	199.24	193.58	31721
NCL3460	FEXVerification	18.92	17.27	-0.0008	108.20	121.65	2556
NCL3470	FEXVerification	19.11	17.85	0.0001	77.30	74.59	67341
NCL3490	FEXVerification	19.15	18.22	0.0001	48.77	48.49	11588
NCL3510	FEXVerification	20.64	18.98	0.0001	44.13	44.10	2082
NCL3520	FEXVerification	0.00	19.20	0.0000	55.48	55.46	13120
NCL3530	FEXVerification	20.66	20.17	0.0001	51.04	37.45	37585
NCL3550	FEXVerification	20.66	20.17	0.0001	4.65	3.41	737
NCL3570	FEXVerification	20.66	20.16	0.0001	2.70	1.82	627
NCL3590	FEXVerification	20.66	20.16	0.0000	1.46	1.05	4196
NCL3610	FEXVerification	20.66	20.17	0.0001	23.24	23.71	1245
NCL3630	FEXVerification	20.64	20.17	-0.0001	76.32	56.33	88005
NCL3635	FEXVerification	0.00	20.18	-0.0001	12.87	10.24	1540
NCL3640	FEXVerificatio	0.00	20.18	0.0001	6.88	6.56	7954

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL3650	FEXVerification	18.92	17.44	0.0000	2.10	1.71	498
NCL3670	FEXVerification	18.92	17.56	0.0000	6.31	6.17	436
NCL3690	FEXVerification	18.92	17.45	0.0005	193.58	204.40	3204
NCL3730	FEXVerification	18.92	17.47	0.0000	213.71	83.56	110979
NCL3740	FEXVerification	0.00	17.64	0.0000	11.10	6.83	13728
NCL3750	FEXVerification	18.93	18.27	-0.0005	109.29	72.97	111389
NCL3770	FEXVerification	18.93	18.27	-0.0003	38.87	24.37	57437
NCL4000	FEXVerification	0.00	29.68	0.0000	25.33	25.30	4960
NCL4010	FEXVerification	0.00	29.37	0.0000	19.53	19.33	12512
NCypEast	FEXVerification	32.00	29.00	0.0000	5.47	0.00	0
NCypWest	FEXVerification	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	FEXVerification	2.00	2.00	0.0000	334.80	0.00	0
NOC0030	FEXVerification	1.14	2.16	0.0199	359.50	350.33	504
NOC0050	FEXVerification	1.20	2.26	0.0184	307.97	308.11	530
NOC0070	FEXVerification	1.45	2.66	-0.0074	301.57	301.10	516
NOC0090	FEXVerification	2.91	2.88	0.0030	122.11	122.19	446
NOC0110	FEXVerification	1.65	2.69	-0.0052	168.69	169.16	455
NOC0130	FEXVerification	3.06	2.98	0.0016	168.66	168.69	528
NOC0150	FEXVerification	3.08	2.99	0.0000	1.83	1.86	497
NOC0170	FEXVerification	4.56	4.67	0.0000	7.75	7.75	1211
NOC0190	FEXVerification	5.09	3.44	0.0005	167.03	166.84	1077
NOC0210	FEXVerification	5.68	3.86	0.0000	15.36	15.24	781
NOC0230	FEXVerification	5.12	3.46	-0.0001	5.08	5.30	742

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0250	FEXVerification	5.30	3.59	0.0000	5.05	5.08	984
NOC0270	FEXVerification	5.57	3.79	0.0000	2.84	2.76	676
NOC0290	FEXVerification	5.11	3.49	-0.0002	170.28	170.38	1836
NOC0310	FEXVerification	5.27	3.58	-0.0002	33.78	33.88	450
NOC0330	FEXVerification	5.85	3.64	0.0001	136.69	136.64	2431
NOC0350	FEXVerification	5.89	3.82	-0.0001	111.08	110.99	1837
NOC0370	FEXVerification	6.47	4.82	-0.0001	62.19	62.09	2022
NOC0390	FEXVerification	6.60	4.92	-0.0001	39.19	39.58	2171
NOC0410	FEXVerification	6.95	5.17	0.0000	33.07	33.67	2496
NOC0430	FEXVerification	7.01	5.27	0.0000	22.80	23.95	1762
NOC0450	FEXVerification	7.62	5.38	0.0000	15.60	17.87	2437
NOC0470	FEXVerification	8.12	5.63	0.0001	8.65	9.53	726
NOC0490	FEXVerification	7.67	5.43	0.0000	2.28	2.85	1038
NRU0010	FEXVerification	2.00	2.00	0.0000	444.37	0.00	0
NRU0030	FEXVerification	2.84	2.29	-0.0002	197.31	200.60	2468
NRU0050	FEXVerification	4.36	3.50	0.0001	197.38	197.31	2036
NRU0070	FEXVerification	5.61	3.92	-0.0001	206.75	197.38	2549
NRU0090	FEXVerification	5.66	4.31	-0.0001	33.99	34.22	700
NRU0110	FEXVerification	6.23	4.23	-0.0001	183.50	184.13	5430
NRU0130	FEXVerification	7.66	4.60	-0.0002	146.94	174.93	2616
NRU0150	FEXVerification	7.71	4.62	-0.0001	139.51	141.43	496
NRU0160	FEXVerification	0.00	12.61	0.0000	139.54	139.47	4959
NRU0165	FEXVerification	0.00	12.71	0.0000	2.66	2.71	474
NRU0170	FEXVerificatio	14.45	14.04	0.0001	138.99	137.46	4979

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU0172	FEXVerification	0.00	14.13	0.0001	7.08	7.16	830
NRU0174	FEXVerification	0.00	14.33	0.0000	7.02	7.08	799
NRU0176	FEXVerification	0.00	14.91	0.0000	6.96	7.02	764
NRU0178	FEXVerification	0.00	15.66	-0.0001	8.45	6.96	966
NRU0180	FEXVerification	0.00	15.99	-0.0001	24.04	10.09	65382
NRU0190	FEXVerification	14.45	14.40	-0.0003	16.97	20.20	516
NRU0210	FEXVerification	14.45	14.67	0.0000	14.85	14.19	602
NRU0230	FEXVerification	13.39	14.94	-0.0001	10.51	7.69	14447
NRU0250	FEXVerification	14.62	14.52	0.0001	109.79	109.10	3617
NRU0270	FEXVerification	15.05	15.25	0.0001	98.60	98.63	2624
NRU0290	FEXVerification	16.30	15.81	-0.0001	12.01	13.91	623
NRU0310	FEXVerification	16.13	15.92	0.0001	88.59	89.06	2502
NRU0330	FEXVerification	18.25	17.23	0.0001	28.91	29.42	1352
NRU0335	FEXVerification	0.00	18.27	0.0000	4.70	4.31	861
NRU0340	FEXVerification	0.00	18.23	0.0001	27.74	27.90	12193
NRU0343	FEXVerification	0.00	19.02	-0.0001	11.39	9.82	920
NRU0345	FEXVerification	0.00	19.28	-0.0001	17.75	12.18	42383
NRU0350	FEXVerification	19.50	18.45	0.0001	15.49	15.95	978
NRU0370	FEXVerification	19.51	18.57	0.0001	14.43	14.89	4505
NRU0380	FEXVerification	23.33	18.58	0.0001	7.06	7.51	470
NRU0390	FEXVerification	27.00	18.58	0.0000	7.88	7.06	16821
NRU0410	FEXVerification	19.56	18.74	0.0001	9.82	10.40	1100
NRU0425	FEXVerification	15.53	14.56	0.0000	2.16	1.60	1472

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0430	FEXVerification	19.61	18.89	0.0001	9.41	9.82	1077
NRU0450	FEXVerification	19.66	19.06	0.0001	9.05	9.41	1041
NRU0470	FEXVerification	19.72	19.81	0.0001	8.77	9.05	799
NRU0490	FEXVerification	20.36	19.91	0.0001	5.16	4.62	3416
NRU0495	FEXVerification	0.00	19.97	-0.0001	4.16	2.80	650
NRU0500	FEXVerification	0.00	21.20	0.0000	1.18	1.06	3854
NRU0510	FEXVerification	19.67	19.85	-0.0001	8.89	6.45	32653
NRU0530	FEXVerification	16.95	16.64	0.0001	59.72	59.95	2252
NRU0550	FEXVerification	17.92	17.40	0.0001	61.43	59.72	24422
NRU0570	FEXVerification	18.16	17.54	0.0001	58.77	58.95	1523
NRU0590	FEXVerification	18.51	17.74	0.0001	58.44	58.60	1745
NRU0610	FEXVerification	18.78	17.90	0.0001	58.21	58.37	2506
NRU0612	FEXVerification	0.00	17.90	0.0001	56.87	57.04	1567
NRU0615	FEXVerification	0.00	19.06	0.0001	11.24	8.31	2158
NRU0616	FEXVerification	0.00	19.91	0.0001	5.66	3.89	3179
NRU0618	FEXVerification	0.00	20.22	0.0000	5.01	3.74	6389
NRU0620	FEXVerification	0.00	19.70	-0.0001	10.51	8.87	14215
NRU0630	FEXVerification	18.79	17.89	0.0001	56.53	56.68	2176
NRU0650	FEXVerification	18.79	17.88	0.0001	56.33	56.48	1809
NRU0670	FEXVerification	18.78	17.88	0.0001	56.08	56.23	1429
NRU0690	FEXVerification	18.84	17.89	0.0001	55.94	56.08	1934
NRU0710	FEXVerification	18.86	17.92	0.0001	61.67	60.67	9268
NRU0730	FEXVerification	18.85	18.33	0.0001	17.67	16.66	13439
NRU0740	FEXVerificatio	0.00	17.95	0.0001	65.45	64.23	19287

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU0745	FEXVerification	0.00	17.96	0.0001	67.89	58.00	31146
NRU0750	FEXVerification	18.87	17.96	0.0001	93.66	50.63	144107
NRU0770	FEXVerification	18.88	17.96	0.0001	28.93	29.38	1008
NRU0785	FEXVerification	0.00	17.96	0.0001	28.40	28.93	30195
NRU0790	FEXVerification	18.88	17.97	0.0001	40.92	28.40	69383
NRU0810	FEXVerification	18.88	17.96	0.0001	8.64	2.78	10363
NRU0820	FEXVerification	0.00	17.93	0.0000	2.78	2.63	442
NRU0830	FEXVerification	18.99	17.86	0.0001	26.05	26.57	1511
NRU0850	FEXVerification	19.11	17.69	0.0001	35.35	35.35	1189
NRU0870	FEXVerification	19.32	17.75	-0.0005	15.97	16.50	560
NRU0890	FEXVerification	19.35	17.76	0.0000	46.76	19.30	58614
NRU0910	FEXVerification	19.35	17.76	0.0000	0.73	0.66	577
NRU0930	FEXVerification	19.35	19.37	0.0000	0.86	0.73	1742
NRU0950	FEXVerification	19.11	17.81	0.0001	21.74	20.08	15193
NRU0955	FEXVerification	0.00	17.82	0.0001	25.64	24.82	15120
NRU0960	FEXVerification	0.00	18.13	0.0000	30.36	29.62	18570
NRU0965	FEXVerification	0.00	18.23	0.0001	38.75	38.52	29454
NRU0970	FEXVerification	19.34	17.80	0.0002	15.12	8.31	3567
NRU0980	FEXVerification	0.00	17.80	0.0002	8.70	8.01	1097
NRU0990	FEXVerification	19.39	17.79	-0.0001	27.68	27.42	440
NRU1010	FEXVerification	19.70	17.80	0.0001	28.00	27.68	463
NRU1015	FEXVerification	0.00	17.81	0.0000	4.27	3.99	696
NRU1020	FEXVerification	0.00	17.85	-0.0060	10.54	9.66	866

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1025	FEXVerification	0.00	17.82	-0.0001	3.99	3.73	724
NRU1030	FEXVerification	19.70	17.86	-0.0001	29.03	23.00	20185
NRU1035	FEXVerification	0.00	17.87	0.0000	2.68	2.47	436
NRU1037	FEXVerification	0.00	17.96	0.0000	2.27	1.05	637
NRU1040	FEXVerification	0.00	17.81	0.0000	26.36	25.82	8066
NRU1045	FEXVerification	0.00	17.85	-0.0001	5.72	5.70	661
NRU1046	FEXVerification	0.00	17.85	0.0060	5.70	4.74	972
NRU1050	FEXVerification	19.70	17.99	0.0000	24.17	22.15	10014
NRU1070	FEXVerification	19.83	18.20	0.0000	8.94	8.77	1141
NRU1090	FEXVerification	18.86	17.96	0.0001	16.12	12.81	919
NRU1110	FEXVerification	18.86	17.96	0.0001	24.69	17.70	44303
NRU1130	FEXVerification	18.86	17.96	0.0001	10.54	9.09	772
NRU1150	FEXVerification	18.86	17.96	0.0001	14.53	14.19	13159
NRU1170	FEXVerification	18.86	18.60	0.0001	13.49	10.31	10015
NRU1182	FEXVerification	0.00	18.04	0.0001	8.86	7.87	836
NRU1184	FEXVerification	0.00	18.08	0.0001	7.84	7.48	873
NRU1185	FEXVerification	0.00	18.30	0.0001	5.00	4.89	661
NRU1186	FEXVerification	0.00	18.16	0.0001	7.07	4.08	790
NRU1188	FEXVerification	0.00	17.43	0.0000	2.04	0.00	18111
NRU1190	FEXVerification	18.86	18.60	0.0001	6.34	4.32	576
NRU1210	FEXVerification	18.86	18.60	0.0001	9.55	6.32	900
NRU1220	FEXVerification	0.00	19.01	0.0000	6.24	6.73	1160
NRU1225	FEXVerification	0.00	19.71	0.0000	1.61	1.57	436
NRU1230	FEXVerificatio	18.88	17.97	0.0001	18.72	15.24	907

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU1232	FEXVerification	0.00	17.97	0.0002	15.24	11.40	846
NRU1234	FEXVerification	0.00	17.97	0.0001	5.66	1.01	2353
NRU1240	FEXVerification	0.00	17.97	0.0001	2.84	2.52	3940
NRU1250	FEXVerification	4.07	3.98	-0.0004	243.79	243.77	2104
NRU1270	FEXVerification	4.78	4.57	-0.0001	242.43	242.40	1667
NRU1290	FEXVerification	5.41	5.10	0.0001	237.49	237.42	3103
NRU1310	FEXVerification	6.42	5.85	0.0000	237.94	237.49	5053
NRU1330	FEXVerification	8.29	7.40	0.0000	238.52	238.06	3357
NRU1350	FEXVerification	9.32	8.48	0.0000	236.29	236.23	2409
NRU1370	FEXVerification	11.03	9.64	0.0000	233.56	233.54	5323
NRU1390	FEXVerification	11.84	10.13	0.0000	34.96	34.19	1333
NRU1410	FEXVerification	12.56	10.69	0.0000	199.44	200.01	7523
NRU1430	FEXVerification	15.53	14.56	0.0000	24.93	23.82	3371
NRU1450	FEXVerification	15.94	14.81	0.0000	12.68	12.51	1021
NRU1470	FEXVerification	15.97	14.82	0.0000	3.03	4.26	981
NRU1490	FEXVerification	16.09	14.86	0.0000	3.03	3.03	770
NRU1510	FEXVerification	15.12	12.55	0.0000	140.83	140.85	10568
NRU1530	FEXVerification	15.71	14.61	0.0000	74.26	74.82	2444
NRU1550	FEXVerification	15.40	14.91	0.0000	52.73	51.43	1677
NRU1570	FEXVerification	16.20	15.71	0.0000	47.47	45.39	1398
NRU1590	FEXVerification	16.40	15.78	0.0000	4.43	3.92	1284
NRU1610	FEXVerification	16.56	16.16	0.0000	41.48	40.19	1573
NRU1630	FEXVerification	16.69	16.41	0.0000	28.80	26.72	1538

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1650	FEXVerification	16.84	16.60	0.0001	31.03	28.80	1066
NRU1670	FEXVerification	16.89	16.65	0.0001	33.84	28.03	56196
NRU1690	FEXVerification	16.89	16.64	0.0001	30.11	29.69	2559
NRU1710	FEXVerification	16.60	16.22	0.0000	28.84	28.70	1425
NRU1730	FEXVerification	16.58	15.74	0.0000	60.43	19.88	91999
NRU1750	FEXVerification	16.58	15.75	-0.0002	17.36	17.09	720
NRU1770	FEXVerification	16.58	15.95	0.0000	18.55	18.62	1090
NRU1790	FEXVerification	17.21	16.44	0.0000	4.99	4.83	753
NRU1810	FEXVerification	16.58	15.75	0.0000	3.67	3.66	5823
NRU1830	FEXVerification	17.12	16.39	0.0000	12.06	11.91	602
NRU1850	FEXVerification	17.07	16.78	0.0001	20.18	20.00	972
NRU1870	FEXVerification	17.20	16.87	0.0001	20.44	20.18	908
NRU1890	FEXVerification	17.38	16.99	0.0001	27.73	20.44	9102
NRU1910	FEXVerification	17.71	17.36	0.0001	11.31	10.71	1683
NRU1930	FEXVerification	15.71	14.64	0.0000	44.90	45.23	1642
NRU1950	FEXVerification	16.43	15.06	0.0000	43.24	43.38	1646
NRU1970	FEXVerification	16.86	15.33	0.0000	43.12	43.24	1037
NRU1990	FEXVerification	17.09	15.47	0.0000	43.01	43.12	1720
NRU2010	FEXVerification	18.02	16.14	0.0000	9.47	9.30	1505
NRU2030	FEXVerification	18.39	16.45	0.0001	7.64	6.41	681
NRU2050	FEXVerification	18.40	16.46	0.0000	2.44	2.98	453
NRU2070	FEXVerification	18.41	17.71	0.0000	2.45	2.44	436
NRU2090	FEXVerification	17.16	15.52	0.0000	31.54	31.67	983
NRU2110	FEXVerificatio	17.28	15.61	0.0000	30.53	30.62	1563

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU2130	FEXVerification	17.49	15.80	0.0000	29.77	29.85	1852
NRU2150	FEXVerification	17.69	16.12	0.0000	4.73	4.62	1045
NRU2170	FEXVerification	17.07	16.33	0.0000	1.73	2.14	772
NRU2190	FEXVerification	17.08	16.40	0.0000	5.27	1.73	25700
NRU2210	FEXVerification	17.33	15.80	0.0001	3.18	2.61	538
NRU2230	FEXVerification	17.33	15.91	0.0000	10.60	0.68	73694
NRU2250	FEXVerification	17.31	15.91	0.0000	1.86	1.79	4620
NRU2270	FEXVerification	17.61	15.87	0.0000	24.08	24.13	1283
NRU2290	FEXVerification	17.67	15.90	0.0000	18.43	18.62	1150
NRU2310	FEXVerification	17.68	15.92	0.0000	13.13	13.49	1271
NRU2330	FEXVerification	17.68	15.93	0.0001	13.28	6.64	757
NRU2350	FEXVerification	17.68	15.93	-0.0001	2.73	10.63	654
NRU2370	FEXVerification	17.37	16.16	0.0000	2.77	2.73	528
NRU2390	FEXVerification	17.36	16.39	0.0000	3.98	2.77	28663
NRU2410	FEXVerification	17.72	15.94	0.0000	5.51	5.78	1099
NRU2430	FEXVerification	17.83	15.95	0.0000	4.66	4.93	925
NRU2450	FEXVerification	18.06	15.96	0.0000	1.92	1.03	588
NRU2470	FEXVerification	15.72	14.61	0.0000	6.40	3.14	1458
NRU2490	FEXVerification	15.75	14.61	0.0000	3.80	1.61	1419
NRU2510	FEXVerification	15.75	14.44	0.0000	1.11	0.58	923
NRU2530	FEXVerification	15.76	14.44	0.0000	0.58	0.13	568
NRU2550	FEXVerification	16.53	13.19	0.0000	49.99	49.05	2428
NRU2570	FEXVerification	17.71	14.38	0.0000	43.41	42.19	1979

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2590	FEXVerification	18.30	15.46	0.0000	32.23	30.98	1449
NRU2610	FEXVerification	18.62	16.16	0.0000	32.14	30.81	1170
NRU2630	FEXVerification	19.41	17.22	0.0000	23.24	21.75	1128
NRU2650	FEXVerification	19.54	18.06	-0.0001	11.78	10.11	940
NRU2670	FEXVerification	16.64	15.78	0.0000	21.34	21.58	2044
NRU2690	FEXVerification	17.09	16.59	-0.0002	78.95	72.35	105740
NSH02	FEXVerification	0.00	17.96	0.0000	5.78	5.64	436
NSH03	FEXVerification	0.00	19.04	0.0000	0.17	0.00	548
NSH04	FEXVerification	0.00	13.95	0.0000	36.01	33.79	4614
NSH05	FEXVerification	0.00	19.38	-0.0030	2.71	3.62	1481
NSH07	FEXVerification	0.00	3.72	-0.0001	9.66	9.49	623
NSH08	FEXVerification	0.00	6.98	0.0000	8.50	8.34	1624
NSH09	FEXVerification	0.00	7.47	0.0001	21.53	17.62	8328
NSH10	FEXVerification	0.00	18.95	0.0000	6.27	5.71	21619
NSH11	FEXVerification	0.00	20.99	0.0000	3.26	2.96	5750
NSH12	FEXVerification	0.00	19.03	0.0000	2.94	2.49	6537
NSH13	FEXVerification	0.00	17.80	0.0000	8.43	7.93	13516
NSH14	FEXVerification	0.00	17.73	0.0000	4.90	4.49	10747
NSH15	FEXVerification	0.00	18.64	0.0000	1.95	1.79	5261
NSH17	FEXVerification	0.00	17.10	0.0000	8.60	8.58	4429
NSH18	FEXVerification	0.00	15.68	0.0000	8.55	8.48	7475
NSH19	FEXVerification	0.00	11.49	0.0000	7.07	6.92	7882
NSH20	FEXVerification	0.00	20.13	0.0000	1.39	0.95	9797
NSH21	FEXVerificatio	0.00	8.95	0.0000	5.63	6.16	587

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSH22	FEXVerification	0.00	13.87	0.0000	16.26	11.58	5317
NSH23	FEXVerification	0.00	18.07	0.0000	4.38	4.35	2402
NSH24	FEXVerification	0.00	13.87	0.0000	7.72	5.78	3453
NSH25	FEXVerification	0.00	13.61	-0.0001	8.43	7.93	668
NSH26	FEXVerification	0.00	13.53	-0.0001	32.23	18.70	34830
NSH27	FEXVerification	0.00	11.93	0.0000	3.43	3.68	3920
NSH27A	FEXVerification	0.00	11.92	0.0000	19.05	18.15	921
NSH27AA	FEXVerification	0.00	11.92	-0.0001	3.68	4.40	556
NSH27B	FEXVerification	0.00	10.60	0.0000	18.15	18.94	1033
NSH27C	FEXVerification	0.00	8.38	0.0001	18.94	17.33	1037
NSH28	FEXVerification	0.00	8.41	0.0000	6.62	6.05	6098
NSH29	FEXVerification	0.00	7.43	-0.0001	5.97	11.85	648
NSH31	FEXVerification	0.00	8.33	0.0000	6.05	4.30	480
NSH33	FEXVerification	0.00	16.55	0.0000	1.68	1.59	3704
NSH34	FEXVerification	0.00	7.80	0.0000	15.63	15.61	773
NSH35	FEXVerification	0.00	7.14	0.0000	6.27	5.42	551
NSH36	FEXVerification	0.00	7.12	-0.0001	20.21	20.20	804
NSH37	FEXVerification	0.00	17.96	0.0000	5.77	5.71	6243
NSH41	FEXVerification	0.00	18.86	0.0000	1.96	1.93	436
NSH42	FEXVerification	0.00	2.25	0.0000	19.15	19.14	447
NSH43	FEXVerification	0.00	2.38	0.0001	18.77	18.76	507
NSH44	FEXVerification	0.00	6.64	0.0000	6.14	6.09	670
NSH45	FEXVerification	0.00	16.16	0.0000	15.55	15.16	18763

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH48	FEXVerification	0.00	18.10	0.0000	5.67	5.62	2404
NSH49	FEXVerification	0.00	20.60	0.0000	6.96	6.26	10883
NSH50	FEXVerification	0.00	14.65	0.0000	10.67	10.62	2692
NSH51	FEXVerification	0.00	15.74	0.0000	12.16	12.06	947
NSH52	FEXVerification	0.00	14.43	-0.0001	31.70	31.03	1772
NSH53	FEXVerification	0.00	14.47	0.0001	12.06	12.01	1010
NSH54	FEXVerification	0.00	14.25	0.0000	32.36	31.80	1343
NSH55	FEXVerification	0.00	14.44	0.0000	4.78	4.69	1595
NSH56	FEXVerification	0.00	14.45	0.0000	1.55	1.68	878
NSH57	FEXVerification	0.00	14.45	0.0000	1.98	1.55	460
NSH60	FEXVerification	0.00	17.43	0.0000	6.17	6.15	436
NSH61	FEXVerification	0.00	14.65	0.0000	1.32	0.48	444
NSH65	FEXVerification	0.00	18.86	0.0000	1.12	1.10	436
NSH75	FEXVerification	0.00	2.87	0.0000	19.79	18.39	4639
NSH80	FEXVerification	0.00	20.14	0.0000	1.69	1.26	7588
NSH81	FEXVerification	0.00	19.61	0.0000	0.13	0.00	926
NSH82	FEXVerification	0.00	19.79	0.0000	0.78	0.00	3940
NSH83	FEXVerification	0.00	20.44	0.0000	7.32	6.55	11557
NSR0000	FEXVerification	2.00	2.00	0.0000	248.11	0.74	0
NSR0005	FEXVerification	2.00	2.00	0.0000	3.42	0.00	0
NSR0010	FEXVerification	2.00	2.00	0.0000	279.59	0.00	0
NSR0030	FEXVerification	2.92	2.80	0.0000	295.17	279.59	214597
NSR0032	FEXVerification	4.88	4.74	0.0000	6.06	1.94	14997
NSR0034	FEXVerificatio	3.63	3.45	0.0000	29.47	29.02	7527

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR0050	FEXVerification	3.44	3.24	0.0000	279.46	270.09	81000
NSR0070	FEXVerification	3.45	3.29	0.0000	20.68	20.01	12722
NSR0090	FEXVerification	3.68	3.48	0.0000	17.48	16.79	5166
NSR0100	FEXVerification	2.25	2.18	0.0000	3.43	3.42	524
NSR0102	FEXVerification	4.24	4.21	0.0000	2.51	2.32	2188
NSR0105	FEXVerification	1.91	2.63	-0.0087	248.15	248.11	484
NSR0110	FEXVerification	3.93	3.56	0.0000	9.60	9.41	448
NSR0112	FEXVerification	2.31	2.90	-0.0053	246.60	246.60	457
NSR0115	FEXVerification	4.25	4.24	0.0000	1.24	1.06	5989
NSR0120	FEXVerification	2.62	3.12	-0.0047	243.93	243.98	479
NSR0130	FEXVerification	4.16	3.71	0.0000	5.34	5.13	445
NSR0135	FEXVerification	4.22	3.76	0.0000	1.97	1.70	438
NSR0140	FEXVerification	3.28	3.58	-0.0009	240.89	240.90	477
NSR0150	FEXVerification	3.64	3.39	-0.0001	259.64	256.18	27935
NSR0160	FEXVerification	3.56	3.78	-0.0005	238.59	238.66	1378
NSR0165	FEXVerification	4.03	3.49	0.0000	1.70	1.46	440
NSR0170	FEXVerification	3.70	3.41	0.0000	3.06	2.22	1748
NSR0180	FEXVerification	3.83	3.71	0.0000	3.59	3.14	1784
NSR0190	FEXVerification	4.04	3.40	-0.0001	12.24	12.02	1303
NSR0210	FEXVerification	4.26	3.40	0.0000	11.00	10.57	1312
NSR0230	FEXVerification	4.26	3.41	0.0000	10.97	8.76	5296
NSR0250	FEXVerification	3.93	3.64	-0.0028	251.29	250.01	12764
NSR0270	FEXVerification	3.98	3.68	0.0000	21.91	21.43	5025

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0280	FEXVerification	5.41	5.24	0.0002	196.92	196.38	923
NSR0281	FEXVerification	5.97	5.75	0.0004	197.11	190.71	4724
NSR0290	FEXVerification	6.70	5.67	-0.0002	51.61	51.49	2469
NSR0310	FEXVerification	9.28	8.92	0.0000	44.74	43.00	6839
NSR0330	FEXVerification	9.65	9.15	0.0001	5.74	6.15	470
NSR0350	FEXVerification	10.32	9.58	0.0001	6.22	5.74	446
NSR0370	FEXVerification	10.35	10.09	0.0000	6.25	6.22	4744
NSR0390	FEXVerification	11.96	10.27	0.0000	17.24	17.28	2140
NSR0410	FEXVerification	12.27	10.56	0.0001	3.53	4.42	510
NSR0430	FEXVerification	12.28	12.00	0.0000	5.17	3.53	14808
NSR0450	FEXVerification	13.04	10.73	0.0000	11.35	10.62	1269
NSR0470	FEXVerification	13.10	10.76	0.0000	6.37	5.81	1156
NSR0490	FEXVerification	4.41	4.22	-0.0041	103.52	101.95	12951
NSR0510	FEXVerification	4.48	4.35	-0.0006	45.81	45.58	7430
NSR0530	FEXVerification	4.55	4.38	0.0000	5.75	5.51	437
NSR0540	FEXVerification	4.55	4.46	0.0001	46.99	40.69	34313
NSR0550	FEXVerification	4.56	4.48	-0.0001	273.16	273.15	4813
NSR0560	FEXVerification	4.66	4.58	0.0001	83.45	87.87	37098
NSR0570	FEXVerification	5.28	5.16	0.0001	78.01	80.17	28554
NSR0580	FEXVerification	6.13	5.95	-0.0001	11.46	7.23	43188
NSR0590	FEXVerification	6.15	5.90	-0.0001	76.78	75.06	24189
NSR0610	FEXVerification	6.26	5.95	0.0000	17.65	18.32	32748
NSR0630	FEXVerification	6.26	5.94	0.0000	17.37	17.47	475
NSR0650	FEXVerificatio	6.25	5.94	-0.0001	19.46	17.37	99333

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR0660	FEXVerification	6.13	4.61	0.0000	4.10	3.87	562
NSR0670	FEXVerification	6.24	5.93	0.0000	7.68	8.78	520
NSR0680	FEXVerification	6.14	5.93	-0.0001	9.84	6.82	62845
NSR0690	FEXVerification	6.24	5.93	0.0000	6.95	7.68	599
NSR0710	FEXVerification	6.23	5.93	0.0000	6.82	6.95	861
NSR0730	FEXVerification	6.29	6.14	-0.0001	101.23	76.88	115607
NSR0770	FEXVerification	6.81	6.59	0.0002	82.04	80.97	3342
NSR0780	FEXVerification	6.74	6.67	-0.0001	6.00	4.99	9292
NSR0790	FEXVerification	8.35	7.93	-0.0002	280.19	260.78	23180
NSR0791	FEXVerification	7.13	6.81	-0.0001	187.52	189.91	5596
NSR0809	FEXVerification	12.76	9.85	-0.0004	68.87	94.12	2127
NSR0810	FEXVerification	13.45	13.30	-0.0003	103.76	102.73	59879
NSR0830	FEXVerification	15.10	15.02	-0.0002	103.56	97.11	96395
NSR0840	FEXVerification	16.09	16.00	0.0000	9.47	10.03	28704
NSR0850	FEXVerification	15.64	15.55	-0.0002	70.88	65.81	61517
NSR0860	FEXVerification	16.41	16.38	0.0000	4.87	4.85	5486
NSR0869	FEXVerification	16.03	16.00	0.0001	30.07	29.92	1505
NSR0870	FEXVerification	16.24	16.25	0.0001	54.23	54.21	25594
NSR0880	FEXVerification	16.24	16.26	0.0000	17.18	16.84	8757
NSR0881	FEXVerification	14.14	14.31	0.0004	234.29	220.81	13396
NSR0890	FEXVerification	4.02	3.74	0.0448	234.91	229.88	27364
NSR0910	FEXVerification	4.79	4.33	-0.0013	145.47	145.16	5937
NSR0930	FEXVerification	5.54	4.35	0.0000	26.55	12.66	59846

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0950	FEXVerification	5.63	5.11	0.0004	141.77	141.32	7636
NSR0970	FEXVerification	6.14	5.55	-0.0002	123.31	123.43	3616
NSR0990	FEXVerification	6.27	5.66	-0.0001	126.89	126.87	3718
NSR1010	FEXVerification	6.30	5.71	0.0000	11.16	11.11	3947
NSR1030	FEXVerification	8.54	8.06	0.0000	117.75	116.06	8717
NSR1050	FEXVerification	8.56	8.06	0.0000	15.38	5.82	16221
NSR1070	FEXVerification	9.58	9.33	-0.0002	127.58	126.35	16426
NSR1090	FEXVerification	11.30	11.08	0.0002	112.42	112.76	6825
NSR1110	FEXVerification	11.57	11.55	0.0000	1.37	1.36	2834
NSR1130	FEXVerification	11.29	11.10	0.0000	12.38	12.08	10834
NSR1150	FEXVerification	11.39	11.09	0.0000	3.40	3.35	4792
NSR1170	FEXVerification	11.38	11.08	0.0000	3.35	3.26	451
NSR1190	FEXVerification	12.70	12.54	0.0000	109.73	109.48	11793
NSR1210	FEXVerification	12.70	12.54	0.0000	11.68	11.26	40274
NSR1230	FEXVerification	14.76	14.45	0.0000	109.86	109.64	9161
NSR1270	FEXVerification	14.99	14.70	0.0000	110.52	110.08	5906
NSR1290	FEXVerification	14.99	14.70	0.0000	5.83	2.68	12585
NSR1310	FEXVerification	14.99	14.70	0.0000	14.54	14.54	24764
NSR1330	FEXVerification	15.44	15.04	0.0000	113.81	109.46	19519
NSR1350	FEXVerification	15.45	15.06	0.0000	18.62	18.36	7516
NSR1370	FEXVerification	15.56	15.17	0.0000	105.48	98.82	19991
NSR1390	FEXVerification	15.56	15.17	0.0000	1.92	1.92	1606
NSR1410	FEXVerification	15.56	15.17	0.0002	22.73	20.67	2087
NSR1430	FEXVerificatio	15.76	15.45	0.0000	19.19	19.17	4085

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR1450	FEXVerification	15.74	15.38	0.0000	21.06	17.44	45547
NSR1470	FEXVerification	15.96	15.75	0.0000	18.50	18.41	16457
NSR1490	FEXVerification	16.21	16.05	0.0000	43.89	17.13	94553
NSR1510	FEXVerification	16.21	16.05	0.0000	27.46	17.99	26645
NSR1530	FEXVerification	15.56	15.17	0.0000	2.87	2.47	2340
NSR1550	FEXVerification	15.68	15.29	0.0000	108.77	93.53	31188
NSR1570	FEXVerification	15.68	15.29	0.0000	2.01	1.69	1228
NSR1590	FEXVerification	15.68	15.29	0.0001	21.06	22.81	3342
NSR1610	FEXVerification	15.75	15.40	0.0001	15.73	14.47	2499
NSR1630	FEXVerification	15.75	15.40	0.0000	90.10	79.57	18189
NSR1650	FEXVerification	16.39	17.06	0.0000	1.61	1.61	436
NSR1670	FEXVerification	15.92	15.62	-0.0001	15.63	14.79	2793
NSR1690	FEXVerification	16.24	15.82	0.0000	87.46	75.51	17197
NSR1710	FEXVerification	16.25	15.86	0.0000	4.14	3.73	471
NSR1730	FEXVerification	16.32	15.95	0.0000	86.43	83.01	8269
NSR1750	FEXVerification	16.68	16.66	0.0000	1.70	1.70	436
NSR1770	FEXVerification	17.23	17.24	0.0000	21.24	15.86	16024
NSR1790	FEXVerification	17.24	17.25	0.0000	22.22	16.18	27561
NSR1810	FEXVerification	17.25	17.26	-0.0001	9.85	8.61	10066
NSR1830	FEXVerification	17.25	17.26	-0.0001	29.81	24.19	61102
NSR1850	FEXVerification	16.95	16.99	-0.0001	7.29	8.05	13384
NSR1870	FEXVerification	16.93	16.98	0.0001	22.18	16.86	43121
NSR1890	FEXVerification	16.05	16.24	0.0000	13.29	13.57	1056

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1910	FEXVerification	15.45	15.72	0.0002	39.16	37.33	4816
NSR1930	FEXVerification	16.53	16.11	-0.0001	66.52	66.27	1839
NSR1950	FEXVerification	16.70	16.28	0.0000	17.05	16.71	665
NSR1970	FEXVerification	16.84	16.44	0.0000	15.27	14.85	3399
NSR1990	FEXVerification	16.86	16.51	0.0000	7.25	6.43	949
NSR2010	FEXVerification	16.91	16.57	0.0000	8.48	7.25	7985
NSR2030	FEXVerification	16.90	16.57	0.0000	5.13	4.99	751
NSR2050	FEXVerification	16.88	16.57	0.0000	5.56	4.85	5600
NSR2070	FEXVerification	16.81	16.54	0.0000	4.30	4.41	781
NSR2090	FEXVerification	16.72	16.51	0.0000	4.66	4.30	673
NSR2110	FEXVerification	16.54	16.44	0.0000	8.31	7.74	11775
NSR2130	FEXVerification	16.50	16.43	0.0000	8.15	4.75	88473
NSR2150	FEXVerification	17.60	16.35	0.0000	44.10	41.74	42946
NSR2170	FEXVerification	17.62	16.58	0.0000	33.08	33.06	2088
NSR2190	FEXVerification	17.62	16.66	0.0000	33.10	33.08	967
NSR2210	FEXVerification	17.62	16.81	0.0000	26.86	22.71	42176
NSR2230	FEXVerification	17.62	16.73	0.0000	20.33	19.68	675
NSR2250	FEXVerification	17.63	16.80	0.0000	21.13	20.33	7143
NSR2270	FEXVerification	17.63	16.81	0.0000	21.44	19.96	12115
NSR2290	FEXVerification	17.63	16.84	0.0000	16.96	16.52	888
NSR2310	FEXVerification	17.63	16.87	0.0000	17.68	16.96	3520
NSR2330	FEXVerification	17.65	17.48	0.0000	15.79	12.96	14316
NSR2350	FEXVerification	17.65	17.48	0.0001	12.86	10.93	16227
NSR2370	FEXVerificatio	16.66	16.11	0.0000	14.77	12.57	9676

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR2390	FEXVerification	18.07	17.88	0.0000	6.74	0.00	51654
NSR2410	FEXVerification	16.66	16.12	0.0000	23.59	14.77	15649
NSR2430	FEXVerification	17.99	17.96	0.0000	1.51	1.49	2259
NSR2450	FEXVerification	18.06	18.00	0.0000	21.41	21.16	12148
NSR3000	FEXVerification	17.04	17.06	-0.0727	4.38	49.45	871
NSR3005	FEXVerification	17.02	17.04	0.1453	49.45	3.76	566
NSR3020	FEXVerification	17.61	17.67	-0.0001	21.29	20.56	59430
NSR3040	FEXVerification	16.25	16.27	0.0001	42.38	41.10	30315
NSR3060	FEXVerification	16.21	16.05	-0.0001	10.09	9.37	35941
NSW0010	FEXVerification	2.00	2.00	0.0000	16.36	0.00	0
NSW0030	FEXVerification	2.13	2.35	0.0003	16.36	16.36	587
NSW0050	FEXVerification	4.04	3.07	-0.0001	16.40	16.36	959
Outfall	FEXVerification	2.00	2.00	0.0000	28.80	0.00	0
Outfall_NE	FEXVerification	21.00	18.24	0.0001	8.14	0.00	0
PondA	FEXVerification	0.00	19.04	0.0000	9.74	0.17	28925
PondB	FEXVerification	0.00	12.79	0.0000	58.77	32.05	67410
SH_OUTFALL	FEXVerification	2.00	2.00	0.0000	103.26	0.00	0
STORAGE1	FEXVerification	0.00	18.70	0.0000	2.83	1.14	7405
STORAGE10	FEXVerification	0.00	18.86	0.0000	1.10	0.00	9148
STORAGE11	FEXVerification	0.00	17.96	0.0000	5.64	0.00	18648
STORAGE12	FEXVerification	0.00	17.85	0.0000	9.66	5.91	10262
STORAGE13	FEXVerification	0.00	17.86	0.0000	2.47	0.38	5323
STORAGE14	FEXVerification	0.00	19.71	0.0000	1.57	0.00	13395

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
STORAGE2	FEXVerification	0.00	17.56	0.0000	5.44	1.01	18426
STORAGE4	FEXVerification	0.00	18.35	0.0000	12.77	3.24	12088
STORAGE5	FEXVerification	0.00	20.74	0.0000	14.10	3.70	19603
STORAGE8	FEXVerification	0.00	17.78	0.0000	2.63	1.26	6098
STORAGE9	FEXVerification	0.00	17.43	0.0000	6.15	0.20	11761
Sevilla1	FEXVerification	1.20	2.03	0.0000	0.02	0.02	804
Sevilla2	FEXVerification	1.23	2.01	0.0000	0.01	0.01	609
Sevilla3	FEXVerification	1.20	2.03	0.0000	0.06	0.05	1339
Sevilla4	FEXVerification	1.20	2.03	0.0000	0.09	0.08	1450
Shamrock2	FEXVerification	1.11	2.01	-0.0004	28.83	28.80	5389
Shmrck1.1	FEXVerification	1.38	2.05	0.0001	28.74	28.80	6206
Shmrck1.2	FEXVerification	1.20	2.03	-0.0002	28.80	28.83	3971
V3	FEXVerification	6.53	6.53	0.0000	0.00	0.00	436

Manual Basin: B01

Scenario: Existing
Node: N01
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2808 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6768	8100	A	97483		
0.2768	1400	A	97483		
0.3273	1300	A	97483		

O.3 Proposed Model Input

Manual Basin: B01

Scenario:	Alt3
Node:	N01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	99999.00 cfs
Time Shift:	0.0000 hr
Unit Hydrograph:	UH256
Peaking Factor:	256.0
Area:	8.1957 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5917	8100	A	97483		
0.2768	1400	A	97483		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3273	1300	A	97483		

Comment:

Manual Basin: B02

Scenario: Alt3
Node: N02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.5481 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3351	1800	A	97483		
1.0137	8100	A	97483		
7.1993	1300	A	97483		

Comment:

Manual Basin: B03

Scenario: Alt3
Node: N03
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5433 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4172	1800	A	97483		
0.1261	8100	A	97483		

Comment:

Manual Basin: B07

Scenario: Alt3
Node: N07A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.7781 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.6197	1300	A	97483		
0.1584	1400	A	97483		

Comment:

Manual Basin: B08

Scenario: Alt3
Node: N08A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 35.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 31.4228 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
31.1525	1300	A	97483		
0.2703	1400	A	97483		

Comment:

Manual Basin: B08B

Scenario: Alt3
Node: N08A
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.0349 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0349	8100	A	97483		

Comment: LOAD TO B08

Manual Basin: B09

Scenario: Alt3
Node: N09
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.9669 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9669	1300	A	97483		

Comment:

Manual Basin: BPondA

Scenario: Alt3
Node: PondA
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0901 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4624	8100	A	97483		
1.6925	1400	A	97483		
0.1386	1300	A	97483		
2.2431	1800	A	97483		
0.5535	6440	A	97483		

Comment:

Manual Basin: BPondB

Scenario: Alt3
Node: PondB
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 50.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 48.0023 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
32.9961	1300	A	97483		
12.1657	1400	A	97483		
1.4731	8100	A	97483		
0.0279	1300	W	97483		
0.1133	5300	A	97483		
1.2262	5300	W	97483		

Comment:

Manual Basin: BSH02

Scenario: Alt3
Node: NSH02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0097	1300	A	97483		
3.5233	1400	A	97483		

Comment:

Manual Basin: BSH04

Scenario: Alt3
Node: NSH04
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.4090 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4149	1400	A	97483		
0.0381	1800	A	97483		
3.9560	1300	A	97483		

Comment:

Manual Basin: BSH05

Scenario: Alt3
Node: NSH05
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8861 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6585	1300	A	97483		
1.2262	1400	A	97483		
0.0014	8100	A	97483		

Comment:

Manual Basin: BSH07

Scenario: Alt3
Node: NSH07
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.7990 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2498	8100	A/D	97483		
3.8947	1300	A/D	97483		
6.6544	1300	A	97483		

Comment:

Manual Basin: BSH08

Scenario: Alt3
Node: NSH08
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.9392 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4212	1300	A/D	97483		
0.0130	8100	A/D	97483		
0.5050	1400	A/D	97483		

Comment:

Manual Basin: BSH09

Scenario: Alt3
Node: NSH09
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.1973 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0563	8100	A/D	97483		
4.8862	1300	A/D	97483		
1.2547	1300	A	97483		

Comment:

Manual Basin: BSH10

Scenario: Alt3
Node: NSH10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8629	1300	A	97483		
0.0256	1400	A	97483		

Comment:

Manual Basin: BSH11

Scenario: Alt3
Node: NSH11
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0211 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8987	1400	A	97483		
0.1224	8100	A	97483		

Comment: ERP EXEMPTION APP 669807 - HARD TO VERIFY ROOF DRAINAGE IN PLANS

Manual Basin: BSH12

Scenario: Alt3
Node: NSH12
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 2.4461 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8827	1300	A	97483		
0.5634	1400	A	97483		

Comment:

Manual Basin: BSH13

Scenario: Alt3
Node: NSH13
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.4774 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0932	1300	A/D	97483		
3.7342	1300	A	97483		
0.0973	1400	A/D	97483		
0.5526	1400	A	97483		

Comment:

Manual Basin: BSH14

Scenario: Alt3
Node: NSH14
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4353	1400	A/D	97483		

Comment: FLUME ON HOWARD GOES TO SMALL POND

Manual Basin: BSH15

Scenario: Alt3
Node: NSH15
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7266 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4609	1300	A/D	97483		
0.2657	1400	A/D	97483		

Comment:

Manual Basin: BSH17

Scenario: Alt3
Node: NSH17
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7972 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0046	1300	A/D	97483		
0.7926	1400	A/D	97483		

Comment:

Manual Basin: BSH18

Scenario: Alt3
Node: NSH18
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.4230 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1927	1300	A/D	97483		
0.2303	1400	A/D	97483		

Comment:

Manual Basin: BSH19

Scenario: Alt3
Node: NSH19
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9807 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7503	1300	A/D	97483		
0.2079	1700	A/D	97483		
0.0225	1400	A/D	97483		

Comment:

Manual Basin: BSH21

Scenario: Alt3
Node: NSH21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2953 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2944	1300	A/D	97483		
1.0009	1700	A/D	97483		

Comment:

Manual Basin: BSH22

Scenario: Alt3
Node: NSH22
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5684 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6511	1300	A/D	97483		
0.9172	1400	A/D	97483		

Comment:

Manual Basin: BSH23

Scenario: Alt3
Node: NSH23
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5052 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0241	8100	A/D	97482		
0.0281	1300	A/D	97482		
2.2879	1300	A/D	97483		
0.1652	8100	A/D	97483		

Comment:

Manual Basin: BSH24

Scenario: Alt3
Node: NSH24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9455 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9455	1300	A/D	97483		

Comment:

Manual Basin: BSH25

Scenario: Alt3
Node: NSH25
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0280 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7885	1300	A/D	97482		
2.1317	1300	A/D	97483		
0.1078	8100	A/D	97482		

Comment:

Manual Basin: BSH26

Scenario: Alt3
Node: NSH26
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3652 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2907	1300	A/D	97482		
3.0620	1300	A/D	97483		
0.0125	8100	A/D	97482		

Comment:

Manual Basin: BSH27

Scenario: Alt3
Node: NSH27
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9349 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9349	1300	A/D	97483		

Comment:

Manual Basin: BSH28

Scenario: Alt3
Node: NSH28
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7975 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7975	1300	A/D	97483		

Comment:

Manual Basin: BSH29

Scenario: Alt3
Node: NSH29
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7974 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1631	8100	A/D	97482		
2.6343	1300	A/D	97482		

Comment:

Manual Basin: BSH33

Scenario: Alt3
Node: NSH33
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5883 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5776	1400	A/D	97483		
0.0106	1300	A/D	97483		

Comment:

Manual Basin: BSH34

Scenario: Alt3
Node: NSH34
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.5228 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0173	8100	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3121	8100	A/D	97483		
6.8821	1300	A/D	97482		
3.3113	1300	A/D	97483		

Comment:

Manual Basin: BSH35

Scenario: Alt3
Node: NSH35
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2961 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3325	8100	A/D	97483		
0.9636	1300	A/D	97483		

Comment:

Manual Basin: BSH37

Scenario: Alt3
Node: NSH37
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9038 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9087	1400	A/D	97483		
0.2042	1400	A	97483		
0.0080	1300	A/D	97483		
0.7828	1300	A	97483		

Comment:

Manual Basin: BSH41

Scenario: Alt3
Node: NSH41
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0916	1400	A	97483		
0.0512	8100	A	97483		

Comment:

Manual Basin: BSH42

Scenario: Alt3
Node: NSH42
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2787 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2787	8100	A/D	97483		

Comment:

Manual Basin: BSH43

Scenario: Alt3
Node: NSH43
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.2770 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0822	8100	A/D	97483		
0.1948	1300	A/D	97483		

Comment: Assume Harbor House roof drains to Bayshore system

Manual Basin: BSH44

Scenario: Alt3
Node: NSH44
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4203 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9634	1300	A/D	97483		
0.4569	1300	A/D	97482		

Comment:

Manual Basin: BSH45

Scenario: Alt3
Node: NSH45
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.4369 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1504	1300	A/D	97483		
6.2855	1300	A	97483		
0.0010	1400	A/D	97483		

Comment:

Manual Basin: BSH48

Scenario: Alt3
Node: NSH48
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3943 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1122	1300	A/D	97483		
0.1388	1300	A	97483		
0.1255	1400	A	97483		
0.0045	8100	A/D	97483		
0.0132	8100	A	97483		

Comment:

Manual Basin: BSH49

Scenario: Alt3
Node: NSH49
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.9069 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1755	1400	A	97483		
0.0118	8100	A	97483		
0.7196	1300	A	97483		

Comment:

Manual Basin: BSH50

Scenario: Alt3
Node: NSH50
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5388 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0556	1400	A	97483		
0.4832	1300	A	97483		

Comment:

Manual Basin: BSH51

Scenario: Alt3
Node: NSH51
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.5541 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9882	1300	A	97483		
2.5964	1400	A	97483		
1.3563	1400	A/D	97483		
1.1038	1400	A/D	97957		
0.5094	1300	A/D	97957		

Comment:

Manual Basin: BSH52

Scenario: Alt3
Node: NSH52
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7269 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7269	1400	A	97483		

Comment:

Manual Basin: BSH53

Scenario: Alt3
Node: NSH53
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6264 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0988	1400	A	97483		
0.5276	1300	A	97483		

Comment:

Manual Basin: BSH54

Scenario: Alt3
Node: NSH54
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0267 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8027	1400	A	97483		
0.2240	1300	A	97483		

Comment:

Manual Basin: BSH55

Scenario: Alt3
Node: NSH55
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3496 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2838	1400	A	97483		
0.0658	1700	A	97483		

Comment:

Manual Basin: BSH55B

Scenario: Alt3
Node: NSH55B
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6784 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2820	1400	A	97483		
1.3963	1300	A	97483		

Comment:

Manual Basin: BSH57

Scenario: Alt3
Node: NSH57
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 1.4444 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7578	1400	A	97483		
0.6866	1300	A	97483		

Comment:

Manual Basin: BSH60

Scenario: Alt3
Node: NSH60
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0349	1300	A	97483		
3.7452	1400	A	97483		

Comment:

Manual Basin: BSH65

Scenario: Alt3
Node: NSH65
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0295 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0103	1300	A	97483		
0.0192	1400	A	97483		

Comment:

Manual Basin: BSH75

Scenario: Alt3
Node: NSH75
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8995 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1077	8100	A/D	97483		
4.7917	1300	A/D	97483		

Comment:

Manual Basin: BSH80

Scenario: Alt3
Node: NSH80
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0431 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0047	1400	A	97483		
0.0384	1300	A	97483		

Comment:

Manual Basin: BSH81

Scenario: Alt3
Node: NSH81
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.1214 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1214	1300	A	97483		

Comment:

Manual Basin: BSH82

Scenario: Alt3
Node: NSH82
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5831 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3085	1300	A	97483		
0.2746	1400	A	97483		

Comment:

Manual Basin: BSH83

Scenario: Alt3
Node: NSH83
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0083 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8594	1300	A	97483		
0.1489	1400	A	97483		

Comment:

Manual Basin: C01

Scenario: Alt3
Node: NC01
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8452 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2308	8100	A/D	97483		
1.4364	1300	A/D	97483		
2.1780	1300	A	97483		

Comment:

Manual Basin: C02

Scenario: Alt3
Node: NC02
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8905 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8905	1300	A	97483		

Comment:

Manual Basin: C03

Scenario: Alt3
Node: NC03
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 4.6668 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4080	8100	A	97483		
4.2588	1300	A	97483		

Comment:

Manual Basin: C04

Scenario: Alt3
Node: NC04
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.6895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7158	8100	A	97483		
0.2304	8100	W	97483		
1.2696	8100	A/D	97483		
13.8017	1300	A	97483		
0.6469	1300	A/D	97483		
0.0252	1400	A	97483		

Comment:

Manual Basin: C05

Scenario: Alt3
Node: NC05
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.3983 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4448	8100	A/D	97483		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9282	1300	A/D	97483		
6.8075	1300	A	97483		
0.2179	1400	A	97483		

Comment:

Manual Basin: C06

Scenario: Alt3
Node: NC06
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.2752 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6355	8100	A/D	97483		
0.2698	1300	A/D	97483		
9.3699	1300	A	97483		

Comment:

Manual Basin: C07

Scenario: Alt3
Node: NC07
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4367 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5225	8100	A/D	97483		
0.1834	1300	A/D	97483		
1.7307	1300	A	97483		

Comment:

Manual Basin: C08

Scenario: Alt3
Node: NC08
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.6419 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4416	8100	A/D	97483		
0.2178	1300	A/D	97483		
10.9825	1300	A	97483		

Comment:

Manual Basin: CO1B

Scenario: Alt3
Node: NC01B
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.1171 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0283	8100	A/D	97483		
0.0171	1300	A/D	97483		
0.1014	8100	A	97483		
5.9703	1300	A	97483		

Comment:

Manual Basin: N11

Scenario: Alt3
Node: N11
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 35.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 30.8804 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
23.4724	1300	A	97483		
0.1644	8100	A	97483		
1.1247	1400	A	97483		
3.7994	1300	A	97957		
2.0112	1400	A	97957		
0.3082	8100	A	97957		

Comment:

Manual Basin: NBB0050

Scenario: Alt3
Node: NBB0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2188	1400	A/D	97008		
0.6620	1300	A/D	97008		
0.3475	8100	A/D	97008		

Comment:

Manual Basin: NBB0070

Scenario: Alt3
Node: NBB0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 3.2083 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4465	8100	A/D	97008		
1.7618	1400	A/D	97008		

Comment:

Manual Basin: NBB0090

Scenario: Alt3
Node: NBB0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8689 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1797	1300	A/D	97008		
2.2962	8100	A/D	97008		
0.3930	1400	A/D	97008		

Comment:

Manual Basin: NBB0110

Scenario: Alt3
Node: NBB0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9752 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3413	1300	A/D	97008		
5.6339	1400	A/D	97008		

Comment:

Manual Basin: NBB0130

Scenario: Alt3
Node: NBB0130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.3139 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8698	8100	C/D	97008		
0.4592	1300	C/D	97008		
1.0509	1300	B/D	97008		
5.3939	8100	B/D	97008		
0.0990	1700	B/D	97008		
0.0718	1400	B/D	97008		
0.2484	1400	A/D	97008		
4.0887	8100	A/D	97008		
1.0322	1300	A/D	97008		

Comment:

Manual Basin: NBB0190

Scenario: Alt3
Node: NBB0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.0270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6039	1400	A/D	97008		
4.4231	1300	A/D	97008		

Comment:

Manual Basin: NBB0230

Scenario: Alt3

Node: NBB0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3211 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3211	1400	A/D	97008		

Comment:

Manual Basin: NBB0270

Scenario: Alt3
Node: NBB0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.2716 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2429	1400	A/D	97008		
1.0288	1300	A/D	97008		

Comment:

Manual Basin: NBB0310

Scenario: Alt3
Node: NBB0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 26.9082 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7435	1400	A/D	97008		
10.5069	1300	A/D	97008		
9.1475	1300	C/D	97008		
0.0016	1300	A/D	97482		
4.3569	1300	C/D	97482		
0.1121	1700	C/D	97482		
0.0397	1700	D	97482		

Comment:

Manual Basin: NBB0330

Scenario: Alt3
Node: NBB0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8868 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8674	1300	A/D	97008		
0.0195	1300	A/D	97007		

Comment:

Manual Basin: NBB0370

Scenario: Alt3
Node: NBB0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7430 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1414	1300	A/D	97007		
0.0274	1300	A/D	97008		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5366	1700	A/D	97007		
0.0376	1700	A/D	97008		

Comment:

Manual Basin: NBB0410

Scenario: Alt3
Node: NBB0410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3056 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3056	1300	A/D	97007		

Comment:

Manual Basin: NBB0430

Scenario: Alt3
Node: NBB0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9730 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9730	1300	A/D	97007		

Comment:

Manual Basin: NBW0030

Scenario: Alt3
Node: NBW0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8821 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8357	1300	A/D	97480		
0.0108	1300	A	97480		
0.0357	5400	A/D	97480		

Comment:

Manual Basin: NBW0050

Scenario: Alt3
Node: NBW0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9661	1300	A/D	97480		
1.5669	1300	A	97480		

Comment:

Manual Basin: NBW0070

Scenario: Alt3
Node: NBW0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 2.9383 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9383	1300	A/D	97480		

Comment:

Manual Basin: NBW0090

Scenario: Alt3
Node: NBW0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1109 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1109	1300	A/D	97480		

Comment:

Manual Basin: NBW0150

Scenario: Alt3
Node: NBW0150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0845 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0845	1300	A/D	97480		

Comment:

Manual Basin: NBW0170

Scenario: Alt3
Node: NBW0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3971 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3971	1300	A/D	97480		

Comment:

Manual Basin: NBW0210

Scenario: Alt3
Node: NBW0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4217 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4217	1300	A/D	97480		

Comment:

Manual Basin: NBW0270

Scenario: Alt3
Node: NBW0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1864	1300	A/D	97481		
1.7837	1300	A	97481		
0.4727	1300	A/D	97480		

Comment:

Manual Basin: NBW0275

Scenario: Alt3
Node: NBW2775
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.1635 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.1635	1300	A	97481		

Comment:

Manual Basin: NBW0290

Scenario: Alt3
Node: NBW0290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4231 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4025	1300	A/D	97481		
7.0206	1300	A	97481		

Comment:

Manual Basin: NBW0310

Scenario: Alt3
Node: NBW0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3252 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5689	1300	A/D	97481		
3.7563	1300	A	97481		

Comment:

Manual Basin: NBW0330

Scenario: Alt3
Node: NBW0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5070 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0724	1300	A/D	97480		
0.1005	1300	A/D	97481		
0.3341	1300	A	97481		

Comment:

Manual Basin: NBW0350

Scenario: Alt3
Node: NBW0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6014 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7851	1300	A/D	97480		
0.6576	1300	A/D	97481		
1.1587	1300	A	97481		

Comment:

Manual Basin: NBW0370

Scenario: Alt3
Node: NBW0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8881 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8881	1300	A	97481		

Comment:

Manual Basin: NBW0390

Scenario: Alt3
Node: NBW0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1812 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5117	1300	A/D	97480		
1.2951	1300	A/D	97481		
1.3744	1300	A	97481		

Comment:

Manual Basin: NBW0430

Scenario: Alt3
Node: NBW0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2618 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2618	1300	A	97481		

Comment:

Manual Basin: NBW0450

Scenario: Alt3
Node: NBW0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2195 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2195	1300	A	97481		

Comment:

Manual Basin: NBW0470

Scenario: Alt3
Node: NBW0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6492 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6492	1300	A	97481		

Comment:

Manual Basin: NBW0510

Scenario: Alt3
Node: NBW0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0573 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0007	1300	A	97481		
1.1664	1800	A	97481		
0.8452	1800	A/D	97481		
0.0451	1300	A/D	97481		

Comment:

Manual Basin: NBW0550

Scenario: Alt3
Node: NBW0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.8137 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.1150	1300	A	97481		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6987	1300	A/D	97481		

Comment:

Manual Basin: NBW0570

Scenario: Alt3
Node: NBW0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.0079 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.2233	1300	A	97481		
0.7604	1300	A/D	97481		
0.0243	1800	A	97481		

Comment:

Manual Basin: NBW0590

Scenario: Alt3
Node: NBW0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 36.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 21.3885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
17.1027	1300	A/D	97481		
4.2858	1300	A	97481		

Comment:

Manual Basin: NBW0610

Scenario: Alt3
Node: NBW0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1438	1800	A	97481		
0.0858	1800	A/D	97481		
0.0034	1300	A/D	97481		

Comment:

Manual Basin: NBW0630

Scenario: Alt3
Node: NBW0630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1825 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1260	1300	A	97481		
1.4338	1800	A	97481		
0.5850	1800	A/D	97481		
0.0376	1300	A/D	97481		

Comment:

Manual Basin: NBW0650

Scenario: Alt3
Node: NBW0650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2639	1300	A/D	97481		

Comment:

Manual Basin: NBW0670

Scenario: Alt3
Node: NBW0670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7348	1300	A/D	97481		
0.2547	1300	A	97481		

Comment:

Manual Basin: NBW0710

Scenario: Alt3
Node: NBW0710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0358 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8301	1300	A/D	97481		
0.0143	1800	A/D	97481		
0.1914	1300	A	97481		

Comment:

Manual Basin: NBW0730

Scenario: Alt3
Node: NBW0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.2036 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3483	1300	A	97481		
6.1428	1300	A/D	97481		
1.6682	1300	A/D	97955		
2.0442	1300	A	97955		

Comment:

Manual Basin: NBW0750

Scenario: Alt3
Node: NBW0750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.0074 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8504	1300	A/D	97481		
4.9254	1300	A	97481		
0.2315	1300	A/D	97955		

Comment:

Manual Basin: NBW0770

Scenario: Alt3
Node: NBW0770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0964 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0964	1300	A/D	97481		

Comment:

Manual Basin: NBW0790

Scenario: Alt3
Node: NBW0790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3766 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.9905	1300	A	97481		
1.3861	1300	A/D	97481		

Comment:

Manual Basin: NBW0810

Scenario: Alt3
Node: NBW0810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 2.6512 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1233	1300	A/D	97481		
0.0732	1300	A	97481		
1.3595	1300	A/D	97955		
0.0951	1300	A	97955		

Comment:

Manual Basin: NBW0830

Scenario: Alt3
Node: NBW0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8587 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0349	1300	A	97955		
0.8237	1300	A/D	97955		

Comment:

Manual Basin: NBW0850

Scenario: Alt3
Node: NBW0850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.5596 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1915	1300	A	97481		
9.9378	1300	A	97955		
0.4303	1300	A/D	97955		

Comment:

Manual Basin: NBW0870

Scenario: Alt3
Node: NBW0870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.2645 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.2987	1300	A/D	97955		
0.9658	1300	A	97955		

Comment:

Manual Basin: NBW0910

Scenario: Alt3
Node: NBW0910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9495	1300	A/D	97481		
4.2787	1300	A/D	97955		

Comment:

Manual Basin: NBW0950

Scenario: Alt3
Node: NBW0950
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.4599 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2817	1300	A/D	97955		
9.1782	1300	A	97955		

Comment:

Manual Basin: NBW0970

Scenario: Alt3
Node: NBW0970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2003 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6862	1300	A/D	97955		
0.5142	1300	A	97955		

Comment:

Manual Basin: NBW1010

Scenario: Alt3
Node: NBW1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2849 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2849	1300	A	97955		

Comment:

Manual Basin: NBW1030

Scenario: Alt3
Node: NBW1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1589 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9415	1300	A	97955		
0.2035	1300	A/D	97955		
0.0140	1400	A	97955		

Comment:

Manual Basin: NBW1070

Scenario: Alt3
Node: NBW1070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7846 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5652	1300	A	97955		
0.0465	1300	A/D	97955		
0.1728	1400	A	97955		

Comment:

Manual Basin: NBW1090

Scenario: Alt3
Node: NBW1090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8220	1300	A/D	97481		
0.2050	1300	A/D	97480		

Comment:

Manual Basin: NBW1130

Scenario: Alt3
Node: NBW1130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3019 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8466	1300	A/D	97480		
0.4553	1300	A/D	97481		

Comment:

Manual Basin: NBW1150

Scenario: Alt3
Node: NBW1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 5.7669 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3942	1300	A/D	97481		
0.6698	1300	A/D	97480		
0.7029	1300	A	97481		

Comment:

Manual Basin: NBW1169

Scenario: Alt3
Node: NBW1169
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9034 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8137	1300	A/D	97481		
0.0897	1300	A	97481		

Comment:

Manual Basin: NBW1170

Scenario: Alt3
Node: NBW1170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5981 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5981	1300	A	97481		

Comment:

Manual Basin: NBW1190

Scenario: Alt3
Node: NBW1190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6560 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6029	1300	A/D	97481		
3.0531	1300	A	97481		

Comment:

Manual Basin: NBW1210

Scenario: Alt3
Node: NBW1210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.2664 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7223	1300	A	97481		
4.5441	1300	A/D	97481		

Comment:

Manual Basin: NBW1230

Scenario: Alt3
Node: NBW1230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 18.0700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.5870	1300	A	97481		
5.4830	1300	A/D	97481		

Comment:

Manual Basin: NBW1250

Scenario: Alt3
Node: NBW1250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3575 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2148	1300	A	97481		
0.1427	1300	A/D	97481		

Comment:

Manual Basin: NBW1270

Scenario: Alt3
Node: NBW1270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4193 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4193	1300	A/D	97481		

Comment:

Manual Basin: NBW1310

Scenario: Alt3
Node: NBW1310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0975 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0975	1300	A/D	97481		

Comment:

Manual Basin: NBW1330

Scenario: Alt3
Node: NBW1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9570 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9570	1300	A/D	97481		

Comment:

Manual Basin: NBW1350

Scenario: Alt3
Node: NBW1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.6230 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.6230	1300	A/D	97481		

Comment:

Manual Basin: NBW1351

Scenario: Alt3
Node: NBW1351
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3914 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3914	1300	A/D	97481		

Comment:

Manual Basin: NBW1352

Scenario: Alt3
Node: NBW1353
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2869 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2869	1300	A/D	97481		

Comment:

Manual Basin: NBW1353

Scenario: Alt3

Node: NBW1352
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1570 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1570	1300	A/D	97481		

Comment:

Manual Basin: NBW1370

Scenario: Alt3
Node: NBW1370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.1096 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.1096	1300	A/D	97481		

Comment:

Manual Basin: NBW1390

Scenario: Alt3
Node: NBW1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.5184 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.5184	1300	A/D	97481		

Comment:

Manual Basin: NBW1410

Scenario: Alt3
Node: NBW1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9784 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.9784	1300	A/D	97481		

Comment:

Manual Basin: NBW1430

Scenario: Alt3
Node: NBW1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.7173 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.7173	1300	A/D	97481		

Comment:

Manual Basin: NBW1450

Scenario: Alt3

Node: NBW1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.0126 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.0126	1300	A/D	97481		

Comment:

Manual Basin: NBW1460

Scenario: Alt3
Node: NBW1460
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3586 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3586	1300	A/D	97481		

Comment:

Manual Basin: NBW1470

Scenario: Alt3
Node: NBW1470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 31.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 48.6457 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
29.9068	1300	A/D	97481		
0.0002	1700	A/D	97481		
11.1706	1300	A	97481		
2.9728	1300	A/D	97955		
4.5952	1300	A	97955		

Comment:

Manual Basin: NBW1480

Scenario: Alt3
Node: NBW1480
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8173 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8173	1300	A/D	97481		

Comment:

Manual Basin: NBW1490

Scenario: Alt3
Node: NBW1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 19.6634 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6596	1700	A/D	97481		
0.3956	1700	D	97481		
6.9343	1300	A/D	97481		
0.0003	1400	D	97481		
5.9876	1400	A/D	97481		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4160	1700	A/D	97955		
0.2700	1300	A/D	97955		

Comment:

Manual Basin: NBW1510

Scenario: Alt3
Node: NBW1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8351 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3290	1400	D	97482		
2.4480	1400	D	97481		
1.0580	1400	A/D	97481		

Comment:

Manual Basin: NBW1550

Scenario: Alt3
Node: NBW1550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.1792 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9926	1400	D	97482		
3.4543	1400	D	97481		
1.7323	1400	A/D	97481		

Comment:

Manual Basin: NBW1590

Scenario: Alt3
Node: NBW1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6664 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1071	1400	D	97481		
1.5593	1400	A/D	97481		

Comment:

Manual Basin: NBW1610

Scenario: Alt3
Node: NBW1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.9618 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3249	1400	A/D	97481		
2.4962	1300	A/D	97481		
0.1407	1300	A/D	97482		

Comment:

Manual Basin: NBW1630

Scenario: Alt3
Node: NBW1630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4468 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1511	1300	A/D	97482		
0.7076	1300	A/D	97481		
0.6198	1400	A/D	97481		
0.7681	1700	A/D	97481		
0.1797	1700	A/D	97955		
0.0205	1400	A/D	97955		

Comment:

Manual Basin: NBW1650

Scenario: Alt3
Node: NBW1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6054 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0235	1700	A/D	97955		
2.0947	1400	A/D	97955		
0.1522	1300	A/D	97956		
0.3324	1300	A/D	97955		
0.0026	1400	A/D	97956		

Comment:

Manual Basin: NBW1670

Scenario: Alt3
Node: NBW1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 3.4690 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9166	1400	A/D	97955		
0.0190	1400	A/D	97956		
0.2602	1300	A/D	97956		
0.2732	1300	A/D	97955		

Comment:

Manual Basin: NBW1690

Scenario: Alt3
Node: NBW1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.1621 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1346	1400	A/D	97955		
0.4729	1300	A/D	97955		
0.1889	1300	A/D	97956		
0.0176	1400	A/D	97956		
0.2953	1300	A	97955		
0.0528	1400	A	97955		

Comment:

Manual Basin: NBW1730

Scenario: Alt3
Node: NBW1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.1904 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6660	1400	D	97482		
1.5468	1300	D	97482		
0.2839	1400	D	97481		
0.0185	1300	D	97481		
0.6932	1400	A/D	97482		
9.4603	1300	A/D	97482		
0.0770	1400	A/D	97481		
0.4447	1300	A/D	97481		

Comment:

Manual Basin: NBW1750

Scenario: Alt3
Node: NBW1750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.6506 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0164	1300	A/D	97482		
0.4160	1300	A/D	97481		
0.2611	1400	A/D	97481		
0.0076	1300	C/D	97482		
2.1206	1300	C/D	97956		
2.9108	1300	A/D	97956		
0.2569	1300	D	97956		
0.6556	1300	A/D	97955		
1.0055	1400	A/D	97955		

Comment:

Manual Basin: NBW1770

Scenario: Alt3
Node: NBW1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.0486 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.6000	1300	A/D	97956		
7.3493	1300	C/D	97956		
0.0993	1300	D	97956		

Comment:

Manual Basin: NBW1790

Scenario: Alt3
Node: NBW1790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.9843 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1844	1300	A/D	97956		
1.1785	1400	A/D	97955		
0.1163	1400	A/D	97956		
1.0143	1300	A/D	97955		
0.0851	1300	D	97956		
0.2730	1400	D	97956		
0.1327	1400	D	97955		

Comment:

Manual Basin: NBW1820

Scenario: Alt3
Node: NBW1820
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 17.2814 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.5708	1300	C/D	97482		
0.4989	1400	A/D	97482		
3.9495	1300	A/D	97482		
0.1313	1400	D	97482		
0.1309	1400	C/D	97482		

Comment:

Manual Basin: NBW1830

Scenario: Alt3
Node: NBW1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8793 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2191	1300	A/D	97482		
0.6972	1400	A/D	97482		
2.9629	1400	D	97482		

Comment:

Manual Basin: NBW1840

Scenario: Alt3
Node: NBW1840
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 19.9983 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6185	1300	C/D	97482		
8.1612	1300	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0834	1400	A/D	97482		
0.1351	1400	D	97482		
0.0001	1300	D	97482		

Comment:

Manual Basin: NBW1850

Scenario: Alt3
Node: NBW1850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.4229 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5635	1300	C/D	97482		
0.8385	1300	A/D	97482		
1.8763	1400	C/D	97482		
1.8223	1400	A/D	97482		
1.3224	1400	D	97482		

Comment:

Manual Basin: NBW1860

Scenario: Alt3
Node: NBW1860
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8925 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8144	1300	C/D	97482		
0.0780	1300	A/D	97482		

Comment:

Manual Basin: NBW1870

Scenario: Alt3
Node: NBW1870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4619 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2194	1300	A/D	97482		
0.3645	1400	A/D	97482		
0.2375	1400	D	97482		
0.6098	1400	C/D	97482		
0.0308	1300	C/D	97482		

Comment:

Manual Basin: NBW1910

Scenario: Alt3
Node: NBW1910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9368 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8591	1300	C/D	97482		
0.0777	1400	C/D	97482		

Comment:

Manual Basin: NBW1930

Scenario: Alt3
Node: NBW1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7547 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4299	1300	C/D	97482		
0.0933	1400	A/D	97482		
1.2306	1300	A/D	97482		
0.0009	1400	C/D	97482		

Comment:

Manual Basin: NBW1970

Scenario: Alt3
Node: NBW1970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7669 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5219	1400	A/D	97482		
0.3504	1300	C/D	97482		
0.2230	1400	C/D	97482		
0.6716	1300	A/D	97482		

Comment: Updated per ERP 12053

Manual Basin: NBW1990

Scenario: Alt3
Node: NBW1990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8406 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.4920	1300	A/D	97482		
2.3486	1400	A/D	97482		

Comment:

Manual Basin: NBW2010

Scenario: Alt3
Node: NBW2010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9741 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9741	1300	A/D	97482		

Comment:

Manual Basin: NBW2030

Scenario: Alt3
Node: NBW2030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0960 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5575	1300	A/D	97482		
1.5385	1300	C/D	97482		

Comment:

Manual Basin: NBW2050

Scenario: Alt3
Node: NBW2050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6006 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6221	1300	A	97482		
0.0551	1400	A	97482		
0.1880	1300	A/D	97482		
0.7351	8300	A	97482		
0.0002	8300	A/D	97482		

Comment:

Manual Basin: NBW2060

Scenario: Alt3
Node: NBW2060
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5646 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2655	1300	A/D	97482		
2.1181	1300	A	97482		
1.8858	1400	A/D	97482		
0.2952	1400	A	97482		

Comment:

Manual Basin: NBW2070

Scenario: Alt3
Node: NBW2070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.3373 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6459	1400	A	97482		
0.4261	1300	A	97482		
0.2475	1300	D	97482		
7.0178	1400	D	97482		

Comment: Broke basin at crown of Swan Ave

Manual Basin: NBW2090

Scenario: Alt3
Node: NBW2090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5529 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0369	1300	A	97482		
0.0019	1400	A	97482		
2.1372	1300	D	97482		
2.3770	1400	D	97482		

Comment:

Manual Basin: NBW2110

Scenario: Alt3
Node: NBW2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2625 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0134	1300	A	97482		
0.1691	1400	A	97482		
7.0746	1400	D	97482		
0.0054	1300	D	97482		

Comment:

Manual Basin: NBW2130

Scenario: Alt3
Node: NBW2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9912 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9912	1400	D	97482		

Comment:

Manual Basin: NBW2145

Scenario: Alt3
Node: NBW2145
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8292 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0593	1400	A	97482		
3.7698	1400	D	97482		

Comment: Updated per ERP 9599. INLET IN ERP ON WEST SIDE NOT SEEN IN STREET VIEW

Manual Basin: NBW2150

Scenario: Alt3
Node: NBW2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8281	1300	A	97482		
0.0357	1400	A	97482		

Comment:

Manual Basin: NBW2190

Scenario: Alt3
Node: NBW2190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0700 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4904	1300	A	97482		
0.5796	1300	D	97482		

Comment:

Manual Basin: NBW2210

Scenario: Alt3
Node: NBW2210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0711	1300	A	97482		

Comment:

Manual Basin: NBW2230

Scenario: Alt3
Node: NBW2230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.1833 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2313	1300	A	97482		
5.9520	1300	A/D	97482		

Comment:

Manual Basin: NBW2250

Scenario: Alt3
Node: NBW2250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 1.7527 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7527	1300	A	97482		

Comment:

Manual Basin: NBW2270

Scenario: Alt3
Node: NBW2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5878 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5878	1300	A	97482		

Comment:

Manual Basin: NBW2290

Scenario: Alt3
Node: NBW2290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 23.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.5587 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0061	1700	A	97482		
6.4803	1300	A/D	97482		
5.0724	1300	A	97482		

Comment:

Manual Basin: NBW2310

Scenario: Alt3
Node: NBW2310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4265 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.0681	1300	A	97482		
2.3584	1700	A	97482		

Comment:

Manual Basin: NBW2330

Scenario: Alt3
Node: NBW2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.9410 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1610	1300	A/D	97482		
3.9688	1300	A	97482		
0.0751	1300	C/D	97482		
0.7361	1700	A	97482		

Comment:

Manual Basin: NBW2350

Scenario: Alt3
Node: NBW2350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6660 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1125	1700	A/D	97481		
5.5535	1300	A/D	97481		

Comment:

Manual Basin: NBW2370

Scenario: Alt3
Node: NBW2370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3028 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.5485	1700	A/D	97481		
0.7542	1300	A/D	97481		

Comment:

Manual Basin: NBW2380

Scenario: Alt3
Node: NBW2380
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9897 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8524	1300	A/D	97481		
0.0582	1300	D	97481		
0.0792	1700	A/D	97481		

Comment:

Manual Basin: NBW2385

Scenario: Alt3
Node: NBW2385
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1150 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9542	1700	A/D	97481		
0.1608	1700	D	97481		

Comment:

Manual Basin: NBW2390

Scenario: Alt3
Node: NBW2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.3917 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1432	1700	A/D	97481		
7.2486	1300	A/D	97481		

Comment:

Manual Basin: NBW2410

Scenario: Alt3
Node: NBW2410

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9392	1700	D	97481		
1.6738	1400	D	97481		
5.8626	1700	A/D	97481		
1.2255	1400	A/D	97481		
4.1270	1300	A/D	97481		

Comment:

Manual Basin: NBW2430

Scenario: Alt3
Node: NBW2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7239 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.1668	1400	D	97481		
0.2359	1400	A/D	97481		
0.3082	1700	D	97481		
0.0130	1700	A/D	97481		

Comment:

Manual Basin: NBW2470

Scenario: Alt3
Node: NBW2470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5707 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5707	1400	D	97481		

Comment:

Manual Basin: NBW2490

Scenario: Alt3
Node: NBW2490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9735 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9726	1400	D	97481		
0.0009	1400	D	97482		

Comment:

Manual Basin: NBW2510

Scenario: Alt3
Node: NBW2510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6971 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3163	1400	D	97481		
0.0987	1700	D	97481		
0.2820	1400	A/D	97481		

Comment:

Manual Basin: NBW2570

Scenario: Alt3
Node: NBW2570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8330 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8330	1400	A/D	97481		

Comment:

Manual Basin: NBW2610

Scenario: Alt3
Node: NBW2610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.4373 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2042	1400	D	97482		
2.2332	1400	D	97481		

Comment:

Manual Basin: NBW2630

Scenario: Alt3
Node: NBW2630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6691 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1244	1400	D	97482		
0.0118	1300	D	97482		
0.5231	1300	A/D	97482		
0.0097	1400	A/D	97482		

Comment:

Manual Basin: NBW2650

Scenario: Alt3
Node: NBW2650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6077 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3389	1400	D	97481		
1.2688	1400	D	97482		

Comment:

Manual Basin: NBW2670

Scenario: Alt3
Node: NBW2670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1363 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6575	1400	A/D	97482		
1.7910	1400	D	97481		
0.6699	1400	D	97482		
0.0180	1300	A/D	97482		

Comment:

Manual Basin: NBW2680

Scenario: Alt3
Node: NBW2680
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5608 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7272	1300	A/D	97482		
0.8336	1400	A/D	97482		

Comment:

Manual Basin: NBW2690

Scenario: Alt3
Node: NBW2690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.2447 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2055	1400	A/D	97481		
9.8680	1400	D	97481		
0.0001	1300	A/D	97481		
0.1468	1400	A/D	97482		
0.0206	1300	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0038	1400	D	97482		

Comment:

Manual Basin: NBW2730

Scenario: Alt3
Node: NBW2730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5632 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4447	1400	A/D	97482		
0.1185	1300	A/D	97482		

Comment:

Manual Basin: NBW2780

Scenario: Alt3
Node: NBW2780
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.7327 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.5430	1300	A/D	97482		
0.0051	1300	A/D	97481		
0.0026	1400	A/D	97481		
0.0035	1400	A/D	97482		
0.7676	1300	C/D	97482		
0.0455	1300	D	97482		
0.3654	1400	D	97482		

Comment:

Manual Basin: NBW2790

Scenario: Alt3
Node: NBW2790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8216 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.0629	1300	C/D	97482		
8.3129	1300	A/D	97482		
0.3727	1400	D	97482		
0.0731	1300	D	97482		

Comment:

Manual Basin: NBW2810

Scenario: Alt3
Node: NBW2810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.5567 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5567	1300	C/D	97482		

Comment:

Manual Basin: NBW2830

Scenario: Alt3
Node: NBW2830

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 20.3605 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4155	1300	A/D	97482		
19.9450	1300	C/D	97482		

Comment:

Manual Basin: NCL0030

Scenario: Alt3
Node: NCL0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2013 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2013	1300	A/D	97954		

Comment:

Manual Basin: NCL0070

Scenario: Alt3
Node: NCL0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 19.3446 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2461	1300	A/D	97480		
0.1935	1300	A/D	97481		
13.2844	1300	A/D	97955		
3.6632	1300	A/D	97954		
1.8911	1300	A	97955		
0.0571	8100	A/D	97954		
0.0092	1400	A/D	97955		

Comment:

Manual Basin: NCL0090

Scenario: Alt3
Node: NCL0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.4929 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.8415	1300	A	97481		
2.2225	1300	A/D	97481		
2.5923	1300	A	97955		
2.8366	1300	A/D	97955		

Comment:

Manual Basin: NCL0110

Scenario: Alt3
Node: NCL0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.3317 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8071	1300	A/D	97954		
1.0177	1400	A/D	97954		
2.5068	1400	D	97954		

Comment:

Manual Basin: NCL0150

Scenario: Alt3
Node: NCL0150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3382 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9307	1400	D	97954		
0.4076	8100	D	97954		

Comment:

Manual Basin: NCL0170

Scenario: Alt3
Node: NCL0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7512 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7512	1400	D	97954		

Comment:

Manual Basin: NCL0190

Scenario: Alt3
Node: NCL0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6952 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6952	1400	D	97954		

Comment:

Manual Basin: NCL0210

Scenario: Alt3
Node: NCL0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1607 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9263	1400	D	97954		
1.2344	8100	D	97954		

Comment:

Manual Basin: NCL0230

Scenario: Alt3
Node: NCL0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 5.2403 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5377	1400	A/D	97955		
0.3103	1400	D	97954		
1.7702	1400	D	97955		
0.4153	8100	D	97954		
0.0281	8100	A/D	97955		
1.1786	8100	D	97955		

Comment:

Manual Basin: NCL0270

Scenario: Alt3
Node: NCL0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2523 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2745	1400	D	97954		
0.9079	1400	D	97955		
0.0698	1400	A/D	97955		

Comment:

Manual Basin: NCL0330

Scenario: Alt3
Node: NCL0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3578 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3578	8100	D	97954		

Comment:

Manual Basin: NCL0350

Scenario: Alt3
Node: NCL0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3567 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3747	1400	A/D	97955		
0.5111	1400	D	97955		
0.2822	8100	D	97954		
0.4047	1400	D	97954		
1.6180	1300	A/D	97955		
0.1659	1300	D	97955		

Comment:

Manual Basin: NCL0370

Scenario: Alt3
Node: NCL0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.4057 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4129	1400	D	97955		
1.7776	1400	A/D	97955		
2.2152	1300	A/D	97955		

Comment:

Manual Basin: NCL0390

Scenario: Alt3
Node: NCL0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0817 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2662	1300	A/D	97954		
0.7299	8100	A/D	97954		
0.2831	1300	A/D	97955		
0.5944	1400	A/D	97955		
0.2156	1400	A/D	97954		
0.1640	1400	D	97955		
0.3950	1400	D	97954		
0.4335	8100	D	97954		

Comment:

Manual Basin: NCL0430

Scenario: Alt3
Node: NCL0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6357 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4129	1400	A/D	97955		
0.0832	1400	D	97955		
0.5378	1400	D	97954		
0.6018	8100	D	97954		

Comment:

Manual Basin: NCL0450

Scenario: Alt3
Node: NCL0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4540 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4590	1300	A/D	97955		
1.9949	1400	A/D	97955		

Comment:

Manual Basin: NCL0470

Scenario: Alt3
Node: NCL0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5365 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9997	1300	A/D	97955		
1.5369	1400	A/D	97955		

Comment:

Manual Basin: NCL0490

Scenario: Alt3
Node: NCL0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 17.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 12.5300 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4144	1300	A	97481		
11.3249	1300	A	97955		
0.7906	1300	A/D	97955		

Comment:

Manual Basin: NCL0510

Scenario: Alt3
Node: NCL0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0969 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0461	1300	A	97955		
3.2495	1300	A/D	97955		
0.8013	1400	A/D	97955		

Comment:

Manual Basin: NCL0550

Scenario: Alt3
Node: NCL0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7772 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9144	1400	A/D	97955		
1.3586	1400	D	97955		
1.5007	8100	D	97955		
0.0035	8100	A/D	97955		

Comment:

Manual Basin: NCL0570

Scenario: Alt3
Node: NCL0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8753 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1680	1300	A	97955		
0.9732	1400	A	97955		
0.1178	1400	A/D	97955		
1.5251	1400	D	97955		
1.0913	8100	D	97955		

Comment:

Manual Basin: NCL0590

Scenario: Alt3
Node: NCL0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4140 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.4773	1300	A	97955		
1.2462	1300	A/D	97955		
0.5742	1400	A/D	97955		
0.0789	1400	A	97955		
0.0373	1400	D	97955		

Comment:

Manual Basin: NCL0610

Scenario: Alt3
Node: NCL0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5532 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5532	1300	A	97955		

Comment:

Manual Basin: NCL0630

Scenario: Alt3
Node: NCL0630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.7745 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.3730	1300	A	97955		
1.1054	1400	A	97955		
0.2961	1400	D	97955		

Comment:

Manual Basin: NCL0690

Scenario: Alt3
Node: NCL0690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.2403 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0233	1400	D	97955		
0.2169	8100	D	97955		

Comment:

Manual Basin: NCL0730

Scenario: Alt3
Node: NCL0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9857 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9857	1400	D	97955		

Comment:

Manual Basin: NCL0750

Scenario: Alt3
Node: NCL0750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.2178 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.1369	1400	D	97955		
0.6413	1400	A	97955		
1.0303	1400	A/D	97955		
0.8376	1300	D	97955		
0.8883	1300	A	97955		
1.6832	1300	A/D	97955		

Comment:

Manual Basin: NCL0770

Scenario: Alt3
Node: NCL0770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 18.3987 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4170	1300	A/D	97955		
10.1059	1300	A	97955		
6.1524	1300	D	97955		
0.1429	1400	D	97955		
1.5764	1700	D	97955		
0.0041	8300	A	97955		

Comment:

Manual Basin: NCL0810

Scenario: Alt3
Node: NCL0810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1896 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4880	1400	A	97955		
0.2305	1400	D	97955		
1.4711	8100	D	97955		

Comment:

Manual Basin: NCL0830

Scenario: Alt3
Node: NCL0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0210 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9743	1300	A	97955		
0.0467	1400	A	97955		

Comment:

Manual Basin: NCL0850

Scenario: Alt3
Node: NCL0850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9559 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2205	1300	A	97955		
0.6623	1400	A	97955		
0.0732	1400	D	97955		

Comment:

Manual Basin: NCL0910

Scenario: Alt3
Node: NCL0910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8469 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8469	1400	D	97955		

Comment:

Manual Basin: NCL0930

Scenario: Alt3
Node: NCL0930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8458 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8207	1400	D	97955		
0.0252	1300	D	97955		

Comment:

Manual Basin: NCL0950

Scenario: Alt3
Node: NCL0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.8899 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9956	1300	D	97955		
0.0284	1400	D	97955		
2.8660	1300	A	97955		

Comment:

Manual Basin: NCL0970

Scenario: Alt3
Node: NCL0970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0332 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5997	1400	A	97955		
0.8996	1400	D	97955		
0.1107	1300	D	97955		
2.4233	1300	A	97955		

Comment:

Manual Basin: NCL0990

Scenario: Alt3
Node: NCL0990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.5234 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.3941	1300	A	97955		
0.1293	1300	D	97955		

Comment:

Manual Basin: NCL1010

Scenario: Alt3
Node: NCL1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5691 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5071	1300	A	97955		
0.0620	1300	A/D	97955		

Comment:

Manual Basin: NCL1030

Scenario: Alt3
Node: NCL1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3529 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0065	1400	D	97955		
0.3465	8100	D	97955		

Comment:

Manual Basin: NCL1050

Scenario: Alt3
Node: NCL1050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7773 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3034	8100	D	97955		
1.4739	1400	D	97955		

Comment:

Manual Basin: NCL1090

Scenario: Alt3
Node: NCL1090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8979 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5365	1300	A	97955		
0.1855	1400	A	97955		
1.1276	1400	D	97955		
0.0456	1300	D	97955		
0.0026	8100	D	97955		

Comment:

Manual Basin: NCL1110

Scenario: Alt3
Node: NCL1110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5372 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7131	1400	D	97955		
0.8242	8100	D	97955		

Comment:

Manual Basin: NCL1130

Scenario: Alt3
Node: NCL1130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5352 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3162	1400	A	97955		
0.0005	1300	A	97955		
1.9126	1400	D	97955		
1.3059	8100	D	97955		

Comment:

Manual Basin: NCL1150

Scenario: Alt3
Node: NCL1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.8206 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4641	1300	A	97955		
0.8996	1400	A	97955		
2.2726	1400	D	97955		
0.1803	1300	D	97955		
0.0039	8100	D	97955		

Comment:

Manual Basin: NCL1170

Scenario: Alt3
Node: NCL1170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.7633 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.7633	1300	A	97955		

Comment:

Manual Basin: NCL1210

Scenario: Alt3
Node: NCL1210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7185 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0184	1300	A	97955		
1.3147	1400	A	97955		
0.3760	1400	D	97955		
0.0094	8100	D	97955		

Comment:

Manual Basin: NCL1270

Scenario: Alt3
Node: NCL1270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 19.6673 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.4660	1400	A	97955		
8.0653	1300	A	97955		
6.1360	1300	A/D	97955		

Comment:

Manual Basin: NCL1290

Scenario: Alt3
Node: NCL1290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5477 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.4738	1300	A	97955		
0.0466	1400	A	97955		
0.0273	1300	A/D	97955		

Comment:

Manual Basin: NCL1310

Scenario: Alt3
Node: NCL1310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.1520 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1624	1300	A/D	97955		
11.9896	1300	A	97955		

Comment:

Manual Basin: NCL1330

Scenario: Alt3
Node: NCL1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2534 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2534	1300	A	97955		

Comment:

Manual Basin: NCL1350

Scenario: Alt3
Node: NCL1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9295 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2955	1300	A	97955		
1.1668	1400	A	97955		
0.4492	1400	D	97955		
0.0180	8100	D	97955		

Comment:

Manual Basin: NCL1370

Scenario: Alt3
Node: NCL1370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4262 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2470	1400	A	97955		
1.1596	1400	D	97955		
1.0197	8100	D	97955		

Comment:

Manual Basin: NCL1390

Scenario: Alt3
Node: NCL1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1212 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3013	8100	D	97955		
0.6328	1400	D	97955		
0.1871	1400	A	97955		

Comment:

Manual Basin: NCL1410

Scenario: Alt3
Node: NCL1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2080 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0622	1400	D	97955		
0.1458	1400	A	97955		

Comment:

Manual Basin: NCL1430

Scenario: Alt3
Node: NCL1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.2922 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.7254	1300	A	97955		
0.2679	1300	A/D	97955		
1.1946	1400	A	97955		
0.1043	1400	D	97955		

Comment:

Manual Basin: NCL1450

Scenario: Alt3
Node: NCL1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 26.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2431	1300	A/D	97955		
8.2532	1300	A	97955		
0.3747	1400	A	97955		

Comment:

Manual Basin: NCL1490

Scenario: Alt3
Node: NCL1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4225 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3566	1400	A	97955		
0.0658	1400	D	97955		

Comment:

Manual Basin: NCL1510

Scenario: Alt3
Node: NCL1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1970 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5624	1300	A	97955		
2.5621	1400	A	97955		
0.0725	1400	D	97955		

Comment:

Manual Basin: NCL1530

Scenario: Alt3
Node: NCL1530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3362 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7688	1300	A	97955		
0.4465	1400	A	97955		
0.1200	1400	D	97955		
0.0008	8100	D	97955		

Comment:

Manual Basin: NCL1590

Scenario: Alt3
Node: NCL1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5901 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4151	1400	A	97955		
0.1750	1300	A	97955		

Comment:

Manual Basin: NCL1610

Scenario: Alt3
Node: NCL1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7505 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7210	1400	A	97955		
0.0295	1400	D	97955		

Comment:

Manual Basin: NCL1630

Scenario: Alt3
Node: NCL1630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5222 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3014	1400	A	97955		
0.2208	1400	D	97955		

Comment:

Manual Basin: NCL1650

Scenario: Alt3
Node: NCL1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1582 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4039	1400	A	97955		
1.0382	1400	D	97955		
0.7160	8100	D	97955		

Comment:

Manual Basin: NCL1670

Scenario: Alt3

Node: NCL1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1908 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6913	8100	D	97955		
1.7644	1400	D	97955		
0.3845	1400	A	97955		
0.3506	1300	A	97955		

Comment:

Manual Basin: NCL1690

Scenario: Alt3
Node: NCL1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7534 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9705	1400	A	97955		
0.7368	1400	D	97955		
0.0461	8100	D	97955		

Comment:

Manual Basin: NCL1710

Scenario: Alt3
Node: NCL1710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3560 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0155	1400	D	97955		
0.3405	8100	D	97955		

Comment:

Manual Basin: NCL1730

Scenario: Alt3
Node: NCL1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 47.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.8931 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2576	8100	D	97955		
1.7660	1400	D	97955		
0.2826	1400	A	97955		
4.6210	1300	A	97955		
0.1014	1400	A/D	97955		
5.8646	1300	A/D	97955		

Comment:

Manual Basin: NCL1770

Scenario: Alt3
Node: NCL1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5456 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0006	8100	D	97955		
0.0822	1400	D	97955		
0.0119	1400	A	97955		
1.5040	1300	A	97955		
4.9469	1300	A/D	97955		

Comment:

Manual Basin: NCL1810

Scenario: Alt3
Node: NCL1810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8502 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8896	1300	A/D	97955		
0.0767	1700	A/D	97955		
4.3027	1400	A/D	97955		
1.5414	1300	A	97955		
0.0399	1400	A	97955		

Comment:

Manual Basin: NCL1830

Scenario: Alt3
Node: NCL1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7445 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2100	1400	A/D	97955		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8670	1400	A	97955		
0.6675	1400	D	97955		

Comment:

Manual Basin: NCL1930

Scenario: Alt3
Node: NCL1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5377 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1257	1400	A/D	97955		
0.4120	1400	D	97955		

Comment:

Manual Basin: NCL1970

Scenario: Alt3
Node: NCL1970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6563 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4438	1400	D	97955		
0.2125	1400	A/D	97955		

Comment:

Manual Basin: NCL2030

Scenario: Alt3
Node: NCL2030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9246 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5308	1400	A/D	97955		
0.3584	1400	D	97955		
0.0354	8100	D	97955		

Comment:

Manual Basin: NCL2070

Scenario: Alt3
Node: NCL2070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5106 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1344	1400	A/D	97955		
0.3762	1400	D	97955		

Comment: Updated basin per ERP 25926

Manual Basin: NCL2110

Scenario: Alt3
Node: NCL2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3286 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9950	1400	D	97956		
2.0001	1400	D	97955		
0.3335	1400	A/D	97956		

Comment:

Manual Basin: NCL2130

Scenario: Alt3
Node: NCL2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.0476 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0005	1400	D	97956		
0.8474	1400	A/D	97956		
7.0531	1300	A/D	97956		
0.1464	1300	C/D	97956		
0.0002	1400	C/D	97956		

Comment:

Manual Basin: NCL2150

Scenario: Alt3
Node: NCL2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.4407 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5497	1400	D	97955		
0.8257	1400	D	97956		
8.7976	1300	A/D	97956		
0.2444	1400	A/D	97956		
0.0233	1300	D	97956		

Comment:

Manual Basin: NCL2170

Scenario: Alt3
Node: NCL2170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.8440 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3971	1400	D	97956		
3.0688	1400	D	97955		
1.2926	8100	D	97955		
0.0533	1400	A/D	97956		
0.0322	1300	A/D	97956		

Comment:

Manual Basin: NCL2230

Scenario: Alt3
Node: NCL2230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.5855 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.7078	1300	C/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3830	1300	A/D	97956		
0.7191	1400	C/D	97956		
0.1355	1300	D	97956		
0.6401	1400	D	97956		

Comment:

Manual Basin: NCL2270

Scenario: Alt3
Node: NCL2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6996 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4990	1400	D	97956		
1.0138	1400	C/D	97956		
0.0483	1400	A/D	97956		
0.0051	1300	A/D	97956		
0.1335	1300	C/D	97956		

Comment:

Manual Basin: NCL2290

Scenario: Alt3
Node: NCL2290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8370 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7317	1400	D	97956		
0.0769	1400	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0284	1300	A/D	97956		

Comment:

Manual Basin: NCL2330

Scenario: Alt3
Node: NCL2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9821 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1203	1400	A/D	97956		
0.6523	1400	C/D	97956		
4.4979	1400	D	97956		
0.5279	1300	D	97956		
0.1837	1300	A/D	97956		

Comment:

Manual Basin: NCL2350

Scenario: Alt3
Node: NCL2350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6713 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8290	1400	A/D	97956		
1.2574	1400	D	97956		
0.5849	1300	D	97956		

Comment:

Manual Basin: NCL2390

Scenario: Alt3
Node: NCL2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.3537 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2177	1400	D	97956		
0.2369	1300	D	97956		
1.0743	1400	A/D	97956		
8.8248	1300	A/D	97956		

Comment:

Manual Basin: NCL2410

Scenario: Alt3
Node: NCL2410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3373 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2375	1400	A/D	97956		
2.0998	1300	A/D	97956		

Comment:

Manual Basin: NCL2430

Scenario: Alt3
Node: NCL2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3441 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4059	1400	A/D	97956		
2.9382	1300	A/D	97956		

Comment:

Manual Basin: NCL2470

Scenario: Alt3
Node: NCL2470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6972 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1828	1400	D	97956		
2.5145	1400	A/D	97956		

Comment: DELINEATED PER ERP 2903

Manual Basin: NCL2490

Scenario: Alt3
Node: NCL2490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1638 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0342	1400	A/D	97956		
2.1297	1300	A/D	97956		

Comment:

Manual Basin: NCL2510

Scenario: Alt3
Node: NCL2510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.3623 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1208	1400	D	97956		
2.0157	1400	A/D	97956		
12.2258	1300	A/D	97956		

Comment:

Manual Basin: NCL2530

Scenario: Alt3
Node: NCL2530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6123 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0006	1400	D	97956		
0.2078	1400	A/D	97956		
4.4039	1300	A/D	97956		

Comment:

Manual Basin: NCL2540

Scenario: Alt3

Node: NCL2540
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7763 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7763	1300	A/D	97956		

Comment: LOW POINT WITH NO DRAINAGE INFRASTRUCTURE

Manual Basin: NCL2550

Scenario: Alt3
Node: NCL2550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8345 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8345	1300	A/D	97956		

Comment:

Manual Basin: NCL2580

Scenario: Alt3
Node: NCL2580
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2237 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.5769	1300	A/D	97956		
0.6468	1300	C/D	97956		

Comment:

Manual Basin: NCL2590

Scenario: Alt3
Node: NCL2590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.0860 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
16.9990	1300	A/D	97956		
0.0013	1400	A/D	97956		
0.0857	1300	C/D	97956		

Comment:

Manual Basin: NCL2610

Scenario: Alt3
Node: NCL2610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7263 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7263	1300	A/D	97956		

Comment:

Manual Basin: NCL2630

Scenario: Alt3
Node: NCL2630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5093 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.3873	1300	A/D	97956		
1.1220	1300	A/D	97957		

Comment:

Manual Basin: NCL2631

Scenario: Alt3
Node: NCL2631
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3837 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3124	1400	D	97957		
1.0079	1400	D	97956		
0.7657	1400	A/D	97956		
0.1450	1400	A/D	97957		
0.2004	1300	A/D	97957		
0.9523	1300	A/D	97956		

Comment:

Manual Basin: NCL2650

Scenario: Alt3
Node: NCL2650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.1756 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.0462	1300	A/D	97956		
1.9949	1300	C/D	97956		
2.1345	1300	B/D	97956		

Comment:

Manual Basin: NCL2670

Scenario: Alt3
Node: NCL2670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.9653 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4507	1300	C/D	97956		
5.4431	1300	B/D	97956		
0.0715	1300	A/D	97956		

Comment:

Manual Basin: NCL2690

Scenario: Alt3
Node: NCL2690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8398	1300	A/D	97956		
3.2004	1300	B/D	97956		

Comment:

Manual Basin: NCL2710

Scenario: Alt3
Node: NCL2710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7966 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4243	1300	A/D	97956		
3.7604	1300	C/D	97956		
0.6119	1300	B/D	97956		

Comment:

Manual Basin: NCL2730

Scenario: Alt3
Node: NCL2730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9748 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8392	1300	A/D	97956		
3.1356	1300	C/D	97956		

Comment: NE CORNER HAS A 12" PIPE. NOT MODELED; ASSUMING ALL WATER STAYS WITHIN THE SYSTEM.

Manual Basin: NCL2750

Scenario: Alt3
Node: NCL2750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9267 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5792	1300	A/D	97956		
0.3475	1300	C/D	97956		

Comment:

Manual Basin: NCL2780

Scenario: Alt3
Node: NCL2780
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2848 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7802	1300	A/D	97956		
0.5045	1300	C/D	97956		

Comment:

Manual Basin: NCL2790

Scenario: Alt3
Node: NCL2790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 19.5818 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8795	1300	A/D	97956		
15.6707	1300	C/D	97956		
0.0316	1300	A	97956		

Comment:

Manual Basin: NCL2810

Scenario: Alt3
Node: NCL2810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4472	1300	C/D	97956		
0.4930	1300	A/D	97956		

Comment:

Manual Basin: NCL2830

Scenario: Alt3
Node: NCL2830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6354 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5974	1300	A/D	97956		
0.0379	1300	C/D	97956		

Comment:

Manual Basin: NCL2840

Scenario: Alt3
Node: NCL2840
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4508 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9321	1300	C/D	97956		
0.2584	1300	A/D	97956		
3.9649	1300	A	97956		
0.2954	1400	A	97956		

Comment:

Manual Basin: NCL2845

Scenario: Alt3
Node: NCL2845
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2245 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1198	1300	A/D	97956		
0.0577	1300	C/D	97956		
2.0470	1300	A	97956		

Comment:

Manual Basin: NCL2850

Scenario: Alt3
Node: NCL2850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0003 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5061	1400	A/D	97956		
1.4933	1400	D	97956		
0.0010	1300	A/D	97956		

Comment: DELINEATED PER ERP 2903

Manual Basin: NCL2890

Scenario: Alt3
Node: NCL2890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0208 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3387	1400	A/D	97956		
1.6821	1400	D	97956		

Comment:

Manual Basin: NCL2910

Scenario: Alt3
Node: NCL2910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9371 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4206	1400	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5165	1400	D	97956		

Comment:

Manual Basin: NCL2930

Scenario: Alt3
Node: NCL2930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5563 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5460	1300	C/D	97956		
0.7197	1400	C/D	97956		
0.2906	1400	D	97956		

Comment:

Manual Basin: NCL2950

Scenario: Alt3
Node: NCL2950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.4625 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0039	1300	D	97956		
2.4587	1300	C/D	97956		

Comment:

Manual Basin: NCL2970

Scenario: Alt3
Node: NCL2970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8409 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.2796	1300	C/D	97956		
2.6872	1400	C/D	97956		
0.7777	1300	A/D	97956		
0.6252	1400	A/D	97956		
0.4712	1400	D	97956		

Comment:

Manual Basin: NCL2990

Scenario: Alt3
Node: NCL2990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9027 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2031	1300	D	97482		
0.6996	1300	D	97956		

Comment:

Manual Basin: NCL3010

Scenario: Alt3
Node: NCL3010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.1811 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4141	1400	C/D	97482		
0.1793	1300	C/D	97482		
3.8764	1400	D	97482		
0.5496	1400	A/D	97482		
0.1750	1300	D	97482		
0.8660	1400	C/D	97956		
3.5634	1400	D	97956		
1.5573	1300	D	97956		

Comment:

Manual Basin: NCL3030

Scenario: Alt3
Node: NCL3030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.1011 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7579	1400	A/D	97482		
1.3924	1300	A/D	97482		
0.1289	1400	C/D	97482		
0.8145	1300	A/D	97956		
1.3067	1400	A/D	97956		
0.7008	1400	C/D	97956		

Comment:

Manual Basin: NCL3050

Scenario: Alt3
Node: NCL3050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 22.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.1442 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.1848	1400	A/D	97956		
2.9595	1400	C/D	97956		
0.1628	1400	D	97956		
4.7178	1300	A/D	97956		
0.1192	1300	C/D	97956		

Comment:

Manual Basin: NCL3070

Scenario: Alt3
Node: NCL3070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.9611 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1620	1400	C/D	97956		
0.0444	1400	D	97956		
0.3517	1300	D	97956		
5.7626	1300	C/D	97956		
0.7705	1400	A/D	97956		
1.8699	1300	A/D	97956		

Comment:

Manual Basin: NCL3090

Scenario: Alt3
Node: NCL3090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.3728 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2484	1300	A/D	97482		
1.4698	1300	A	97482		
0.2407	8300	A	97482		
0.1805	1300	D	97482		
0.3992	8300	A/D	97482		
2.7405	1300	A/D	97956		
0.0939	1300	D	97956		

Comment:

Manual Basin: NCL3110

Scenario: Alt3
Node: NCL3110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.3237 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.4652	1300	A/D	97956		
0.8364	1400	A/D	97956		
0.0221	1400	D	97956		

Comment:

Manual Basin: NCL3130

Scenario: Alt3
Node: NCL3130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 7.0928 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.6281	1300	A/D	97956		
0.4646	1400	A/D	97956		

Comment:

Manual Basin: NCL3150

Scenario: Alt3
Node: NCL3150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.7878 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1866	1400	D	97482		
0.1717	1300	D	97482		
2.0227	1400	D	97956		
0.0703	1300	D	97956		
0.3365	1400	A/D	97956		

Comment:

Manual Basin: NCL3170

Scenario: Alt3
Node: NCL3170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7433 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2703	1400	A/D	97956		
1.0844	1400	D	97956		
1.2083	1300	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1803	1300	D	97956		

Comment:

Manual Basin: NCL3190

Scenario: Alt3
Node: NCL3190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.9739 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7545	1400	A/D	97956		
6.2194	1300	A/D	97956		

Comment:

Manual Basin: NCL3210

Scenario: Alt3
Node: NCL3210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.6576 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.0317	1300	A/D	97956		
0.6170	1400	A/D	97956		
0.0088	1400	D	97956		

Comment:

Manual Basin: NCL3230

Scenario: Alt3
Node: NCL3230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0158 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8587	1300	A/D	97956		
1.1572	1400	A/D	97956		

Comment:

Manual Basin: NCL3250

Scenario: Alt3
Node: NCL3250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.0117 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2815	1400	D	97482		
0.4920	1300	D	97482		
0.0173	1300	A	97482		
0.0200	1400	A	97482		
0.7725	1400	A	97956		
0.0173	1400	D	97956		
0.6510	1300	A	97956		
0.0278	1300	D	97956		
0.4186	1400	A/D	97956		
2.3138	1300	A/D	97956		

Comment:

Manual Basin: NCL3270

Scenario: Alt3
Node: NCL3270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0215 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6671	1400	A/D	97956		
0.3544	1300	A/D	97956		

Comment:

Manual Basin: NCL3280

Scenario: Alt3
Node: NCL3280
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0493 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0487	1300	A/D	97956		
0.0006	1400	A/D	97956		

Comment:

Manual Basin: NCL3290

Scenario: Alt3
Node: NCL3290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 2.6258 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4062	1300	A/D	97956		
0.2196	1700	A/D	97956		

Comment:

Manual Basin: NCL3300

Scenario: Alt3
Node: NCL3300
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2558 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7280	1300	A/D	97956		
0.5278	1700	A/D	97956		

Comment:

Manual Basin: NCL3330

Scenario: Alt3
Node: NCL3330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0124 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0124	1700	A/D	97956		

Comment: ERP 19405 HAS CONTROL STRUCTURE DETAIL BUT SCHOOL DRAINAGE PLANS ARE REMOVED. ASSUME POND TREATMENT. NORTH BUILDING HAS ROOF DRAINS

Manual Basin: NCL3350

Scenario: Alt3
Node: NCL3350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6283 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5083	1300	A/D	97956		
0.6283	1700	A/D	97956		
1.4918	1400	A/D	97956		

Comment: Assumes parking lot connects to Gomez system

Manual Basin: NCL3360

Scenario: Alt3
Node: NCL3360
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7811 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2765	1300	A/D	97956		
0.5047	1400	A/D	97956		

Comment:

Manual Basin: NCL3365

Scenario: Alt3
Node: NCL3365
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1143 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9144	1300	A/D	97956		
0.5396	1700	A/D	97956		
0.6088	1400	A/D	97956		
0.0515	1400	D	97956		

Comment:

Manual Basin: NCL3370

Scenario: Alt3
Node: NCL3370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6219 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7110	1300	A/D	97956		
1.7604	1400	A/D	97956		
3.1505	1400	D	97956		

Comment:

Manual Basin: NCL3390

Scenario: Alt3
Node: NCL3390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1557 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6841	1400	A/D	97956		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4716	1400	D	97956		

Comment:

Manual Basin: NCL3430

Scenario: Alt3
Node: NCL3430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3548 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2650	1400	A/D	97956		
0.0897	1400	D	97956		

Comment:

Manual Basin: NCL3450

Scenario: Alt3
Node: NCL3450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7799 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8446	1400	D	97482		
0.1865	1400	A	97482		
1.5243	1300	A	97482		
0.6480	1300	D	97482		
3.3405	1300	A	97956		
0.0145	1300	D	97956		
0.0008	1400	D	97956		
0.2207	1400	A	97956		

Comment:

Manual Basin: NCL3470

Scenario: Alt3
Node: NCL3470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.9569 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.7630	1300	A	97956		
8.1939	1300	A/D	97956		

Comment:

Manual Basin: NCL3490

Scenario: Alt3
Node: NCL3490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6868	1300	A/D	97956		
0.0026	1300	A	97956		

Comment:

Manual Basin: NCL3510

Scenario: Alt3
Node: NCL3510

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0542 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8625	1300	A/D	97956		
0.1917	1400	A/D	97956		

Comment:

Manual Basin: NCL3520

Scenario: Alt3
Node: NCL3520
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6475 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.1836	1300	A/D	97956		
2.3385	1400	A/D	97956		
0.1254	1400	D	97956		

Comment:

Manual Basin: NCL3530

Scenario: Alt3
Node: NCL3530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7388 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3834	1400	A/D	97956		
2.2252	1400	D	97956		
0.1302	1300	A/D	97956		

Comment:

Manual Basin: NCL3590

Scenario: Alt3
Node: NCL3590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6086 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3424	1400	D	97956		
0.2663	1400	A/D	97956		

Comment:

Manual Basin: NCL3630

Scenario: Alt3
Node: NCL3630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.1191 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3313	1400	A/D	97956		
0.0160	1400	A/D	97957		
0.3019	1400	D	97957		
3.4104	1400	D	97956		
0.0596	1300	A/D	97956		

Comment:

Manual Basin: NCL3640

Scenario: Alt3
Node: NCL3640
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.7355 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4920	1400	A/D	97957		
2.1272	1400	D	97957		
1.1163	1300	A/D	97957		

Comment:

Manual Basin: NCL3670

Scenario: Alt3
Node: NCL3670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8150 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8150	1400	D	97482		

Comment:

Manual Basin: NCL3730

Scenario: Alt3
Node: NCL3730
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0025 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6458	1400	D	97482		
2.6610	1400	A	97482		
0.6957	1300	A	97482		

Comment:

Manual Basin: NCL3740

Scenario: Alt3
Node: NCL3740
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2852 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1537	1300	A	97482		
1.1314	1300	A	97956		

Comment:

Manual Basin: NCL3750

Scenario: Alt3
Node: NCL3750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.6366 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4763	1400	D	97482		
3.1096	1300	D	97482		
3.0411	1300	C/D	97482		
2.0039	1300	A/D	97482		
0.0036	1300	C/D	97956		
0.0021	1300	D	97956		

Comment:

Manual Basin: NCL3770

Scenario: Alt3
Node: NCL3770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6106 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9090	1400	D	97482		
0.2771	1400	C/D	97482		
0.1298	1400	A/D	97482		
0.7417	1300	A/D	97482		
1.4634	1300	C/D	97482		
0.0895	1300	D	97482		

Comment:

Manual Basin: NCL4000

Scenario: Alt3
Node: NCL4000
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.9325 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4513	1400	A	97956		
13.8820	1300	A	97956		
0.5992	8100	A	97956		

Comment:

Manual Basin: NCL4010

Scenario: Alt3
Node: NCL4010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2561 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3043	1400	A	97956		
5.9518	1300	A	97956		

Comment:

Manual Basin: NOC0030

Scenario: Alt3
Node: NOC0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.0811 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.0811	1300	A/D	97954		

Comment:

Manual Basin: NOC0050

Scenario: Alt3
Node: NOC0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6402	1300	A/D	97954		

Comment:

Manual Basin: NOC0070

Scenario: Alt3
Node: NOC0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4199 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2382	1300	A/D	97954		
0.2011	1400	A/D	97954		
0.9475	1400	D	97954		
0.0330	1300	D	97954		

Comment:

Manual Basin: NOC0170

Scenario: Alt3
Node: NOC0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8390 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1861	1300	A/D	97954		
0.4845	1400	A/D	97954		
3.1683	1400	D	97954		
0.0000	1300	D	97954		

Comment:

Manual Basin: NOC0190

Scenario: Alt3
Node: NOC0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0120 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1957	1400	D	97954		
0.8163	8100	D	97954		

Comment:

Manual Basin: NOC0210

Scenario: Alt3
Node: NOC0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6430 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1009	1300	A/D	97954		
0.2165	1300	D	97954		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.3253	1400	D	97954		
0.0003	8100	D	97954		

Comment:

Manual Basin: NOC0250

Scenario: Alt3
Node: NOC0250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1164	1400	D	97954		
1.0475	8100	D	97954		

Comment:

Manual Basin: NOC0270

Scenario: Alt3
Node: NOC0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4015 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4258	1400	D	97954		
0.9757	8100	D	97954		

Comment:

Manual Basin: NOC0310

Scenario: Alt3
Node: NOC0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 17.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 18.9729 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
18.2811	1400	D	97954		
0.1900	1400	C/D	97954		
0.0539	1400	A	97954		
0.0067	8100	A	97954		
0.4413	8100	D	97954		

Comment:

Manual Basin: NOC0330

Scenario: Alt3
Node: NOC0330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.5568 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.4669	1400	D	97954		
0.0899	8100	D	97954		

Comment:

Manual Basin: NOC0350

Scenario: Alt3
Node: NOC0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 25.4007 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
24.8599	1400	D	97954		
0.5407	8100	D	97954		

Comment:

Manual Basin: NOC0370

Scenario: Alt3
Node: NOC0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.7970 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1993	8100	D	97954		
0.8418	1400	D	97954		
9.7466	1400	D	97955		
0.0093	8100	D	97955		

Comment:

Manual Basin: NOC0390

Scenario: Alt3
Node: NOC0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6741 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6655	1300	A/D	97955		
0.2883	1300	D	97955		
2.2986	1400	D	97955		
0.4216	1400	D	97954		

Comment:

Manual Basin: NOC0410

Scenario: Alt3
Node: NOC0410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2691 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.8281	1300	A/D	97955		
0.1177	1300	D	97955		
0.2651	1400	D	97955		
0.0006	1400	A/D	97955		
0.0575	1300	A	97955		

Comment:

Manual Basin: NOC0430

Scenario: Alt3
Node: NOC0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0478 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5665	1300	A/D	97955		
0.2791	1300	A	97955		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0918	1300	D	97955		
0.1103	1400	D	97955		

Comment:

Manual Basin: NOC0450

Scenario: Alt3
Node: NOC0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7627 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5245	1300	A/D	97955		
1.0399	1400	D	97955		
0.1522	1300	D	97955		
0.0098	1900	D	97955		
0.0364	1900	A/D	97955		

Comment:

Manual Basin: NOC0470

Scenario: Alt3
Node: NOC0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 33.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.4610 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8668	1300	A/D	97955		
6.3847	1300	A	97955		
1.2116	8300	A	97955		
0.0011	1900	A/D	97955		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9966	1900	A	97955		

Comment:

Manual Basin: NOC0490

Scenario: Alt3
Node: NOC0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7828 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1980	1900	D	97955		
0.0017	1900	A/D	97955		
1.5664	1400	D	97955		
0.0167	8100	D	97955		

Comment:

Manual Basin: NRU0070

Scenario: Alt3
Node: NRU0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5705 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.5705	1300	A/D	97482		

Comment:

Manual Basin: NRU0090

Scenario: Alt3
Node: NRU0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.9334 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
15.9334	1300	A/D	97482		

Comment:

Manual Basin: NRU0110

Scenario: Alt3
Node: NRU0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.6410 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8614	1300	A/D	97008		
5.7795	1300	A/D	97482		

Comment:

Manual Basin: NRU0130

Scenario: Alt3
Node: NRU0130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 3.9430 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4531	1300	A/D	97482		
3.4899	8100	A/D	97482		

Comment:

Manual Basin: NRU0165

Scenario: Alt3
Node: NRU0165
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2695 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1272	1800	A/D	97482		
0.0378	8100	A/D	97482		
1.1045	1300	A/D	97482		

Comment:

Manual Basin: NRU0170

Scenario: Alt3
Node: NRU0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.7159 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.7159	1300	A/D	97482		

Comment:

Manual Basin: NRU0180

Scenario: Alt3
Node: NRU0180
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.2511 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.4634	1300	A/D	97482		
0.7702	1400	A/D	97482		
1.6649	1400	A	97482		
0.3526	1300	A	97482		

Comment:

Manual Basin: NRU0190

Scenario: Alt3
Node: NRU0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6017 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4747	8100	A/D	97482		
1.1269	1300	A/D	97482		

Comment:

Manual Basin: NRU0210

Scenario: Alt3
Node: NRU0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1327 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1327	8100	A/D	97482		

Comment:

Manual Basin: NRU0230

Scenario: Alt3
Node: NRU0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.9256 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.8642	1300	A/D	97482		
1.0613	8100	A/D	97482		

Comment: Assume ponds connect on same property

Manual Basin: NRU0250

Scenario: Alt3
Node: NRU0250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5153 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.5153	1300	A/D	97482		

Comment:

Manual Basin: NRU0270

Scenario: Alt3
Node: NRU0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3476 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3476	1300	A/D	97482		

Comment:

Manual Basin: NRU0290

Scenario: Alt3
Node: NRU0290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6281 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6281	1300	A/D	97482		

Comment:

Manual Basin: NRU0310

Scenario: Alt3
Node: NRU0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1315 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1315	1300	A/D	97482		

Comment:

Manual Basin: NRU0335

Scenario: Alt3
Node: NRU0335
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2036 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2036	1300	A/D	97482		

Comment:

Manual Basin: NRU0340

Scenario: Alt3
Node: NRU0340
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8397 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8397	1300	A/D	97482		

Comment:

Manual Basin: NRU0345

Scenario: Alt3

Node: NRU0345
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.1571 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.7808	1300	A/D	97482		
0.6642	1300	A/D	97483		
1.6797	1300	A	97482		
0.0324	1300	A	97483		

Comment:

Manual Basin: NRU0350

Scenario: Alt3
Node: NRU0350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0728 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9550	1300	A/D	97482		
0.1179	1300	A/D	97483		

Comment:

Manual Basin: NRU0370

Scenario: Alt3
Node: NRU0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 1.3204 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1027	8100	A/D	97482		
0.2298	1300	A/D	97482		
0.0670	8100	A/D	97483		
0.2460	1300	A/D	97483		
0.1188	8100	A	97483		
0.5561	1300	A	97483		

Comment:

Manual Basin: NRU0390

Scenario: Alt3
Node: NRU0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2366 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7953	8100	A/D	97482		
1.5336	8100	A/D	97483		
2.9077	8100	A	97483		

Comment:

Manual Basin: NRU0490

Scenario: Alt3
Node: NRU0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8802 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6429	1300	A	97483		
0.0887	8100	A	97483		
0.1486	1400	A	97483		

Comment:

Manual Basin: NRU0495

Scenario: Alt3
Node: NRU0495
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7046 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2248	1400	A	97483		
0.4694	1300	A	97483		
0.0103	8100	A	97483		

Comment:

Manual Basin: NRU0500

Scenario: Alt3
Node: NRU0500
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7226 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7162	1400	A	97483		
0.0063	8100	A	97483		

Comment:

Manual Basin: NRU0510

Scenario: Alt3
Node: NRU0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.0446 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0827	1300	A/D	97483		
7.0694	1300	A	97483		
0.3066	1300	A/D	97482		
1.5816	1300	A	97482		
0.0043	8100	A	97483		

Comment:

Manual Basin: NRU0550

Scenario: Alt3
Node: NRU0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.6652 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6649	1300	A/D	97482		
0.0002	1300	A	97482		

Comment:

Manual Basin: NRU0570

Scenario: Alt3
Node: NRU0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2061 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0481	1300	A/D	97482		
4.1580	1300	A	97482		

Comment:

Manual Basin: NRU0590

Scenario: Alt3
Node: NRU0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9773 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9773	1300	A	97482		

Comment:

Manual Basin: NRU0610

Scenario: Alt3
Node: NRU0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.6775 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
13.6775	1300	A	97482		

Comment:

Manual Basin: NRU0612

Scenario: Alt3
Node: NRU0612
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.6868 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6868	1300	A	97482		

Comment:

Manual Basin: NRU0616

Scenario: Alt3
Node: NRU0616
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4792 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8728	1300	A	97483		
0.6064	1300	A	97482		

Comment:

Manual Basin: NRU0618

Scenario: Alt3
Node: NRU0618
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 4.1786 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2382	1300	A	97483		
0.9404	1300	A	97482		

Comment:

Manual Basin: NRU0620

Scenario: Alt3
Node: NRU0620
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.4480 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.4382	1300	A	97482		
0.0098	1300	A/D	97482		

Comment:

Manual Basin: NRU0630

Scenario: Alt3
Node: NRU0630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6761 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6761	1300	A	97482		

Comment:

Manual Basin: NRU0650

Scenario: Alt3
Node: NRU0650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8666 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8666	1300	A	97482		

Comment:

Manual Basin: NRU0690

Scenario: Alt3
Node: NRU0690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5910 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.5910	1300	A	97482		

Comment:

Manual Basin: NRU0710

Scenario: Alt3
Node: NRU0710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2980 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.2980	1300	A	97482		

Comment:

Manual Basin: NRU0730

Scenario: Alt3
Node: NRU0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 12.8353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.8353	1300	A	97482		

Comment:

Manual Basin: NRU0740

Scenario: Alt3
Node: NRU0740
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2562 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2562	1300	A	97482		

Comment:

Manual Basin: NRU0745

Scenario: Alt3

Node: NRU0745
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4582 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4582	1300	A	97482		

Comment:

Manual Basin: NRU0750

Scenario: Alt3
Node: NRU0750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.7082 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
15.0321	1300	A	97482		
0.6761	1400	A	97482		

Comment:

Manual Basin: NRU0785

Scenario: Alt3
Node: NRU0785
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3526 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7187	1300	A	97482		
0.1093	1300	A	97483		
0.5053	1400	A	97482		
0.0193	1400	A	97483		

Comment:

Manual Basin: NRU0790

Scenario: Alt3
Node: NRU0790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.0594 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3869	1400	A	97483		
4.6360	1400	A	97482		
0.0050	1300	A	97482		
4.0315	1400	D	97482		

Comment:

Manual Basin: NRU0830

Scenario: Alt3
Node: NRU0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1448 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2160	1400	A	97483		
1.3643	1400	A	97482		
0.0959	1400	D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1497	1300	A	97483		
0.3189	1300	A	97482		

Comment:

Manual Basin: NRU0890

Scenario: Alt3
Node: NRU0890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2093 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2057	1400	A	97482		
1.3396	1300	A	97482		
0.3680	1300	A	97483		
0.8861	5300	A	97482		
0.2938	5300	A	97483		
0.1160	1400	A	97483		

Comment:

Manual Basin: NRU0930

Scenario: Alt3
Node: NRU0930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7012 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5013	1300	A	97483		
0.1999	1300	A	97482		

Comment:

Manual Basin: NRU0950

Scenario: Alt3
Node: NRU0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.7985 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0709	1400	D	97482		
0.4050	1400	A	97482		
1.3226	1300	A	97482		

Comment:

Manual Basin: NRU0955

Scenario: Alt3
Node: NRU0955
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8435 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0964	1300	A	97482		
1.7471	1300	A	97956		

Comment:

Manual Basin: NRU0960

Scenario: Alt3
Node: NRU0960

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2794 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2794	1300	A	97956		

Comment:

Manual Basin: NRU0965

Scenario: Alt3
Node: NRU0965
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.6879 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8978	1300	A	97956		
1.7901	1300	A/D	97956		

Comment:

Manual Basin: NRU0970

Scenario: Alt3
Node: NRU0970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6908 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4593	1400	A	97483		
0.3510	1400	A	97482		
0.2604	1300	A	97482		
0.0003	1300	A	97483		
0.0657	1400	A	97956		
1.5542	1300	A	97956		

Comment:

Manual Basin: NRU1010

Scenario: Alt3
Node: NRU1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3089 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2367	1400	A	97483		
0.9826	1300	A	97483		
0.0339	1300	A/D	97483		
0.0558	1400	A/D	97483		

Comment:

Manual Basin: NRU1015

Scenario: Alt3
Node: NRU1015
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4853 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9018	1300	A	97483		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1720	1400	A	97483		
0.7445	1400	A/D	97483		
0.6630	1300	A/D	97483		
0.0040	1400	A/D	97957		

Comment:

Manual Basin: NRU1020

Scenario: Alt3
Node: NRU1020
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3193 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3080	1300	A	97483		
0.0113	1300	A/D	97483		

Comment:

Manual Basin: NRU1030

Scenario: Alt3
Node: NRU1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.0154 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8477	1400	A/D	97957		
1.3017	1300	A/D	97957		
1.5655	1300	A	97956		
0.1038	1300	A	97957		
0.1967	1300	A/D	97956		

Comment: CHEAP roof drains on west side of building

Manual Basin: NRU1035

Scenario: Alt3
Node: NRU1036
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2098 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2098	1400	A/D	97957		

Comment:

Manual Basin: NRU1040

Scenario: Alt3
Node: NRU1040
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3126 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1340	1400	A	97483		
0.0188	1400	A	97482		
0.2082	1400	A	97957		
0.0263	1400	A	97956		
1.1956	1300	A	97957		
0.4509	1300	A	97956		
0.9643	1400	A/D	97957		
0.3146	1300	A/D	97957		

Comment:

Manual Basin: NRU1045

Scenario: Alt3
Node: NRU1045
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.9788 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5370	1400	A/D	97483		
0.1519	1400	A	97483		
3.2214	1400	A/D	97957		
0.0685	1400	A	97957		

Comment:

Manual Basin: NRU1050

Scenario: Alt3
Node: NRU1050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.3263 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.2529	1300	A/D	97957		
0.1284	1400	A/D	97957		
3.2071	1300	A/D	97956		
0.6420	1300	A	97956		
0.0958	1400	A/D	97956		

Comment:

Manual Basin: NRU1070

Scenario: Alt3
Node: NRU1070
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.3113 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4912	1300	A/D	97957		
0.4073	1300	A/D	97956		
2.7103	1400	A/D	97957		
0.6749	1400	A/D	97956		
0.0277	1400	D	97957		

Comment:

Manual Basin: NRU1110

Scenario: Alt3
Node: NRU1110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4386 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9243	1300	A	97482		
1.5143	1300	A	97483		

Comment:

Manual Basin: NRU1150

Scenario: Alt3
Node: NRU1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 5.6589 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.3204	1300	A	97482		
1.3385	1300	A	97483		

Comment:

Manual Basin: NRU1170

Scenario: Alt3
Node: NRU1170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.2984 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.0988	1300	A	97482		
5.9207	1300	A	97483		
0.2789	1400	A	97483		

Comment:

Manual Basin: NRU1182

Scenario: Alt3
Node: NRU1182
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2927 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0312	1300	A	97483		
1.2614	1700	A	97483		

Comment:

Manual Basin: NRU1185

Scenario: Alt3
Node: NRU1185
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.4406 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5105	1300	A	97483		
2.5737	1400	A	97483		
1.3564	1700	A	97483		

Comment:

Manual Basin: NRU1188

Scenario: Alt3
Node: NRU1188
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3012 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1053	1300	A	97483		
1.1958	1700	A	97483		

Comment:

Manual Basin: NRU1220

Scenario: Alt3
Node: NRU1220
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9601 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.7034	1300	A	97483		
0.3380	1300	A	97482		
0.9187	1400	A	97483		

Comment:

Manual Basin: NRU1225

Scenario: Alt3
Node: NRU1225
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5031 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5031	1300	A	97483		

Comment:

Manual Basin: NRU1234

Scenario: Alt3
Node: NRU1234
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2454 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2037	1700	A	97483		
0.0002	1300	A	97483		
0.0416	1400	A	97483		

Comment:

Manual Basin: NRU1240

Scenario: Alt3
Node: NRU1240
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3933 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3919	1400	A	97483		
0.0014	1300	A	97483		

Comment:

Manual Basin: NRU1250

Scenario: Alt3
Node: NRU1250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0793 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3808	8100	A/D	97008		
0.1567	1300	A/D	97008		
0.2537	1300	A/D	97482		
0.2882	8100	A/D	97482		

Comment:

Manual Basin: NRU1270

Scenario: Alt3

Node: NRU1270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.0265 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7322	1300	A/D	97008		
1.2943	1300	A/D	97482		

Comment:

Manual Basin: NRU1330

Scenario: Alt3
Node: NRU1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6339 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1447	8100	A/D	97482		
0.2164	1300	A/D	97482		
1.2727	1800	A/D	97482		

Comment:

Manual Basin: NRU1350

Scenario: Alt3
Node: NRU1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 1.7533 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7533	1300	A/D	97482		

Comment:

Manual Basin: NRU1370

Scenario: Alt3
Node: NRU1370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.3283 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5186	1300	A/D	97008		
0.0402	1400	A/D	97008		
4.3960	1300	A/D	97482		
1.3735	1400	A/D	97482		

Comment:

Manual Basin: NRU1390

Scenario: Alt3
Node: NRU1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.3781 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.9929	1300	A/D	97482		
2.6523	1400	A/D	97482		
0.7329	1800	A/D	97482		

Comment:

Manual Basin: NRU1410

Scenario: Alt3
Node: NRU1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.7877 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4994	1400	A/D	97482		
6.1874	1300	A/D	97482		
0.1009	1820	A/D	97482		

Comment:

Manual Basin: NRU1430

Scenario: Alt3
Node: NRU1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.5087 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9651	1400	A/D	97008		
3.2907	1300	A/D	97008		
1.2781	1400	A/D	97482		
1.9747	1300	A/D	97482		

Comment:

Manual Basin: NRU1450

Scenario: Alt3
Node: NRU1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.2294 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2390	1400	A/D	97008		
3.9904	1300	A/D	97008		

Comment:

Manual Basin: NRU1490

Scenario: Alt3
Node: NRU1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3216 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.3072	1400	A/D	97008		
0.0145	8100	A/D	97008		

Comment:

Manual Basin: NRU1510

Scenario: Alt3
Node: NRU1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4857 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0613	1820	A/D	97482		
4.0198	1300	A/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8969	1400	A/D	97482		
0.3482	1820	A	97482		
2.8706	1300	A	97482		
0.2596	1400	A	97482		
0.0293	1800	A	97482		

Comment:

Manual Basin: NRU1530

Scenario: Alt3
Node: NRU1530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8215 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0073	1300	A/D	97482		
1.0664	1820	A/D	97482		
0.7478	1820	A	97482		

Comment:

Manual Basin: NRU1550

Scenario: Alt3
Node: NRU1550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.3558 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0123	1300	A/D	97482		
0.0447	1820	A/D	97482		
0.3531	1820	A	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9456	1300	A	97482		

Comment:

Manual Basin: NRU1570

Scenario: Alt3
Node: NRU1570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.9266 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9266	1300	A/D	97482		

Comment:

Manual Basin: NRU1590

Scenario: Alt3
Node: NRU1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1239 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8642	1300	A/D	97482		
0.2558	1820	A/D	97482		
0.0040	1820	A	97482		

Comment:

Manual Basin: NRU1610

Scenario: Alt3
Node: NRU1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.6841 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.8309	1300	A/D	97482		
1.3310	1300	C/D	97482		
0.3939	1820	A/D	97482		
0.1283	1820	C/D	97482		

Comment:

Manual Basin: NRU1650

Scenario: Alt3
Node: NRU1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.6442 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4600	1300	A/D	97482		
7.0760	1300	C/D	97482		
0.1082	1820	C/D	97482		

Comment:

Manual Basin: NRU1670

Scenario: Alt3
Node: NRU1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min

Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.8381 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
14.4600	1300	C/D	97482		
0.2659	1700	C/D	97482		
0.0234	1300	A/D	97482		
0.0180	1700	D	97482		
0.0505	1300	D	97482		
0.0204	1820	C/D	97482		

Comment:

Manual Basin: NRU1690

Scenario: Alt3
Node: NRU1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0769 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2375	1700	D	97482		
0.6127	1700	C/D	97482		
2.5293	1300	C/D	97482		
0.6975	1300	D	97482		

Comment:

Manual Basin: NRU1730

Scenario: Alt3
Node: NRU1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 5.5630 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9199	1300	C/D	97482		
2.2692	1820	C/D	97482		
0.3740	5300	C/D	97482		

Comment:

Manual Basin: NRU1770

Scenario: Alt3
Node: NRU1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2748 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6910	1820	C/D	97482		
0.5838	1300	C/D	97482		

Comment:

Manual Basin: NRU1790

Scenario: Alt3
Node: NRU1790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8045 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8045	1820	C/D	97482		

Comment:

Manual Basin: NRU1810

Scenario: Alt3
Node: NRU1810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.6712 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3317	1820	C/D	97482		
0.3395	5300	C/D	97482		

Comment:

Manual Basin: NRU1830

Scenario: Alt3
Node: NRU1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2746 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7041	1820	C/D	97482		
2.4386	1300	C/D	97482		
0.1319	1300	A/D	97482		

Comment:

Manual Basin: NRU1890

Scenario: Alt3
Node: NRU1890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.9910 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.5927	1300	C/D	97482		
0.3983	1300	A/D	97482		

Comment:

Manual Basin: NRU1910

Scenario: Alt3
Node: NRU1910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2999 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2336	1300	C/D	97482		
3.0663	1300	A/D	97482		

Comment:

Manual Basin: NRU1930

Scenario: Alt3
Node: NRU1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2841 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1560	1820	A/D	97482		
6.1047	1820	A	97482		
0.0212	1300	A	97482		
0.0022	1800	A	97482		

Comment:

Manual Basin: NRU1990

Scenario: Alt3
Node: NRU1990
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 56.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6087 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8070	1820	A	97482		
2.0906	1820	A/D	97482		
0.7112	1820	C/D	97482		

Comment:

Manual Basin: NRU2010

Scenario: Alt3
Node: NRU2010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8104 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7289	1820	C/D	97482		
0.0814	1300	C/D	97482		

Comment:

Manual Basin: NRU2030

Scenario: Alt3

Node: NRU2030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 28.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.2671 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.2452	1820	C/D	97482		
0.0220	1820	A	97482		

Comment:

Manual Basin: NRU2070

Scenario: Alt3
Node: NRU2070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3101 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0733	1820	C/D	97482		
0.2368	5300	C/D	97482		

Comment:

Manual Basin: NRU2090

Scenario: Alt3
Node: NRU2090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 79.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.2298 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0527	1820	A/D	97482		
2.6158	1820	A	97482		
1.5612	1820	C/D	97482		

Comment:

Manual Basin: NRU2110

Scenario: Alt3
Node: NRU2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6852 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6393	1820	A	97482		
0.0459	1820	C/D	97482		

Comment:

Manual Basin: NRU2130

Scenario: Alt3
Node: NRU2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5209 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5132	1820	C/D	97482		
0.0077	1820	A	97482		

Comment:

Manual Basin: NRU2150

Scenario: Alt3
Node: NRU2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 29.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.6703 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6701	1820	C/D	97482		
0.0002	5300	C/D	97482		

Comment:

Manual Basin: NRU2190

Scenario: Alt3
Node: NRU2190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7804 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.1449	1820	C/D	97482		
0.6356	5300	C/D	97482		

Comment:

Manual Basin: NRU2230

Scenario: Alt3
Node: NRU2230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 6.5224 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7651	1820	A	97482		
1.6944	5300	A	97482		
1.9385	1820	C/D	97482		
0.1244	5300	C/D	97482		

Comment:

Manual Basin: NRU2250

Scenario: Alt3
Node: NRU2250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4592 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0391	1820	A	97482		
0.4200	5300	A	97482		

Comment:

Manual Basin: NRU2270

Scenario: Alt3
Node: NRU2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8116 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8116	1820	C/D	97482		

Comment:

Manual Basin: NRU2290

Scenario: Alt3
Node: NRU2290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 29.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5677	1820	C/D	97482		
1.9751	1300	C/D	97482		

Comment:

Manual Basin: NRU2310

Scenario: Alt3
Node: NRU2310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4937 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2163	1820	C/D	97482		
1.2774	1300	C/D	97482		

Comment:

Manual Basin: NRU2330

Scenario: Alt3
Node: NRU2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 56.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 4.2881 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1778	1820	A	97482		
2.0877	1820	C/D	97482		
2.0225	1300	C/D	97482		

Comment:

Manual Basin: NRU2390

Scenario: Alt3
Node: NRU2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8038 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9834	1820	C/D	97482		
1.0319	1820	A	97482		
0.5080	5300	A	97482		
0.2318	5300	C/D	97482		
0.0291	1820	A/D	97482		
0.0195	1300	C/D	97482		

Comment:

Manual Basin: NRU2410

Scenario: Alt3
Node: NRU2410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1352	1820	A	97482		
0.0000	1820	C/D	97482		

Comment:

Manual Basin: NRU2430

Scenario: Alt3
Node: NRU2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 52.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.2471 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.8911	1820	A	97482		
0.0344	1820	A/D	97482		
0.0234	1820	C/D	97482		
0.7924	1300	C/D	97482		
0.8716	1300	A/D	97482		
1.6341	1300	A	97482		

Comment:

Manual Basin: NRU2450

Scenario: Alt3
Node: NRU2450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.7414 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7302	1820	A	97482		
0.0112	1800	A	97482		

Comment:

Manual Basin: NRU2490

Scenario: Alt3
Node: NRU2490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2343 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3667	1800	A	97482		
1.8676	1820	A	97482		

Comment:

Manual Basin: NRU2550

Scenario: Alt3
Node: NRU2550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2667 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0288	1300	A	97482		
1.5707	1400	A	97482		
3.1500	1800	A	97482		
0.0106	1820	A	97482		
0.9046	1400	A/D	97482		
0.6021	1300	A/D	97482		

Comment:

Manual Basin: NRU2570

Scenario: Alt3
Node: NRU2570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.4682 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5996	1800	A	97482		
1.0828	1400	A	97482		
0.3515	1820	A	97482		
1.8422	1300	A/D	97482		
0.1124	1400	A/D	97482		
3.4797	1300	A	97482		

Comment:

Manual Basin: NRU2590

Scenario: Alt3
Node: NRU2590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8716 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0965	1300	A/D	97482		
0.7751	1300	A	97482		

Comment:

Manual Basin: NRU2610

Scenario: Alt3
Node: NRU2610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.4683 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.1549	1300	A	97482		
0.9905	1300	A/D	97482		
0.3229	1820	A	97482		

Comment:

Manual Basin: NRU2630

Scenario: Alt3
Node: NRU2630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.4474 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.1250	1300	A	97482		
0.3224	1820	A	97482		

Comment:

Manual Basin: NRU2650

Scenario: Alt3
Node: NRU2650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.4821 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.1392	1300	A	97482		
0.3429	1820	A	97482		

Comment:

Manual Basin: NRU2670

Scenario: Alt3
Node: NRU2670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.8282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2885	1300	A/D	97008		
6.4714	1300	A/D	97482		
0.0683	1300	C/D	97482		

Comment:

Manual Basin: NRU2690

Scenario: Alt3
Node: NRU2690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 60.9803 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8658	1400	A/D	97008		
21.9587	1300	A/D	97008		
12.6064	1300	A/D	97482		
24.2615	1300	C/D	97482		
0.0000	1300	C/D	97008		
1.2879	1700	C/D	97482		

Comment:

Manual Basin: NSH20

Scenario: Alt3
Node: NSH20
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9879 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4945	1300	A/D	97483		
0.4896	1300	A	97483		
0.0038	1400	A	97483		

Comment:

Manual Basin: NSR0030

Scenario: Alt3
Node: NSR0030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5719 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6929	1300	A	97480		
0.9228	5400	A	97480		
1.0943	5400	W	97480		
0.3865	1300	A/D	97480		
0.4693	5400	A/D	97480		
0.0063	1300	W	97480		

Comment:

Manual Basin: NSR0032

Scenario: Alt3
Node: NSR0032
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5073 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7232	1300	A	97480		
1.7663	1300	A/D	97480		
0.0178	1300	W	97480		

Comment:

Manual Basin: NSR0034

Scenario: Alt3
Node: NSR0034
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.8157 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
9.4621	1300	A/D	97480		
4.3536	1300	A	97480		

Comment:

Manual Basin: NSR0050

Scenario: Alt3
Node: NSR0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8984 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9647	1300	A/D	97480		
0.9337	5400	A/D	97480		

Comment:

Manual Basin: NSR0070

Scenario: Alt3
Node: NSR0070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5624 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0568	1300	A/D	97481		
3.4691	1300	A/D	97480		
0.0364	5400	A/D	97480		

Comment:

Manual Basin: NSR0090

Scenario: Alt3
Node: NSR0090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.8858 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.8853	1300	A/D	97480		
0.0005	1300	A/D	97481		

Comment:

Manual Basin: NSR0100

Scenario: Alt3
Node: NSR0100
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.1125 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3774	1300	A/D	97480		
0.7351	1300	A	97480		

Comment:

Manual Basin: NSR0102

Scenario: Alt3
Node: NSR0102
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9685 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9193	1300	A/D	97480		
0.0492	1300	A	97480		

Comment:

Manual Basin: NSR0105

Scenario: Alt3
Node: NSR0105
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.2784 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2314	1300	A/D	97480		
0.0470	1300	A	97480		

Comment:

Manual Basin: NSR0110

Scenario: Alt3
Node: NSR0110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5080 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.5080	1300	A/D	97480		

Comment:

Manual Basin: NSR0112

Scenario: Alt3
Node: NSR0112
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3329 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3329	1300	A/D	97480		

Comment:

Manual Basin: NSR0115

Scenario: Alt3
Node: NSR0115
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6321 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6321	1300	A/D	97480		

Comment:

Manual Basin: NSR0120

Scenario: Alt3
Node: NSR0120
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.4524 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4524	1300	A/D	97480		

Comment:

Manual Basin: NSR0130

Scenario: Alt3
Node: NSR0130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0325 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0325	1300	A/D	97480		

Comment:

Manual Basin: NSR0135

Scenario: Alt3
Node: NSR0135
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0019 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0019	1300	A/D	97480		

Comment:

Manual Basin: NSR0140

Scenario: Alt3
Node: NSR0140
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.9814 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9814	1300	A/D	97480		

Comment:

Manual Basin: NSR0150

Scenario: Alt3
Node: NSR0150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4229 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0961	1300	A/D	97480		
0.1332	1300	A/D	97481		
0.1936	1800	A/D	97481		

Comment:

Manual Basin: NSR0160

Scenario: Alt3
Node: NSR0160
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1118 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0816	1300	A/D	97480		
0.0302	1300	A/D	97481		

Comment:

Manual Basin: NSR0165

Scenario: Alt3
Node: NSR0165
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8662 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8264	1300	A/D	97480		
0.0397	1300	A/D	97481		

Comment:

Manual Basin: NSR0170

Scenario: Alt3
Node: NSR0170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8156 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8156	1300	A/D	97480		

Comment:

Manual Basin: NSR0180

Scenario: Alt3
Node: NSR0180
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8255 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7332	1300	A/D	97480		
0.0922	1300	A/D	97481		

Comment:

Manual Basin: NSR0190

Scenario: Alt3
Node: NSR0190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8511 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3687	1300	A/D	97480		
0.4825	1300	A/D	97481		

Comment:

Manual Basin: NSR0210

Scenario: Alt3
Node: NSR0210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1410 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6343	1300	A/D	97481		
0.0015	1800	A/D	97481		
0.5052	1300	A/D	97480		

Comment:

Manual Basin: NSR0230

Scenario: Alt3
Node: NSR0230
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5473 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.0950	1300	A/D	97481		
2.4523	1300	A/D	97480		

Comment:

Manual Basin: NSR0270

Scenario: Alt3
Node: NSR0270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0458	1800	A/D	97481		
0.8979	1300	A/D	97480		
3.9201	1300	A/D	97481		

Comment:

Manual Basin: NSR0280

Scenario: Alt3
Node: NSR0280
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4029 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4029	1300	A/D	97481		

Comment:

Manual Basin: NSR0281

Scenario: Alt3
Node: NSR0281
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.0897 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.0897	1300	A/D	97481		

Comment:

Manual Basin: NSR0290

Scenario: Alt3
Node: NSR0290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.2170 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
6.2170	1300	A/D	97481		

Comment:

Manual Basin: NSR0310

Scenario: Alt3
Node: NSR0310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.1088 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0360	1400	A/D	97481		
10.1506	1700	A/D	97481		
5.9222	1300	A/D	97481		

Comment:

Manual Basin: NSR0370

Scenario: Alt3
Node: NSR0370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.9327 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.9217	1700	A/D	97481		
0.0110	1300	A/D	97481		

Comment:

Manual Basin: NSR0390

Scenario: Alt3
Node: NSR0390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 23.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.0658 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2946	1300	A/D	97481		
2.7713	1700	A/D	97481		

Comment:

Manual Basin: NSR0430

Scenario: Alt3
Node: NSR0430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2328 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7346	1700	A/D	97481		
0.4982	1300	A/D	97481		

Comment:

Manual Basin: NSR0450

Scenario: Alt3
Node: NSR0450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8329 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1758	1300	A/D	97481		
3.6571	1700	A/D	97481		

Comment:

Manual Basin: NSR0470

Scenario: Alt3
Node: NSR0470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 2.7787 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7787	1300	A/D	97481		

Comment:

Manual Basin: NSR0490

Scenario: Alt3
Node: NSR0490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.8575 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.8575	1300	A/D	97481		

Comment:

Manual Basin: NSR0510

Scenario: Alt3
Node: NSR0510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2225 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2225	1300	A/D	97481		

Comment:

Manual Basin: NSR0530

Scenario: Alt3
Node: NSR0530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.1079 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2199	1300	A/D	97480		
2.8880	1300	A/D	97481		

Comment:

Manual Basin: NSR0540

Scenario: Alt3
Node: NSR0540
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1820 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1792	1300	A/D	97481		
0.0028	1300	A/D	97480		

Comment:

Manual Basin: NSR0550

Scenario: Alt3
Node: NSR0550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 1.4950 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3008	1300	A/D	97481		
0.1942	1300	A/D	97480		

Comment:

Manual Basin: NSR0560

Scenario: Alt3
Node: NSR0560
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.8730 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.2038	1300	A/D	97481		
0.6692	1300	A/D	97480		

Comment:

Manual Basin: NSR0570

Scenario: Alt3
Node: NSR0570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.5001 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.1522	1300	A/D	97481		
0.3479	1300	A/D	97480		

Comment:

Manual Basin: NSR0580

Scenario: Alt3
Node: NSR0580
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5362 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9697	1300	A/D	97481		
1.5665	1300	A	97481		

Comment:

Manual Basin: NSR0590

Scenario: Alt3
Node: NSR0590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6611 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6611	1300	A/D	97481		

Comment:

Manual Basin: NSR0610

Scenario: Alt3
Node: NSR0610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 4.4880 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.4880	1300	A/D	97481		

Comment:

Manual Basin: NSR0650

Scenario: Alt3
Node: NSR0650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.2984 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.3918	1300	A/D	97481		
0.9066	1300	A	97481		

Comment:

Manual Basin: NSR0660

Scenario: Alt3
Node: NSR0660
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2774 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9902	1300	A/D	97481		
0.2871	1300	A	97481		

Comment:

Manual Basin: NSR0680

Scenario: Alt3
Node: NSR0680
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.3646 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7806	1300	A/D	97481		
1.5840	1300	A/D	97480		

Comment:

Manual Basin: NSR0730

Scenario: Alt3
Node: NSR0730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 11.2491 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
11.2491	1300	A/D	97481		

Comment:

Manual Basin: NSR0770

Scenario: Alt3
Node: NSR0770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 2.0172 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0172	1300	A/D	97481		

Comment:

Manual Basin: NSR0780

Scenario: Alt3
Node: NSR0780
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2311 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.2311	1300	A/D	97481		

Comment:

Manual Basin: NSR0790

Scenario: Alt3
Node: NSR0790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 17.9154 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
10.6602	1300	A/D	97481		
7.2552	1700	A/D	97481		

Comment:

Manual Basin: NSR0810

Scenario: Alt3
Node: NSR0810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.7174 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9131	1700	A/D	97481		
3.8044	1300	A/D	97481		

Comment:

Manual Basin: NSR0830

Scenario: Alt3
Node: NSR0830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 23.6571 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2753	1400	A/D	97481		
19.9901	1300	A/D	97481		
3.3917	1700	A/D	97481		

Comment:

Manual Basin: NSR0840

Scenario: Alt3
Node: NSR0840
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.8766 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.6235	1400	A/D	97481		
0.2531	1300	A/D	97481		

Comment:

Manual Basin: NSR0850

Scenario: Alt3
Node: NSR0850
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.3592 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7670	1400	A/D	97481		
5.5922	1300	A/D	97481		

Comment:

Manual Basin: NSR0860

Scenario: Alt3
Node: NSR0860
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.6225 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6225	1300	A/D	97481		

Comment:

Manual Basin: NSR0870

Scenario: Alt3
Node: NSR0870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.5092 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5092	1400	A/D	97481		

Comment:

Manual Basin: NSR0880

Scenario: Alt3
Node: NSR0880
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.5097 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5461	1400	A/D	97481		
2.2860	1400	D	97481		
1.5455	1300	A/D	97481		
0.1321	1300	D	97481		

Comment:

Manual Basin: NSR0881

Scenario: Alt3
Node: NSR0881
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2181 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9194	1400	D	97481		
0.1466	1300	D	97481		
0.0044	1300	A/D	97481		
0.1335	1700	D	97481		
0.0141	1700	A/D	97481		

Comment:

Manual Basin: NSR0890

Scenario: Alt3
Node: NSR0890
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.0131 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.7212	1300	A/D	97481		
3.9859	1800	A/D	97481		
0.3060	5300	A/D	97481		

Comment:

Manual Basin: NSR0910

Scenario: Alt3
Node: NSR0910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.2129 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.3757	1300	A/D	97481		
0.8372	1800	A/D	97481		

Comment:

Manual Basin: NSR0930

Scenario: Alt3
Node: NSR0930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.9711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.5193	1300	A/D	97481		
0.4518	5300	A/D	97481		

Comment:

Manual Basin: NSR0950

Scenario: Alt3
Node: NSR0950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.0039 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
13.7571	1300	A/D	97481		
0.2467	1400	A/D	97481		

Comment:

Manual Basin: NSR1010

Scenario: Alt3
Node: NSR1010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0137 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1854	1400	A/D	97481		
0.8282	1300	A/D	97481		

Comment:

Manual Basin: NSR1030

Scenario: Alt3
Node: NSR1030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.1569 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0381	1400	A/D	97481		
0.1188	1300	A/D	97481		

Comment:

Manual Basin: NSR1050

Scenario: Alt3
Node: NSR1050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256

Peaking Factor: 256.0
Area: 0.8440 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5187	1300	A/D	97481		
0.3253	1400	A/D	97481		

Comment:

Manual Basin: NSR1070

Scenario: Alt3
Node: NSR1070
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 20.9918 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.4824	1300	A/D	97481		
13.4034	1400	A/D	97481		
0.1060	1700	A/D	97481		

Comment:

Manual Basin: NSR1090

Scenario: Alt3
Node: NSR1090
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.2749 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2749	1300	A/D	97481		

Comment:

Manual Basin: NSR1110

Scenario: Alt3
Node: NSR1110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.6851 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6851	1300	A/D	97481		

Comment:

Manual Basin: NSR1130

Scenario: Alt3
Node: NSR1130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.5665 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2059	1300	A/D	97481		
6.3605	1400	A/D	97481		

Comment:

Manual Basin: NSR1150

Scenario: Alt3
Node: NSR1150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 1.6292 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2676	1300	A/D	97481		
1.3616	1400	A/D	97481		

Comment:

Manual Basin: NSR1190

Scenario: Alt3
Node: NSR1190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3456 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3456	1300	A/D	97481		

Comment:

Manual Basin: NSR1210

Scenario: Alt3
Node: NSR1210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8115 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.9527	1300	A/D	97481		
0.8587	1400	A/D	97481		

Comment:

Manual Basin: NSR1290

Scenario: Alt3
Node: NSR1290
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9738 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9738	1300	A/D	97481		

Comment:

Manual Basin: NSR1310

Scenario: Alt3
Node: NSR1310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.2211 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.9137	1300	A/D	97481		
1.3074	1400	A/D	97481		

Comment:

Manual Basin: NSR1330

Scenario: Alt3
Node: NSR1330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.3336 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3336	1300	A/D	97481		

Comment:

Manual Basin: NSR1350

Scenario: Alt3
Node: NSR1350
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 31.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 13.8927 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
12.4993	1300	A/D	97481		
1.2382	8300	A/D	97481		
0.1551	1400	A/D	97481		

Comment:

Manual Basin: NSR1390

Scenario: Alt3
Node: NSR1390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.9619 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9619	1300	A/D	97481		

Comment:

Manual Basin: NSR1410

Scenario: Alt3
Node: NSR1410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.6248 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6248	1300	A/D	97481		

Comment:

Manual Basin: NSR1430

Scenario: Alt3
Node: NSR1430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.7061 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.7061	1300	A/D	97481		

Comment:

Manual Basin: NSR1450

Scenario: Alt3
Node: NSR1450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 9.3736 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.9527	1300	A/D	97481		
0.4209	5300	A/D	97481		

Comment:

Manual Basin: NSR1470

Scenario: Alt3
Node: NSR1470
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.6192 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.6192	1300	A/D	97481		

Comment:

Manual Basin: NSR1490

Scenario: Alt3
Node: NSR1490
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 16.7549 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
15.9075	1300	A/D	97481		
0.4399	1400	A/D	97481		
0.4075	5300	A/D	97481		

Comment:

Manual Basin: NSR1510

Scenario: Alt3
Node: NSR1510
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 36.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.9575 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.1721	1400	A/D	97481		
11.7853	1300	A/D	97481		

Comment:

Manual Basin: NSR1530

Scenario: Alt3
Node: NSR1530
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.4394 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4394	1300	A/D	97481		

Comment:

Manual Basin: NSR1550

Scenario: Alt3
Node: NSR1550
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 0.3905 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3905	1300	A/D	97481		

Comment:

Manual Basin: NSR1570

Scenario: Alt3
Node: NSR1570
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.0108 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0108	1300	A/D	97481		

Comment:

Manual Basin: NSR1590

Scenario: Alt3
Node: NSR1590
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.4326 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.4326	1300	A/D	97481		

Comment:

Manual Basin: NSR1610

Scenario: Alt3
Node: NSR1610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.3518 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.3518	1300	A/D	97481		

Comment:

Manual Basin: NSR1630

Scenario: Alt3
Node: NSR1630
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3270	1300	A/D	97481		

Comment:

Manual Basin: NSR1650

Scenario: Alt3
Node: NSR1650
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8103 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient	Reference ET

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8103	1300	A/D	97481		

Comment:

Manual Basin: NSR1670

Scenario: Alt3
Node: NSR1670
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.1548 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.0780	1300	A/D	97481		
0.0768	1400	A/D	97481		

Comment:

Manual Basin: NSR1690

Scenario: Alt3
Node: NSR1690
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.3796 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1027	1300	C/D	97481		
0.2513	1300	A/D	97481		
0.0256	1400	C/D	97481		

Comment:

Manual Basin: NSR1710

Scenario: Alt3
Node: NSR1710
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0525 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0071	1400	C/D	97481		
0.0692	1300	C/D	97481		
1.4379	1300	A/D	97481		
0.3118	1300	D	97481		
0.1863	1400	D	97481		
0.0402	1400	A/D	97481		

Comment:

Manual Basin: NSR1730

Scenario: Alt3
Node: NSR1730
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.3641 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0009	1300	A/D	97481		
0.1966	1300	C/D	97481		
0.1978	1400	C/D	97481		
0.0027	1700	C/D	97481		
0.9548	1400	D	97481		
0.0113	1700	D	97481		

Comment:

Manual Basin: NSR1750

Scenario: Alt3
Node: NSR1750
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.8526 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4751	1300	A/D	97481		
0.3775	1300	C/D	97481		

Comment:

Manual Basin: NSR1770

Scenario: Alt3
Node: NSR1770
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5465 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8766	1400	D	97481		
0.0138	1700	D	97481		
0.5923	1400	A/D	97481		
0.0638	1300	A/D	97481		

Comment:

Manual Basin: NSR1790

Scenario: Alt3
Node: NSR1790
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.5648 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2606	1400	D	97481		
0.0687	1300	A/D	97481		
0.0356	1400	A/D	97481		
0.1988	1700	D	97481		
0.0010	1300	D	97481		

Comment:

Manual Basin: NSR1810

Scenario: Alt3
Node: NSR1810
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.8907 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8885	1400	D	97481		
0.0013	1300	A/D	97481		
0.0009	1300	D	97481		

Comment:

Manual Basin: NSR1830

Scenario: Alt3
Node: NSR1830
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 15.9339 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
13.5378	1300	A/D	97481		
0.0273	1300	D	97481		
2.3032	1400	D	97481		
0.0656	1400	A/D	97481		

Comment:

Manual Basin: NSR1870

Scenario: Alt3
Node: NSR1870
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.9982 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.2522	1400	D	97481		
0.6794	1400	A/D	97481		
0.6143	1300	A/D	97481		
0.4524	1300	D	97481		

Comment:

Manual Basin: NSR1910

Scenario: Alt3
Node: NSR1910
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 8.9788 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.9788	1400	D	97481		

Comment:

Manual Basin: NSR1930

Scenario: Alt3
Node: NSR1930
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5888 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0094	1300	C/D	97481		
0.0367	1700	C/D	97481		
0.5427	1700	D	97481		

Comment:

Manual Basin: NSR1950

Scenario: Alt3
Node: NSR1950
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 1.1055 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5488	1300	C/D	97482		
0.5535	1300	C/D	97481		
0.0032	1300	A/D	97481		

Comment:

Manual Basin: NSR1970

Scenario: Alt3
Node: NSR1970
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 5.8151 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0339	1300	A/D	97007		
1.3116	1300	C/D	97008		
0.2783	1300	A/D	97008		
0.0857	1300	C/D	97007		
0.9084	1300	C/D	97482		
0.5265	1300	A/D	97481		
0.6707	1300	C/D	97481		

Comment:

Manual Basin: NSR2010

Scenario: Alt3
Node: NSR2010
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 4.1242 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4786	1300	A/D	97007		
0.4291	1300	C/D	97008		
1.2164	1300	A/D	97008		

Comment:

Manual Basin: NSR2050

Scenario: Alt3
Node: NSR2050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0

Area: 3.1130 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4256	1300	A/D	97008		
0.0467	1700	A/D	97008		
0.6281	1700	A/D	97007		
0.9970	1300	A/D	97007		
0.0156	1300	C/D	97008		

Comment:

Manual Basin: NSR2110

Scenario: Alt3
Node: NSR2110
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.2954 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5671	1300	A/D	97008		
1.7282	1300	A/D	97007		

Comment:

Manual Basin: NSR2130

Scenario: Alt3
Node: NSR2130
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.5797 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4532	1300	A/D	97008		
2.1265	1300	A/D	97007		

Comment:

Manual Basin: NSR2150

Scenario: Alt3
Node: NSR2150
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 7.4760 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
3.5407	1700	D	97482		
3.8968	1700	D	97481		
0.0385	1400	D	97481		

Comment:

Manual Basin: NSR2210

Scenario: Alt3
Node: NSR2210
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 41.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 23.7519 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.7724	1700	D	97482		
0.2053	1700	D	97481		
0.0989	1400	D	97481		
0.2558	1300	D	97481		
0.3983	1300	D	97482		
5.6095	1300	C/D	97482		
0.0747	1300	C/D	97481		
0.0460	1400	C/D	97482		
0.0583	1400	A/D	97482		
9.2328	1300	A/D	97482		

Comment:

Manual Basin: NSR2250

Scenario: Alt3
Node: NSR2250
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.5771 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4888	1400	D	97481		
0.0883	1300	D	97481		

Comment:

Manual Basin: NSR2270

Scenario: Alt3
Node: NSR2270
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3565 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1963	1300	D	97481		
0.2114	1300	C/D	97481		
0.9673	1400	D	97481		
0.9815	1300	C/D	97482		

Comment:

Manual Basin: NSR2310

Scenario: Alt3

Node: NSR2310
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.3456 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0775	1300	C/D	97482		
1.8020	1400	D	97481		
0.0047	1300	D	97481		
0.0074	1300	C/D	97481		
0.2539	1400	C/D	97482		
0.0681	1400	C/D	97481		
0.0002	1400	D	97482		
0.1259	1400	A/D	97482		
0.0058	1400	A/D	97481		

Comment:

Manual Basin: NSR2330

Scenario: Alt3
Node: NSR2330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.2963 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4422	1400	A/D	97482		
1.7708	1400	D	97481		
0.0832	1400	A/D	97481		

Comment:

Manual Basin: NSR2350

Scenario: Alt3
Node: NSR2350

Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 6.0645 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0653	1400	A/D	97482		
3.9834	1400	D	97481		
0.3815	1400	A/D	97481		
0.5911	1300	A/D	97482		
0.0432	1300	A/D	97481		

Comment:

Manual Basin: NSR2390

Scenario: Alt3
Node: NSR2390
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 3.3885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3283	1700	C/D	97481		
0.0191	1700	C/D	97482		
2.8309	1700	D	97481		
0.2102	1700	D	97482		

Comment:

Manual Basin: NSR2410

Scenario: Alt3
Node: NSR2410
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs

Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.4641 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1575	1300	C/D	97482		
0.1874	1300	C/D	97481		
0.0671	1700	C/D	97482		
0.0521	1700	C/D	97481		

Comment:

Manual Basin: NSR2430

Scenario: Alt3
Node: NSR2430
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 0.7438 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4719	1300	C/D	97481		
0.2718	1300	C/D	97482		

Comment:

Manual Basin: NSR2450

Scenario: Alt3
Node: NSR2450
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.0719 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2742	1300	C/D	97482		

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1036	1700	C/D	97482		
8.6941	1700	D	97482		

Comment:

Manual Basin: NSR3000

Scenario: Alt3
Node: NSR3000
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.0775 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.0635	1400	D	97481		
0.0139	1400	A/D	97481		

Comment:

Manual Basin: NSR3020

Scenario: Alt3
Node: NSR3020
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.1505 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
7.6535	1400	D	97481		
0.3180	1300	D	97481		
0.6453	1300	A/D	97481		
1.5337	1400	A/D	97481		

Comment:

Manual Basin: NSR3040

Scenario: Alt3
Node: NSR3040
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 14.6324 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
8.4191	1300	A/D	97481		
3.9750	1400	A/D	97481		
2.2383	1400	D	97481		

Comment:

Manual Basin: NSR3060

Scenario: Alt3
Node: NSR3060
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 2.8878 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6183	1300	A/D	97481		
1.2695	1400	A/D	97481		

Comment:

Manual Basin: NSW0050

Scenario: Alt3
Node: NSW0050
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 99999.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH256
Peaking Factor: 256.0
Area: 10.4530 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
5.6653	1300	A	97481		
1.3752	1800	A	97481		
1.3637	1300	A/D	97481		
2.0489	1300	A/D	97480		

Comment:

Pipe Link: B60in		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.80 ft	Invert:	3.80 ft
From Node:	NSHSelmonUS	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSHSelmonDS	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	332.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BBW2090		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.00 ft	Invert:	9.00 ft
From Node:	NBW2090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	677.62 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BBW2110		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.00 ft	Invert:	8.00 ft
From Node:	NBW2110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	321.22 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BBW2130		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.00 ft	Invert:	6.60 ft
From Node:	NBW2130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	327.14 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BCL3450		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.80 ft	Invert:	9.60 ft
From Node:	NCL3450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3740	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	369.15 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BCL3450A		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.00 ft	Invert:	9.80 ft
From Node:	NCL3250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3450	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	679.82 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BCL3470		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.00 ft	Invert:	9.80 ft
From Node:	NCL3470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3471	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	340.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BCL3471		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.80 ft	Invert:	9.50 ft
From Node:	NCL3471	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3740	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	455.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BCL3490		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.00 ft	Invert:	10.00 ft
From Node:	NCL3490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3470	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	459.06 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed pipe

Pipe Link: BCL3740		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.20 ft	Invert:	9.10 ft
From Node:	NCL3740	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3730	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	12.00 ft	Max Width:	12.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	160.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0495		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.80 ft	Invert:	3.80 ft
From Node:	NRU0495	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSHSelmonUS	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	53.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0500		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.82 ft	Invert:	3.80 ft
From Node:	NRU0500	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0495	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	350.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0510		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.00 ft	Invert:	10.70 ft
From Node:	NRU0510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	THEA_Watrous	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0618		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.20 ft	Invert:	14.50 ft
From Node:	NRU0618	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1220	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	301.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0730		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.53 ft	Invert:	11.68 ft
From Node:	NRU0730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.95 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0750		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.90 ft	Invert:	7.80 ft
From Node:	NRU0747	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	89.73 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0760		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.60 ft	Invert:	10.40 ft
From Node:	NRU0770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	120.65 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0760B		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.80 ft	Invert:	7.50 ft
From Node:	NRU0750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	157.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0790		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.96 ft	Invert:	3.93 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1230	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	623.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0830		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.98 ft	Invert:	3.96 ft
From Node:	NRU0830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0790	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	424.56 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0840		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.00 ft	Invert:	3.98 ft
From Node:	NRU0840	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0830	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	100.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0850		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.00 ft	Invert:	4.00 ft
From Node:	NRU0850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0840	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	235.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment: Proposed Pipe

Pipe Link: BRU0950		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.00 ft	Invert:	6.00 ft
From Node:	NRU0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0850	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	135.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0955		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.20 ft	Invert:	7.00 ft
From Node:	NRU0955	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0950	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	29.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0960	Upstream	Downstream

Scenario:	Alt3	Invert:	8.20 ft	Invert:	7.20 ft
From Node:	NRU0960	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0955	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	409.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU0965		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.50 ft	Invert:	8.20 ft
From Node:	NRU0965	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0960	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	61.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1030		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.00 ft	Invert:	8.50 ft
From Node:	NRU1030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0965	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	682.07 ft	Op Table:		Op Table:	

FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1040		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.10 ft	Invert:	8.00 ft
From Node:	NRU1040	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1036	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1050		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.50 ft	Invert:	10.00 ft
From Node:	NRU1050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	293.72 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1110		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.50 ft	Invert:	7.30 ft
From Node:	NRU1090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	143.16 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1110B		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.30 ft	Invert:	5.00 ft
From Node:	NRU1110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.55 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1130		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.50 ft	Invert:	8.00 ft
From Node:	NRU1130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	164.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1150		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.00 ft	Invert:	10.50 ft
From Node:	NRU1150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	111.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1220		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.80 ft	Invert:	10.80 ft
From Node:	NRU1220	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0500	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1230		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.93 ft	Invert:	3.93 ft

From Node:	NRU1230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1232	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	49.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BRU1232		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.93 ft	Invert:	3.91 ft
From Node:	NRU1232	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH55	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	300.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH05		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.00 ft	Invert:	1.98 ft
From Node:	NSH05	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH12	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	330.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH12		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.98 ft	Invert:	0.77 ft
From Node:	NSH12	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH13	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	393.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH13		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.77 ft	Invert:	0.46 ft
From Node:	NSH13	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH37	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	100.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000
		Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH14		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.15 ft	Invert:	-0.45 ft
From Node:	NSH14	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH17	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	195.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH16		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.50 ft	Invert:	5.00 ft
From Node:	NSH16	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH18	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH17		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.45 ft	Invert:	-0.91 ft
From Node:	NSH17	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NSH18	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	150.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH18		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.91 ft	Invert:	-2.00 ft
From Node:	NSH18	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH19	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	355.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH19		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.00 ft	Invert:	-2.00 ft
From Node:	NSH19	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH75	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	7.00 ft	Max Depth:	7.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	455.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	

Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH22		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.50 ft	Invert:	8.30 ft
From Node:	NSH22	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH26A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH24		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.00 ft	Invert:	8.00 ft
From Node:	NSH24	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH22	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed pipe

Pipe Link: BSH26		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.50 ft	Invert:	8.30 ft
From Node:	NSH26	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH26A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH26A		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.80 ft	Invert:	7.50 ft
From Node:	NSH26A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH16	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	428.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH37		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.46 ft	Invert:	0.15 ft
From Node:	NSH37	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH14	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	100.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH41		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.50 ft	Invert:	13.00 ft
From Node:	NSH41	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH12	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH41B		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.50 ft	Invert:	13.00 ft
From Node:	JUNCT1	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH12	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH42		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.00 ft	Invert:	-2.00 ft
From Node:	NSH76	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	3	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	75.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Existing outfall box culverts

Pipe Link: BSH43		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.00 ft	Invert:	-2.00 ft
From Node:	NSH75	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH76	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	7.00 ft	Max Depth:	7.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	35.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH49		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.10 ft	Invert:	15.00 ft
From Node:	NSH49	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH85	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH50		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.88 ft	Invert:	3.85 ft
From Node:	NSH50	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH80	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	539.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH52		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.89 ft	Invert:	3.88 ft
From Node:	NSH52	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH50	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	289.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH53		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.30 ft	Invert:	12.15 ft
From Node:	NSH53	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH54	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.70 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH53B		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.60 ft	Invert:	6.40 ft
From Node:	NSH53B	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH52	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	8.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH55		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.91 ft	Invert:	3.89 ft
From Node:	NSH55	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH52	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft

Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	337.50 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH55B		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.70 ft	Invert:	12.30 ft
From Node:	NSH55B	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH55	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH56		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.00 ft	Invert:	12.70 ft
From Node:	NSH56	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1232	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH70		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.85 ft	Invert:	3.84 ft
From Node:	NSH80	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH85	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	165.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH71		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.50 ft	Invert:	12.60 ft
From Node:	NSH71	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH83	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	700.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH83		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.50 ft	Invert:	10.00 ft
From Node:	NSH83	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NSH80	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSH85		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.84 ft	Invert:	3.82 ft
From Node:	NSH85	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0500	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	342.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSHSelmonDS		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.80 ft	Invert:	3.00 ft
From Node:	NSHSelmonDS	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH05	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	260.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000

Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: BSHSelmonUS		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.80 ft	Invert:	3.80 ft
From Node:	NSHSelmonUS	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSHSelmonDS	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	332.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Existing box culvert per as-builts

Channel Link: CHAN1047		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.23 ft	Invert:	7.37 ft
From Node:	NSH19	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH75	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB36FT_FULL	Cross Section:	CB36FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	365.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1048		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.47 ft	Invert:	11.89 ft
From Node:	NSH18	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH19	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_FULL	Cross Section:	CB30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	327.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1049		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.83 ft	Invert:	15.95 ft
From Node:	NSH17	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH18	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB34FT_FULL	Cross Section:	CB34FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	122.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1050		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.52 ft	Invert:	17.11 ft
From Node:	NSH13	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH17	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	376.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1051		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.34 ft	Invert:	17.09 ft
From Node:	NSH14	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH17	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	190.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment: US invert per ERP 30404

Channel Link: CHAN1052		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.64 ft	Invert:	17.67 ft
From Node:	JUNCT1	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH37	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	433.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1053		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.73 ft	Invert:	17.85 ft

From Node:	NSH12	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH13	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	377.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1054		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.42 ft	Invert:	18.91 ft
From Node:	NRU0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH41	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	630.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1055		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.42 ft	Invert:	19.04 ft
From Node:	NSH05	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH12	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	281.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1056		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.48 ft	Invert:	19.47 ft
From Node:	NRU0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH05	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB30FT_HF	Cross Section:	CB30FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	296.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1057		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.22 ft	Invert:	20.74 ft
From Node:	NRU0500	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0495	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	229.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1058		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.02 ft	Invert:	20.46 ft
From Node:	NRU0500	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH49	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB38FT_HF	Cross Section:	CB38FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	310.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1059		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.15 ft	Invert:	19.63 ft
From Node:	NRU0500	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1220	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_HF	Cross Section:	CB22FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	626.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1060		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.36 ft	Invert:	14.26 ft
From Node:	NSH33	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT4	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_SDESOTO_HF	Cross Section:	CB_SDESOTO_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	559.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1061		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.80 ft	Invert:	10.50 ft
From Node:	NSH45	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH09	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	753.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1062		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.75 ft	Invert:	16.74 ft
From Node:	NSH10	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH45	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	251.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1063		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.71 ft	Invert:	17.75 ft
From Node:	NSH10	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH13	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	641.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Momentum

Comment:

Channel Link: CHAN1064		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.58 ft	Invert:	17.52 ft
From Node:	NSH37	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH14	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	69.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1065		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.07 ft	Invert:	7.71 ft
From Node:	NSH08	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH75	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB36FT_HF	Cross Section:	CB36FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	391.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1066		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.16 ft	Invert:	14.13 ft
From Node:	NSH45	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT4	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_SDESOTO_HF	Cross Section:	CB_SDESOTO_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	559.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1069		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.89 ft	Invert:	5.96 ft
From Node:	NSH07	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NC01	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	455.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1071		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.37 ft	Invert:	4.74 ft
From Node:	NC02	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NC03	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB44FT_FULL	Cross Section:	CB44FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	414.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1075		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.43 ft	Invert:	17.54 ft
From Node:	N07A	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N08A	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	252.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1076		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.20 ft	Invert:	15.99 ft
From Node:	N07A	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N08A	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	548.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1080		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.56 ft	Invert:	18.71 ft

From Node:	NSH05	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH10	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	609.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1081		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.67 ft	Invert:	12.96 ft
From Node:	NSH25	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	226.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1082		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.95 ft	Invert:	13.19 ft
From Node:	NSH25	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_FULL	Cross Section:	CB26FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	139.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1083		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.50 ft	Invert:	13.31 ft
From Node:	JUNCT2	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	76.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1084		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.40 ft	Invert:	13.40 ft
From Node:	NSH22	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH26	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	66.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1085		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.79 ft	Invert:	13.33 ft
From Node:	NSH23	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH24	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	434.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1086		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.78 ft	Invert:	13.39 ft
From Node:	NSH48	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH22	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	434.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1087		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.48 ft	Invert:	18.29 ft
From Node:	NSH15	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH48	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	107.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1088		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.45 ft	Invert:	17.81 ft
From Node:	NSH15	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH37	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	134.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1089		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.02 ft	Invert:	18.36 ft
From Node:	NSH20	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH15	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	195.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1090		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.08 ft	Invert:	18.94 ft
From Node:	NSH20	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT1	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	184.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1091		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.40 ft	Invert:	13.54 ft
From Node:	NSH18	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH22	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	358.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1092		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.55 ft	Invert:	10.41 ft
From Node:	NSH19	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH21	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	95.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1093		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.17 ft	Invert:	18.13 ft
From Node:	NRU0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH23	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	459.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1097		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.12 ft	Invert:	17.67 ft
From Node:	NRU0340	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB28FT_FULL	Cross Section:	CB28FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	428.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1102		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.15 ft	Invert:	15.46 ft
From Node:	NRU0180	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0174	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_FULL	Cross Section:	CB22FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	392.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1104		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.18 ft	Invert:	13.60 ft
From Node:	NSH25	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT2	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_HF	Cross Section:	CB20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	122.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1109		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.15 ft	Invert:	15.12 ft
From Node:	NRU0180	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	425.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1110		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.18 ft	Invert:	14.88 ft

From Node:	NRU0180	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT6	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_HF	Cross Section:	CB18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	425.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1111		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.22 ft	Invert:	17.08 ft
From Node:	NRU0310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	395.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1117		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.56 ft	Invert:	18.74 ft
From Node:	NRU0630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2310	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	387.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1119		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.64 ft	Invert:	19.15 ft
From Node:	JUNCT3	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0612	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_FULL	Cross Section:	CB18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	280.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1121		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.20 ft	Invert:	19.67 ft
From Node:	NRU0618	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT3	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	485.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1122		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.54 ft	Invert:	18.66 ft
From Node:	NRU0620	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0345	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	240.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1123		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.13 ft	Invert:	18.74 ft
From Node:	NRU0345	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	443.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1124		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.02 ft	Invert:	18.67 ft
From Node:	NRU0335	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0340	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	196.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1663		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.74 ft	Invert:	18.83 ft
From Node:	NBW1840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_PARKLAND_FU	Cross Section:	CB_PARKLAND_FU
Flow Direction:	Both		LL		LL
Damping:	0.0000 ft				
Length:	704.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1900		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.09 ft	Invert:	18.66 ft
From Node:	NCL2630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2631	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	296.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1927		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.99 ft	Invert:	19.14 ft
From Node:	NSH83	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH50	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	524.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1928		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.09 ft	Invert:	18.26 ft
From Node:	NSH04	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH54	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_FULL	Cross Section:	CB40FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	221.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1929		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.90 ft	Invert:	18.25 ft
From Node:	NSH50	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH52	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB50FT_FULL	Cross Section:	CB50FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	228.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1930		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.13 ft	Invert:	18.30 ft
From Node:	NSH51	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH53	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB36FT_FULL	Cross Section:	CB36FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	141.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1931		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.62 ft	Invert:	18.06 ft
From Node:	NSH55	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH52	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_FULL	Cross Section:	CB40FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	197.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1932		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.60 ft	Invert:	18.02 ft
From Node:	NSH55	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH56	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_HF	Cross Section:	CB40FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	247.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1933		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.51 ft	Invert:	17.90 ft
From Node:	NSH55	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1234	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_HF	Cross Section:	CB40FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	255.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1934		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.64 ft	Invert:	16.85 ft
From Node:	NRU1240	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	222.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1935		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.78 ft	Invert:	17.05 ft

From Node:	NRU1234	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0785	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	305.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1936		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.04 ft	Invert:	16.25 ft
From Node:	NRU0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V32FT_FULL	Cross Section:	V32FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	395.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1937		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.83 ft	Invert:	16.02 ft
From Node:	NRU0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	266.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1938		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.11 ft	Invert:	17.24 ft
From Node:	NRU0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V28FT_FULL	Cross Section:	V28FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	397.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1939		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.47 ft	Invert:	17.07 ft
From Node:	NRU0960	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0955	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	346.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1940		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.44 ft	Invert:	17.90 ft
From Node:	JUNCT8	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT8B	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB42FT_FULL	Cross Section:	CB42FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	311.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1941		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.33 ft	Invert:	17.96 ft
From Node:	JUNCT7	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT7B	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	318.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Momentum				

Comment:

Channel Link: CHAN1942		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.16 ft	Invert:	18.47 ft
From Node:	NCL3510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_FULL	Cross Section:	V18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	378.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1943		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.09 ft	Invert:	16.96 ft
From Node:	NCL3490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_FULL	Cross Section:	V20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	293.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1944		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.45 ft	Invert:	16.79 ft
From Node:	NCL3270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	629.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1945		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.38 ft	Invert:	16.89 ft
From Node:	NCL3280	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	629.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1946		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.48 ft	Invert:	17.22 ft
From Node:	NCL3270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	389.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1947		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.88 ft	Invert:	17.13 ft
From Node:	NCL3250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB34FT_FULL	Cross Section:	CB34FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	322.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1948		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.92 ft	Invert:	17.02 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_FULL	Cross Section:	V18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	350.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1949		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.31 ft	Invert:	16.95 ft
From Node:	NCL3740	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_HF	Cross Section:	CB22FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	305.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1950		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.58 ft	Invert:	17.30 ft
From Node:	NRU1010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB50FT_HF	Cross Section:	CB50FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1951		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.61 ft	Invert:	17.36 ft
From Node:	NRU0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB50FT_HF	Cross Section:	CB50FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1952		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.89 ft	Invert:	17.48 ft
From Node:	NRU0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	277.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1953		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.90 ft	Invert:	17.59 ft

From Node:	NRU0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0955	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB26FT_HF	Cross Section:	CB26FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	263.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1954		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.34 ft	Invert:	16.03 ft
From Node:	NBW2190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0785	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_HF	Cross Section:	CB24FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1155.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1955		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.06 ft	Invert:	15.78 ft
From Node:	NBW2210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_HF	Cross Section:	CB22FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1661.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy
Comment:	

Channel Link: CHAN1956		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.64 ft	Invert:	17.98 ft
From Node:	NBW2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_PARKLAND_HA	Cross Section:	CB_PARKLAND_HA
Flow Direction:	Both		LF		LF
Damping:	0.0000 ft				
Length:	1055.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1957		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.60 ft	Invert:	17.84 ft
From Node:	NBW2310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB_PARKLAND_HA	Cross Section:	CB_PARKLAND_HA
Flow Direction:	Both		LF		LF
Damping:	0.0000 ft				
Length:	966.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1958		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.09 ft	Invert:	19.05 ft
From Node:	NBW2190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2070	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB38FT_HF	Cross Section:	CB38FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	233.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1962		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.92 ft	Invert:	18.61 ft
From Node:	NBW2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	710.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1965		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.22 ft	Invert:	19.07 ft
From Node:	NCL3170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3280	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	289.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1966		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.10 ft	Invert:	19.32 ft
From Node:	NCL3170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3270	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB46FT_HF	Cross Section:	CB46FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	289.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1967		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.14 ft	Invert:	19.19 ft
From Node:	NCL3290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3190	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_FULL	Cross Section:	CB18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	462.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1969		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.94 ft	Invert:	19.08 ft
From Node:	NCL3110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	448.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1970		Upstream		Downstream	
Scenario:	Alt3	Invert:	22.12 ft	Invert:	20.27 ft
From Node:	NCL2810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2580	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	894.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1971		Upstream		Downstream	
Scenario:	Alt3	Invert:	22.17 ft	Invert:	21.20 ft
From Node:	NCL2790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	JUNCT10	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	456.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1971B		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.20 ft	Invert:	20.07 ft
From Node:	JUNCT10	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2580	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V18FT_HF	Cross Section:	V18FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	466.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1972		Upstream		Downstream	
Scenario:	Alt3	Invert:	28.94 ft	Invert:	22.00 ft
From Node:	JUNCT9	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2840	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	807.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1973		Upstream		Downstream	
Scenario:	Alt3	Invert:	29.07 ft	Invert:	24.66 ft
From Node:	NCL4010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2845	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_FULL	Cross Section:	V20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	439.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1974		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.43 ft	Invert:	18.80 ft
From Node:	NSH04	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N02	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB40FT_FULL	Cross Section:	CB40FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	535.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1975		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.40 ft	Invert:	19.39 ft
From Node:	NRU0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0620	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB22FT_FULL	Cross Section:	CB22FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	624.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1976		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.15 ft	Invert:	18.74 ft

From Node:	NRU0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	611.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1977		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.92 ft	Invert:	18.73 ft
From Node:	NRU0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	614.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1978		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.86 ft	Invert:	19.05 ft
From Node:	NRU0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0620	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	481.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1979		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.87 ft	Invert:	18.56 ft
From Node:	NRU0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0345	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	720.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1981		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.16 ft	Invert:	18.58 ft
From Node:	NRU0616	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1022.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1982		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.80 ft	Invert:	19.02 ft
From Node:	NRU0610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2650	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	512.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1983		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.50 ft	Invert:	15.51 ft
From Node:	NRU0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	N08A	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB24FT_FULL	Cross Section:	CB24FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1889.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1984		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.89 ft	Invert:	17.53 ft
From Node:	NRU1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1050	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB44FT_FULL	Cross Section:	CB44FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	449.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1985		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.77 ft	Invert:	14.17 ft
From Node:	JUNCT6	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB18FT_FULL	Cross Section:	CB18FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	197.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1986		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.44 ft	Invert:	9.64 ft
From Node:	JUNCT4	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH08	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	156.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1988		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.08 ft	Invert:	15.60 ft
From Node:	N02	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	BC_N02	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	XOW791A	Cross Section:	XOW791A
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	668.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN1989		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.47 ft	Invert:	17.70 ft
From Node:	NRU1040	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0970	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	360.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1990		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.50 ft	Invert:	17.50 ft
From Node:	NRU0960	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0970	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	360.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN1991		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.50 ft	Invert:	15.50 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3740	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	356.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1992		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.57 ft	Invert:	17.27 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	356.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: CHAN1993		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.50 ft	Invert:	17.00 ft
From Node:	NCL3470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	V20FT_HF	Cross Section:	V20FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	389.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: CHAN2000		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.96 ft	Invert:	17.50 ft
From Node:	JUNCT7B	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB20FT_FULL	Cross Section:	CB20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN2001		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.90 ft	Invert:	17.20 ft
From Node:	JUNCT8B	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0965	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB42FT_FULL	Cross Section:	CB42FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: CHAN2010		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.91 ft	Invert:	19.08 ft

From Node:	NSH80	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSH50	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CB32FT_HF	Cross Section:	CB32FT_HF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	502.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Drop Structure Link: D11		Upstream Pipe		Downstream Pipe	
Scenario:	Alt3	Invert:	9.40 ft	Invert:	9.63 ft
From Node:	PondB	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N06	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Solution:	Split	Default:	0.00 ft	Default:	0.00 ft
Pipe Count:	1	Op Table:		Op Table:	
Damping:	0.0000 ft	Ref Node:		Ref Node:	
Length:	110.00 ft	Manning's N:	0.0000	Manning's N:	0.0000
FHWA Code:	0	Top Clip			
Entr Loss Coef:	0.50	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.50	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy				

Pipe Comment:

Weir Component		Bottom Clip	
Weir:	1	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	11.46 ft	Ref Node:	
Control Elevation:	11.46 ft	Discharge Coefficients	
Max Depth:	3.35 ft	Weir Default:	3.200
Max Width:	7.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Weir Component		Bottom Clip	
Weir:	2	Default:	0.00 ft
Weir Count:	1	Op Table:	
Weir Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Horizontal	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	14.81 ft	Ref Node:	
Control Elevation:	14.81 ft	**Discharge Coefficients**	
Max Depth:	5.00 ft	Weir Default:	3.200
Max Width:	7.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Weir Comment:

Drop Structure Comment: Inventory

Channel Link: DM1OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.33 ft	Invert:	15.23 ft
From Node:	NSR2130	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	DM1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	1200.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: EP_ManGut		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.43 ft	Invert:	4.58 ft
From Node:	M5.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	ElPrad.1	Geometry: Trapezoidal		Geometry: Trapezoidal	

Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	40.00 ft	Bottom Width:	40.00 ft
Length:	500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: El_PradGut		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.58 ft	Invert:	4.93 ft
From Node:	ElPrad.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	ElP_Hes.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	40.00 ft	Bottom Width:	40.00 ft
Length:	285.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: El_PradPip		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.88 ft	Invert:	1.22 ft
From Node:	ElPrad.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	ElP_Hes.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	268.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: HesBox1		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.33 ft	Invert:	-0.22 ft
From Node:	H2.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	828.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: HesBox2		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.33 ft	Invert:	-0.22 ft
From Node:	H2.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	828.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Hes_Culv		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.22 ft	Invert:	0.33 ft
From Node:	ElP_Hes.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: Hes_Gut		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.93 ft	Invert:	5.93 ft
From Node:	ElP_Hes.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	H2.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	40.00 ft	Bottom Width:	40.00 ft
Length:	135.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Link_SL28	Upstream	Downstream

Scenario:	Alt3	Invert:	7.82 ft	Invert:	6.74 ft
From Node:	Church2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G10	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	680.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Link_SL30		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.79 ft	Invert:	7.82 ft
From Node:	DM3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Church2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	617.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: MRSR1570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.03 ft	Invert:	14.03 ft
From Node:	NSR1570	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1220.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)

Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ManBox1		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.14 ft	Invert:	0.53 ft
From Node:	M5.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	ElP_con.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	489.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ManBox2		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.14 ft	Invert:	0.53 ft
From Node:	M5.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	ElP_con.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	489.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			

Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: MidBox1		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.53 ft	Invert:	0.33 ft
From Node:	ElP_con.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	268.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: MidBox2		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.53 ft	Invert:	0.33 ft
From Node:	ElP_con.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	268.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: NRU0820			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU0820	Default:	0.00 ft
To Node:	NRU0810	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.16 ft	Discharge Coefficients	
Control Elevation:	16.16 ft	Weir Default:	3.200
Max Depth:	2.00 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment: SET WEIR TO THE CONTROLLING ELEVATION PER ERP 1213			

Weir Link: NSR0430OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.14 ft	Discharge Coefficients	
Control Elevation:	13.14 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	100.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: NSR2130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.33 ft	Invert:	14.63 ft
From Node:	NSR2130	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	775.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: OF0165

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0165	Default:	0.00 ft
To Node:	NRU1390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.00 ft	Discharge Coefficients	
Control Elevation:	16.00 ft	Weir Default:	2.600
Cross Section:	XOW0165	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF1078

Scenario:	Alt3	Bottom Clip	
From Node:	PondB	Default:	0.00 ft
To Node:	N11	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.42 ft	Discharge Coefficients	
Control Elevation:	16.42 ft	Weir Default:	2.600
Cross Section:	XOW803	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF1120

Scenario:	Alt3	Bottom Clip	

From Node:	NRU0650		
To Node:	JUNCT3	Default:	0.00 ft
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	19.82 ft	Ref Node:	
Control Elevation:	19.82 ft	**Discharge Coefficients**	
Cross Section:	XOW757	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW757

Weir Link: OF1887

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2845	Default:	0.00 ft
To Node:	NCL2830	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.92 ft	**Discharge Coefficients**	
Control Elevation:	23.92 ft	Weir Default:	2.600
Cross Section:	XOW386	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW386

Weir Link: OF1888

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2840	Default:	0.00 ft
To Node:	NCL2830	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.67 ft	**Discharge Coefficients**	
Control Elevation:	23.67 ft	Weir Default:	2.800
Cross Section:	XOW385	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW385

Weir Link: OF1889

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2845	Default:	0.00 ft
To Node:	NCL2840	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.90 ft	Discharge Coefficients	
Control Elevation:	23.90 ft	Weir Default:	2.800
Cross Section:	XOW387	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW387

Weir Link: OF1890

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3430	Default:	0.00 ft
To Node:	NCL3390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.48 ft	Discharge Coefficients	
Control Elevation:	20.48 ft	Weir Default:	2.400
Cross Section:	XOW388	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW388

Weir Link: OF1891

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3590	Default:	0.00 ft
To Node:	NCL3550	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	

Geometry Type:	Irregular
Invert:	20.86 ft
Control Elevation:	20.86 ft
Cross Section:	XOW389

Ref Node:	
Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW389

Weir Link: OF1892

Scenario:	Alt3
From Node:	NCL3520
To Node:	NCL3510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.50 ft
Control Elevation:	19.50 ft
Cross Section:	XOW390

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW390

Weir Link: OF1893

Scenario:	Alt3
From Node:	NCL2580
To Node:	NCL2590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.18 ft
Control Elevation:	20.18 ft
Cross Section:	XOW391

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW391

Weir Link: OF1894

Scenario:	Alt3
From Node:	NCL2770
To Node:	NCL2780
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.19 ft
Control Elevation:	22.19 ft
Cross Section:	XOW392

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW392

Weir Link: OF1895

Scenario:	Alt3
From Node:	NSH27
To Node:	NSH21
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	12.67 ft
Control Elevation:	12.67 ft
Cross Section:	XOW395

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW395

Weir Link: OF1896

Scenario:	Alt3
From Node:	NSH35
To Node:	NSH42
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.64 ft
Control Elevation:	7.64 ft
Cross Section:	XOW397

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW397

Weir Link: OF1897

Scenario:	Alt3
From Node:	NSH43
To Node:	NSH35
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.67 ft
Control Elevation:	7.67 ft
Cross Section:	XOW398

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW398

Weir Link: OF1898

Scenario:	Alt3
From Node:	NSH43
To Node:	NSH42
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.38 ft
Control Elevation:	7.38 ft
Cross Section:	XOW396

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW396

Weir Link: OF1899

Scenario:	Alt3
From Node:	NSH42
To Node:	SH_OUTFALL
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	7.41 ft	Ref Node:	
Control Elevation:	7.41 ft	Discharge Coefficients	
Cross Section:	XOW399	Weir Default:	2.800
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW399

Weir Link: OF1901

Scenario:	Alt3	Bottom Clip	
From Node:	PondA	Default:	0.00 ft
To Node:	N03	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.78 ft	Discharge Coefficients	
Control Elevation:	19.78 ft	Weir Default:	2.400
Cross Section:	XOW400	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW400

Weir Link: OF1902

Scenario:	Alt3	Bottom Clip	
From Node:	N03	Default:	0.00 ft
To Node:	N04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.88 ft	Discharge Coefficients	
Control Elevation:	19.88 ft	Weir Default:	2.400
Cross Section:	XOW401	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW401

Weir Link: OF1903

Scenario:	Alt3	**Bottom Clip**	
From Node:	N03	Default:	0.00 ft
To Node:	N02	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.60 ft	**Discharge Coefficients**	
Control Elevation:	19.60 ft	Weir Default:	2.400
Cross Section:	XOW402	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW402

Weir Link: OF1904

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH52	Default:	0.00 ft
To Node:	NSH54	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.49 ft	**Discharge Coefficients**	
Control Elevation:	18.49 ft	Weir Default:	2.600
Cross Section:	XOW405	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW405

Weir Link: OF1905

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1185	Default:	0.00 ft
To Node:	NRU1188	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.52 ft	**Discharge Coefficients**	
Control Elevation:	19.52 ft	Weir Default:	2.400
Cross Section:	XOW406	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW406

Weir Link: OF1907

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1234	Default:	0.00 ft
To Node:	NRU1182	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.24 ft	Discharge Coefficients	
Control Elevation:	19.24 ft	Weir Default:	2.400
Cross Section:	XOW410	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW410

Weir Link: OF1908

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1188	Default:	0.00 ft
To Node:	NRU1182	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.94 ft	Discharge Coefficients	
Control Elevation:	19.94 ft	Weir Default:	2.400
Cross Section:	XOW407	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW407

Weir Link: OF1910

Scenario:	Alt3	Bottom Clip	
From Node:	NSH57	Default:	0.00 ft
To Node:	NRU1240	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	17.92 ft	Ref Node:	
Control Elevation:	17.92 ft	Discharge Coefficients	
Cross Section:	XOW412	Weir Default:	2.800
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW412

Weir Link: OF1911

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1234	Default:	0.00 ft
To Node:	NSH57	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.10 ft	Discharge Coefficients	
Control Elevation:	18.10 ft	Weir Default:	2.800
Cross Section:	XOW411	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW411

Weir Link: OF1912

Scenario:	Alt3	Bottom Clip	
From Node:	N02	Default:	0.00 ft
To Node:	PondB	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.44 ft	Discharge Coefficients	
Control Elevation:	18.44 ft	Weir Default:	2.600
Cross Section:	XOW403	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW403

Weir Link: OF1913

Scenario:	Alt3
From Node:	NRU1030
To Node:	NRU1040
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.87 ft
Control Elevation:	17.87 ft
Cross Section:	XOW413

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW413

Weir Link: OF1914

Scenario:	Alt3
From Node:	NCL3390
To Node:	NCL2910
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.08 ft
Control Elevation:	20.08 ft
Cross Section:	XOW414

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW414

Weir Link: OF1916

Scenario:	Alt3
From Node:	NSH29
To Node:	NSH34
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.91 ft
Control Elevation:	9.91 ft
Cross Section:	XOW417

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW417

Weir Link: OF1918

Scenario:	Alt3
From Node:	NSH34
To Node:	SH_OUTFALL
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.09 ft
Control Elevation:	9.09 ft
Cross Section:	XOW416

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW416

Weir Link: OF1919

Scenario:	Alt3
From Node:	NSH34
To Node:	NSH44
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.15 ft
Control Elevation:	9.15 ft
Cross Section:	XOW415

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW415

Weir Link: OF1920

Scenario:	Alt3
From Node:	NSH34
To Node:	NSH35
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	8.85 ft	Ref Node:	
Control Elevation:	8.85 ft	Discharge Coefficients	
Cross Section:	XOW420	Weir Default:	2.800
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW420

Weir Link: OF1921

Scenario:	Alt3	Bottom Clip	
From Node:	NSH28	Default:	0.00 ft
To Node:	NSH35	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	9.26 ft	Discharge Coefficients	
Control Elevation:	9.26 ft	Weir Default:	2.400
Cross Section:	XOW422	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW422

Weir Link: OF1922

Scenario:	Alt3	Bottom Clip	
From Node:	NSH08	Default:	0.00 ft
To Node:	SH_OUTFALL	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	10.13 ft	Discharge Coefficients	
Control Elevation:	10.13 ft	Weir Default:	2.800
Cross Section:	XOW423	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW423

Weir Link: OF1924

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH24	Default:	0.00 ft
To Node:	JUNCT2	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.57 ft	**Discharge Coefficients**	
Control Elevation:	13.57 ft	Weir Default:	2.800
Cross Section:	XOW425	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW425

Weir Link: OF1925

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH24	Default:	0.00 ft
To Node:	NSH22	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.47 ft	**Discharge Coefficients**	
Control Elevation:	13.47 ft	Weir Default:	2.800
Cross Section:	XOW426	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW426

Weir Link: OF1926

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0230	Default:	0.00 ft
To Node:	NRU0090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	14.82 ft	**Discharge Coefficients**	
Control Elevation:	14.82 ft	Weir Default:	2.600
Cross Section:	XOW427	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW427

Weir Link: OF1984

Scenario:	Alt3	Bottom Clip	
From Node:	NC01	Default:	0.00 ft
To Node:	NC01B	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	5.89 ft	Discharge Coefficients	
Control Elevation:	5.89 ft	Weir Default:	2.600
Cross Section:	XOW577	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW577

Weir Link: OF1985

Scenario:	Alt3	Bottom Clip	
From Node:	NC01B	Default:	0.00 ft
To Node:	NC03	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	5.42 ft	Discharge Coefficients	
Control Elevation:	5.42 ft	Weir Default:	2.600
Cross Section:	XOW576	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW576

Weir Link: OF1986

Scenario:	Alt3	Bottom Clip	
From Node:	NC03	Default:	0.00 ft
To Node:	NC04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	4.46 ft
Control Elevation:	4.46 ft
Cross Section:	XOW565

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW565

Weir Link: OF1987

Scenario:	Alt3
From Node:	NC04
To Node:	N10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	3.99 ft
Control Elevation:	3.99 ft
Cross Section:	XOW566

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW566

Weir Link: OF1988

Scenario:	Alt3
From Node:	NSH08
To Node:	NSH09
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	10.57 ft
Control Elevation:	10.57 ft
Cross Section:	XOW581

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW581

Weir Link: OF1989

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH09	Default:	0.00 ft
To Node:	NSH07	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	10.05 ft	**Discharge Coefficients**	
Control Elevation:	10.05 ft	Weir Default:	2.600
Cross Section:	XOW579	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW579

Weir Link: OF1990

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH09	Default:	0.00 ft
To Node:	SH_OUTFALL	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	10.31 ft	**Discharge Coefficients**	
Control Elevation:	10.31 ft	Weir Default:	2.800
Cross Section:	XOW580	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW580

Weir Link: OF1991

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH07	Default:	0.00 ft
To Node:	SH_OUTFALL	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	7.98 ft	**Discharge Coefficients**	
Control Elevation:	7.98 ft	Weir Default:	2.800
Cross Section:	XOW578	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW578

Weir Link: OF1992

Scenario:	Alt3	**Bottom Clip**	
From Node:	NC05	Default:	0.00 ft
To Node:	NC04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	2.83 ft	**Discharge Coefficients**	
Control Elevation:	2.83 ft	Weir Default:	2.600
Cross Section:	XOW567	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW567

Weir Link: OF1993

Scenario:	Alt3	**Bottom Clip**	
From Node:	NC05	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	3.66 ft	**Discharge Coefficients**	
Control Elevation:	3.66 ft	Weir Default:	2.800
Cross Section:	XOW575	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW575

Weir Link: OF1994

Scenario:	Alt3	**Bottom Clip**	
From Node:	NC05	Default:	0.00 ft
To Node:	NC06	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	2.90 ft
Control Elevation:	2.90 ft
Cross Section:	XOW568

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW568

Weir Link: OF1995

Scenario:	Alt3
From Node:	NC06
To Node:	N10
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	3.69 ft
Control Elevation:	3.69 ft
Cross Section:	XOW574

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW574

Weir Link: OF1996

Scenario:	Alt3
From Node:	NC07
To Node:	NC06
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	2.64 ft
Control Elevation:	2.64 ft
Cross Section:	XOW569

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW569

Weir Link: OF1997

Scenario:	Alt3	Bottom Clip	
From Node:	NC08	Default:	0.00 ft
To Node:	NC07	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	2.79 ft	Discharge Coefficients	
Control Elevation:	2.79 ft	Weir Default:	2.600
Cross Section:	XOW570	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW570

Weir Link: OF1998

Scenario:	Alt3	Bottom Clip	
From Node:	NC07	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	4.03 ft	Discharge Coefficients	
Control Elevation:	4.03 ft	Weir Default:	2.800
Cross Section:	XOW573	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW573

Weir Link: OF1999

Scenario:	Alt3	Bottom Clip	
From Node:	NC08	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	3.98 ft	Discharge Coefficients	
Control Elevation:	3.98 ft	Weir Default:	2.800
Cross Section:	XOW572	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW572

Weir Link: OF2000

Scenario:	Alt3	**Bottom Clip**	
From Node:	NC01B	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	5.74 ft	**Discharge Coefficients**	
Control Elevation:	5.74 ft	Weir Default:	2.800
Cross Section:	XOW583	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW583

Weir Link: OF2001

Scenario:	Alt3	**Bottom Clip**	
From Node:	NC01	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	6.01 ft	**Discharge Coefficients**	
Control Elevation:	6.01 ft	Weir Default:	2.800
Cross Section:	XOW582	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW582

Weir Link: OF2002

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH75	Default:	0.00 ft
To Node:	SH_OUTFALL	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	7.76 ft
Control Elevation:	7.76 ft
Cross Section:	XOW584

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW584

Weir Link: OF2003

Scenario:	Alt3
From Node:	NSH44
To Node:	NSH35
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	9.01 ft
Control Elevation:	9.01 ft
Cross Section:	XOW421

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW421

Weir Link: OF2004

Scenario:	Alt3
From Node:	NSH28
To Node:	NSH43
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	10.19 ft
Control Elevation:	10.19 ft
Cross Section:	XOW585

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW585

Weir Link: OF2005

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH21	Default:	0.00 ft
To Node:	NSH28	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	10.97 ft	**Discharge Coefficients**	
Control Elevation:	10.97 ft	Weir Default:	2.800
Cross Section:	XOW587	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW587

Weir Link: OF2006

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH25	Default:	0.00 ft
To Node:	NSH24	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	14.23 ft	**Discharge Coefficients**	
Control Elevation:	14.23 ft	Weir Default:	2.600
Cross Section:	XOW588	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW588

Weir Link: OF2007

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH23	Default:	0.00 ft
To Node:	NSH48	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.10 ft	**Discharge Coefficients**	
Control Elevation:	18.10 ft	Weir Default:	2.800
Cross Section:	XOW590	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW590

Weir Link: OF2008

Scenario:	Alt3	Bottom Clip	
From Node:	NSH11	Default:	0.00 ft
To Node:	NSH48	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.67 ft	Discharge Coefficients	
Control Elevation:	20.67 ft	Weir Default:	2.400
Cross Section:	XOW589	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW589

Weir Link: OF2009

Scenario:	Alt3	Bottom Clip	
From Node:	NSH13	Default:	0.00 ft
To Node:	NSH37	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.11 ft	Discharge Coefficients	
Control Elevation:	18.11 ft	Weir Default:	2.800
Cross Section:	XOW591	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW591

Weir Link: OF2010

Scenario:	Alt3	Bottom Clip	
From Node:	NSH41	Default:	0.00 ft
To Node:	JUNCT1	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.61 ft
Control Elevation:	18.61 ft
Cross Section:	XOW593

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW593

Weir Link: OF2011

Scenario:	Alt3
From Node:	NSH41
To Node:	NSH12
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.08 ft
Control Elevation:	19.08 ft
Cross Section:	XOW592

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW592

Weir Link: OF2012

Scenario:	Alt3
From Node:	NSH33
To Node:	NSH45
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.85 ft
Control Elevation:	16.85 ft
Cross Section:	XOW595

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW595

Weir Link: OF2013

Scenario:	Alt3
From Node:	NSH33
To Node:	NSH17
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.02 ft
Control Elevation:	17.02 ft
Cross Section:	XOW594

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW594

Weir Link: OF2014

Scenario:	Alt3
From Node:	NSH13
To Node:	NSH45
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.42 ft
Control Elevation:	17.42 ft
Cross Section:	XOW596

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW596

Weir Link: OF2015

Scenario:	Alt3
From Node:	NRU0495
To Node:	NRU0490
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.92 ft
Control Elevation:	20.92 ft
Cross Section:	XOW597

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW597

Weir Link: OF2016

Scenario:	Alt3
From Node:	PondA
To Node:	NSH04
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.58 ft
Control Elevation:	20.58 ft
Cross Section:	XOW598

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW598

Weir Link: OF2017

Scenario:	Alt3
From Node:	PondA
To Node:	NSH50
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.18 ft
Control Elevation:	21.18 ft
Cross Section:	XOW599

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW599

Weir Link: OF2018

Scenario:	Alt3
From Node:	NSH50
To Node:	NRU1185
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	20.03 ft	Ref Node:	
Control Elevation:	20.03 ft	Discharge Coefficients	
Cross Section:	XOW600	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW600

Weir Link: OF2019

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1185	Default:	0.00 ft
To Node:	NSH52	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.80 ft	Discharge Coefficients	
Control Elevation:	19.80 ft	Weir Default:	2.200
Cross Section:	XOW601	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW601

Weir Link: OF2020

Scenario:	Alt3	Bottom Clip	
From Node:	NSH55	Default:	0.00 ft
To Node:	NRU1185	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.06 ft	Discharge Coefficients	
Control Elevation:	19.06 ft	Weir Default:	2.600
Cross Section:	XOW602	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW602

Weir Link: OF2021

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1110	Default:	0.00 ft
To Node:	NRU0785	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.57 ft	**Discharge Coefficients**	
Control Elevation:	17.57 ft	Weir Default:	2.800
Cross Section:	XOW624	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW624

Weir Link: OF2022

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0490	Default:	0.00 ft
To Node:	NRU0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.16 ft	**Discharge Coefficients**	
Control Elevation:	21.16 ft	Weir Default:	2.600
Cross Section:	XOW605	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW605

Weir Link: OF2023

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0510	Default:	0.00 ft
To Node:	NRU0470	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.72 ft	**Discharge Coefficients**	
Control Elevation:	20.72 ft	Weir Default:	2.600
Cross Section:	XOW606	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW606

Weir Link: OF2024

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0495	Default:	0.00 ft
To Node:	NRU0618	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.16 ft	**Discharge Coefficients**	
Control Elevation:	21.16 ft	Weir Default:	2.800
Cross Section:	XOW607	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW607

Weir Link: OF2025

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0495	Default:	0.00 ft
To Node:	NRU0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.04 ft	**Discharge Coefficients**	
Control Elevation:	21.04 ft	Weir Default:	2.600
Cross Section:	XOW608	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW608

Weir Link: OF2026

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0618	Default:	0.00 ft
To Node:	NRU0616	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	21.24 ft	Ref Node:	
Control Elevation:	21.24 ft	Discharge Coefficients	
Cross Section:	XOW610	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW610

Weir Link: OF2027

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0618	Default:	0.00 ft
To Node:	NRU0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.24 ft	Discharge Coefficients	
Control Elevation:	21.24 ft	Weir Default:	2.600
Cross Section:	XOW609	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW609

Weir Link: OF2028

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0616	Default:	0.00 ft
To Node:	NRU0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.90 ft	Discharge Coefficients	
Control Elevation:	19.90 ft	Weir Default:	2.800
Cross Section:	XOW611	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW611

Weir Link: OF2029

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0618	Default:	0.00 ft
To Node:	NRU1220	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.78 ft	**Discharge Coefficients**	
Control Elevation:	20.78 ft	Weir Default:	2.600
Cross Section:	XOW612	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW612

Weir Link: OF2030

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1220	Default:	0.00 ft
To Node:	NRU1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.02 ft	**Discharge Coefficients**	
Control Elevation:	20.02 ft	Weir Default:	2.600
Cross Section:	XOW613	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW613

Weir Link: OF2031

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1170	Default:	0.00 ft
To Node:	NRU0690	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.20 ft	**Discharge Coefficients**	
Control Elevation:	19.20 ft	Weir Default:	2.600
Cross Section:	XOW615	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW615

Weir Link: OF2032

Scenario:	Alt3
From Node:	NRU1150
To Node:	NRU1110
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.25 ft
Control Elevation:	17.25 ft
Cross Section:	XOW616

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW616

Weir Link: OF2033

Scenario:	Alt3
From Node:	NRU1150
To Node:	NRU0690
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.10 ft
Control Elevation:	19.10 ft
Cross Section:	XOW617

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW617

Weir Link: OF2034

Scenario:	Alt3
From Node:	NRU0690
To Node:	NRU0710
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	18.11 ft	Ref Node:	
Control Elevation:	18.11 ft	Discharge Coefficients	
Cross Section:	XOW618	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW618

Weir Link: OF2035

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0730	Default:	0.00 ft
To Node:	NRU0710	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.96 ft	Discharge Coefficients	
Control Elevation:	17.96 ft	Weir Default:	2.600
Cross Section:	XOW623	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW623

Weir Link: OF2036

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0740	Default:	0.00 ft
To Node:	NRU0710	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.81 ft	Discharge Coefficients	
Control Elevation:	17.81 ft	Weir Default:	2.600
Cross Section:	XOW619	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW619

Weir Link: OF2037

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0785	Default:	0.00 ft
To Node:	NRU0750	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	15.70 ft	**Discharge Coefficients**	
Control Elevation:	15.70 ft	Weir Default:	2.600
Cross Section:	XOW625	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW625

Weir Link: OF2038

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1110	Default:	0.00 ft
To Node:	NRU0750	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.73 ft	**Discharge Coefficients**	
Control Elevation:	16.73 ft	Weir Default:	2.600
Cross Section:	XOW758	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW758

Weir Link: OF2039

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0750	Default:	0.00 ft
To Node:	NRU0745	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.53 ft	**Discharge Coefficients**	
Control Elevation:	16.53 ft	Weir Default:	2.600
Cross Section:	XOW620	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW620

Weir Link: OF2040

Scenario:	Alt3
From Node:	NRU0930
To Node:	NRU0890
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.78 ft
Control Elevation:	20.78 ft
Cross Section:	XOW626

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW626

Weir Link: OF2041

Scenario:	Alt3
From Node:	NRU0890
To Node:	NRU0830
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.73 ft
Control Elevation:	19.73 ft
Cross Section:	XOW627

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW627

Weir Link: OF2042

Scenario:	Alt3
From Node:	NRU0890
To Node:	NRU0970
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	18.71 ft	Ref Node:	
Control Elevation:	18.71 ft	Discharge Coefficients	
Cross Section:	XOW633	Weir Default:	2.400
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW633

Weir Link: OF2043

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0950	Default:	0.00 ft
To Node:	NRU0955	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.60 ft	Discharge Coefficients	
Control Elevation:	17.60 ft	Weir Default:	2.800
Cross Section:	XOW628	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW628

Weir Link: OF2044

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0890	Default:	0.00 ft
To Node:	NRU0950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.22 ft	Discharge Coefficients	
Control Elevation:	19.22 ft	Weir Default:	2.400
Cross Section:	XOW632	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW632

Weir Link: OF2045

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1050	Default:	0.00 ft
To Node:	NRU1030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.75 ft	**Discharge Coefficients**	
Control Elevation:	17.75 ft	Weir Default:	2.800
Cross Section:	XOW634	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW634

Weir Link: OF2047

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3520	Default:	0.00 ft
To Node:	JUNCT7	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.92 ft	**Discharge Coefficients**	
Control Elevation:	18.92 ft	Weir Default:	2.800
Cross Section:	XOW635	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW635

Weir Link: OF2048

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3520	Default:	0.00 ft
To Node:	JUNCT8	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.96 ft	**Discharge Coefficients**	
Control Elevation:	18.96 ft	Weir Default:	2.800
Cross Section:	XOW636	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW636

Weir Link: OF2049

Scenario:	Alt3
From Node:	NRU0965
To Node:	NRU0960
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.95 ft
Control Elevation:	17.95 ft
Cross Section:	XOW638

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW638

Weir Link: OF2050

Scenario:	Alt3
From Node:	NRU0960
To Node:	NCL3470
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.68 ft
Control Elevation:	17.68 ft
Cross Section:	XOW639

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW639

Weir Link: OF2051

Scenario:	Alt3
From Node:	NRU0965
To Node:	NCL3470
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.75 ft
Control Elevation:	17.75 ft
Cross Section:	XOW637

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW637

Weir Link: OF2052

Scenario:	Alt3
From Node:	NRU1030
To Node:	NRU0965
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.05 ft
Control Elevation:	18.05 ft
Cross Section:	XOW640

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW640

Weir Link: OF2053

Scenario:	Alt3
From Node:	NRU1040
To Node:	NRU0960
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.23 ft
Control Elevation:	18.23 ft
Cross Section:	XOW641

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW641

Weir Link: OF2054

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2631	Default:	0.00 ft
To Node:	NCL3630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.35 ft	**Discharge Coefficients**	
Control Elevation:	19.35 ft	Weir Default:	2.600
Cross Section:	XOW643	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW643

Weir Link: OF2055

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3630	Default:	0.00 ft
To Node:	NCL3530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.56 ft	**Discharge Coefficients**	
Control Elevation:	19.56 ft	Weir Default:	2.600
Cross Section:	XOW642	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW642

Weir Link: OF2056

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3640	Default:	0.00 ft
To Node:	NCL3630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.75 ft	**Discharge Coefficients**	
Control Elevation:	19.75 ft	Weir Default:	2.600
Cross Section:	XOW644	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW644

Weir Link: OF2057

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2590	Default:	0.00 ft
To Node:	NCL3530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.28 ft	Discharge Coefficients	
Control Elevation:	20.28 ft	Weir Default:	2.600
Cross Section:	XOW681	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW681

Weir Link: OF2058

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3530	Default:	0.00 ft
To Node:	NCL3510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.95 ft	Discharge Coefficients	
Control Elevation:	19.95 ft	Weir Default:	2.600
Cross Section:	XOW654	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW654

Weir Link: OF2059

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3510	Default:	0.00 ft
To Node:	NCL3365	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	19.74 ft	Ref Node:	
Control Elevation:	19.74 ft	Discharge Coefficients	
Cross Section:	XOW653	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW653

Weir Link: OF2060

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3365	Default:	0.00 ft
To Node:	NCL3350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.51 ft	Discharge Coefficients	
Control Elevation:	20.51 ft	Weir Default:	2.600
Cross Section:	XOW651	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW651

Weir Link: OF2061

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3365	Default:	0.00 ft
To Node:	NCL3300	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.05 ft	Discharge Coefficients	
Control Elevation:	20.05 ft	Weir Default:	2.600
Cross Section:	XOW652	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW652

Weir Link: OF2062

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3300	Default:	0.00 ft
To Node:	NCL3290	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.50 ft	**Discharge Coefficients**	
Control Elevation:	20.50 ft	Weir Default:	2.600
Cross Section:	XOW670	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW670

Weir Link: OF2063

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3530	Default:	0.00 ft
To Node:	NCL3370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.96 ft	**Discharge Coefficients**	
Control Elevation:	19.96 ft	Weir Default:	2.600
Cross Section:	XOW655	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW655

Weir Link: OF2064

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3370	Default:	0.00 ft
To Node:	NCL3350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.45 ft	**Discharge Coefficients**	
Control Elevation:	20.45 ft	Weir Default:	2.600
Cross Section:	XOW650	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW650

Weir Link: OF2065

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3370	Default:	0.00 ft
To Node:	NCL3390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.54 ft	Discharge Coefficients	
Control Elevation:	20.54 ft	Weir Default:	2.800
Cross Section:	XOW649	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW649

Weir Link: OF2066

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3350	Default:	0.00 ft
To Node:	NCL3290	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.33 ft	Discharge Coefficients	
Control Elevation:	20.33 ft	Weir Default:	2.600
Cross Section:	XOW672	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW672

Weir Link: OF2067

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3490	Default:	0.00 ft
To Node:	NCL3300	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.37 ft
Control Elevation:	19.37 ft
Cross Section:	XOW673

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW673

Weir Link: OF2068

Scenario:	Alt3
From Node:	NCL3300
To Node:	NCL3470
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.40 ft
Control Elevation:	19.40 ft
Cross Section:	XOW674

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW674

Weir Link: OF2069

Scenario:	Alt3
From Node:	NRU1050
To Node:	NRU0965
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.37 ft
Control Elevation:	18.37 ft
Cross Section:	XOW675

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW675

Weir Link: OF2070

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3290	Default:	0.00 ft
To Node:	NCL3280	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.10 ft	**Discharge Coefficients**	
Control Elevation:	20.10 ft	Weir Default:	2.600
Cross Section:	XOW669	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW669

Weir Link: OF2071

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3280	Default:	0.00 ft
To Node:	NCL3270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.93 ft	**Discharge Coefficients**	
Control Elevation:	19.93 ft	Weir Default:	2.800
Cross Section:	XOW667	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW667

Weir Link: OF2072

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3170	Default:	0.00 ft
To Node:	NCL3190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.64 ft	**Discharge Coefficients**	
Control Elevation:	19.64 ft	Weir Default:	2.600
Cross Section:	XOW661	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW661

Weir Link: OF2073

Scenario:	Alt3
From Node:	NCL3210
To Node:	NCL3190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.43 ft
Control Elevation:	19.43 ft
Cross Section:	XOW671

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW671

Weir Link: OF2074

Scenario:	Alt3
From Node:	NCL3230
To Node:	NCL3210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.75 ft
Control Elevation:	19.75 ft
Cross Section:	XOW645

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW645

Weir Link: OF2075

Scenario:	Alt3
From Node:	NCL3360
To Node:	NCL3230
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	20.23 ft	Ref Node:	
Control Elevation:	20.23 ft	Discharge Coefficients	
Cross Section:	XOW647	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW647

Weir Link: OF2076

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3350	Default:	0.00 ft
To Node:	NCL3360	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.52 ft	Discharge Coefficients	
Control Elevation:	20.52 ft	Weir Default:	2.800
Cross Section:	XOW648	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW648

Weir Link: OF2077

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3230	Default:	0.00 ft
To Node:	NCL3190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.73 ft	Discharge Coefficients	
Control Elevation:	19.73 ft	Weir Default:	2.600
Cross Section:	XOW646	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW646

Weir Link: OF2078

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2510	Default:	0.00 ft
To Node:	NCL3390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.49 ft	**Discharge Coefficients**	
Control Elevation:	20.49 ft	Weir Default:	2.600
Cross Section:	XOW685	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW685

Weir Link: OF2079

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2510	Default:	0.00 ft
To Node:	NCL2490	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.55 ft	**Discharge Coefficients**	
Control Elevation:	21.55 ft	Weir Default:	2.600
Cross Section:	XOW691	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW691

Weir Link: OF2080

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2490	Default:	0.00 ft
To Node:	NCL2430	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.99 ft	**Discharge Coefficients**	
Control Elevation:	21.99 ft	Weir Default:	2.600
Cross Section:	XOW694	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW694

Weir Link: OF2081

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2430	Default:	0.00 ft
To Node:	NCL2410	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	22.45 ft	Discharge Coefficients	
Control Elevation:	22.45 ft	Weir Default:	2.600
Cross Section:	XOW695	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW695

Weir Link: OF2082

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2910	Default:	0.00 ft
To Node:	NCL2890	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.81 ft	Discharge Coefficients	
Control Elevation:	19.81 ft	Weir Default:	2.600
Cross Section:	XOW693	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW693

Weir Link: OF2083

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2890	Default:	0.00 ft
To Node:	NCL2850	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.35 ft
Control Elevation:	21.35 ft
Cross Section:	XOW659

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW659

Weir Link: OF2084

Scenario:	Alt3
From Node:	NCL2910
To Node:	NCL3210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.45 ft
Control Elevation:	20.45 ft
Cross Section:	XOW658

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW658

Weir Link: OF2085

Scenario:	Alt3
From Node:	NCL2910
To Node:	NCL3230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.58 ft
Control Elevation:	20.58 ft
Cross Section:	XOW656

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW656

Weir Link: OF2086

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3390	Default:	0.00 ft
To Node:	NCL3230	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.62 ft	**Discharge Coefficients**	
Control Elevation:	20.62 ft	Weir Default:	2.600
Cross Section:	XOW657	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW657

Weir Link: OF2087

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2890	Default:	0.00 ft
To Node:	NCL3110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.96 ft	**Discharge Coefficients**	
Control Elevation:	20.96 ft	Weir Default:	2.600
Cross Section:	XOW660	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW660

Weir Link: OF2088

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3170	Default:	0.00 ft
To Node:	NCL3110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.55 ft	**Discharge Coefficients**	
Control Elevation:	21.55 ft	Weir Default:	2.600
Cross Section:	XOW664	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW664

Weir Link: OF2089

Scenario:	Alt3
From Node:	NCL3170
To Node:	NCL3150
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.65 ft
Control Elevation:	19.65 ft
Cross Section:	XOW668

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW668

Weir Link: OF2090

Scenario:	Alt3
From Node:	NCL3150
To Node:	NCL3250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.66 ft
Control Elevation:	19.66 ft
Cross Section:	XOW754

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW754

Weir Link: OF2091

Scenario:	Alt3
From Node:	NCL3150
To Node:	NCL3090
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	19.74 ft	Ref Node:	
Control Elevation:	19.74 ft	Discharge Coefficients	
Cross Section:	XOW730	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW730

Weir Link: OF2092

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3210	Default:	0.00 ft
To Node:	NCL3110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.13 ft	Discharge Coefficients	
Control Elevation:	21.13 ft	Weir Default:	2.600
Cross Section:	XOW663	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW663

Weir Link: OF2093

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1010	Default:	0.00 ft
To Node:	NRU0970	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.43 ft	Discharge Coefficients	
Control Elevation:	18.43 ft	Weir Default:	2.600
Cross Section:	XOW676	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW676

Weir Link: OF2095

Scenario:	Alt3
From Node:	NCL3640
To Node:	NCL2631
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.75 ft
Control Elevation:	19.75 ft
Cross Section:	XOW677

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW677

Weir Link: OF2096

Scenario:	Alt3
From Node:	NCL2630
To Node:	NCL2610
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.57 ft
Control Elevation:	20.57 ft
Cross Section:	XOW678

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW678

Weir Link: OF2097

Scenario:	Alt3
From Node:	NCL2610
To Node:	NCL3630
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.55 ft
Control Elevation:	20.55 ft
Cross Section:	XOW679

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW679

Weir Link: OF2098

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2610	Default:	0.00 ft
To Node:	NCL2590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.40 ft	Discharge Coefficients	
Control Elevation:	20.40 ft	Weir Default:	2.600
Cross Section:	XOW680	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW680

Weir Link: OF2099

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2550	Default:	0.00 ft
To Node:	NCL2580	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.47 ft	Discharge Coefficients	
Control Elevation:	20.47 ft	Weir Default:	2.600
Cross Section:	XOW682	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW682

Weir Link: OF2100

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2550	Default:	0.00 ft
To Node:	NCL2590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	20.49 ft	Ref Node:	
Control Elevation:	20.49 ft	Discharge Coefficients	
Cross Section:	XOW683	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW683

Weir Link: OF2101

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2550	Default:	0.00 ft
To Node:	NCL2530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.49 ft	Discharge Coefficients	
Control Elevation:	20.49 ft	Weir Default:	2.600
Cross Section:	XOW684	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW684

Weir Link: OF2102

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2540	Default:	0.00 ft
To Node:	NCL2530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.22 ft	Discharge Coefficients	
Control Elevation:	21.22 ft	Weir Default:	2.600
Cross Section:	XOW687	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW687

Weir Link: OF2103

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2540	Default:	0.00 ft
To Node:	NCL2780	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.76 ft	**Discharge Coefficients**	
Control Elevation:	21.76 ft	Weir Default:	2.600
Cross Section:	XOW689	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW689

Weir Link: OF2104

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2540	Default:	0.00 ft
To Node:	NCL2510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.42 ft	**Discharge Coefficients**	
Control Elevation:	21.42 ft	Weir Default:	2.600
Cross Section:	XOW688	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW688

Weir Link: OF2105

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2530	Default:	0.00 ft
To Node:	NCL2510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.05 ft	**Discharge Coefficients**	
Control Elevation:	20.05 ft	Weir Default:	2.600
Cross Section:	XOW686	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW686

Weir Link: OF2106

Scenario:	Alt3
From Node:	NCL2790
To Node:	NCL2550
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.68 ft
Control Elevation:	21.68 ft
Cross Section:	XOW690

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW690

Weir Link: OF2107

Scenario:	Alt3
From Node:	NCL2510
To Node:	NCL2910
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.49 ft
Control Elevation:	20.49 ft
Cross Section:	XOW692

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW692

Weir Link: OF2108

Scenario:	Alt3
From Node:	NCL2430
To Node:	NCL2850
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.31 ft
Control Elevation:	22.31 ft
Cross Section:	XOW696

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW696

Weir Link: OF2109

Scenario:	Alt3
From Node:	NRU2550
To Node:	NRU0180
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.01 ft
Control Elevation:	16.01 ft
Cross Section:	XOW429

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW429

Weir Link: OF2110

Scenario:	Alt3
From Node:	NRU0550
To Node:	NRU2590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.47 ft
Control Elevation:	18.47 ft
Cross Section:	XOW697

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW697

Weir Link: OF2111

Scenario:	Alt3
From Node:	NRU0550
To Node:	NRU2570
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.05 ft
Control Elevation:	18.05 ft
Cross Section:	XOW698

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW698

Weir Link: OF2112

Scenario:	Alt3
From Node:	NRU0550
To Node:	NRU0570
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.19 ft
Control Elevation:	18.19 ft
Cross Section:	XOW699

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW699

Weir Link: OF2113

Scenario:	Alt3
From Node:	NRU0570
To Node:	NRU0590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.25 ft
Control Elevation:	19.25 ft
Cross Section:	XOW700

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW700

Weir Link: OF2114

Scenario:	Alt3
From Node:	NRU0610
To Node:	NRU0590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.38 ft
Control Elevation:	19.38 ft
Cross Section:	XOW701

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW701

Weir Link: OF2115

Scenario:	Alt3
From Node:	NRU0612
To Node:	NRU0610
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.28 ft
Control Elevation:	19.28 ft
Cross Section:	XOW702

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW702

Weir Link: OF2116

Scenario:	Alt3
From Node:	NRU0630
To Node:	NRU0612
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.74 ft
Control Elevation:	19.74 ft
Cross Section:	XOW703

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW703

Weir Link: OF2117

Scenario:	Alt3
From Node:	NRU0630
To Node:	NRU0650
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.16 ft
Control Elevation:	19.16 ft
Cross Section:	XOW704

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW704

Weir Link: OF2118

Scenario:	Alt3
From Node:	NRU0690
To Node:	NRU0650
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	18.91 ft
Control Elevation:	18.91 ft
Cross Section:	XOW705

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW705

Weir Link: OF2119

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0612	Default:	0.00 ft
To Node:	NBW2310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.33 ft	**Discharge Coefficients**	
Control Elevation:	20.33 ft	Weir Default:	2.600
Cross Section:	XOW706	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW706

Weir Link: OF2120

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0612	Default:	0.00 ft
To Node:	NRU2650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.06 ft	**Discharge Coefficients**	
Control Elevation:	20.06 ft	Weir Default:	2.600
Cross Section:	XOW707	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW707

Weir Link: OF2121

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2310	Default:	0.00 ft
To Node:	NRU2650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.40 ft	**Discharge Coefficients**	
Control Elevation:	19.40 ft	Weir Default:	2.600
Cross Section:	XOW724	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW724

Weir Link: OF2122

Scenario:	Alt3
From Node:	NBW2330
To Node:	NBW2310
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.84 ft
Control Elevation:	18.84 ft
Cross Section:	XOW723

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW723

Weir Link: OF2123

Scenario:	Alt3
From Node:	NBW2230
To Node:	NBW2290
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.14 ft
Control Elevation:	19.14 ft
Cross Section:	XOW708

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW708

Weir Link: OF2124

Scenario:	Alt3
From Node:	NBW2290
To Node:	NBW2310
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.62 ft
Control Elevation:	19.62 ft
Cross Section:	XOW722

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW722

Weir Link: OF2125

Scenario:	Alt3
From Node:	NBW2290
To Node:	NBW2270
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.56 ft
Control Elevation:	19.56 ft
Cross Section:	XOW721

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW721

Weir Link: OF2126

Scenario:	Alt3
From Node:	NBW2270
To Node:	NBW2250
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.96 ft
Control Elevation:	19.96 ft
Cross Section:	XOW720

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW720

Weir Link: OF2127

Scenario:	Alt3
From Node:	NBW2250
To Node:	NBW2210
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.70 ft
Control Elevation:	19.70 ft
Cross Section:	XOW719

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW719

Weir Link: OF2128

Scenario:	Alt3
From Node:	NBW2210
To Node:	NBW2230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.41 ft
Control Elevation:	19.41 ft
Cross Section:	XOW718

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW718

Weir Link: OF2129

Scenario:	Alt3
From Node:	NBW2210
To Node:	NBW2150
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.40 ft
Control Elevation:	19.40 ft
Cross Section:	XOW717

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW717

Weir Link: OF2130

Scenario:	Alt3	Bottom Clip	
From Node:	NBW2150	Default:	0.00 ft
To Node:	NBW2230	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.30 ft	Discharge Coefficients	
Control Elevation:	19.30 ft	Weir Default:	2.600
Cross Section:	XOW716	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW716

Weir Link: OF2131

Scenario:	Alt3	Bottom Clip	
From Node:	NBW2150	Default:	0.00 ft
To Node:	NBW2070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.29 ft	Discharge Coefficients	
Control Elevation:	19.29 ft	Weir Default:	2.800
Cross Section:	XOW710	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW710

Weir Link: OF2132

Scenario:	Alt3	Bottom Clip	
From Node:	NBW2060	Default:	0.00 ft
To Node:	NBW2070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.70 ft
Control Elevation:	19.70 ft
Cross Section:	XOW712

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW712

Weir Link: OF2133

Scenario:	Alt3
From Node:	NBW2060
To Node:	NBW2050
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.17 ft
Control Elevation:	19.17 ft
Cross Section:	XOW715

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW715

Weir Link: OF2134

Scenario:	Alt3
From Node:	NBW2060
To Node:	NBW2150
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.60 ft
Control Elevation:	19.60 ft
Cross Section:	XOW711

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW711

Weir Link: OF2137

Scenario:	Alt3
From Node:	NBW2330
To Node:	NBW1860
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	20.08 ft
Control Elevation:	20.08 ft
Cross Section:	XOW727

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW727

Weir Link: OF2138

Scenario:	Alt3
From Node:	NBW2060
To Node:	NBW2010
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.74 ft
Control Elevation:	19.74 ft
Cross Section:	XOW713

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW713

Weir Link: OF2139

Scenario:	Alt3
From Node:	NBW2060
To Node:	NBW1990
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.51 ft
Control Elevation:	19.51 ft
Cross Section:	XOW714

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

Orifice Table:

Comment: XOW714

Weir Link: OF2140

Scenario:	Alt3
From Node:	NBW2050
To Node:	NBW1990
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.55 ft
Control Elevation:	19.55 ft
Cross Section:	XOW728

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients

Weir Default: 2.600
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment: XOW728

Weir Link: OF2141

Scenario:	Alt3
From Node:	NBW2050
To Node:	NCL3090
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.16 ft
Control Elevation:	19.16 ft
Cross Section:	XOW729

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Default: 0.00 ft
Op Table:
Ref Node:

Discharge Coefficients

Weir Default: 2.600
Weir Table:
Orifice Default: 0.600
Orifice Table:

Comment: XOW729

Weir Link: OF2142

Scenario:	Alt3
From Node:	NCL2850
To Node:	NCL3050
Link Count:	1
Flow Direction:	Both

Bottom Clip

Default: 0.00 ft
Op Table:
Ref Node:

Top Clip

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.40 ft
Control Elevation:	21.40 ft
Cross Section:	XOW731

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW731

Weir Link: OF2143

Scenario:	Alt3
From Node:	NCL2850
To Node:	NCL2370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.68 ft
Control Elevation:	21.68 ft
Cross Section:	XOW732

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW732

Weir Link: OF2144

Scenario:	Alt3
From Node:	NCL2750
To Node:	NCL2510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.23 ft
Control Elevation:	22.23 ft
Cross Section:	XOW733

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW733

Weir Link: OF2145

Scenario:	Alt3
From Node:	NCL2750
To Node:	NCL2730
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.79 ft
Control Elevation:	22.79 ft
Cross Section:	XOW734

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW734

Weir Link: OF2149

Scenario:	Alt3
From Node:	NCL2770
To Node:	NCL2750
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.66 ft
Control Elevation:	22.66 ft
Cross Section:	XOW736

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW736

Weir Link: OF2150

Scenario:	Alt3
From Node:	NCL2790
To Node:	NCL2780
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.04 ft
Control Elevation:	22.04 ft
Cross Section:	XOW737

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW737

Weir Link: OF2151

Scenario:	Alt3
From Node:	NCL2790
To Node:	NCL2540
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.45 ft
Control Elevation:	21.45 ft
Cross Section:	XOW738

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW738

Weir Link: OF2152

Scenario:	Alt3
From Node:	NCL2780
To Node:	NCL2750
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.84 ft
Control Elevation:	22.84 ft
Cross Section:	XOW739

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW739

Weir Link: OF2153

Scenario:	Alt3
From Node:	NCL4010
To Node:	JUNCT9
Link Count:	1
Flow Direction:	Both

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	29.15 ft	Ref Node:	
Control Elevation:	29.15 ft	Discharge Coefficients	
Cross Section:	XOW741	Weir Default:	2.800
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW741

Weir Link: OF2154

Scenario:	Alt3	Bottom Clip	
From Node:	NCL4000	Default:	0.00 ft
To Node:	JUNCT9	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	29.29 ft	Discharge Coefficients	
Control Elevation:	29.29 ft	Weir Default:	2.800
Cross Section:	XOW740	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW740

Weir Link: OF2155

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2830	Default:	0.00 ft
To Node:	NCL2810	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	22.97 ft	Discharge Coefficients	
Control Elevation:	22.97 ft	Weir Default:	2.600
Cross Section:	XOW742	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW742

Weir Link: OF2156

Scenario:	Alt3
From Node:	NCL2810
To Node:	NCL2790
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	22.44 ft
Control Elevation:	22.44 ft
Cross Section:	XOW743

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW743

Weir Link: OF2157

Scenario:	Alt3
From Node:	NCL2830
To Node:	NCL2590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	23.07 ft
Control Elevation:	23.07 ft
Cross Section:	XOW744

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW744

Weir Link: OF2158

Scenario:	Alt3
From Node:	NCL2830
To Node:	Outfall_NE
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	23.10 ft
Control Elevation:	23.10 ft
Cross Section:	XOW745

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment: XOW745

Weir Link: OF2159

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2130	Default:	0.00 ft
To Node:	NBW2110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.55 ft	**Discharge Coefficients**	
Control Elevation:	17.55 ft	Weir Default:	2.600
Cross Section:	XOW747	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW747

Weir Link: OF2160

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0830	Default:	0.00 ft
To Node:	NBW2130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.96 ft	**Discharge Coefficients**	
Control Elevation:	17.96 ft	Weir Default:	2.600
Cross Section:	XOW746	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW746

Weir Link: OF2161

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2110	Default:	0.00 ft
To Node:	NBW2090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	18.38 ft
Control Elevation:	18.38 ft
Cross Section:	XOW748

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW748

Weir Link: OF2162

Scenario:	Alt3
From Node:	NBW2110
To Node:	NRU0790
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	17.58 ft
Control Elevation:	17.58 ft
Cross Section:	XOW749

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW749

Weir Link: OF2163

Scenario:	Alt3
From Node:	NBW2090
To Node:	NBW2190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.97 ft
Control Elevation:	19.97 ft
Cross Section:	XOW750

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW750

Weir Link: OF2164

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2090	Default:	0.00 ft
To Node:	NBW2070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.85 ft	**Discharge Coefficients**	
Control Elevation:	19.85 ft	Weir Default:	2.600
Cross Section:	XOW751	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW751

Weir Link: OF2165

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2170	Default:	0.00 ft
To Node:	NBW2150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.04 ft	**Discharge Coefficients**	
Control Elevation:	20.04 ft	Weir Default:	2.600
Cross Section:	XOW709	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW709

Weir Link: OF2166

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2070	Default:	0.00 ft
To Node:	NBW2050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.37 ft	**Discharge Coefficients**	
Control Elevation:	18.37 ft	Weir Default:	2.600
Cross Section:	XOW752	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW752

Weir Link: OF2167

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3150	Default:	0.00 ft
To Node:	NBW2070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.91 ft	**Discharge Coefficients**	
Control Elevation:	18.91 ft	Weir Default:	2.600
Cross Section:	XOW753	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW753

Weir Link: OF2168

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3370	Default:	0.00 ft
To Node:	NCL3365	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.47 ft	**Discharge Coefficients**	
Control Elevation:	20.47 ft	Weir Default:	2.600
Cross Section:	XOW756	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW756

Weir Link: OF2169

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3530	Default:	0.00 ft
To Node:	NCL3365	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	20.38 ft	Ref Node:	
Control Elevation:	20.38 ft	Discharge Coefficients	
Cross Section:	XOW755	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW755

Weir Link: OF2170

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0615	Default:	0.00 ft
To Node:	JUNCT3	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.87 ft	Discharge Coefficients	
Control Elevation:	19.87 ft	Weir Default:	2.600
Cross Section:	XOW760	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW760

Weir Link: OF2171

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0620	Default:	0.00 ft
To Node:	NRU0615	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.99 ft	Discharge Coefficients	
Control Elevation:	19.99 ft	Weir Default:	2.600
Cross Section:	XOW759	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW759

Weir Link: OF2172

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0345	Default:	0.00 ft
To Node:	NRU0340	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.98 ft	**Discharge Coefficients**	
Control Elevation:	18.98 ft	Weir Default:	2.600
Cross Section:	XOW762	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW762

Weir Link: OF2173

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0350	Default:	0.00 ft
To Node:	NRU0340	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.40 ft	**Discharge Coefficients**	
Control Elevation:	19.40 ft	Weir Default:	2.600
Cross Section:	XOW761	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW761

Weir Link: OF2174

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0340	Default:	0.00 ft
To Node:	NRU0290	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.00 ft	**Discharge Coefficients**	
Control Elevation:	18.00 ft	Weir Default:	2.600
Cross Section:	XOW763	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW763

Weir Link: OF2175

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0290	Default:	0.00 ft
To Node:	NRU0270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.86 ft	**Discharge Coefficients**	
Control Elevation:	17.86 ft	Weir Default:	2.600
Cross Section:	XOW764	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW764

Weir Link: OF2176

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0270	Default:	0.00 ft
To Node:	JUNCT6	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	14.87 ft	**Discharge Coefficients**	
Control Elevation:	14.87 ft	Weir Default:	2.600
Cross Section:	XOW767	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW767

Weir Link: OF2177

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0250	Default:	0.00 ft
To Node:	NRU0170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	14.22 ft
Control Elevation:	14.22 ft
Cross Section:	XOW768

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW768

Weir Link: OF2178

Scenario:	Alt3
From Node:	NRU0170
To Node:	NRU0190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	16.10 ft
Control Elevation:	16.10 ft
Cross Section:	XOW769

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW769

Weir Link: OF2179

Scenario:	Alt3
From Node:	NRU0180
To Node:	NRU1510
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	16.45 ft
Control Elevation:	16.45 ft
Cross Section:	XOW770

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW770

Weir Link: OF2180

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0310	Default:	0.00 ft
To Node:	NRU0270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.85 ft	**Discharge Coefficients**	
Control Elevation:	17.85 ft	Weir Default:	2.400
Cross Section:	XOW766	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW766

Weir Link: OF2181

Scenario:	Alt3	**Bottom Clip**	
From Node:	NC08	Default:	0.00 ft
To Node:	N10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	2.73 ft	**Discharge Coefficients**	
Control Elevation:	2.73 ft	Weir Default:	2.600
Cross Section:	XOW571	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW571

Weir Link: OF2182

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1170	Default:	0.00 ft
To Node:	NRU1150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.31 ft	**Discharge Coefficients**	
Control Elevation:	18.31 ft	Weir Default:	2.600
Cross Section:	XOW614	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment: XOW614

Weir Link: OF2185

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0710	Default:	0.00 ft
To Node:	NRU0750	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.86 ft	**Discharge Coefficients**	
Control Elevation:	18.86 ft	Weir Default:	2.600
Cross Section:	XOW771	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW771

Weir Link: OF2186

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3630	Default:	0.00 ft
To Node:	NCL3520	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.61 ft	**Discharge Coefficients**	
Control Elevation:	19.61 ft	Weir Default:	2.600
Cross Section:	XOW773	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: XOW773

Weir Link: OF2187

Scenario:	Alt3	**Bottom Clip**	
From Node:	JUNCT7	Default:	0.00 ft
To Node:	JUNCT8	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.13 ft
Control Elevation:	19.13 ft
Cross Section:	XOW774

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW774

Weir Link: OF2188

Scenario:	Alt3
From Node:	NCL3510
To Node:	JUNCT7
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	19.42 ft
Control Elevation:	19.42 ft
Cross Section:	XOW775

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: XOW775

Weir Link: OF2550

Scenario:	Alt3
From Node:	NCL2550
To Node:	NCL3370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	21.50 ft
Control Elevation:	21.50 ft
Cross Section:	XOW2550

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: OF3000

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2840	Default:	0.00 ft
To Node:	NCL2810	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.35 ft	**Discharge Coefficients**	
Control Elevation:	23.35 ft	Weir Default:	3.200
Cross Section:	XOW781	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3001

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2840	Default:	0.00 ft
To Node:	NCL2790	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.26 ft	**Discharge Coefficients**	
Control Elevation:	23.26 ft	Weir Default:	3.200
Cross Section:	XOW782	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3002

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH26	Default:	0.00 ft
To Node:	NSH44	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.35 ft	**Discharge Coefficients**	
Control Elevation:	13.35 ft	Weir Default:	3.200
Cross Section:	XOW784	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF3003

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH26	Default:	0.00 ft
To Node:	NSH34	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.62 ft	**Discharge Coefficients**	
Control Elevation:	13.62 ft	Weir Default:	3.200
Cross Section:	XOW783	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3004

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH14	Default:	0.00 ft
To Node:	NSH22	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.75 ft	**Discharge Coefficients**	
Control Elevation:	17.75 ft	Weir Default:	2.600
Cross Section:	XOW796	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3005

Scenario:	Alt3	**Bottom Clip**	
From Node:	N08A	Default:	0.00 ft
To Node:	N09	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	15.55 ft	Ref Node:	
Control Elevation:	15.55 ft	Discharge Coefficients	
Cross Section:	XOW776	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3006

Scenario:	Alt3	Bottom Clip	
From Node:	N09	Default:	0.00 ft
To Node:	NC02	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.56 ft	Discharge Coefficients	
Control Elevation:	13.56 ft	Weir Default:	3.200
Cross Section:	XOW787	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3007

Scenario:	Alt3	Bottom Clip	
From Node:	N08A	Default:	0.00 ft
To Node:	NC02	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.04 ft	Discharge Coefficients	
Control Elevation:	16.04 ft	Weir Default:	3.200
Cross Section:	XOW786	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3008

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3640	Default:	0.00 ft
To Node:	NRU1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.34 ft	**Discharge Coefficients**	
Control Elevation:	20.34 ft	Weir Default:	3.200
Cross Section:	XOW788	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3009

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3670	Default:	0.00 ft
To Node:	NCL3450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.38 ft	**Discharge Coefficients**	
Control Elevation:	19.38 ft	Weir Default:	3.200
Cross Section:	XOW801	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3010

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU2630	Default:	0.00 ft
To Node:	NRU2610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.83 ft	**Discharge Coefficients**	
Control Elevation:	18.83 ft	Weir Default:	3.200
Cross Section:	XOW785	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF3011

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0176	Default:	0.00 ft
To Node:	NRU0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	15.99 ft	**Discharge Coefficients**	
Control Elevation:	15.99 ft	Weir Default:	3.200
Cross Section:	XOW792	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3012

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0176	Default:	0.00 ft
To Node:	NRU1390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.16 ft	**Discharge Coefficients**	
Control Elevation:	16.16 ft	Weir Default:	3.200
Cross Section:	XOW799	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3013

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0176	Default:	0.00 ft
To Node:	NRU1390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	16.49 ft	Ref Node:	
Control Elevation:	16.49 ft	Discharge Coefficients	
Cross Section:	XOW797	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3014

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0165	Default:	0.00 ft
To Node:	NRU0190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.63 ft	Discharge Coefficients	
Control Elevation:	17.63 ft	Weir Default:	3.200
Cross Section:	XOW795	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3015

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0165	Default:	0.00 ft
To Node:	NRU0170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.81 ft	Discharge Coefficients	
Control Elevation:	17.81 ft	Weir Default:	3.200
Cross Section:	XOW793	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3016

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0345	Default:	0.00 ft
To Node:	NRU0335	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.68 ft	**Discharge Coefficients**	
Control Elevation:	19.68 ft	Weir Default:	3.200
Cross Section:	XOW798	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3017

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1220	Default:	0.00 ft
To Node:	NRU0650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.19 ft	**Discharge Coefficients**	
Control Elevation:	20.19 ft	Weir Default:	3.200
Cross Section:	XOW790	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3019

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0370	Default:	0.00 ft
To Node:	NRU0350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.05 ft	**Discharge Coefficients**	
Control Elevation:	19.05 ft	Weir Default:	3.200
Cross Section:	XOW779	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF3020

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH51	Default:	0.00 ft
To Node:	E_Outlet2	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.53 ft	**Discharge Coefficients**	
Control Elevation:	19.53 ft	Weir Default:	3.200
Cross Section:	XOW780	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3021

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1070	Default:	0.00 ft
To Node:	E_Outlet2	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.90 ft	**Discharge Coefficients**	
Control Elevation:	19.90 ft	Weir Default:	3.200
Cross Section:	XOW777	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF3022

Scenario:	Alt3	**Bottom Clip**	
From Node:	N11	Default:	0.00 ft
To Node:	E_Outlet	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Paved Road Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	16.83 ft	Ref Node:	
Control Elevation:	16.83 ft	Discharge Coefficients	
Cross Section:	XOW778	Weir Default:	3.200
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4000

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0740	Default:	0.00 ft
To Node:	NRU0745	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.93 ft	Discharge Coefficients	
Control Elevation:	16.93 ft	Weir Default:	2.600
Cross Section:	OF4000	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4001

Scenario:	Alt3	Bottom Clip	
From Node:	NBW2145	Default:	0.00 ft
To Node:	NBW2130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.13 ft	Discharge Coefficients	
Control Elevation:	19.13 ft	Weir Default:	2.600
Cross Section:	OF4001	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4002

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2145	Default:	0.00 ft
To Node:	NRU0790	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.24 ft	**Discharge Coefficients**	
Control Elevation:	19.24 ft	Weir Default:	2.600
Cross Section:	OF4002	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4003

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0830	Default:	0.00 ft
To Node:	NRU1010	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.04 ft	**Discharge Coefficients**	
Control Elevation:	20.04 ft	Weir Default:	2.600
Cross Section:	OF4003	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4004

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1010	Default:	0.00 ft
To Node:	NRU1240	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.28 ft	**Discharge Coefficients**	
Control Elevation:	20.28 ft	Weir Default:	2.600
Cross Section:	OF4004	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4005

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1010	Default:	0.00 ft
To Node:	NSH57	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.23 ft	**Discharge Coefficients**	
Control Elevation:	20.23 ft	Weir Default:	2.600
Cross Section:	OF4005	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4006

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0830	Default:	0.00 ft
To Node:	NRU1240	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.94 ft	**Discharge Coefficients**	
Control Elevation:	19.94 ft	Weir Default:	2.600
Cross Section:	OF4006	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4007

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3740	Default:	0.00 ft
To Node:	NCL3730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	17.78 ft	Ref Node:	
Control Elevation:	17.78 ft	Discharge Coefficients	
Cross Section:	OF4007	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4008

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NRU0950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.55 ft	Discharge Coefficients	
Control Elevation:	17.55 ft	Weir Default:	2.600
Cross Section:	OF4008	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4009

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NRU0850	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.03 ft	Discharge Coefficients	
Control Elevation:	17.03 ft	Weir Default:	2.600
Cross Section:	OF4009	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4010

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NBW2130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.10 ft	**Discharge Coefficients**	
Control Elevation:	18.10 ft	Weir Default:	2.600
Cross Section:	OF4010	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4011

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NCL3450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.07 ft	**Discharge Coefficients**	
Control Elevation:	18.07 ft	Weir Default:	2.600
Cross Section:	OF4011	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4012

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3450	Default:	0.00 ft
To Node:	NBW2110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.94 ft	**Discharge Coefficients**	
Control Elevation:	17.94 ft	Weir Default:	2.600
Cross Section:	OF4012	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4013

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3740	Default:	0.00 ft
To Node:	NRU0955	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.59 ft	**Discharge Coefficients**	
Control Elevation:	17.59 ft	Weir Default:	2.600
Cross Section:	OF4013	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4014

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3250	Default:	0.00 ft
To Node:	NBW2110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.79 ft	**Discharge Coefficients**	
Control Elevation:	18.79 ft	Weir Default:	2.600
Cross Section:	OF4014	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4015

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3350	Default:	0.00 ft
To Node:	NCL3190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	20.33 ft	Ref Node:	
Control Elevation:	20.33 ft	Discharge Coefficients	
Cross Section:	OF4015	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4016

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2510	Default:	0.00 ft
To Node:	NCL2910	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.36 ft	Discharge Coefficients	
Control Elevation:	21.36 ft	Weir Default:	2.600
Cross Section:	OF4016	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4017

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2530	Default:	0.00 ft
To Node:	NCL3390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.85 ft	Discharge Coefficients	
Control Elevation:	20.85 ft	Weir Default:	2.600
Cross Section:	OF4017	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4018

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2530	Default:	0.00 ft
To Node:	NCL3370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.92 ft	**Discharge Coefficients**	
Control Elevation:	20.92 ft	Weir Default:	2.600
Cross Section:	OF4018	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4019

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3520	Default:	0.00 ft
To Node:	NRU1050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.18 ft	**Discharge Coefficients**	
Control Elevation:	19.18 ft	Weir Default:	2.600
Cross Section:	OF4019	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4020

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1070	Default:	0.00 ft
To Node:	NRU1050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	19.21 ft	**Discharge Coefficients**	
Control Elevation:	19.21 ft	Weir Default:	2.600
Cross Section:	OF4020	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4021

Scenario:	Alt3	**Bottom Clip**	
From Node:	JUNCT7B	Default:	0.00 ft
To Node:	NCL3490	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.25 ft	**Discharge Coefficients**	
Control Elevation:	18.25 ft	Weir Default:	2.600
Cross Section:	OF4021	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4022

Scenario:	Alt3	**Bottom Clip**	
From Node:	JUNCT8B	Default:	0.00 ft
To Node:	JUNCT7B	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.26 ft	**Discharge Coefficients**	
Control Elevation:	18.26 ft	Weir Default:	2.600
Cross Section:	OF4022	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4023

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL2590	Default:	0.00 ft
To Node:	NCL3630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	20.89 ft	Ref Node:	
Control Elevation:	20.89 ft	Discharge Coefficients	
Cross Section:	OF4023	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4024

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2630	Default:	0.00 ft
To Node:	NCL3640	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.38 ft	Discharge Coefficients	
Control Elevation:	20.38 ft	Weir Default:	2.600
Cross Section:	OF4024	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4025

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0790	Default:	0.00 ft
To Node:	NRU0785	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	16.23 ft	Discharge Coefficients	
Control Elevation:	16.23 ft	Weir Default:	2.600
Cross Section:	XOW800	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4026

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3670	Default:	0.00 ft
To Node:	NBW2110	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.95 ft	**Discharge Coefficients**	
Control Elevation:	18.95 ft	Weir Default:	3.200
Cross Section:	XOW802	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4027

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH55B	Default:	0.00 ft
To Node:	NSH55	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.99 ft	**Discharge Coefficients**	
Control Elevation:	18.99 ft	Weir Default:	2.600
Cross Section:	OF4027	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4028

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH53	Default:	0.00 ft
To Node:	NSH52	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	18.33 ft	**Discharge Coefficients**	
Control Elevation:	18.33 ft	Weir Default:	2.600
Cross Section:	OF4028	Weir Table:	
		Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: OF4029

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH43	Default:	0.00 ft
To Node:	NSH75	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	7.68 ft	**Discharge Coefficients**	
Control Elevation:	7.68 ft	Weir Default:	2.800
Cross Section:	XOW853	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4050

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH37	Default:	0.00 ft
To Node:	NSH17	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.87 ft	**Discharge Coefficients**	
Control Elevation:	17.87 ft	Weir Default:	2.600
Cross Section:	XOW910	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4051

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH14	Default:	0.00 ft
To Node:	NSH17	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Irregular	Op Table:	
Invert:	17.73 ft	Ref Node:	
Control Elevation:	17.73 ft	Discharge Coefficients	
Cross Section:	XOW911	Weir Default:	2.600
		Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4060

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2790	Default:	0.00 ft
To Node:	JUNCT10	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.35 ft	Discharge Coefficients	
Control Elevation:	21.35 ft	Weir Default:	2.600
Cross Section:	XOW920	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4061

Scenario:	Alt3	Bottom Clip	
From Node:	NRU0180	Default:	0.00 ft
To Node:	NRU1510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	15.72 ft	Discharge Coefficients	
Control Elevation:	15.72 ft	Weir Default:	2.600
Cross Section:	XOW921	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4062			
Scenario:	Alt3	Bottom Clip	
From Node:	NSH26	Default:	0.00 ft
To Node:	NSH27	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	13.42 ft	Discharge Coefficients	
Control Elevation:	13.42 ft	Weir Default:	2.200
Cross Section:	XOW922	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: OF4070			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3450	Default:	0.00 ft
To Node:	NCL3730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	17.34 ft	Discharge Coefficients	
Control Elevation:	17.34 ft	Weir Default:	2.600
Cross Section:	XOW930	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: OutBox1		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.12 ft	Invert:	-1.23 ft
From Node:	Shamrock2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Outfall	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	334.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			

Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: OutBox2		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.12 ft	Invert:	-1.23 ft
From Node:	Shamrock2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Outfall	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	334.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: P01A		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.08 ft	Invert:	14.80 ft
From Node:	N01A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	PondA	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	92.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: P02		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.71 ft	Invert:	10.97 ft
From Node:	N02	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N05	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	70.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: P03		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.00 ft	Invert:	12.71 ft
From Node:	N03	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N02	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: P04		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.60 ft	Invert:	15.14 ft
From Node:	N04	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N05	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	171.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Selmon Plans, CityPlans, Field

Pipe Link: P05		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.71 ft	Invert:	10.55 ft
From Node:	N05	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	PondB	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	120.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: P06		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.63 ft	Invert:	5.59 ft
From Node:	N06	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N07A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P07C		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.59 ft	Invert:	2.99 ft

From Node:	N07A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N08A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	610.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P08C		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.99 ft	Invert:	1.88 ft
From Node:	N08A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N09A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P09A		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.50 ft	Invert:	7.14 ft
From Node:	N09	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N09A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	32.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: P09B		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.88 ft	Invert:	0.38 ft
From Node:	N09A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NC02	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC01		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.65 ft	Invert:	0.25 ft
From Node:	NC01	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	148.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC01B		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.18 ft	Invert:	1.93 ft
From Node:	NC01B	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NC03	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	333.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC02		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.38 ft	Invert:	-1.91 ft
From Node:	NC02	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NC03	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	458.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC03		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.91 ft	Invert:	-2.62 ft
From Node:	NC03	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC04		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.31 ft	Invert:	-1.50 ft
From Node:	NC04	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC05		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.11 ft	Invert:	-1.50 ft
From Node:	NC05	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	49.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC06		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.83 ft	Invert:	-2.00 ft
From Node:	NC06	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC07		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.01 ft	Invert:	-1.50 ft
From Node:	NC07	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: PC08		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.21 ft	Invert:	-1.50 ft
From Node:	NC08	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	54.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Rating Curve Link: PSCL3730

Scenario: Alt3
From Node: NCL3730
To Node: NCL3450
Link Count: 1
Flow Direction: None

Table	Elev On [ft]	Elev On Node	Elev Off [ft]	Elev Off Node
PSCL3730	13.00	NCL3730	9.50	NCL3730
PSCL3730B	13.00	NCL3730	9.50	NCL3730

Comment: Pump station added per ERP 6550

Pipe Link: PSH31		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.54 ft	Invert:	4.29 ft
From Node:	NSH31	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH35	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	88.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: PSH51		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.41 ft	Invert:	13.37 ft
From Node:	NSH51	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH53	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	345.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: P_THEA_Watrous		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.70 ft	Invert:	10.44 ft
From Node:	THEA_Watrous	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	THEA_JUNCT1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	162.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: P_THEA_Watrous2		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.44 ft	Invert:	10.36 ft
From Node:	THEA_JUNCT1	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	THEA_JUNCT2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Pipe Link: P_THEA_Watrous3		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.36 ft	Invert:	10.34 ft
From Node:	THEA_JUNCT2	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSHSelmonDS	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed Pipe

Weir Link: PondA_Grate

Scenario:	Alt3	**Bottom Clip**	
From Node:	PondA	Default:	0.00 ft
To Node:	NSH71	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.00 ft	**Discharge Coefficients**	
Control Elevation:	19.00 ft	Weir Default:	2.800
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: PondA_Notch

Scenario:	Alt3	**Bottom Clip**	
From Node:	PondA	Default:	0.00 ft
To Node:	NSH71	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.50 ft	**Discharge Coefficients**	
Control Elevation:	16.50 ft	Weir Default:	2.800
Max Depth:	2.50 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: R11		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.14 ft	Invert:	9.17 ft
From Node:	N11	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	E_Outlet	Geometry: Rectangular		Geometry: Rectangular	

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	691.16 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RBB0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.17 ft	Invert:	-3.37 ft
From Node:	NBB0030	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBB0010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	900.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.77 ft	Invert:	-3.17 ft
From Node:	NBB0050	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBB0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	900.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0070		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.13 ft	Invert:	-1.77 ft
From Node:	NBB0070	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBB0050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	506.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0090		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.33 ft	Invert:	0.13 ft
From Node:	NBB0090	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	456.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	13.12 ft
From Node:	NBB0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0050	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RBB0090OW	Cross Section:	RBB0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0110		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.33 ft	Invert:	1.33 ft
From Node:	NBB0110	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.10 ft	Invert:	16.09 ft
From Node:	NBB0130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0110	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0110OW	Cross Section:	RBB0110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0130		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.83 ft	Invert:	9.33 ft
From Node:	NBB0130	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	200.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0150		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.13 ft	Invert:	2.36 ft
From Node:	NBB0150	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	450.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0170		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.18 ft	Invert:	4.13 ft
From Node:	NBB0170	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NBB0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	250.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0190		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.42 ft	Invert:	4.18 ft
From Node:	NBB0190	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0210		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.66 ft	Invert:	4.42 ft
From Node:	NBB0210	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0230		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.99 ft	Invert:	4.66 ft
From Node:	NBB0230	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBB0230OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.45 ft	Invert:	16.44 ft
From Node:	NBB0230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0190	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0230OW	Cross Section:	RBB0230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBB0250		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.16 ft	Invert:	4.99 ft
From Node:	NBB0250	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0270		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.38 ft	Invert:	5.16 ft
From Node:	NBB0270	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.77 ft	Invert:	15.76 ft
From Node:	NBB0270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0310	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBB0270OW	Cross Section:	RBB0270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0290		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.73 ft	Invert:	5.38 ft

From Node:	NBB0290	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NBB0270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	230.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0310		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.97 ft	Invert:	5.73 ft
From Node:	NBB0310	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0330		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.24 ft	Invert:	5.97 ft
From Node:	NBB0330	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	380.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.99 ft	Invert:	15.98 ft
From Node:	NBB0330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBB0330OW	Cross Section:	RBB0330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0350		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.65 ft	Invert:	6.24 ft
From Node:	NBB0350	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0330	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0370		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.99 ft	Invert:	6.65 ft
From Node:	NBB0370	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBB0350	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	250.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0390		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.48 ft	Invert:	6.99 ft
From Node:	NBB0390	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBB0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBB0410		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.00 ft	Invert:	7.48 ft
From Node:	NBB0410	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBB0390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	520.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.09 ft	Invert:	15.08 ft
From Node:	NBB0410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBB0410OW	Cross Section:	RBB0410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBB0430		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.32 ft	Invert:	9.00 ft
From Node:	NBB0430	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NBB0410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	190.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.93 ft	Invert:	14.03 ft
From Node:	NBB0430	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G1	Geometry:	Trapezoidal	Geometry:	Trapezoidal
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	491.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBB0430OWa		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.13 ft	Invert:	14.63 ft
From Node:	NBB0430	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	520.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_001		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.40 ft	Invert:	5.72 ft
From Node:	NBW2690	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0881	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	720.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.90	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_003		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.72 ft	Invert:	4.49 ft
From Node:	NSR0881	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2380	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	1260.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.70	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_004		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.49 ft	Invert:	3.84 ft
From Node:	NBW2380	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1353	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	660.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_005		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.84 ft	Invert:	3.21 ft
From Node:	NBW1353	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1352	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	640.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_006		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.21 ft	Invert:	2.60 ft
From Node:	NBW1352	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1351	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	620.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_007	Upstream	Downstream

Scenario:	Alt3	Invert:	2.60 ft	Invert:	1.60 ft
From Node:	NBW1351	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0790	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	670.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.90	Op Table:		Op Table:	
Exit Loss Coef:	0.90	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_008		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.60 ft	Invert:	1.60 ft
From Node:	NSR0790	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0791	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	603.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.90	Op Table:		Op Table:	
Exit Loss Coef:	0.90	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_009		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.60 ft	Invert:	-1.74 ft
From Node:	NSR0791	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0281	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	687.00 ft	Bottom Clip			

FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	0.70	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_010		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.74 ft	Invert:	-3.70 ft
From Node:	NSR0281	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0280	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	385.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_011		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.70 ft	Invert:	-5.00 ft
From Node:	NSR0280	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0550	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	265.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	0.70	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: RBC_012		Upstream		Downstream	
Scenario:	Alt3	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0550	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0160	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	650.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_013		Upstream		Downstream	
Scenario:	Alt3	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0160	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0140	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	57.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_014		Upstream		Downstream	
Scenario:	Alt3	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0140	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0120	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	356.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBC_015		Upstream		Downstream	
Scenario:	Alt3	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0120	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0112	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	76.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBC_016		Upstream		Downstream	
Scenario:	Alt3	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0112	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0105	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft

Length:	135.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_017		Upstream		Downstream	
Scenario:	Alt3	Invert:	-5.00 ft	Invert:	-5.00 ft
From Node:	NSR0105	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0000	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	174.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBC_100		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.60 ft	Invert:	0.52 ft
From Node:	NBW1351	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1330	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	355.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.70	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft

	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: RBC_101		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.60 ft	Invert:	0.80 ft
From Node:	NBW1351	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1310	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.10 ft	Invert:	-4.67 ft
From Node:	NBW0030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0010	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0030	Cross Section:	RBW0030
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	700.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	1.13 ft
From Node:	NBW0050	Manning's N:	0.0130	Manning's N:	0.0130

		Geometry: Circular		Geometry: Circular	
To Node:	NBW0030	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	58.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.50	Top Clip			
Exit Loss Coef:	1.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0050OW

		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NBW0050	Op Table:	
To Node:	NBW0030	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	4.00 ft	Weir Default:	2.600
Control Elevation:	4.00 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	20.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Weir Link: RBW0050OWA

		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NBW0050	Op Table:	
To Node:	NSR0140	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	5.60 ft	Weir Default:	2.600
Control Elevation:	5.60 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	43.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Pipe Link: RBW0070		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.83 ft	Invert:	-2.07 ft
From Node:	NBW0070	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	15.00 ft	Max Width:	15.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0090OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW0090	Default:	0.00 ft
To Node:	NBW0030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	3.60 ft	Discharge Coefficients	
Control Elevation:	3.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW0130		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.42 ft	Invert:	-1.83 ft
From Node:	NBW0130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0130	Cross Section:	RBW0130
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	600.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				

Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW0150		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.21 ft	Invert:	0.15 ft
From Node:	NBW0150	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0130	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	64.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0150OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW0150	Default:	0.00 ft
To Node:	NBW0130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.70 ft	Discharge Coefficients	
Control Elevation:	4.70 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW0170		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.61 ft	Invert:	0.21 ft

From Node:	NBW0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0170OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.40 ft	Invert:	3.40 ft
From Node:	NBW0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0090	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	496.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0170OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.10 ft	Invert:	4.50 ft
From Node:	NBW0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0150	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	208.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW0190		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.28 ft	Invert:	-0.37 ft
From Node:	NBW0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0130	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0190	Cross Section:	RBW0190
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	350.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW0210OW		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NBW0210	Op Table:	
To Node:	NBW0190	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	6.00 ft	Weir Default:	2.400
Control Elevation:	6.00 ft	Weir Table:	
Max Depth:	833.25 ft	Orifice Default:	0.600
Max Width:	20.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Pipe Link: RBW0230		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.34 ft	Invert:	-0.42 ft
From Node:	NBW0230	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0190	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft

Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	45.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0230A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.34 ft	Invert:	-0.42 ft
From Node:	NBW0230	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0190	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	45.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0250		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.39 ft	Invert:	0.28 ft
From Node:	NBW0250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0230	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0250	Cross Section:	RBW0250
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	304.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW0270		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.51 ft	Invert:	0.39 ft
From Node:	NBW0270	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	61.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW0270OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW0270	Default:	0.00 ft
To Node:	NBW0250	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.00 ft	Discharge Coefficients	
Control Elevation:	5.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW0290		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.05 ft	Invert:	0.51 ft
From Node:	NBW0290	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0270	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	218.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0290OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.50 ft	Invert:	5.20 ft
From Node:	NBW0290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_30FT_FULL	Cross Section:	CURB_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	220.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0310		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.67 ft	Invert:	1.05 ft
From Node:	NBW0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	311.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0310OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.50 ft	Invert:	5.30 ft
From Node:	NBW0310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1042.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0310OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.40 ft	Invert:	6.00 ft
From Node:	NBW0310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	290.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0330		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.55 ft	Invert:	0.39 ft
From Node:	NBW0330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0330	Cross Section:	RBW0330
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	446.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW0350OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.73 ft	Invert:	4.72 ft
From Node:	NBW0350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0350OW	Cross Section:	RBW0350OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0370		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.20 ft	Invert:	0.68 ft
From Node:	NBW0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0330	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0390		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.86 ft	Invert:	1.20 ft
From Node:	NBW0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	141.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW0390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.55 ft	Invert:	4.54 ft
From Node:	NBW0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0390OW	Cross Section:	RBW0390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0410		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.46 ft	Invert:	0.45 ft
From Node:	NBW0410	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0330	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	14.00 ft	Max Width:	14.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.65 ft	Invert:	3.64 ft
From Node:	NBW0430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0430OW	Cross Section:	RBW0430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0450		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.55 ft	Invert:	0.46 ft
From Node:	NBW0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0410	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0450	Cross Section:	RBW0450
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0470OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.68 ft	Invert:	3.67 ft
From Node:	NBW0470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0470OW	Cross Section:	RBW0470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0490		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.46 ft	Invert:	0.45 ft
From Node:	NBW0490	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0450	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	14.00 ft	Max Width:	14.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW0510OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.35 ft	Invert:	6.34 ft
From Node:	NBW0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0510OW	Cross Section:	RBW0510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW0530		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.20 ft	Invert:	0.46 ft
From Node:	NBW0530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0530	Cross Section:	RBW0530
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	310.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0550		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.57 ft	Invert:	1.39 ft
From Node:	NBW0550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0530	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	942.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0550AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.72 ft	Invert:	5.71 ft
From Node:	NBW0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0550AOW	Cross Section:	RBW0550AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW0550OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.18 ft	Invert:	5.17 ft
From Node:	NBW0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0550OW	Cross Section:	RBW0550OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0570		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.03 ft	Invert:	3.77 ft
From Node:	NBW0570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0550	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	262.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.68 ft	Invert:	5.67 ft
From Node:	NBW0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0570OW	Cross Section:	RBW0570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0590		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.33 ft	Invert:	4.44 ft
From Node:	NBW0590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0570	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	314.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0590OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.50 ft	Invert:	5.50 ft

From Node:	NBW0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1048.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0590OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.40 ft	Invert:	8.60 ft
From Node:	NBW0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	303.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0610		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.09 ft	Invert:	1.20 ft
From Node:	NBW0610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0610	Cross Section:	RBW0610
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	190.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy
Comment:	

Channel Link: RBW0630OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.08 ft	Invert:	5.07 ft
From Node:	NBW0630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0630OW	Cross Section:	RBW0630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW0650		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.25 ft	Invert:	1.24 ft
From Node:	NBW0650	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0610	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	95.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW0670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.48 ft	Invert:	4.47 ft

From Node:	NBW0670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0670OW	Cross Section:	RBW0670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0690		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.31 ft	Invert:	1.25 ft
From Node:	NBW0690	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NBW0650	Geometry:	Trapezoidal	Geometry:	Trapezoidal
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	0.00 ft	Bottom Width:	0.00 ft
Length:	373.00 ft	Left Slope:	3.000 (h:v)	Left Slope:	3.000 (h:v)
Contraction Coef:	0.00	Right Slope:	3.000 (h:v)	Right Slope:	3.000 (h:v)
Expansion Coef:	0.00		Bottom Clip		
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy		Top Clip		
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0710OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.96 ft	Invert:	4.95 ft
From Node:	NBW0710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0710OW	Cross Section:	RBW0710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW0730		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.32 ft	Invert:	1.31 ft
From Node:	NBW0730	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0690	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	95.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0730OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.74 ft	Invert:	3.73 ft
From Node:	NBW0730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0690	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0730OW	Cross Section:	RBW0730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0750		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.43 ft	Invert:	1.32 ft
From Node:	NBW0750	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBW0730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	670.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0750AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.97 ft	Invert:	4.96 ft
From Node:	NBW0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0750AOW	Cross Section:	RBW0750AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW0750OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.10 ft	Invert:	6.09 ft
From Node:	NBW0750	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW0750OW	Cross Section:	RBW0750OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW0770		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.59 ft	Invert:	1.93 ft
From Node:	NBW0770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0750	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	78.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.45 ft	Invert:	5.44 ft
From Node:	NBW0770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0770OW	Cross Section:	RBW0770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0790		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.03 ft	Invert:	2.87 ft
From Node:	NBW0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0770	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	277.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0790OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.51 ft	Invert:	7.50 ft
From Node:	NBW0790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0790OW	Cross Section:	RBW0790OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0810		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	1.33 ft
From Node:	NBW0810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0750	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	244.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0830		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.39 ft	Invert:	1.91 ft
From Node:	NBW0830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0810	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	392.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0830OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.45 ft	Invert:	7.44 ft
From Node:	NBW0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0830OW	Cross Section:	RBW0830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0850		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.23 ft	Invert:	3.34 ft
From Node:	NBW0850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0830	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	208.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0850OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.54 ft	Invert:	9.53 ft
From Node:	NBW0850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0830	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0850OW	Cross Section:	RBW0850OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0870		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.89 ft	Invert:	1.63 ft
From Node:	NBW0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0810	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	484.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0870OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.33 ft	Invert:	6.32 ft
From Node:	NBW0870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0870OW	Cross Section:	RBW0870OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0890		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.50 ft	Invert:	1.43 ft
From Node:	NBW0890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0750	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0910		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.78 ft	Invert:	1.50 ft
From Node:	NBW0910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0890	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0910OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.28 ft	Invert:	5.27 ft
From Node:	NBW0910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0910OW	Cross Section:	RBW0910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0930		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.09 ft	Invert:	1.78 ft
From Node:	NBW0930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0910	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	177.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0950		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.32 ft	Invert:	2.09 ft
From Node:	NBW0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0930	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.41 ft	Max Depth:	2.41 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	171.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW0950OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.93 ft	Invert:	6.92 ft
From Node:	NBW0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0950	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW0950OW	Cross Section:	RBW0950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW0970		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.68 ft	Invert:	2.68 ft

From Node:	NBW0970	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW0950	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.41 ft	Max Depth:	2.41 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW0990		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.81 ft	Invert:	2.68 ft
From Node:	NBW0990	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW0970	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1010		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.36 ft	Invert:	2.81 ft
From Node:	NBW1010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW0990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	256.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1010OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.90 ft	Invert:	7.89 ft
From Node:	NBW1010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0970	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1010OW	Cross Section:	RBW1010OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1030		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.22 ft	Invert:	3.45 ft
From Node:	NBW1030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1010	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	302.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1030OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.30 ft	Invert:	11.29 ft
From Node:	NBW1030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0830	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RBW1030OW	Cross Section:	RBW1030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1050		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.67 ft	Invert:	4.22 ft
From Node:	NBW1050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1070		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.90 ft	Invert:	4.70 ft
From Node:	NBW1070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Max Width:	3.16 ft	Max Width:	3.16 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	105.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: RBW1070AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.85 ft	Invert:	8.84 ft
From Node:	NBW1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1070AOW	Cross Section:	RBW1070AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1070OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.78 ft	Invert:	8.77 ft
From Node:	NBW1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0870	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1070OW	Cross Section:	RBW1070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1090A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.00 ft	Invert:	-2.10 ft
From Node:	NBW1090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry:	Rectangular	Geometry:	Rectangular

Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	56.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1090B		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.00 ft	Invert:	-2.10 ft
From Node:	NBW1090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	56.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1130		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.56 ft	Invert:	-1.50 ft
From Node:	NBW1130	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.90 ft	Invert:	4.00 ft
From Node:	NBW1130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_30FT_HALF	Cross Section:	LOCAL_30FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	130.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1130OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1130	Default:	0.00 ft
To Node:	NBW0030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.00 ft	Discharge Coefficients	
Control Elevation:	5.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1150		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.18 ft	Invert:	-0.14 ft
From Node:	NBW1150	Manning's N:	0.0130	Manning's N:	0.0130

		Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
To Node:	NBW1130	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Link Count:	1	Bottom Clip			
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	129.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.50	Top Clip			
Exit Loss Coef:	0.50	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1150OWA

		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NBW1150	Op Table:	
To Node:	NSR0180	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	5.10 ft	Weir Default:	2.600
Control Elevation:	5.10 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	23.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Channel Link: RBW1150OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.10 ft	Invert:	4.00 ft
From Node:	NBW1150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1130	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	266.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1169		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.74 ft	Invert:	-2.00 ft
From Node:	NBW1169	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1090	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1169	Cross Section:	RBW1169
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	800.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1170B		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.80 ft	Invert:	-0.74 ft
From Node:	NBW1170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1169	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1169	Cross Section:	RBW1169
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	374.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1190		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.50 ft	Invert:	0.25 ft
From Node:	NBW1190	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	125.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1190OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1190	Default:	0.00 ft
To Node:	NBW1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.00 ft	Discharge Coefficients	
Control Elevation:	7.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1210		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.01 ft	Invert:	-0.35 ft
From Node:	NBW1210	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1210OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1210	Default:	0.00 ft
To Node:	NBW1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.50 ft	Discharge Coefficients	
Control Elevation:	7.50 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RBW1210OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.00 ft	Invert:	3.90 ft
From Node:	NBW1210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1150	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	604.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1230		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.59 ft	Invert:	0.01 ft
From Node:	NBW1230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	265.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1230OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.00 ft	Invert:	5.00 ft
From Node:	NBW1230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	396.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1250A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.75 ft	Invert:	-0.80 ft
From Node:	NBW1250	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	50.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1250B	Upstream	Downstream

Scenario:	Alt3	Invert:	-0.75 ft	Invert:	-0.80 ft
From Node:	NBW1250	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1170	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	50.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.20	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1250OW

Scenario:	Alt3	Bottom Clip	
From Node:	NBW1250	Default:	0.00 ft
To Node:	NBW1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.40 ft	Discharge Coefficients	
Control Elevation:	7.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW1250OWB

Scenario:	Alt3	Bottom Clip	
From Node:	NBW1250	Default:	0.00 ft
To Node:	NBW1190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.70 ft	Discharge Coefficients	
Control Elevation:	6.70 ft	Weir Default:	2.600

Max Depth:	9999.00 ft		
Max Width:	10.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RBW1250OWC

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW1250	Default:	0.00 ft
To Node:	NBW1210	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.70 ft	**Discharge Coefficients**	
Control Elevation:	6.70 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1270		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.20 ft	Invert:	0.50 ft
From Node:	NBW1270	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	172.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.50 ft	Invert:	5.00 ft
From Node:	NBW1270	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NBW1190
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	300.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Geometry: Irregular		Geometry: Irregular	
Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL

Comment:

Weir Link: RBW1270OWA

Scenario:	Alt3
From Node:	NBW1270
To Node:	NBW1310
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	8.40 ft
Control Elevation:	8.40 ft
Max Depth:	9999.00 ft
Max Width:	10.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RBW1270OWB

Scenario:	Alt3
From Node:	NBW1270
To Node:	NSR0580
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	663.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	6.40 ft	Invert:	5.50 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry:	Irregular	Geometry:	Irregular
Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL

Comment:

Channel Link: RBW1310B		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.26 ft	Invert:	-0.75 ft
From Node:	NBW1310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1310B	Cross Section:	RBW1310B
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	676.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1330A		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.52 ft	Invert:	0.26 ft
From Node:	NBW1330	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1310	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	27.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	1.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1350A		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.04 ft	Invert:	5.25 ft
From Node:	NBW1350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1330	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	1.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1350B		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.00 ft	Invert:	1.50 ft
From Node:	NBW1350	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	62.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	1.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1350OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.50 ft	Invert:	10.50 ft
From Node:	NBW1350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1350OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1350	Default:	0.00 ft
To Node:	NBW1310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.60 ft	Discharge Coefficients	
Control Elevation:	11.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1351OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.80 ft	Invert:	11.70 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	326.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1351OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.60 ft	Invert:	6.10 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1270	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				

Length:	426.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1351OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.40 ft	Invert:	6.80 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0780	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	598.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1351OWD		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.20 ft	Invert:	9.90 ft
From Node:	NBW1351	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	543.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1352OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.40 ft	Invert:	10.80 ft
From Node:	NBW1352	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1351	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	652.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1353OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.70 ft	Invert:	14.40 ft
From Node:	NBW1353	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1352	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1370		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.80 ft	Invert:	0.52 ft
From Node:	NBW1370	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1330	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	325.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1370OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.70 ft	Invert:	5.00 ft
From Node:	NBW1370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	768.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1370OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1370	Default:	0.00 ft
To Node:	NBW1310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	10.90 ft	Discharge Coefficients	
Control Elevation:	10.90 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	120.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1370OWB	Upstream	Downstream

Scenario:	Alt3	Invert:	10.90 ft	Invert:	7.80 ft
From Node:	NBW1370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	325.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1390		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.87 ft	Invert:	3.80 ft
From Node:	NBW1390	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1370	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	1324.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.70 ft	Invert:	10.70 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	983.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				

Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RBW1390OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.00 ft	Invert:	13.80 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	390.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1390OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.80 ft	Invert:	10.00 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_HALF	Cross Section:	CURB_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	995.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1390OWC	Upstream	Downstream

Scenario:	Alt3	Invert:	15.40 ft	Invert:	11.80 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1285.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1390OWD		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.00 ft	Invert:	14.30 ft
From Node:	NBW1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	224.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1410		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.55 ft	Invert:	7.87 ft
From Node:	NBW1410	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1390	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	350.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000

Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.20 ft	Invert:	14.30 ft
From Node:	NBW1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	274.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1430		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.84 ft	Invert:	8.55 ft
From Node:	NBW1430	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1410	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	412.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.20 ft	Invert:	14.30 ft
From Node:	NBW1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	274.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1430OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.90 ft	Invert:	16.10 ft
From Node:	NBW1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	175.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1450		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.10 ft	Invert:	8.97 ft
From Node:	NBW1450	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1460	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	395.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.30 ft	Invert:	14.30 ft
From Node:	NBW1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	665.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1450OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.60 ft	Invert:	16.50 ft
From Node:	NBW1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	117.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1460OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.00 ft	Invert:	15.30 ft
From Node:	NBW1460	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	300.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1460OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.00 ft	Invert:	9.60 ft
From Node:	NBW1460	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1470		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.22 ft	Invert:	9.10 ft
From Node:	NBW1470	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBW1450	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	425.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1470OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.30 ft	Invert:	15.50 ft
From Node:	NBW1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	554.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1470OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.90 ft	Invert:	15.40 ft
From Node:	NBW1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	778.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1470OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.80 ft	Invert:	15.40 ft
From Node:	NBW1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	495.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1480		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.52 ft	Invert:	8.97 ft
From Node:	NBW1480	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1460	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	776.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RBW1480OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1480	Default:	0.00 ft
To Node:	NBW1460	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.10 ft	Discharge Coefficients	
Control Elevation:	18.10 ft	Weir Default:	2.600

Max Depth:	9999.00 ft		
Max Width:	190.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RBW1490		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.97 ft	Invert:	9.42 ft
From Node:	NBW1490	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBW1470	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	700.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.34 ft	Invert:	17.33 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1590	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1490OW	Cross Section:	RBW1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1490OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.60 ft	Invert:	16.80 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	590.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1490OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.80 ft	Invert:	17.60 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	728.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW1490OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.30 ft	Invert:	17.40 ft
From Node:	NBW1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1480	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	375.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1510		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.36 ft	Invert:	9.97 ft
From Node:	NBW1510	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBW1490	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	650.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1510A		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.02 ft	Invert:	11.99 ft
From Node:	NBW1510	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2590	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	32.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1510OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.50 ft	Invert:	17.50 ft
From Node:	NBW1510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1590	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1510OW	Cross Section:	RBW1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1530		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.60 ft	Invert:	13.20 ft
From Node:	NBW1530	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	255.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RBW1530A		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.60 ft	Invert:	13.50 ft
From Node:	NBW1530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1550		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.23 ft	Invert:	13.50 ft
From Node:	NBW1550	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	330.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1550OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.20 ft	Invert:	17.10 ft
From Node:	NBW1550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2490	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL L	Cross Section:	DALE_MABRY_FUL L
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	321.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1570		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.46 ft	Invert:	10.36 ft

From Node:	NBW1570	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1510	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	52.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1590		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.10 ft	Invert:	12.07 ft
From Node:	NBW1590	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBW1570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1610		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.55 ft	Invert:	12.09 ft
From Node:	NBW1610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	434.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1610OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.34 ft	Invert:	17.33 ft
From Node:	NBW1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1610OW	Cross Section:	RBW1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1630		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.61 ft	Invert:	12.55 ft
From Node:	NBW1630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1610	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	207.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1630OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.72 ft	Invert:	17.71 ft

From Node:	NBW1630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1630OW	Cross Section:	RBW1630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1650		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.23 ft	Invert:	13.61 ft
From Node:	NBW1650	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1630	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	576.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1650OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.20 ft	Invert:	18.19 ft
From Node:	NBW1650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1650OW	Cross Section:	RBW1650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1670		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.55 ft	Invert:	14.23 ft
From Node:	NBW1670	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NBW1650	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	85.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.14 ft	Invert:	18.13 ft
From Node:	NBW1670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1670OW	Cross Section:	RBW1670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1690		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.09 ft	Invert:	14.55 ft
From Node:	NBW1690	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1670	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	322.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.82 ft	Invert:	18.81 ft
From Node:	NBW1690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1670	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1690OW	Cross Section:	RBW1690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1710		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.36 ft	Invert:	15.19 ft
From Node:	NBW1710	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	563.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1730		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.05 ft	Invert:	10.46 ft
From Node:	NBW1730	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NBW1570	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	650.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1730OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.29 ft	Invert:	17.28 ft
From Node:	NBW1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1730OW	Cross Section:	RBW1730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW1730OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1730	Default:	0.00 ft
To Node:	NBW2610	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	19.00 ft
Control Elevation:	19.00 ft
Max Depth:	9999.00 ft
Max Width:	220.00 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW1750		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.87 ft	Invert:	10.94 ft
From Node:	NBW1750	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1050.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1750OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.55 ft	Invert:	17.54 ft
From Node:	NBW1750	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1750OW	Cross Section:	RBW1750OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1770		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.36 ft	Invert:	11.89 ft
From Node:	NBW1770	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1750	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	350.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.98 ft	Invert:	17.97 ft
From Node:	NBW1770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1770OW	Cross Section:	RBW1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1790		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.79 ft	Invert:	12.50 ft
From Node:	NBW1790	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1770	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1200.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1790OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.33 ft	Invert:	18.32 ft
From Node:	NBW1790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1790OW	Cross Section:	RBW1790OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1820A		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.90 ft	Invert:	13.10 ft
From Node:	NBW1820	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	400.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1820B		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.90 ft	Invert:	13.90 ft
From Node:	NBW1820	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1840	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1820OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1820	Default:	0.00 ft
To Node:	NBW1840	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.10 ft	Discharge Coefficients	
Control Elevation:	18.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RBW1820OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.80 ft	Invert:	17.60 ft
From Node:	NBW1820	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1870	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	380.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Weir Link: RBW1820OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1820	Default:	0.00 ft
To Node:	NBW2610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.10 ft	Discharge Coefficients	
Control Elevation:	19.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	100.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW1830		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.49 ft	Invert:	10.88 ft
From Node:	NBW1830	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	600.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1830OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.56 ft	Invert:	18.55 ft
From Node:	NBW1850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1830	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RBW1830OW	Cross Section:	RBW1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1830OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.10 ft	Invert:	16.60 ft
From Node:	NBW1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_FULL	Cross Section:	HENDERSON_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1027.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1840		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.90 ft	Invert:	13.27 ft
From Node:	NBW1840	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2790	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	312.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1840OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.30 ft	Invert:	16.80 ft
From Node:	NBW1840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	215.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW1840OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.50 ft	Invert:	17.90 ft
From Node:	NBW1840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	290.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1850		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.43 ft	Invert:	11.38 ft
From Node:	NBW1850	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1830	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	85.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1850OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.00 ft	Invert:	17.70 ft
From Node:	NBW1850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1730	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_30FT_FULL	Cross Section:	CURB_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	528.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1860		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.23 ft	Invert:	13.64 ft
From Node:	NBW1860	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2810	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1860OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.60 ft	Invert:	17.10 ft
From Node:	NBW1860	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	298.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW1870		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.06 ft	Invert:	12.26 ft
From Node:	NBW1870	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1850	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	250.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW1870OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.84 ft	Invert:	18.83 ft
From Node:	NBW1870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1870OW	Cross Section:	RBW1870OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1890		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.67 ft	Invert:	11.59 ft
From Node:	NBW1890	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NBW1850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	615.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW1910		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.74 ft	Invert:	11.67 ft
From Node:	NBW1910	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	353.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1910OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.83 ft	Invert:	17.82 ft

From Node:	NBW1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3010	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1910OW	Cross Section:	RBW1910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1930		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.74 ft	Invert:	11.59 ft
From Node:	NBW1930	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1910	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1930OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.91 ft	Invert:	17.90 ft
From Node:	NBW1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1910	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1930OW	Cross Section:	RBW1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW1950		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.13 ft	Invert:	13.63 ft
From Node:	NBW1950	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NBW1930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	42.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW1970			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1970	Default:	0.00 ft
To Node:	NBW1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.56 ft	Discharge Coefficients	
Control Elevation:	17.56 ft	Weir Default:	3.200
Max Depth:	18.22 ft	Weir Table:	
Max Width:	1.05 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW1970A			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW1970	Default:	0.00 ft
To Node:	NBW1950	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	18.22 ft
Control Elevation:	18.22 ft
Max Depth:	9999.00 ft
Max Width:	10.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RBW1970OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.64 ft	Invert:	18.63 ft
From Node:	NBW1970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1850	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW1970OW	Cross Section:	RBW1970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW1990		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.88 ft	Invert:	11.74 ft
From Node:	NBW1990	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NBW1930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	371.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW1990OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.65 ft	Invert:	18.64 ft
From Node:	NBW1990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW1990OW	Cross Section:	RBW1990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW2010		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.84 ft	Invert:	13.25 ft
From Node:	NBW2010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1990	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	421.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW2010OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.48 ft	Invert:	18.47 ft
From Node:	NBW2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2010	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RBW2010OW	Cross Section:	RBW2010OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW2030		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.34 ft	Invert:	14.75 ft
From Node:	NBW2030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	218.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2030OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.50 ft	Invert:	17.40 ft
From Node:	NBW2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1820	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	982.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2050		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.39 ft	Invert:	11.88 ft

From Node:	NBW2050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	684.62 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2060		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.73 ft	Invert:	15.53 ft
From Node:	NBW2060	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	401.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RBW2070		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.45 ft	Invert:	12.39 ft
From Node:	NBW2070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	647.03 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2090		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.79 ft	Invert:	12.37 ft
From Node:	NBW2090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	671.64 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2140		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.92 ft	Invert:	13.57 ft
From Node:	NBW2140	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	145.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 9599

Weir Link: RBW2145			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2145	Default:	0.00 ft
To Node:	NBW2140	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	15.93 ft
Control Elevation:	15.93 ft
Max Depth:	2.11 ft
Max Width:	0.71 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Added per ERP 9599

Weir Link: RBW2145B

Scenario:	Alt3
From Node:	STORAGE4
To Node:	NBW2145
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	14.64 ft
Control Elevation:	14.64 ft
Max Depth:	4.00 ft
Max Width:	64.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Added per ERP 9599

Pipe Link: RBW2150		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.68 ft	Invert:	12.43 ft
From Node:	NBW2150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2070	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	428.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2170		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.58 ft	Invert:	14.27 ft
From Node:	NBW2170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	361.13 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2190		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.55 ft	Invert:	-0.86 ft
From Node:	NBW2190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2170	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	104.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2210		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.93 ft	Invert:	12.68 ft
From Node:	NBW2210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	212.63 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2230		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.20 ft	Invert:	13.59 ft
From Node:	NBW2230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	319.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2250		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.53 ft	Invert:	12.93 ft
From Node:	NBW2250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2210	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	302.75 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2270		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.25 ft	Invert:	13.53 ft

From Node:	NBW2270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2250	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	582.53 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2290		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.68 ft	Invert:	14.13 ft
From Node:	NBW2290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2270	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	387.08 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2310		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.98 ft	Invert:	14.25 ft
From Node:	NBW2310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2270	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	228.38 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2330		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.28 ft	Invert:	14.64 ft
From Node:	NBW2330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2310	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	435.16 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RBW2350		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.03 ft	Invert:	8.55 ft
From Node:	NBW2350	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	285.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2350OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.80 ft	Invert:	15.00 ft
From Node:	NBW2350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1410	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	310.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2370		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.10 ft	Invert:	10.03 ft
From Node:	NBW2370	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2350	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	628.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2370OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.10 ft	Invert:	15.70 ft
From Node:	NBW2380	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1353	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	200.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW2370OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.40 ft	Invert:	15.90 ft
From Node:	NBW2370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	630.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW2380OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2380	Default:	0.00 ft
To Node:	NBW2370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.20 ft	Discharge Coefficients	
Control Elevation:	16.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW2385A			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2385	Default:	0.00 ft
To Node:	NBW2387	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft

Weir Type:	Sharp Crested Vertical		
Geometry Type:	Rectangular	Op Table:	
Invert:	18.43 ft	Ref Node:	
Control Elevation:	18.43 ft	Discharge Coefficients	
Max Depth:	0.25 ft	Weir Default:	3.200
Max Width:	10.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RBW2385B

Scenario:	Alt3	Bottom Clip	
From Node:	NBW2385	Default:	0.00 ft
To Node:	NBW2387	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.63 ft	Discharge Coefficients	
Control Elevation:	18.63 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW2385OWA

Scenario:	Alt3	Bottom Clip	
From Node:	NBW2385	Default:	0.00 ft
To Node:	NBW2380	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.70 ft	Discharge Coefficients	
Control Elevation:	18.70 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	130.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RBW2385OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2385	Default:	0.00 ft
To Node:	NSR0881	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.45 ft	Discharge Coefficients	
Control Elevation:	18.45 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2387		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.37 ft	Invert:	15.30 ft
From Node:	NBW2387	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2380	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2390		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.74 ft	Invert:	9.03 ft
From Node:	NBW2390	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	644.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.40 ft	Invert:	16.00 ft
From Node:	NBW2390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	638.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2410		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.18 ft	Invert:	9.74 ft
From Node:	NBW2410	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	640.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2410OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.80 ft	Invert:	17.30 ft
From Node:	NBW2410	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NBW2390	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	255.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RBW2410OWB

		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NBW2410	Op Table:	
To Node:	NBW1480	Ref Node:	
Link Count:	1	**Top Clip**	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	**Discharge Coefficients**	
Invert:	18.30 ft	Weir Default:	2.600
Control Elevation:	18.30 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	45.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Pipe Link: RBW2430		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.59 ft	Invert:	10.18 ft
From Node:	NBW2430	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	**Bottom Clip**			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	655.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	**Top Clip**			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2430OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.00 ft	Invert:	17.00 ft
From Node:	NBW2430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0881	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_FULL	Cross Section:	HENDERSON_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	400.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RBW2430OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.00 ft	Invert:	16.50 ft
From Node:	NBW2430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2410	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	275.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2450		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.99 ft	Invert:	10.59 ft
From Node:	NBW2450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2470		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.61 ft	Invert:	10.11 ft
From Node:	NBW2470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2470OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2470	Default:	0.00 ft
To Node:	NBW2430	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.10 ft	Discharge Coefficients	
Control Elevation:	16.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2490		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.10 ft	Invert:	10.57 ft
From Node:	NBW2490	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2470	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	203.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RBW2490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.60 ft	Invert:	14.60 ft
From Node:	NBW2490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2470	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL	Cross Section:	DALE_MABRY_FUL
Flow Direction:	Both		L		L
Damping:	0.0000 ft				
Length:	213.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RBW2510		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.33 ft	Invert:	11.10 ft
From Node:	NBW2510	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2490	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2510OWA

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2510	Default:	0.00 ft
To Node:	NBW1550	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.20 ft	**Discharge Coefficients**	
Control Elevation:	17.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2530		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.73 ft	Invert:	11.33 ft
From Node:	NBW2530	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2510	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	394.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2550		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.13 ft	Invert:	13.93 ft
From Node:	NBW2550	Manning's N:	0.0100	Manning's N:	0.0100

		Geometry: Circular		Geometry: Circular	
To Node:	NBW2530	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Link Count:	1	Bottom Clip		Bottom Clip	
Flow Direction:	Both	Default:	0.00 ft	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:		Op Table:	
Length:	30.00 ft	Ref Node:		Ref Node:	
FHWA Code:	0	Manning's N:	0.0000	Manning's N:	0.0000
Entr Loss Coef:	0.00	Top Clip		Top Clip	
Exit Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Loss Coef:	0.00	Op Table:		Op Table:	
Bend Location:	0.00 dec	Ref Node:		Ref Node:	
Energy Switch:	Energy	Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2570

		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NBW2570	Op Table:	
To Node:	NBW2550	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Sharp Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	17.51 ft	Weir Default:	3.200
Control Elevation:	17.51 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	10.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Channel Link: RBW2570OW

		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.50 ft	Invert:	18.49 ft
From Node:	NBW2570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1510	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RBW2570OW	Cross Section:	RBW2570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2590		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.02 ft	Invert:	11.73 ft
From Node:	NBW2590	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2530	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	236.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2610		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.65 ft	Invert:	9.75 ft
From Node:	NBW2610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	97.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RBW2610OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2610	Default:	0.00 ft
To Node:	NBW2470	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	16.90 ft
Control Elevation:	16.90 ft
Max Depth:	9999.00 ft
Max Width:	130.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW2630		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.46 ft	Invert:	11.14 ft
From Node:	NBW2630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	405.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2630OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.30 ft	Invert:	16.60 ft
From Node:	NBW2630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	374.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2650		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.32 ft	Invert:	11.14 ft
From Node:	NBW2650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NBW2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	37.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2670		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	11.32 ft
From Node:	NBW2670	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	330.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.30 ft	Invert:	16.60 ft
From Node:	NBW2670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2650	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_HALF	Cross Section:	DALE_MABRY_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	360.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RBW2680		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.41 ft	Invert:	11.41 ft
From Node:	NBW2680	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2690	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	425.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2680OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.50 ft	Invert:	16.50 ft
From Node:	NBW2680	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2690	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	425.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RBW2690		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.97 ft	Invert:	11.63 ft

From Node:	NBW2690	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	315.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2690B		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.70 ft	Invert:	6.50 ft
From Node:	NBW2450	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2690	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	660.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.80 ft	Invert:	16.20 ft
From Node:	NBW2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2430	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_HALF	Cross Section:	DALE_MABRY_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	419.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Weir Link: RBW27090OC

Scenario:	Alt3
From Node:	NBW2790
To Node:	NBW2780
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.40 ft
Control Elevation:	18.40 ft
Max Depth:	9999.00 ft
Max Width:	40.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW2710

Scenario:	Alt3
From Node:	NBW2710
To Node:	NBW2680
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	80.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream

Invert:	13.43 ft
Manning's N:	0.0130

Geometry: Horizontal Ellipse

Max Depth:	1.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream

Invert:	13.02 ft
Manning's N:	0.0130

Geometry: Horizontal Ellipse

Max Depth:	1.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Comment:

Weir Link: RBW2730

Scenario:	Alt3
From Node:	NBW2730

Bottom Clip

Default:	0.00 ft

To Node:	NBW2710		
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Sharp Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	18.60 ft	Ref Node:	
Control Elevation:	18.60 ft	**Discharge Coefficients**	
Max Depth:	9999.00 ft	Weir Default:	3.200
Max Width:	10.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RBW2730A

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2730	Default:	0.00 ft
To Node:	NBW2710	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.70 ft	**Discharge Coefficients**	
Control Elevation:	17.70 ft	Weir Default:	3.200
Max Depth:	0.90 ft	Weir Table:	
Max Width:	0.35 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2770

		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.24 ft	Invert:	11.46 ft
From Node:	NBW2770	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	214.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2775		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.50 ft	Invert:	3.40 ft
From Node:	NBW2775	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2780		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.61 ft	Invert:	12.41 ft
From Node:	NBW2780	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2680	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2780OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.20 ft	Invert:	17.50 ft
From Node:	NBW2780	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2680	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	176.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Weir Link: RBW2780OWA

Scenario:	Alt3
From Node:	NBW2780
To Node:	NBW2670
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.20 ft
Control Elevation:	18.20 ft
Max Depth:	9999.00 ft
Max Width:	40.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RBW2790

Scenario:	Alt3
From Node:	NBW2790
To Node:	NBW2770
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	663.00 ft
FHWA Code:	0
Entr Loss Coef:	0.20
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream

Invert:	13.27 ft
Manning's N:	0.0130

Geometry: Circular

Max Depth:	2.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream

Invert:	12.24 ft
Manning's N:	0.0130

Geometry: Circular

Max Depth:	2.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Comment:

Channel Link: RBW2790OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.20 ft	Invert:	17.00 ft
From Node:	NBW2810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	300.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RBW2790OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.70 ft	Invert:	17.40 ft
From Node:	NBW2790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	205.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RBW2790OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NBW2790	Default:	0.00 ft
To Node:	NBW2780	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.40 ft	Discharge Coefficients	
Control Elevation:	18.40 ft	Weir Default:	2.600

Max Depth:	9999.00 ft		
Max Width:	40.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RBW2790OWD

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2790	Default:	0.00 ft
To Node:	NBW2780	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.20 ft	**Discharge Coefficients**	
Control Elevation:	18.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	180.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RBW2810

		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.64 ft	Invert:	13.27 ft
From Node:	NBW2810	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2790	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	314.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RBW2830.1

		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.52 ft	Invert:	13.64 ft
From Node:	NBW2830	Manning's N:	0.0130	Manning's N:	0.0130

		Upstream		Downstream	
To Node:	NBW2810	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RBW2830OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.20 ft	Invert:	17.00 ft
From Node:	NBW2830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	650.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.68 ft	Invert:	-3.77 ft
From Node:	NCL0030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0010	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	165.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft

		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.55 ft	Invert:	-1.87 ft
From Node:	NCL0050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	155.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0070		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.67 ft	Invert:	-1.87 ft
From Node:	NCL0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0070OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.04 ft	Invert:	4.03 ft
From Node:	NCL0070	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NCL0010	Cross Section:	RCL0070OW	Cross Section:	RCL0070OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0090		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.93 ft	Invert:	-0.37 ft
From Node:	NCL0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	495.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.12 ft	Invert:	5.11 ft
From Node:	NCL0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0010	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0090OW	Cross Section:	RCL0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RCL0110		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.47 ft	Invert:	-3.68 ft
From Node:	NCL0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	585.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0130		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.43 ft	Invert:	-3.47 ft
From Node:	NCL0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	165.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0150		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.13 ft	Invert:	-3.43 ft
From Node:	NCL0150	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL0130	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	573.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0150A		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.13 ft	Invert:	-0.86 ft
From Node:	NCL0150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	142.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0150OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.12 ft	Invert:	5.11 ft
From Node:	NCL0150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0150OW	Cross Section:	RCL0150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RCL0170		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.27 ft	Invert:	-1.07 ft
From Node:	NCL0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0150	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	142.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0170OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.66 ft	Invert:	4.65 ft
From Node:	NCL0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0170OW	Cross Section:	RCL0170OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0190		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.07 ft	Invert:	-0.27 ft
From Node:	NCL0190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0170	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	136.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0190OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.75 ft	Invert:	5.74 ft
From Node:	NCL0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0150	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0190OW	Cross Section:	RCL0190OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0210		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.97 ft	Invert:	-1.27 ft
From Node:	NCL0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	408.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0210OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.36 ft	Invert:	3.35 ft
From Node:	NCL0210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0330	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0210OW	Cross Section:	RCL0210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL0230		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.63 ft	Invert:	-0.17 ft
From Node:	NCL0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0210	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	121.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL0230OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.22 ft	Invert:	5.21 ft
From Node:	NCL0230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0230OW	Cross Section:	RCL0230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0250		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.13 ft	Invert:	3.63 ft
From Node:	NCL0250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	154.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL0270			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL0270	Default:	0.00 ft
To Node:	NCL0250	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.93 ft	Discharge Coefficients	
Control Elevation:	5.93 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	5.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RCL0270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.42 ft	Invert:	5.41 ft
From Node:	NCL0270	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NCL0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0270OW	Cross Section:	RCL0270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0290		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.86 ft	Invert:	-0.97 ft
From Node:	NCL0290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	65.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0310		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.57 ft	Invert:	-0.86 ft
From Node:	NCL0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0330		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.33 ft	Invert:	-0.57 ft
From Node:	NCL0330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	75.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.09 ft	Invert:	5.08 ft
From Node:	NCL0330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0330OW	Cross Section:	RCL0330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0350		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.63 ft	Invert:	-0.57 ft
From Node:	NCL0350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	121.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0370		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	0.63 ft
From Node:	NCL0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	615.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0370OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.78 ft	Invert:	6.77 ft
From Node:	NCL0370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0370OW	Cross Section:	RCL0370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0390		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.06 ft	Invert:	-3.47 ft
From Node:	NCL0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0110	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	460.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.83 ft	Invert:	4.82 ft
From Node:	NCL0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0110	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0390OW	Cross Section:	RCL0390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0410		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.23 ft	Invert:	0.83 ft
From Node:	NCL0410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	183.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	

Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0430		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	1.23 ft
From Node:	NCL0430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	204.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.15 ft	Invert:	5.14 ft
From Node:	NCL0430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0390	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0430OW	Cross Section:	RCL0430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0450		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.72 ft	Invert:	-3.04 ft
From Node:	NCL0450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0390	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	367.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.34 ft	Invert:	6.33 ft
From Node:	NCL0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0450OW	Cross Section:	RCL0450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0470		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.41 ft	Invert:	-2.72 ft
From Node:	NCL0470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0450	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	353.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft

Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0470OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.79 ft	Invert:	7.78 ft
From Node:	NCL0470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0450	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0470OW	Cross Section:	RCL0470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0490		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.17 ft	Invert:	-2.41 ft
From Node:	NCL0490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0470	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	314.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.79 ft	Invert:	5.78 ft
From Node:	NCL0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0490OW	Cross Section:	RCL0490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL0510		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.57 ft	Invert:	-1.60 ft
From Node:	NCL0510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0490	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL0510OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.41 ft	Invert:	7.40 ft
From Node:	NCL0510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0510OW	Cross Section:	RCL0510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0530		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.03 ft	Invert:	0.33 ft
From Node:	NCL0530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	593.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0550		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.63 ft	Invert:	2.03 ft
From Node:	NCL0550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0550OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.17 ft	Invert:	8.16 ft

From Node:	NCL0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0510	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0550OW	Cross Section:	RCL0550OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0570		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.83 ft	Invert:	2.63 ft
From Node:	NCL0570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0550	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.78 ft	Invert:	8.77 ft
From Node:	NCL0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0570OW	Cross Section:	RCL0570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0590		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.72 ft	Invert:	-2.17 ft
From Node:	NCL0590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0490	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	313.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0590OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.60 ft	Invert:	6.59 ft
From Node:	NCL0590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0590OW	Cross Section:	RCL0590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0610		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.22 ft	Invert:	-1.72 ft

From Node:	NCL0610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0590	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	344.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0610OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.55 ft	Invert:	7.54 ft
From Node:	NCL0610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0590	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0610OW	Cross Section:	RCL0610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0630		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.70 ft	Invert:	-1.22 ft
From Node:	NCL0630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0610	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	9.00 ft	Max Width:	9.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	368.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0630OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.76 ft	Invert:	8.75 ft
From Node:	NCL0630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW0950	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0630OW	Cross Section:	RCL0630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0650		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.33 ft	Invert:	0.83 ft
From Node:	NCL0650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0670		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	1.33 ft
From Node:	NCL0670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	577.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0690		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.03 ft	Invert:	1.63 ft
From Node:	NCL0690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	43.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.96 ft	Invert:	10.95 ft
From Node:	NCL0690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0690OW	Cross Section:	RCL0690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0710		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.13 ft	Invert:	4.03 ft
From Node:	NCL0710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0730		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.13 ft	Invert:	4.13 ft
From Node:	NCL0730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	48.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0730OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.58 ft	Invert:	10.57 ft

From Node:	NCL0730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0730OW	Cross Section:	RCL0730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0750		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.43 ft	Invert:	6.33 ft
From Node:	NCL0750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0730	Geometry:	Circular	Geometry:	Circular
Link Count:	2	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0750OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.38 ft	Invert:	8.37 ft
From Node:	NCL0750	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0750OW	Cross Section:	RCL0750OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL0770		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.53 ft	Invert:	6.43 ft
From Node:	NCL0770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	173.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.51 ft	Invert:	9.50 ft
From Node:	NCL0770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0770OW	Cross Section:	RCL0770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0790		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.23 ft	Invert:	1.63 ft
From Node:	NCL0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0670	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	31.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0810		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.43 ft	Invert:	2.23 ft
From Node:	NCL0810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	232.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0810OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.00 ft	Invert:	9.99 ft
From Node:	NCL0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0810OW	Cross Section:	RCL0810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0830		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.22 ft	Invert:	-0.52 ft
From Node:	NCL0830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0630	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	623.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0850		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.49 ft	Invert:	0.81 ft
From Node:	NCL0850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0850OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.17 ft	Invert:	8.16 ft
From Node:	NCL0850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0830	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RCL0850OW	Cross Section:	RCL0850OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0870		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.33 ft	Invert:	2.43 ft
From Node:	NCL0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0810	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0870A		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.09 ft	Invert:	1.49 ft
From Node:	NCL0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	293.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0890		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.31 ft	Invert:	2.09 ft
From Node:	NCL0890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	102.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0910		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.03 ft	Invert:	4.98 ft
From Node:	NCL0910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0930		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.85 ft	Invert:	2.09 ft
From Node:	NCL0930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	352.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0930OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.87 ft	Invert:	9.86 ft
From Node:	NCL0930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0750	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0930OW	Cross Section:	RCL0930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0950		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.19 ft	Invert:	6.53 ft
From Node:	NCL0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0770	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	677.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL0950A		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.27 ft	Invert:	3.35 ft
From Node:	NCL0950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0950OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.13 ft	Invert:	10.12 ft
From Node:	NCL0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0930	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL0950OW	Cross Section:	RCL0950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0970		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.86 ft	Invert:	4.77 ft
From Node:	NCL0970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0950	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	666.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0970OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.68 ft	Invert:	11.67 ft
From Node:	NCL0970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0970OW	Cross Section:	RCL0970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL0990		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.42 ft	Invert:	6.92 ft
From Node:	NCL0990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0970	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	339.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL0990OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.94 ft	Invert:	10.93 ft

From Node:	NCL0990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL0990OW	Cross Section:	RCL0990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1010		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.13 ft	Invert:	7.92 ft
From Node:	NCL1010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0990	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	160.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1030		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.53 ft	Invert:	3.33 ft
From Node:	NCL1030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0870	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1030OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.11 ft	Invert:	11.10 ft
From Node:	NCL1030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1030OW	Cross Section:	RCL1030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1050		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.83 ft	Invert:	4.63 ft
From Node:	NCL1050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1030	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.30 ft	Max Depth:	2.30 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	93.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1050OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.04 ft	Invert:	11.03 ft
From Node:	NCL1050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0930	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RCL1050OW	Cross Section:	RCL1050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1070		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.63 ft	Invert:	3.75 ft
From Node:	NCL1070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	369.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1090			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL1090	Default:	0.00 ft
To Node:	NCL1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.63 ft	Discharge Coefficients	
Control Elevation:	11.63 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RCL1090A			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL1090	Default:	0.00 ft
To Node:	NCL1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.50 ft	Discharge Coefficients	
Control Elevation:	9.50 ft	Weir Default:	3.200
Max Depth:	11.63 ft	Weir Table:	
Max Width:	3.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RCL1090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.91 ft	Invert:	7.90 ft
From Node:	NCL1090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1150	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1090OW	Cross Section:	RCL1090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL1110		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.63 ft	Invert:	4.03 ft
From Node:	NCL1110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	602.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.38 ft	Invert:	11.37 ft
From Node:	NCL1130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1110	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1110OW	Cross Section:	RCL1110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1130		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.93 ft	Invert:	3.53 ft
From Node:	NCL1130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1110	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	338.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.86 ft	Invert:	7.85 ft
From Node:	NCL1130	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NCL1150	Cross Section:	RCL1130OW	Cross Section:	RCL1130OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1150		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.13 ft	Invert:	-0.22 ft
From Node:	NCL1150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0830	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	677.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1150OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.10 ft	Invert:	9.09 ft
From Node:	NCL1150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1150OW	Cross Section:	RCL1150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL1170		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.96 ft	Invert:	1.13 ft
From Node:	NCL1170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1150	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	663.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1190		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.50 ft	Invert:	2.40 ft
From Node:	NCL1190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	332.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1210	Upstream	Downstream

Scenario:	Alt3	Invert:	5.41 ft	Invert:	5.31 ft
From Node:	NCL1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	64.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1210OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.51 ft	Invert:	9.50 ft
From Node:	NCL1210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1210OW	Cross Section:	RCL1210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1230		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.30 ft	Invert:	3.50 ft
From Node:	NCL1230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	280.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1250		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.78 ft	Invert:	4.30 ft
From Node:	NCL1250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	165.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1270		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.44 ft	Invert:	4.78 ft
From Node:	NCL1270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	190.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.94 ft	Invert:	10.93 ft
From Node:	NCL1270	Manning's N:	0.0000	Manning's N:	0.0000

		Geometry: Irregular		Geometry: Irregular	
To Node:	NCL1410	Cross Section:	RCL1270OW	Cross Section:	RCL1270OW
Link Count:	1				
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1290		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.63 ft	Invert:	7.44 ft
From Node:	NCL1290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	292.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1290OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.37 ft	Invert:	12.36 ft
From Node:	NCL1290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1290OW	Cross Section:	RCL1290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Pipe Link: RCL1310		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.22 ft	Invert:	9.13 ft
From Node:	NCL1310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	260.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1310OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.06 ft	Invert:	14.05 ft
From Node:	NCL1310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1290	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1310OW	Cross Section:	RCL1310OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1330		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.03 ft	Invert:	2.83 ft
From Node:	NCL1330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft

		Bottom Clip			
Flow Direction:	Both				
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	17.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1330AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.31 ft	Invert:	8.30 ft
From Node:	NCL1330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1330AOW	Cross Section:	RCL1330AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RCL1330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.60 ft	Invert:	9.59 ft
From Node:	NCL1330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1330OW	Cross Section:	RCL1330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1350		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.93 ft	Invert:	3.03 ft
From Node:	NCL1350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	557.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL1350OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.94 ft	Invert:	8.93 ft
From Node:	NCL1350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1350OW	Cross Section:	RCL1350OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL1370		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.03 ft	Invert:	5.93 ft
From Node:	NCL1370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1370OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.94 ft	Invert:	9.93 ft
From Node:	NCL1370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1370OW	Cross Section:	RCL1370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1390		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.13 ft	Invert:	6.03 ft
From Node:	NCL1390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1370	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	92.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1410		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.93 ft	Invert:	4.83 ft

From Node:	NCL1410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.47 ft	Invert:	10.46 ft
From Node:	NCL1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1390	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1410OW	Cross Section:	RCL1410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1430		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.32 ft	Invert:	1.96 ft
From Node:	NCL1430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1170	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	325.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			

Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1430AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.70 ft	Invert:	9.69 ft
From Node:	NCL1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1430AOW	Cross Section:	RCL1430AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RCL1430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.80 ft	Invert:	8.79 ft
From Node:	NCL1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1350	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1430OW	Cross Section:	RCL1430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1450		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.67 ft	Invert:	2.32 ft

From Node:	NCL1450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1430	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.00 ft	Max Depth:	6.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	325.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.07 ft	Invert:	14.06 ft
From Node:	NCL1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1430	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1450OW	Cross Section:	RCL1450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1470		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.01 ft	Invert:	3.67 ft
From Node:	NCL1470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1490		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.63 ft	Invert:	13.13 ft
From Node:	NCL1490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.74 ft	Invert:	16.73 ft
From Node:	NCL1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1490OW	Cross Section:	RCL1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1510		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.33 ft	Invert:	4.23 ft

From Node:	NCL1510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1510OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.18 ft	Invert:	12.17 ft
From Node:	NCL1530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1510	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1510OW	Cross Section:	RCL1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1530		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.73 ft	Invert:	5.73 ft
From Node:	NCL1530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	272.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1530OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.00 ft	Invert:	11.99 ft
From Node:	NCL1530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1530OW	Cross Section:	RCL1530OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1550		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.09 ft	Invert:	6.73 ft
From Node:	NCL1550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1530	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	195.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1570		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.76 ft	Invert:	8.42 ft
From Node:	NCL1570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1550	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	67.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1590

Scenario:	Alt3	Bottom Clip	
From Node:	NCL1590	Default:	0.00 ft
To Node:	NCL1570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.56 ft	Discharge Coefficients	
Control Elevation:	13.56 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.16 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RCL1590OW

		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.79 ft	Invert:	14.78 ft
From Node:	NCL1590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1590OW	Cross Section:	RCL1590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1610		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.56 ft	Invert:	9.16 ft
From Node:	NCL1610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1570	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1610OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.65 ft	Invert:	15.64 ft
From Node:	NCL1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1610OW	Cross Section:	RCL1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1630		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.33 ft	Invert:	8.09 ft
From Node:	NCL1630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1550	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	173.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1630OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.03 ft	Invert:	13.02 ft
From Node:	NCL1630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1630OW	Cross Section:	RCL1630OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1650		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.43 ft	Invert:	8.33 ft
From Node:	NCL1650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1630	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	16.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1650OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.37 ft	Invert:	13.36 ft

From Node:	NCL1650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1650OW	Cross Section:	RCL1650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1670		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.13 ft	Invert:	8.93 ft
From Node:	NCL1670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1650	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	95.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.01 ft	Invert:	13.00 ft
From Node:	NCL1670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1670OW	Cross Section:	RCL1670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL1690		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.43 ft	Invert:	8.93 ft
From Node:	NCL1690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1650	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	593.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.82 ft	Invert:	16.81 ft
From Node:	NCL1690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1690OW	Cross Section:	RCL1690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1710		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.53 ft	Invert:	12.43 ft
From Node:	NCL1710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1690	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	65.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1710OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.69 ft	Invert:	17.68 ft
From Node:	NCL1710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1690	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1710OW	Cross Section:	RCL1710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1730		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.63 ft	Invert:	12.53 ft
From Node:	NCL1730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	78.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1730OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.01 ft	Invert:	18.00 ft
From Node:	NCL1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1670	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1730OW	Cross Section:	RCL1730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1750		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.73 ft	Invert:	12.63 ft
From Node:	NCL1750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1730	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1770		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.93 ft
From Node:	NCL1770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1750	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.24 ft	Invert:	17.23 ft
From Node:	NCL1770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1670	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1770OW	Cross Section:	RCL1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1790		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.59 ft	Invert:	4.01 ft
From Node:	NCL1790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1470	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	630.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1810		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.35 ft	Invert:	12.09 ft
From Node:	NCL1810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	342.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1810OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.41 ft	Invert:	17.40 ft
From Node:	NCL1810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1450	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1810OW	Cross Section:	RCL1810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1830		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.65 ft	Invert:	4.95 ft
From Node:	NCL1830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1790	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	697.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL1830OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.01 ft	Invert:	19.00 ft
From Node:	NCL1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1830OW	Cross Section:	RCL1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1850		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.83 ft	Invert:	6.03 ft
From Node:	NCL1850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1830	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1870		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.23 ft	Invert:	6.83 ft

From Node:	NCL1870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	253.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.10	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.10	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1890		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.33 ft	Invert:	9.23 ft
From Node:	NCL1890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	75.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL1910		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.63 ft	Invert:	16.62 ft
From Node:	NCL1910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	27.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1930			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL1930	Default:	0.00 ft
To Node:	NCL1910	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.93 ft	Discharge Coefficients	
Control Elevation:	19.93 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	12.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RCL1930OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.06 ft	Invert:	19.05 ft
From Node:	NCL1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL1930OW	Cross Section:	RCL1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL1950		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.77 ft	Invert:	16.63 ft
From Node:	NCL1950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1910	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	0.83 ft	Max Depth:	0.83 ft

		Bottom Clip			
Flow Direction:	Both				
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	188.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL1970

		Bottom Clip	
Scenario:	Alt3		
From Node:	NCL1970	Default:	0.00 ft
To Node:	NCL1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	22.13 ft	Discharge Coefficients	
Control Elevation:	22.13 ft	Weir Default:	3.200
Max Depth:	22.79 ft	Weir Table:	
Max Width:	2.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RCL1970A

		Bottom Clip	
Scenario:	Alt3		
From Node:	NCL1970	Default:	0.00 ft
To Node:	NCL1950	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	23.83 ft	Discharge Coefficients	
Control Elevation:	23.83 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	12.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RCL1970OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.45 ft	Invert:	21.44 ft
From Node:	NCL1970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1930	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL1970OW	Cross Section:	RCL1970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL1990		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.23 ft	Invert:	9.33 ft
From Node:	NCL1990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	243.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RCL2010		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.44 ft	Invert:	11.23 ft
From Node:	NCL2010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	62.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2030		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.67 ft	Invert:	12.21 ft
From Node:	NCL2030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	270.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2050		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	11.23 ft
From Node:	NCL2050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	210.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2070		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.90 ft	Invert:	14.13 ft

From Node:	NCL2070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2050	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2070OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.90 ft	Invert:	18.89 ft
From Node:	NCL2070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2070OW	Cross Section:	RCL2070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2090		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.13 ft	Invert:	11.63 ft
From Node:	NCL2090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2050	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	394.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2110		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.63 ft	Invert:	12.13 ft
From Node:	NCL2110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2090	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.77 ft	Invert:	19.76 ft
From Node:	NCL2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2170	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2110OW	Cross Section:	RCL2110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2130		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.43 ft	Invert:	12.13 ft
From Node:	NCL2130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2090	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	210.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.92 ft	Invert:	18.91 ft
From Node:	NCL2130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2170	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2130OW	Cross Section:	RCL2130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2150		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.43 ft
From Node:	NCL2150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	720.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2150OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.03 ft	Invert:	20.02 ft
From Node:	NCL2150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2130	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2150OW	Cross Section:	RCL2150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2170		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.23 ft	Invert:	11.08 ft
From Node:	NCL2170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1990	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	47.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2170OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.81 ft	Invert:	18.80 ft
From Node:	NCL2170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL1730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2170OW	Cross Section:	RCL2170OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL2230		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.63 ft	Invert:	5.65 ft
From Node:	NCL2230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL1830	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	715.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2230OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.47 ft	Invert:	18.46 ft
From Node:	NCL2230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2230OW	Cross Section:	RCL2230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2250		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.13 ft	Invert:	6.63 ft
From Node:	NCL2250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2230	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	597.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2270		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.43 ft	Invert:	7.13 ft
From Node:	NCL2270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	641.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.62 ft	Invert:	19.61 ft
From Node:	NCL2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2930	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2270OW	Cross Section:	RCL2270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL2290		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.83 ft	Invert:	11.43 ft
From Node:	NCL2290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	371.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2290OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.30 ft	Invert:	19.29 ft
From Node:	NCL2290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2170	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2290OW	Cross Section:	RCL2290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2310		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.73 ft	Invert:	10.43 ft

From Node:	NCL2310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	180.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2330		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.23 ft	Invert:	10.73 ft
From Node:	NCL2330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	460.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.06 ft	Invert:	20.05 ft
From Node:	NCL2330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2330OW	Cross Section:	RCL2330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL2350		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.53 ft	Invert:	11.23 ft
From Node:	NCL2350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	397.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2370		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.63 ft	Invert:	12.53 ft
From Node:	NCL2370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	251.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL2390		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.43 ft	Invert:	12.63 ft
From Node:	NCL2390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2370	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	426.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.11 ft	Invert:	20.10 ft
From Node:	NCL2390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2390OW	Cross Section:	RCL2390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2410		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.58 ft	Invert:	14.43 ft
From Node:	NCL2410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.86 ft	Invert:	20.85 ft
From Node:	NCL2410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2410OW	Cross Section:	RCL2410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2430		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.74 ft	Invert:	14.58 ft
From Node:	NCL2430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	334.57 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2450		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.64 ft	Invert:	16.95 ft
From Node:	NCL2450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	58.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 2903

Weir Link: RCL2470

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2470	Default:	0.00 ft
To Node:	NCL2450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.98 ft	Discharge Coefficients	
Control Elevation:	19.98 ft	Weir Default:	3.200
Max Depth:	2.16 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Added per ERP 2903

Weir Link: RCL2470B

Scenario:	Alt3	Bottom Clip	
From Node:	NCL2470	Default:	0.00 ft
To Node:	NCL2450	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	22.14 ft	Discharge Coefficients	
Control Elevation:	22.14 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.17 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Added per ERP 2903

Weir Link: RCL2470C			
Scenario:	Alt3	Bottom Clip	
From Node:	STORAGE5	Default:	0.00 ft
To Node:	NCL2470	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.14 ft	Discharge Coefficients	
Control Elevation:	19.14 ft	Weir Default:	3.200
Max Depth:	3.69 ft	Weir Table:	
Max Width:	136.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: WEIR TO CONNECT TO UNDERGROUND VAULT STORAGE

Channel Link: RCL2470OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.00 ft	Invert:	19.99 ft
From Node:	NCL2470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2390	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2470OW	Cross Section:	RCL2470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2490		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.90 ft	Invert:	14.74 ft
From Node:	NCL2490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2430	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	333.67 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2510		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.09 ft	Invert:	14.90 ft
From Node:	NCL2510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2490	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	392.26 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2530		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.22 ft	Invert:	15.09 ft
From Node:	NCL2530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	275.73 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2550		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.38 ft	Invert:	15.22 ft
From Node:	NCL2550	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL2530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	324.95 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2570		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.54 ft	Invert:	15.38 ft
From Node:	NCL2570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.29 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2580		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.46 ft	Invert:	15.54 ft
From Node:	NCL2580	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	29.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2590		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.72 ft	Invert:	15.54 ft
From Node:	NCL2590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	371.47 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2610		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.92 ft	Invert:	15.72 ft
From Node:	NCL2610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	454.09 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2630		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.87 ft	Invert:	15.92 ft
From Node:	NCL2630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft

Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	392.39 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2631		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.93 ft	Invert:	14.60 ft
From Node:	NCL2631	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3635	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	68.57 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL2650		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.67 ft	Invert:	14.43 ft
From Node:	NCL2650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2650OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.64 ft	Invert:	20.63 ft
From Node:	NCL2650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2650OW	Cross Section:	RCL2650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL2670		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.43 ft	Invert:	15.67 ft
From Node:	NCL2670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2650	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	456.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RCL2670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.31 ft	Invert:	21.30 ft
From Node:	NCL2670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2650	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2670OW	Cross Section:	RCL2670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL2690		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.60 ft	Invert:	16.43 ft
From Node:	NCL2690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2670	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	306.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.23 ft	Invert:	21.22 ft
From Node:	NCL2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2670	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2690OW	Cross Section:	RCL2690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2710		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.77 ft	Invert:	16.60 ft

From Node:	NCL2710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	310.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2710OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.33 ft	Invert:	21.32 ft
From Node:	NCL2710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2690	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2710OW	Cross Section:	RCL2710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2730		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.00 ft	Invert:	16.77 ft
From Node:	NCL2730	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	406.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2730OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	21.56 ft	Invert:	21.55 ft
From Node:	NCL2730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2710	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2730OW	Cross Section:	RCL2730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2750		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.18 ft	Invert:	17.00 ft
From Node:	NCL2750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2730	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	326.31 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2770		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.39 ft	Invert:	17.18 ft
From Node:	NCL2770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2750	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	362.56 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2780		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.09 ft	Invert:	18.01 ft
From Node:	NCL2780	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	28.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2790		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.54 ft	Invert:	17.39 ft
From Node:	NCL2790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	259.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2810		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.74 ft	Invert:	17.54 ft
From Node:	NCL2810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	368.94 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2830		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.93 ft	Invert:	17.74 ft
From Node:	NCL2830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2810	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.71 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.50	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2830B		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.06 ft	Invert:	17.88 ft
From Node:	NCL2830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	Outfall_NE	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	218.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2835		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.79 ft	Invert:	18.53 ft
From Node:	NCL2835	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	420.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2840		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.06 ft	Invert:	19.90 ft
From Node:	NCL2840	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2835	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2845		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.19 ft	Invert:	19.79 ft
From Node:	NCL2845	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2835	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	90.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2850		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.83 ft	Invert:	12.63 ft
From Node:	NCL2850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL2870		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.83 ft
From Node:	NCL2870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	357.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL2890		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.74 ft	Invert:	13.13 ft
From Node:	NCL2890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	299.76 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model; US invert from ERP 847046

Pipe Link: RCL2910		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.91 ft	Invert:	14.50 ft
From Node:	NCL2910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2890	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	313.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL2930		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.40 ft	Invert:	7.38 ft

From Node:	NCL2930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2250	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	6.50 ft	Max Depth:	6.50 ft
Flow Direction:	Both	Max Width:	4.75 ft	Max Width:	4.75 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	55.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2930OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.04 ft	Invert:	19.03 ft
From Node:	NCL2930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2230	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL2930OW	Cross Section:	RCL2930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2950		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.47 ft	Invert:	7.40 ft
From Node:	NCL2950	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2930	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	573.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2950OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.33 ft	Invert:	19.32 ft
From Node:	NCL2950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2950OW	Cross Section:	RCL2950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2970		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.13 ft	Invert:	9.13 ft
From Node:	NCL2970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2950	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	450.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2970OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.52 ft	Invert:	19.51 ft

From Node:	NCL2970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL2950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2970OW	Cross Section:	RCL2970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL2990		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.92 ft	Invert:	7.47 ft
From Node:	NCL2990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2950	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	575.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL2990OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.35 ft	Invert:	19.34 ft
From Node:	NCL2990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL2990OW	Cross Section:	RCL2990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL3010		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.26 ft	Invert:	7.92 ft
From Node:	NCL3010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2990	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	663.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3030		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.58 ft	Invert:	8.26 ft
From Node:	NCL3030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3010	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	655.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3050		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.64 ft	Invert:	10.11 ft
From Node:	NCL3050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3030	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	423.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3050OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.26 ft	Invert:	19.25 ft
From Node:	NCL3050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3030	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL3050OW	Cross Section:	RCL3050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL3070		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.14 ft	Invert:	15.73 ft
From Node:	NCL3070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3050	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	289.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3070OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.51 ft	Invert:	19.50 ft
From Node:	NCL3070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3050	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL3070OW	Cross Section:	RCL3070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RCL3090		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.92 ft	Invert:	8.58 ft
From Node:	NCL3090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3030	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	5.40 ft	Max Depth:	5.40 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	673.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.30 ft	Invert:	18.29 ft
From Node:	NCL3110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3090	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL3090OW	Cross Section:	RCL3090OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RCL3110		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.77 ft	Invert:	10.78 ft
From Node:	NCL3110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	448.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RCL3130		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.77 ft	Invert:	14.33 ft
From Node:	NCL3130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.37 ft	Invert:	18.36 ft
From Node:	NCL3130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3110	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RCL3130OW	Cross Section:	RCL3130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RCL3150		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.64 ft	Invert:	9.34 ft
From Node:	NCL3150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3090	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	670.86 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment: Inventory					

Pipe Link: RCL3170		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.48 ft	Invert:	10.78 ft
From Node:	NCL3170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	407.47 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3190		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.29 ft	Invert:	11.48 ft
From Node:	NCL3190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	452.43 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3210		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.70 ft	Invert:	12.29 ft
From Node:	NCL3210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	212.21 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3230		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.32 ft	Invert:	12.85 ft

From Node:	NCL3230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.59 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3250		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.53 ft	Invert:	10.17 ft
From Node:	NCL3250A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.42 ft	Max Depth:	4.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3270		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.95 ft	Invert:	13.13 ft
From Node:	NCL3270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	409.82 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3280		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.06 ft	Invert:	13.95 ft
From Node:	NCL3280	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	53.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3290		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.83 ft	Invert:	14.06 ft
From Node:	NCL3290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3280	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	388.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3300		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.39 ft	Invert:	15.48 ft
From Node:	NCL3300	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3290	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	303.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3310		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.14 ft	Invert:	16.38 ft
From Node:	NCL3310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.97 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19405

Weir Link: RCL3330			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3330	Default:	0.00 ft
To Node:	NCL3310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.14 ft	Discharge Coefficients	
Control Elevation:	19.14 ft	Weir Default:	3.200
Max Depth:	1.50 ft	Weir Table:	
Max Width:	0.11 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: UPDATED PER ERP 19405

Weir Link: RCL3330A			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3330	Default:	0.00 ft
To Node:	NCL3310	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	20.64 ft	Discharge Coefficients	
Control Elevation:	20.64 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: UPDATED PER ERP 19405

Pipe Link: RCL3330B		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.14 ft	Invert:	17.14 ft
From Node:	NCL3330	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NCL3310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	5.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19405

Weir Link: RCL3330C			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3330	Default:	0.00 ft
To Node:	STORAGE1	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.14 ft	Discharge Coefficients	
Control Elevation:	18.14 ft	Weir Default:	3.200
Max Depth:	3.00 ft	Weir Table:	

Max Width:	7.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: SET WEIR TO BOTTOM OF STORAGE. SEE ERP 19405

Pipe Link: RCL3350		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.71 ft	Invert:	14.83 ft
From Node:	NCL3350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	441.13 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3360		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.95 ft	Invert:	18.23 ft
From Node:	NCL3360	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	241.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3360B		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.25 ft	Invert:	19.25 ft
From Node:	NCL3360	Manning's N:	0.0120	Manning's N:	0.0120

To Node:	NCL3350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3365		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.26 ft	Invert:	16.16 ft
From Node:	NCL3365	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	366.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3390		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.01 ft	Invert:	15.40 ft
From Node:	NCL3390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3370	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	591.37 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3390B		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.07 ft	Invert:	14.75 ft
From Node:	NCL3390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2910	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	121.03 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3410		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.50 ft	Invert:	16.06 ft
From Node:	NCL3410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	36.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Weir Link: RCL3430			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3430	Default:	0.00 ft
To Node:	NCL3410	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	19.14 ft
Control Elevation:	19.14 ft
Max Depth:	0.50 ft
Max Width:	0.40 ft
Fillet:	0.00 ft

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 21651

Weir Link: RCL3430A

Scenario:	Alt3
From Node:	NCL3430
To Node:	NCL3410
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	19.64 ft
Control Elevation:	19.64 ft
Max Depth:	9999.00 ft
Max Width:	10.47 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 21651

Pipe Link: RCL3470

Scenario:	Alt3
From Node:	NCL3470
To Node:	NCL3450
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	414.97 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	11.74 ft	Invert:	11.24 ft
Manning's N:	0.0120	Manning's N:	0.0120
Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Max Depth:	3.17 ft	Max Depth:	3.17 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3510		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.90 ft	Invert:	12.30 ft
From Node:	NCL3510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3490	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	408.65 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RCL3520		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.19 ft	Invert:	14.61 ft
From Node:	NCL3520	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	195.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RCL3530		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.42 ft	Invert:	12.90 ft
From Node:	NCL3530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	421.87 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model; US inv from ERP 847046

Pipe Link: RCL3540		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.25 ft	Invert:	19.98 ft
From Node:	NCL2540	Manning's N:	0.0100	Manning's N:	0.0240
To Node:	NCL2780	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	90.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RCL3550		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.01 ft	Invert:	13.26 ft
From Node:	NCL3550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	112.76 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3570		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.00 ft	Invert:	13.63 ft

From Node:	NCL3570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3550	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	273.29 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Weir Link: RCL3590

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3590	Default:	0.00 ft
To Node:	NCL3570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	20.75 ft	Discharge Coefficients	
Control Elevation:	20.75 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.67 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated size per field visit; maintained controlling invert

Weir Link: RCL3590A

Scenario:	Alt3	Bottom Clip	
From Node:	NCL3590	Default:	0.00 ft
To Node:	NCL3570	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.92 ft	Discharge Coefficients	
Control Elevation:	18.92 ft	Weir Default:	3.200
Max Depth:	1.83 ft	Weir Table:	
Max Width:	0.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated size per field visit

Pipe Link: RCL3610		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.15 ft	Invert:	13.51 ft
From Node:	NCL3610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3530	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	53.66 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Updated per ERP 847046

Pipe Link: RCL3630		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.80 ft	Invert:	12.55 ft
From Node:	NCL3630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	375.70 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: FDOT 2024 Kennedy Plans

Pipe Link: RCL3635		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.30 ft	Invert:	12.80 ft
From Node:	NCL3635	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3630	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	445.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: FDOT 2024 Kennedy Plans

Pipe Link: RCL3640		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.10 ft	Invert:	13.30 ft
From Node:	NCL3640	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3635	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	440.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: FDOT 2024 Kennedy Plans

Pipe Link: RCL3650		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.54 ft	Invert:	13.04 ft
From Node:	NCL3650	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	107.90 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 18948

Weir Link: RCL3670

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3670	Default:	0.00 ft
To Node:	NCL3650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.84 ft	**Discharge Coefficients**	
Control Elevation:	16.84 ft	Weir Default:	3.200
Max Depth:	1.10 ft	Weir Table:	
Max Width:	0.90 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 18948

Weir Link: RCL3670A

Scenario:	Alt3	**Bottom Clip**	
From Node:	NCL3670	Default:	0.00 ft
To Node:	NCL3650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.94 ft	**Discharge Coefficients**	
Control Elevation:	17.94 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 18948

Weir Link: RCL3670C

Scenario:	Alt3	**Bottom Clip**	
From Node:	STORAGE2	Default:	0.00 ft
To Node:	NCL3670	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.64 ft	**Discharge Coefficients**	
Control Elevation:	16.64 ft	Weir Default:	3.200
Max Depth:	2.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600

Fillet: 0.00 ft

Orifice Table:

Comment: SET WEIR AT NWL OF UNDERGROUND VAULT TO ALLOW EQUALIZATION

Pipe Link: RCL3690		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.80 ft	Invert:	10.33 ft
From Node:	NCL3690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	270.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 6550

Pipe Link: RCL3710		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.13 ft	Invert:	10.90 ft
From Node:	NCL3450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3690	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	152.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 6550

Pipe Link: RCL3750		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.78 ft	Invert:	10.26 ft
From Node:	NCL3750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL2990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RCL3750W			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3730	Default:	0.00 ft
To Node:	NRU0840	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.40 ft	Discharge Coefficients	
Control Elevation:	11.40 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	100.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RCL3770		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.47 ft	Invert:	10.78 ft
From Node:	NCL3770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL3750	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	361.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RCL3770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.20 ft	Invert:	16.19 ft
From Node:	NCL3770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL3750	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RCL3770OW	Cross Section:	RCL3770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: REF1357B			
Scenario:	Alt3	Bottom Clip	
From Node:	NSH27	Default:	0.00 ft
To Node:	NSH27AA	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.74 ft	Discharge Coefficients	
Control Elevation:	12.74 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	8.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 10835. Difficult to read

Weir Link: REF1357C			
Scenario:	Alt3	Bottom Clip	
From Node:	NSH27	Default:	0.00 ft
To Node:	NSH27AA	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	9.74 ft
Control Elevation:	9.74 ft
Max Depth:	1.67 ft
Max Width:	1.67 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 10835. Difficult to read

Pipe Link: ROC0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-4.25 ft	Invert:	-4.46 ft
From Node:	NOC0030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0010	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	178.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0030OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.22 ft	Invert:	3.21 ft
From Node:	NOC0030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0030	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0030OW	Cross Section:	ROC0030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	-4.05 ft	Invert:	-4.25 ft
From Node:	NOC0050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0030	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	135.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0050OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.40 ft	Invert:	3.39 ft
From Node:	NOC0050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0050OW	Cross Section:	ROC0050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0070		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.37 ft	Invert:	-3.57 ft

From Node:	NOC0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0090	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0070A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.57 ft	Invert:	-4.05 ft
From Node:	NOC0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	7.00 ft	Max Width:	7.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	540.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0070OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.92 ft	Invert:	3.91 ft
From Node:	NOC0070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0110	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0070OW	Cross Section:	ROC0070OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0090		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.37 ft	Invert:	-3.47 ft
From Node:	NOC0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NCL0110	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	123.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0110		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.34 ft	Invert:	-3.57 ft
From Node:	NOC0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0070	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0130		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.13 ft	Invert:	-3.34 ft

From Node:	NOC0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0110	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0150		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.95 ft	Invert:	1.85 ft
From Node:	NOC0150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0130	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	2	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0170		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.13 ft	Invert:	1.95 ft
From Node:	NOC0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0170OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.30 ft	Invert:	4.29 ft
From Node:	NOC0170	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0170OW	Cross Section:	ROC0170OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0190		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.80 ft	Invert:	-3.13 ft
From Node:	NOC0190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0130	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	370.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0190OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.63 ft	Invert:	5.62 ft
From Node:	NOC0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	ROC0190OW	Cross Section:	ROC0190OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0210		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.21 ft	Invert:	-0.37 ft
From Node:	NOC0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	335.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0210OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.60 ft	Invert:	5.59 ft
From Node:	NOC0210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0210OW	Cross Section:	ROC0210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0230		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.33 ft	Invert:	0.23 ft
From Node:	NOC0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0250		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.03 ft	Invert:	0.33 ft
From Node:	NOC0250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0270		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.82 ft	Invert:	1.03 ft
From Node:	NOC0270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0290		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.72 ft	Invert:	-2.80 ft
From Node:	NOC0290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0190	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Max Width:	7.58 ft	Max Width:	7.58 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	90.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0310		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.27 ft	Invert:	-1.39 ft
From Node:	NOC0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	48.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0330		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.21 ft	Invert:	-2.72 ft
From Node:	NOC0330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0290	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	5.25 ft	Max Depth:	5.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	271.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ROC0350		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.43 ft	Invert:	-2.21 ft
From Node:	NOC0350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0330	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.83 ft	Max Depth:	4.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	370.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0350OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.77 ft	Invert:	2.76 ft
From Node:	NOC0350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0350OW	Cross Section:	ROC0350OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0370		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.24 ft	Invert:	-1.43 ft
From Node:	NOC0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0350	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	619.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0370OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.69 ft	Invert:	5.68 ft
From Node:	NOC0370	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0370OW	Cross Section:	ROC0370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0390		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.27 ft	Invert:	-0.22 ft
From Node:	NOC0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0370	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.33 ft	Invert:	5.32 ft
From Node:	NOC0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NCL0350	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0390OW	Cross Section:	ROC0390OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0410		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.89 ft	Invert:	0.27 ft
From Node:	NOC0410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0390	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.17 ft	Max Depth:	3.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	553.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.38 ft	Invert:	6.37 ft
From Node:	NOC0410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0390	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0410OW	Cross Section:	ROC0410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0430		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.93 ft	Invert:	1.29 ft
From Node:	NOC0430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0410	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.83 ft	Max Depth:	2.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	326.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.39 ft	Invert:	6.38 ft

From Node:	NOC0430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0430OW	Cross Section:	ROC0430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0450		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.48 ft	Invert:	2.70 ft
From Node:	NOC0450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0430	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	342.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.08 ft	Invert:	7.07 ft
From Node:	NOC0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	ROC0450OW	Cross Section:	ROC0450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: ROC0470		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.37 ft	Invert:	3.48 ft
From Node:	NOC0470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	236.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0470OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.36 ft	Invert:	7.35 ft
From Node:	NOC0470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0450	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0470OW	Cross Section:	ROC0470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: ROC0490		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.81 ft	Invert:	3.43 ft
From Node:	NOC0490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NOC0450	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	336.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: ROC0490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.79 ft	Invert:	7.78 ft
From Node:	NOC0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NOC0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	ROC0490OW	Cross Section:	ROC0490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RPondA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.56 ft	Invert:	14.50 ft
From Node:	NSH03	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	PondA	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	368.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 9274

Pipe Link: RRU0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.40 ft	Invert:	-1.42 ft
From Node:	NRU0030	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU0010	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	144.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.35 ft	Invert:	-0.40 ft
From Node:	NRU0050	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU0030	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	220.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0070		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.29 ft	Invert:	-0.35 ft

From Node:	NRU0070	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	180.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0090		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.15 ft	Invert:	0.04 ft
From Node:	NRU0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	182.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU0090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.65 ft	Invert:	4.64 ft
From Node:	NRU0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU0090OW	Cross Section:	RRU0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU0110		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.05 ft	Invert:	-0.29 ft
From Node:	NRU0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0070	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	283.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU0110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.42 ft	Invert:	5.41 ft
From Node:	NRU0110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU0110OW	Cross Section:	RRU0110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU0130		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.84 ft	Invert:	-0.05 ft
From Node:	NRU0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0110	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	530.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0150		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.85 ft	Invert:	0.84 ft
From Node:	NRU0150	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU0130	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	15.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU0160		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.54 ft	Invert:	5.03 ft
From Node:	NRU0160	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	776.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0165		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.74 ft	Invert:	11.65 ft
From Node:	NRU0165	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0160	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	31.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0170		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.73 ft	Invert:	5.54 ft
From Node:	NRU0170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0160	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	283.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0172		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.99 ft	Invert:	6.86 ft
From Node:	NRU0172	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	44.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0174		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.24 ft	Invert:	6.99 ft
From Node:	NRU0174	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0172	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.75 ft	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	417.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0176		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.32 ft	Invert:	8.24 ft
From Node:	NRU0176	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0174	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	26.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0178		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.59 ft	Invert:	8.32 ft
From Node:	NRU0178	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0176	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	422.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0180		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.32 ft	Invert:	9.59 ft
From Node:	NRU0180	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0178	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.75 ft	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	245.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0190		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.93 ft	Invert:	7.73 ft

From Node:	NRU0190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	29.78 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0210		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.28 ft	Invert:	9.93 ft
From Node:	NRU0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	52.03 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0230		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.28 ft	Invert:	10.28 ft
From Node:	NRU0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0250		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.84 ft	Invert:	5.73 ft
From Node:	NRU0250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0170	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	100.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0270		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.21 ft	Invert:	5.84 ft
From Node:	NRU0270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	332.48 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: RRU0290		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.07 ft	Invert:	10.03 ft
From Node:	NRU0290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0270	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	187.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0310		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.74 ft	Invert:	6.22 ft
From Node:	NRU0310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	475.68 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: RRU0330		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.30 ft	Invert:	10.82 ft
From Node:	NRU0330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	249.09 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0335		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.46 ft	Invert:	14.44 ft
From Node:	NRU0335	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	342.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0340		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.77 ft	Invert:	11.30 ft
From Node:	NRU0340	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	240.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0343		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.14 ft	Invert:	12.93 ft
From Node:	NRU0343	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0340	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	71.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0345		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.35 ft	Invert:	13.14 ft
From Node:	NRU0345	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0343	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	404.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0350		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.53 ft	Invert:	11.77 ft
From Node:	NRU0350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0340	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	391.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0370		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.63 ft	Invert:	12.53 ft
From Node:	NRU0370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.99 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0380		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.33 ft	Invert:	13.03 ft
From Node:	NRU0380	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	34.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0390		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.20 ft	Invert:	15.90 ft
From Node:	NRU0390	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	THEA_Watrous	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	58.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Proposed pipe (Selmon Plans)

Pipe Link: RRU0410		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.63 ft
From Node:	NRU0410	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	373.88 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0430		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.63 ft	Invert:	13.13 ft
From Node:	NRU0430	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	291.50 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0450		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.13 ft	Invert:	13.63 ft

From Node:	NRU0450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0430	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	350.11 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0470		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.73 ft	Invert:	14.13 ft
From Node:	NRU0470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	349.20 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0490		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.14 ft	Invert:	14.65 ft
From Node:	NRU0490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	115.76 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0495		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.00 ft	Invert:	15.14 ft
From Node:	NRU0495	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0490	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	None	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	288.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0510A		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.93 ft	Invert:	14.60 ft
From Node:	NRU0510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	None	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.63 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0530		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.23 ft	Invert:	6.74 ft
From Node:	NRU0530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0310	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	442.09 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0550		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.75 ft	Invert:	7.24 ft
From Node:	NRU0550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	466.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0570		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.96 ft	Invert:	7.76 ft
From Node:	NRU0570	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	183.55 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0590		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.34 ft	Invert:	7.97 ft
From Node:	NRU0590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	337.99 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0610		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.69 ft	Invert:	8.34 ft
From Node:	NRU0610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0590	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	316.74 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0612		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.98 ft	Invert:	8.70 ft
From Node:	NRU0612	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	258.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0615		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.74 ft	Invert:	10.95 ft
From Node:	NRU0615	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	930.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0616		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.46 ft	Invert:	16.56 ft
From Node:	NRU0616	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0615	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	849.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0618		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.29 ft	Invert:	13.74 ft
From Node:	NRU0618	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0616	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	193.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0620		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.49 ft	Invert:	14.61 ft
From Node:	NRU0620	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0615	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU0630		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.28 ft	Invert:	8.98 ft
From Node:	NRU0630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0612	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	270.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0630A		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.50 ft	Invert:	9.28 ft
From Node:	NRU0630	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0650	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	385.40 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU0670		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.53 ft	Invert:	9.50 ft
From Node:	NRU0670	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0650	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.25 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0690		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.67 ft	Invert:	9.53 ft

From Node:	NRU0690	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0670	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	263.27 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0710		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.80 ft	Invert:	9.67 ft
From Node:	NRU0710	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0690	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	217.04 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU0740		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.98 ft	Invert:	9.80 ft
From Node:	NRU0740	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0710	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	328.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU0745		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.20 ft	Invert:	9.98 ft
From Node:	NRU0745	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0740	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	420.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU0750		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.41 ft	Invert:	10.20 ft
From Node:	NRU0747	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0745	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	324.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0785		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.11 ft	Invert:	10.68 ft
From Node:	NRU0785	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0770	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0785B		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.56 ft	Invert:	12.39 ft
From Node:	NRU0785	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	None	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	55.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0790		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.20 ft	Invert:	11.11 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU0790B		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.75 ft	Invert:	12.61 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	22.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: City Plans

Pipe Link: RRU0790C		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.81 ft	Invert:	12.67 ft
From Node:	NRU0790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	15.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: City Plans

Pipe Link: RRU0790D		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.85 ft	Invert:	12.09 ft
From Node:	NRU0790	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU0785	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: City Plans

Pipe Link: RRU0810		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	11.28 ft
From Node:	NRU0810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	301.49 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU0820B		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.84 ft	Invert:	15.74 ft
From Node:	STORAGE8	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU0820	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	0.67 ft	Max Depth:	0.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	10.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 12131

Pipe Link: RRU0870		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.04 ft	Invert:	11.64 ft
From Node:	NRU0870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0850	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	80.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Weir Link: RRU0890			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU0890	Default:	0.00 ft
To Node:	NRU0870	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.04 ft	Discharge Coefficients	
Control Elevation:	16.04 ft	Weir Default:	3.200
Max Depth:	1.50 ft	Weir Table:	
Max Width:	15.17 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 20724

Weir Link: RRU0890B			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU0890	Default:	0.00 ft
To Node:	NRU0870	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.39 ft	Discharge Coefficients	
Control Elevation:	17.39 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	25.33 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RRU0910		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.66 ft	Invert:	15.26 ft
From Node:	NRU0910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	244.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 24539

Weir Link: RRU0930			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU0930	Default:	0.00 ft
To Node:	NRU0910	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.14 ft	Discharge Coefficients	
Control Elevation:	19.14 ft	Weir Default:	3.200
Max Depth:	1.10 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 24539

Weir Link: RRU0930A			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU0930	Default:	0.00 ft
To Node:	NRU0910	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	20.24 ft
Control Elevation:	20.24 ft
Max Depth:	9999.00 ft
Max Width:	15.50 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 24539

Pipe Link: RRU0970		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.54 ft	Invert:	11.22 ft
From Node:	NRU0970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0950	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	287.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU0990		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.24 ft	Invert:	11.64 ft
From Node:	NRU0990	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU0990A		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.24 ft	Invert:	12.54 ft
From Node:	NRU0980	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0970	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.67 ft	Max Depth:	2.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	318.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU1010		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.77 ft	Invert:	12.24 ft
From Node:	NRU1010	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU0990	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.67 ft	Max Depth:	2.67 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	66.82 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20724

Pipe Link: RRU1015		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.54 ft	Invert:	13.20 ft
From Node:	NRU1015	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1010	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	317.25 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1025		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.33 ft	Invert:	13.95 ft
From Node:	NRU1025	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1015	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	318.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1037		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.52 ft	Invert:	14.56 ft
From Node:	NRU1037	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1050	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	284.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 20364

Pipe Link: RRU1040		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.08 ft	Invert:	12.77 ft
From Node:	NRU1040	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1010	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.66 ft	Max Depth:	2.66 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	415.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Size from ERP 20724; interpolated US inv

Pipe Link: RRU1045		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.08 ft	Invert:	16.02 ft
From Node:	NRU1045	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1046	Geometry: Circular		Geometry: Circular	
Link Count:	2	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1046		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.38 ft	Invert:	14.14 ft
From Node:	NRU1046	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1020	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	287.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 19758

Pipe Link: RRU1070		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.18 ft	Invert:	13.59 ft
From Node:	NRU1070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1050	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	481.88 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU1170		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.67 ft	Invert:	12.03 ft
From Node:	NRU1170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	428.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1182		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.90 ft	Invert:	12.22 ft

From Node:	NRU1182	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1232	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	319.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU1184		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.10 ft	Invert:	12.90 ft
From Node:	NRU1184	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1182	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	87.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1185		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.79 ft	Invert:	13.10 ft
From Node:	NRU1185	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1184	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	301.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Field

Pipe Link: RRU1186		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.30 ft	Invert:	13.10 ft
From Node:	NRU1186	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1184	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.75 ft	Max Depth:	1.75 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	145.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1188		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.42 ft	Invert:	13.30 ft
From Node:	NRU1188	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1186	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	None	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	37.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RRU1190		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.93 ft	Invert:	13.73 ft
From Node:	NRU1190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1170	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	144.01 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RRU1210		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.00 ft	Invert:	13.94 ft
From Node:	NRU1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1190	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.16 ft	Max Depth:	1.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.97 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU1210B		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.52 ft	Invert:	13.30 ft
From Node:	NRU1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1186	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	306.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1220		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.79 ft	Invert:	14.79 ft
From Node:	NRU1220	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NRU1210	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	312.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RRU1234		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.00 ft	Invert:	13.10 ft
From Node:	NRU1234	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1232	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	24.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans, Field

Pipe Link: RRU1240		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.79 ft	Invert:	14.25 ft
From Node:	NRU1240	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1230	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	26.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 2417, Field

Pipe Link: RRU1250		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.40 ft	Invert:	-1.42 ft
From Node:	NRU1250	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NRU0010	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	8.00 ft	Max Width:	8.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	144.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	1.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1270		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.19 ft	Invert:	-0.40 ft
From Node:	NRU1270	Manning's N:	0.0270	Manning's N:	0.0270
To Node:	NRU1250	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1270A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.19 ft	Invert:	-0.40 ft
From Node:	NRU1270	Manning's N:	0.0270	Manning's N:	0.0270
To Node:	NRU1250	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	94.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.66 ft	Invert:	5.65 ft
From Node:	NRU1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1270OW	Cross Section:	RRU1270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1290		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.11 ft	Invert:	-0.19 ft
From Node:	NRU1290	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NRU1270	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1290A		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.11 ft	Invert:	-0.19 ft
From Node:	NRU1290	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NRU1270	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1310		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.83 ft	Invert:	0.11 ft
From Node:	NRU1310	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NRU1290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	355.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1310A		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.83 ft	Invert:	0.11 ft
From Node:	NRU1310	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NRU1290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.50 ft	Max Depth:	5.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	355.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU1330			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU1330	Default:	0.00 ft
To Node:	NRU0150	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.37 ft	Discharge Coefficients	
Control Elevation:	7.37 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	11.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RRU1330A		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.87 ft	Invert:	1.33 ft
From Node:	NRU1330	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	535.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1330B		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.87 ft	Invert:	1.33 ft
From Node:	NRU1330	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	535.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.35 ft	Invert:	11.34 ft
From Node:	NRU1350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1330OW	Cross Section:	RRU1330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1350		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.95 ft	Invert:	3.87 ft
From Node:	NRU1350	Manning's N:	0.0330	Manning's N:	0.0330

To Node:	NRU1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1350A		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.95 ft	Invert:	3.87 ft
From Node:	NRU1350	Manning's N:	0.0330	Manning's N:	0.0330
To Node:	NRU1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1370		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.37 ft	Invert:	3.95 ft
From Node:	NRU1370	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1350	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	345.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Pipe Link: RRU1370A		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.37 ft	Invert:	3.95 ft
From Node:	NRU1370	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1350	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	345.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1370OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.18 ft	Invert:	12.17 ft
From Node:	NRU1390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1370OW	Cross Section:	RRU1370OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1390		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.29 ft	Invert:	4.59 ft
From Node:	NRU1390	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1370	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft

Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	460.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1410		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.88 ft	Invert:	4.41 ft
From Node:	NRU1410	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	475.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1410A		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.88 ft	Invert:	4.41 ft
From Node:	NRU1410	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	475.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.10 ft	Invert:	14.09 ft
From Node:	NRU1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1410OW	Cross Section:	RRU1410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU1430		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.20 ft	Invert:	9.10 ft
From Node:	NRU1430	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU1410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	730.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RRU1430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.96 ft	Invert:	13.95 ft
From Node:	NRU1430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU0425	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1430OW	Cross Section:	RRU1430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1450		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.20 ft	Invert:	9.89 ft
From Node:	NRU1450	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU1430	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	238.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.68 ft	Invert:	15.67 ft
From Node:	NRU1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1450OW	Cross Section:	RRU1450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1470		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.58 ft	Invert:	10.20 ft

From Node:	NRU1470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	232.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1490		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.65 ft	Invert:	11.08 ft
From Node:	NRU1490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	268.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.28 ft	Invert:	16.27 ft
From Node:	NRU1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0070	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1490OW	Cross Section:	RRU1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1510		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.60 ft	Invert:	7.10 ft
From Node:	NRU1510	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1000.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1510A		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.60 ft	Invert:	7.10 ft
From Node:	NRU1510	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1410	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.50 ft	Max Depth:	4.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1000.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1510OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.06 ft	Invert:	14.05 ft
From Node:	NRU1510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1550	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RRU1510OW	Cross Section:	RRU1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1530		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.50 ft	Invert:	7.53 ft
From Node:	NRU1530	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	280.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1550		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.01 ft	Invert:	7.50 ft
From Node:	NRU1550	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	390.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1550OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.35 ft	Invert:	16.34 ft
From Node:	NRU1550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1550OW	Cross Section:	RRU1550OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1570		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.23 ft	Invert:	8.01 ft
From Node:	NRU1570	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1550	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.64 ft	Invert:	16.63 ft
From Node:	NRU1590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1570OW	Cross Section:	RRU1570OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU1590		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.14 ft	Invert:	12.56 ft
From Node:	NRU1590	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	452.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1610		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.39 ft	Invert:	8.23 ft
From Node:	NRU1610	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NRU1570	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	230.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1610OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.22 ft	Invert:	17.21 ft
From Node:	NRU1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1650	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1610OW	Cross Section:	RRU1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU1630		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.67 ft	Invert:	8.39 ft
From Node:	NRU1630	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	420.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RRU1650		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.81 ft	Invert:	8.67 ft
From Node:	NRU1650	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NRU1630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	210.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1670		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.92 ft	Invert:	8.81 ft
From Node:	NRU1670	Manning's N:	0.0190	Manning's N:	0.0190
To Node:	NRU1650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1690		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.39 ft	Invert:	8.92 ft
From Node:	NRU1690	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	700.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.31 ft	Invert:	17.30 ft

From Node:	NRU1690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1690OW	Cross Section:	RRU1690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1710		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.04 ft	Invert:	10.31 ft
From Node:	NRU1710	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU1690	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	365.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU1730			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU1730	Default:	0.00 ft
To Node:	NRU1710	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.95 ft	Discharge Coefficients	
Control Elevation:	12.95 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600

Fillet: 0.00 ft

Orifice Table:

Comment:

Pipe Link: RRU1750		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.97 ft	Invert:	12.88 ft
From Node:	NRU1750	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1730	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	16.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1770		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.88 ft	Invert:	12.90 ft
From Node:	NRU1770	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU1750	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	215.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.67 ft	Invert:	15.66 ft
From Node:	NRU1770	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1730	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RRU1770OW	Cross Section:	RRU1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1790		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.16 ft	Invert:	13.37 ft
From Node:	NRU1790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	320.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1790OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.91 ft	Invert:	17.90 ft
From Node:	NRU1790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1790OW	Cross Section:	RRU1790OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1810		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.84 ft	Invert:	14.16 ft
From Node:	NRU1810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1790	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	430.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1810OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.87 ft	Invert:	14.86 ft
From Node:	NRU1810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1810OW	Cross Section:	RRU1810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1830		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.23 ft	Invert:	12.88 ft
From Node:	NRU1830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1770	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	167.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1830OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.98 ft	Invert:	17.97 ft
From Node:	NRU1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU1830OW	Cross Section:	RRU1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1850		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.80 ft	Invert:	10.15 ft
From Node:	NRU1850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	220.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1870		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.93 ft	Invert:	10.33 ft
From Node:	NRU1870	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1850	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	140.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1890		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.14 ft	Invert:	10.93 ft
From Node:	NRU1890	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1910		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.56 ft	Invert:	11.14 ft
From Node:	NRU1910	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1011.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1910OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.16 ft	Invert:	17.15 ft
From Node:	NRU1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1890	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1910OW	Cross Section:	RRU1910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1930		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.79 ft	Invert:	7.66 ft
From Node:	NRU1930	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1530	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	106.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1930OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.82 ft	Invert:	13.81 ft

From Node:	NRU1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1530	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1930OW	Cross Section:	RRU1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU1950		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.41 ft	Invert:	7.79 ft
From Node:	NRU1950	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1930	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	520.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1970		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.62 ft	Invert:	8.61 ft
From Node:	NRU1970	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1950	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU1990		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.82 ft	Invert:	8.62 ft
From Node:	NRU1990	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1970	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	168.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU1990OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.67 ft	Invert:	17.66 ft
From Node:	NRU1990	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU1990OW	Cross Section:	RRU1990OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2010		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.79 ft	Invert:	8.96 ft
From Node:	NRU2010	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1990	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	822.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2010OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.73 ft	Invert:	18.72 ft
From Node:	NRU2010	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1790	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2010OW	Cross Section:	RRU2010OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2030		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.63 ft	Invert:	10.29 ft
From Node:	NRU2030	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	172.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2030OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.35 ft	Invert:	18.34 ft
From Node:	NRU2030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2030OW	Cross Section:	RRU2030OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2050		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.78 ft
From Node:	NRU2050	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2030	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2070			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU2070	Default:	0.00 ft
To Node:	NRU2050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	18.43 ft
Control Elevation:	18.43 ft
Max Depth:	9999.00 ft
Max Width:	14.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RRU2070A

Scenario:	Alt3
From Node:	NRU2070
To Node:	NRU2050
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.31 ft
Control Elevation:	17.31 ft
Max Depth:	18.43 ft
Max Width:	3.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RRU2070OW

Scenario:	Alt3
From Node:	NRU2070
To Node:	NRU2030
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	19.95 ft	Invert:	19.94 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry:	Irregular	Geometry:	Irregular
Cross Section:	RRU2070OW	Cross Section:	RRU2070OW

Comment:

Pipe Link: RRU2090		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.95 ft	Invert:	8.82 ft
From Node:	NRU2090	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU1990	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	109.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RRU2090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.80 ft	Invert:	18.79 ft
From Node:	NRU2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2090	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2090OW	Cross Section:	RRU2090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU2110		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.20 ft	Invert:	8.95 ft
From Node:	NRU2110	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	204.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.02 ft	Invert:	18.01 ft
From Node:	NRU2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2110OW	Cross Section:	RRU2110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2130		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.73 ft	Invert:	9.20 ft
From Node:	NRU2130	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2110	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	442.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.54 ft	Invert:	18.53 ft

From Node:	NRU2130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2130OW	Cross Section:	RRU2130OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2150		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.48 ft	Invert:	9.75 ft
From Node:	NRU2150	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2130	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	367.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2150OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.45 ft	Invert:	18.44 ft
From Node:	NRU2150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2190	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2150OW	Cross Section:	RRU2150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2170		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.23 ft	Invert:	10.48 ft
From Node:	NRU2170	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	684.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2190			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU2190	Default:	0.00 ft
To Node:	NRU2170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.23 ft	Discharge Coefficients	
Control Elevation:	18.23 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RRU2190A			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU2190	Default:	0.00 ft
To Node:	NRU2170	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	15.96 ft
Control Elevation:	15.96 ft
Max Depth:	16.46 ft
Max Width:	2.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RRU2190OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.29 ft	Invert:	18.28 ft
From Node:	NRU2190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1830	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2190OW	Cross Section:	RRU2190OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2210		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.46 ft
From Node:	NRU2210	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2130	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	140.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2230			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU2230	Default:	0.00 ft
To Node:	NRU2210	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.73 ft	Discharge Coefficients	
Control Elevation:	18.73 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RRU2230A			
Scenario:	Alt3	Bottom Clip	
From Node:	NRU2230	Default:	0.00 ft
To Node:	NRU2210	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.63 ft	Discharge Coefficients	
Control Elevation:	16.63 ft	Weir Default:	3.200
Max Depth:	17.13 ft	Weir Table:	
Max Width:	3.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RRU2230OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.99 ft	Invert:	16.98 ft
From Node:	NRU2230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2410	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2230OW	Cross Section:	RRU2230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Weir Link: RRU2250

Scenario:	Alt3
From Node:	NRU2250
To Node:	NRU2530
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	18.53 ft
Control Elevation:	18.53 ft
Max Depth:	9999.00 ft
Max Width:	14.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RRU2250A

Scenario:	Alt3
From Node:	NRU2250
To Node:	NRU2230
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	45.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	1.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream

Invert:	14.13 ft
Manning's N:	0.0090

Geometry: Circular

Max Depth:	2.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream

Invert:	13.99 ft
Manning's N:	0.0090

Geometry: Circular

Max Depth:	2.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Comment:

Weir Link: RRU2250B

Scenario:	Alt3
From Node:	NRU2250
To Node:	NRU2530
Link Count:	1

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	16.63 ft
Control Elevation:	16.63 ft
Max Depth:	18.53 ft
Max Width:	1.90 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RRU2250OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.71 ft	Invert:	17.70 ft
From Node:	NRU2250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2250OW	Cross Section:	RRU2250OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2270		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.89 ft	Invert:	9.73 ft
From Node:	NRU2270	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2130	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	252.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.33 ft	Invert:	18.32 ft
From Node:	NRU2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2270OW	Cross Section:	RRU2270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU2290		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.27 ft	Invert:	9.89 ft
From Node:	NRU2290	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2270	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	233.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RRU2290OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.40 ft	Invert:	18.39 ft
From Node:	NRU2310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2290	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2290OW	Cross Section:	RRU2290OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2310		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.89 ft	Invert:	10.62 ft
From Node:	NRU2310	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2290	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	180.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2330		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.21 ft	Invert:	10.89 ft
From Node:	NRU2330	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	160.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.06 ft	Invert:	19.05 ft

From Node:	NRU2330	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2330OW	Cross Section:	RRU2330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2350		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.36 ft	Invert:	11.81 ft
From Node:	NRU2350	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2330	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	110.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2370		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.28 ft	Invert:	12.36 ft
From Node:	NRU2370	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2350	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	184.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RRU2390

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU2390	Default:	0.00 ft
To Node:	NRU2370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.53 ft	**Discharge Coefficients**	
Control Elevation:	18.53 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RRU2390A

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU2390	Default:	0.00 ft
To Node:	NRU2370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.48 ft	**Discharge Coefficients**	
Control Elevation:	15.48 ft	Weir Default:	3.200
Max Depth:	16.46 ft	Weir Table:	
Max Width:	1.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RRU2390OW		**Upstream**		**Downstream**	
Scenario:	Alt3	Invert:	19.27 ft	Invert:	19.26 ft
From Node:	NRU2390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2330	**Geometry: Irregular**		**Geometry: Irregular**	
Link Count:	1	Cross Section:	RRU2390OW	Cross Section:	RRU2390OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2410		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.48 ft	Invert:	10.96 ft
From Node:	NRU2410	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	261.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2430		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.03 ft	Invert:	11.48 ft
From Node:	NRU2430	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	275.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.61 ft	Invert:	17.60 ft
From Node:	NRU2430	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2430OW	Cross Section:	RRU2430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RRU2450		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.43 ft	Invert:	12.03 ft
From Node:	NRU2450	Manning's N:	0.0090	Manning's N:	0.0090
To Node:	NRU2430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	205.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RRU2450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.83 ft	Invert:	17.82 ft
From Node:	NRU2450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2450OW	Cross Section:	RRU2450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RRU2470		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.77 ft	Invert:	7.50 ft
From Node:	NRU2470	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1530	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	282.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2490		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.96 ft	Invert:	10.04 ft
From Node:	NRU2490	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU2470	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	400.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.29 ft	Invert:	17.28 ft

From Node:	NRU2490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2490OW	Cross Section:	RRU2490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2510		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.17 ft	Invert:	11.15 ft
From Node:	NRU2510	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU2490	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	290.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2530		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.06 ft	Invert:	13.17 ft
From Node:	NRU2530	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU2510	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2550		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.59 ft	Invert:	8.08 ft
From Node:	NRU2550	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NRU1510	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	517.06 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, DM Model

Pipe Link: RRU2570		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.87 ft	Invert:	9.09 ft
From Node:	NRU2570	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2550	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	550.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.26 ft	Invert:	17.25 ft
From Node:	NRU2570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2550	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	RRU2570OW	Cross Section:	RRU2570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2590		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.03 ft	Invert:	10.37 ft
From Node:	NRU2590	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2570	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	389.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2590OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.15 ft	Invert:	18.14 ft
From Node:	NRU2590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2590OW	Cross Section:	RRU2590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2610		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.40 ft	Invert:	11.03 ft
From Node:	NRU2610	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NRU2590	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	235.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2610OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	18.11 ft	Invert:	18.10 ft
From Node:	NRU2610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2570	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2610OW	Cross Section:	RRU2610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2630		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.23 ft	Invert:	11.90 ft
From Node:	NRU2630	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2610	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	307.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RRU2650		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.39 ft	Invert:	12.89 ft
From Node:	NRU2650	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NRU2630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	315.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2650OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	19.04 ft	Invert:	19.03 ft
From Node:	NRU2650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU2630	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2650OW	Cross Section:	RRU2650OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2670		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.59 ft	Invert:	8.52 ft
From Node:	NRU2670	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	535.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.41 ft	Invert:	16.40 ft
From Node:	NRU2670	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NRU1430	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RRU2670OW	Cross Section:	RRU2670OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RRU2690		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.69 ft	Invert:	9.59 ft
From Node:	NRU2690	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NRU2670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	550.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RRU2690OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.74 ft	Invert:	15.73 ft
From Node:	NRU2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0310	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RRU2690OW	Cross Section:	RRU2690OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSH04		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.89 ft	Invert:	10.71 ft
From Node:	NSH04	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	N05	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	1233.90 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH07		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.29 ft	Invert:	0.50 ft

From Node:	NSH07	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	163.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH08		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.75 ft	Invert:	0.50 ft
From Node:	NSH08	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.80 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH09		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.45 ft	Invert:	0.50 ft
From Node:	NSH09	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	161.80 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH21		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.78 ft	Invert:	4.89 ft
From Node:	NSH21	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NSH75	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	255.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans - Stormwater Map As-builts page 131

Pipe Link: RSH22		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.89 ft	Invert:	8.93 ft
From Node:	NSH22	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH26	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.17 ft	Max Depth:	1.17 ft
Flow Direction:	None	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	321.20 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH25		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.17 ft	Invert:	8.24 ft
From Node:	NSH25	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH26	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	193.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH26		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.24 ft	Invert:	7.36 ft
From Node:	NSH26	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH27A	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	291.10 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH27A		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.36 ft	Invert:	6.78 ft
From Node:	NSH27A	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH27B	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	194.40 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH27AA		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.74 ft	Invert:	9.74 ft
From Node:	NSH27AA	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NSH27A	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.83 ft	Max Depth:	1.83 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 10835

Pipe Link: RSH27B		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.78 ft	Invert:	3.74 ft
From Node:	NSH27B	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH27C	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	404.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RSH27C		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.74 ft	Invert:	2.39 ft
From Node:	NSH27C	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH36	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	197.60 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory, Field

Pipe Link: RSH29		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.51 ft	Invert:	0.50 ft
From Node:	NSH29	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	138.40 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSH34		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.05 ft	Invert:	0.50 ft
From Node:	NSH34	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	172.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH35		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.29 ft	Invert:	2.39 ft
From Node:	NSH35	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH36	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	63.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH36		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.39 ft	Invert:	0.50 ft
From Node:	NSH36	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	66.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH42		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.00 ft	Invert:	-3.94 ft
From Node:	NSH42	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	107.30 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH43		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.57 ft	Invert:	-1.00 ft
From Node:	NSH43	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH42	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.20 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH44		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.49 ft	Invert:	0.50 ft
From Node:	NSH44	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	SH_OUTFALL	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	159.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Inventory

Pipe Link: RSH54		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.15 ft	Invert:	11.89 ft

From Node:	NSH54	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH04	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	263.80 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans

Pipe Link: RSH57		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.14 ft	Invert:	13.10 ft
From Node:	NSH57	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH56	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	24.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 2417, Field

Pipe Link: RSH61		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.40 ft	Invert:	13.30 ft
From Node:	NSH50	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH61	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	8.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 31682

Pipe Link: RSH65		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.49 ft	Invert:	19.94 ft
From Node:	NSH65	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH50	Geometry: Circular		Geometry: Circular	
Link Count:	4	Max Depth:	0.33 ft	Max Depth:	0.33 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	19.83 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 28940

Pipe Link: RSH65B		Upstream		Downstream	
Scenario:	Alt3	Invert:	20.49 ft	Invert:	20.41 ft
From Node:	NSH65	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH50	Geometry: Circular		Geometry: Circular	
Link Count:	4	Max Depth:	0.33 ft	Max Depth:	0.33 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	16.17 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: Added per ERP 28940

Pipe Link: RSH75		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.42 ft	Invert:	-0.57 ft
From Node:	NSH75	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSH43	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	56.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: CityPlans - Stormwater Map As-builts page 131

Channel Link: RSR0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.52 ft	Invert:	-1.57 ft
From Node:	NSR0030	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0010	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0030	Cross Section:	RSR0030
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1200.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0032OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.06 ft	Invert:	4.05 ft
From Node:	NSR0032	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0032OW	Cross Section:	RSR0032OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0034OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.77 ft	Invert:	1.76 ft
From Node:	NSR0034	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0034OW	Cross Section:	RSR0034OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.47 ft	Invert:	-1.52 ft
From Node:	NSR0050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0030	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0050	Cross Section:	RSR0050
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1200.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0070		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.86 ft	Invert:	-0.97 ft
From Node:	NSR0070	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0050	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	35.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0090		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.37 ft	Invert:	-0.86 ft
From Node:	NSR0090	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0070	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	384.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0090A		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.50 ft	Invert:	0.40 ft
From Node:	NBW0090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0090OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.06 ft	Invert:	3.05 ft
From Node:	NSR0090	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0034	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0090OW	Cross Section:	RSR0090OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0100		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.00 ft	Invert:	0.50 ft
From Node:	NSR0100	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0005	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	95.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Weir Link: RSR0100OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0100	Default:	0.00 ft
To Node:	NSR0005	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.60 ft	Discharge Coefficients	
Control Elevation:	5.60 ft	Weir Default:	2.400

Max Depth:	9999.00 ft		
Max Width:	10.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0102OW

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0102	Default:	0.00 ft
To Node:	NSR0100	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.50 ft	**Discharge Coefficients**	
Control Elevation:	5.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0102OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0102	Default:	0.00 ft
To Node:	NSR0105	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.70 ft	**Discharge Coefficients**	
Control Elevation:	4.70 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0105		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.40 ft	Invert:	-0.01 ft
From Node:	NSR0105	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0000	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	146.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0110		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.37 ft	Invert:	-1.87 ft
From Node:	NSR0110	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	256.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.84 ft	Invert:	3.83 ft
From Node:	NSR0110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0050	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0110OW	Cross Section:	RSR0110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0112		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.06 ft	Invert:	2.97 ft
From Node:	NSR0112	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0102	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	25.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0112OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0112	Default:	0.00 ft
To Node:	NSR0102	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.60 ft	Discharge Coefficients	
Control Elevation:	4.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0112OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.10 ft	Invert:	3.60 ft
From Node:	NSR0112	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0105	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				

Length:	117.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0115		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.80 ft	Invert:	1.60 ft
From Node:	NSR0115	Manning's N:	0.0100	Manning's N:	0.0100
To Node:	NSR0102	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0115OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0115	Default:	0.00 ft
To Node:	NSR0102	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.75 ft	Discharge Coefficients	
Control Elevation:	4.75 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	25.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0120			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0120	Default:	0.00 ft
To Node:	NSR0112	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.20 ft	Discharge Coefficients	
Control Elevation:	4.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	120.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0120OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.20 ft	Invert:	3.90 ft
From Node:	NSR0120	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0115	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	170.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0130		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.86 ft	Invert:	-1.37 ft
From Node:	NSR0130	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	365.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0130OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.70 ft	Invert:	4.00 ft
From Node:	NSR0130	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0110	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	362.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0135		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.50 ft	Invert:	0.24 ft
From Node:	NSR0135	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0130	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0135OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.00 ft	Invert:	4.60 ft
From Node:	NSR0135	Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NSR0130
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	316.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Geometry: Irregular		Geometry: Irregular	
Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF

Comment:

Channel Link: RSR0135OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.50 ft	Invert:	4.20 ft
From Node:	NSR0135	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0100	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	323.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0135OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0135	Default:	0.00 ft
To Node:	NSR0115	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.60 ft	Discharge Coefficients	
Control Elevation:	5.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	25.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0140OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.20 ft	Invert:	4.70 ft
From Node:	NSR0140	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0135	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	298.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0140OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.20 ft	Invert:	4.20 ft
From Node:	NSR0140	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0120	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	214.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0150		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.11 ft	Invert:	-3.77 ft
From Node:	NSR0150	Manning's N:	0.0260	Manning's N:	0.0260
To Node:	NSR0050	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft

Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	150.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0150A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-3.20 ft	Invert:	-3.80 ft
From Node:	NSR0150	Manning's N:	0.0260	Manning's N:	0.0260
To Node:	NSR0050	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	10.00 ft	Max Width:	10.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	150.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0160OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0160	Default:	0.00 ft
To Node:	NSR0140	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.40 ft	Discharge Coefficients	
Control Elevation:	5.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	164.00 ft	Orifice Default:	0.600

Fillet: 0.00 ft

Orifice Table:

Comment:

Channel Link: RSR0160OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.20 ft	Invert:	4.70 ft
From Node:	NSR0160	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0165	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	304.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0160OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.00 ft	Invert:	4.10 ft
From Node:	NSR0550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0160	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0160OWD			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0160	Default:	0.00 ft
To Node:	NSR0140	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.60 ft
Control Elevation:	5.60 ft
Max Depth:	9999.00 ft
Max Width:	300.00 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0165

Scenario:	Alt3
From Node:	NSR0165
To Node:	NSR0170
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	380.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	0.75 ft	Invert:	-0.01 ft
Manning's N:	0.0130	Manning's N:	0.0130
Geometry: Circular		**Geometry: Circular**	
Max Depth:	1.25 ft	Max Depth:	1.25 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0165OW

Scenario:	Alt3
From Node:	NSR0165
To Node:	NSR0135
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.30 ft
Control Elevation:	5.30 ft
Max Depth:	9999.00 ft
Max Width:	130.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR0165OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.00 ft	Invert:	4.10 ft
From Node:	NSR0165	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0170	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_25FT_HALF	Cross Section:	LOCAL_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	504.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSR0165OWC			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0165	Default:	0.00 ft
To Node:	NSR0135	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.60 ft	Discharge Coefficients	
Control Elevation:	5.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0170		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.87 ft	Invert:	-1.97 ft
From Node:	NSR0170	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0150	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	38.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0170OWA

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.10 ft	**Discharge Coefficients**	
Control Elevation:	5.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0170OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0130	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	**Discharge Coefficients**	
Control Elevation:	5.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	125.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0170OWC

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0170	Default:	0.00 ft
To Node:	NSR0050	Op Table:	
Link Count:	1	Ref Node:	

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.00 ft
Control Elevation:	5.00 ft
Max Depth:	9999.00 ft
Max Width:	150.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0170OWD

Scenario:	Alt3
From Node:	NSR0170
To Node:	NSR0050
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.30 ft
Control Elevation:	5.30 ft
Max Depth:	9999.00 ft
Max Width:	100.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0180

Scenario:	Alt3
From Node:	NSR0180
To Node:	NBW1090
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	30.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	1.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream	
Invert:	0.50 ft
Manning's N:	0.0130
Geometry: Circular	
Max Depth:	1.50 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Downstream	
Invert:	-0.70 ft
Manning's N:	0.0130
Geometry: Circular	
Max Depth:	1.50 ft
Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Manning's N:	0.0000

Comment:

Weir Link: RSR0180OW

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW1090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.60 ft	**Discharge Coefficients**	
Control Elevation:	4.60 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0180OWA

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.10 ft	**Discharge Coefficients**	
Control Elevation:	5.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	300.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0180OWC

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.50 ft	**Discharge Coefficients**	
Control Elevation:	5.50 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	300.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0180OWD			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NSR0160	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.40 ft	Discharge Coefficients	
Control Elevation:	5.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	36.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0190		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.32 ft	Invert:	-1.48 ft
From Node:	NSR0190	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	42.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0190OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.98 ft	Invert:	3.97 ft
From Node:	NSR0190	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0890	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0190OW	Cross Section:	RSR0190OW

Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0210		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.03 ft	Invert:	-1.32 ft
From Node:	NSR0210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0190	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	50.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0230		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.58 ft	Invert:	-1.03 ft
From Node:	NSR0230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0210	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	118.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0230OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.46 ft	Invert:	3.45 ft
From Node:	NSR0230	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0210	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0230OW	Cross Section:	RSR0230OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RSR0250		Upstream		Downstream	
Scenario:	Alt3	Invert:	-2.40 ft	Invert:	-3.20 ft
From Node:	NSR0250	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0150	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0250	Cross Section:	RSR0250
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	600.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RSR0270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.80 ft	Invert:	2.79 ft
From Node:	NSR0270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0270OW	Cross Section:	RSR0270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0280OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.50 ft	Invert:	3.90 ft
From Node:	NSR0280	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	266.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0280OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.30 ft	Invert:	4.50 ft
From Node:	NSR0280	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	417.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0280OWB		
Scenario:	Alt3	Bottom Clip

From Node:	NSR0280
To Node:	NSR0560
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.50 ft
Control Elevation:	6.50 ft
Max Depth:	9999.00 ft
Max Width:	25.00 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0280OWC

Scenario:	Alt3
From Node:	NSR0280
To Node:	NSR0540
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.70 ft
Control Elevation:	5.70 ft
Max Depth:	9999.00 ft
Max Width:	180.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0280OWD

Scenario:	Alt3
From Node:	NSR0280
To Node:	NSR0540
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.00 ft
Control Elevation:	6.00 ft
Max Depth:	9999.00 ft
Max Width:	270.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR0281OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.00 ft	Invert:	5.50 ft
From Node:	NSR0281	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0280	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	385.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0290		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.13 ft	Invert:	-1.32 ft
From Node:	NSR0290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0490	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	670.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0290OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.23 ft	Invert:	6.22 ft
From Node:	NSR0290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0290OW	Cross Section:	RSR0290OW
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0290OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.70 ft	Invert:	3.50 ft
From Node:	NSR0290	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	645.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0310		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.97 ft	Invert:	0.63 ft
From Node:	NSR0310	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0290	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	650.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0310OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.00 ft	Invert:	6.60 ft
From Node:	NSR0310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0290	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	458.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Channel Link: RSR0310OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.00 ft	Invert:	9.40 ft
From Node:	NSR0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0310	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	666.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0330		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.52 ft	Invert:	3.98 ft
From Node:	NSR0330	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	32.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0350		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.23 ft	Invert:	4.52 ft
From Node:	NSR0350	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	17.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0370			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0370	Default:	0.00 ft
To Node:	NSR0350	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.83 ft	Discharge Coefficients	
Control Elevation:	9.83 ft	Weir Default:	3.200
Max Depth:	833.25 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0370A			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0370	Default:	0.00 ft

To Node:	NSR0350
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	9.45 ft
Control Elevation:	9.45 ft
Max Depth:	0.38 ft
Max Width:	0.25 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0390		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.48 ft	Invert:	3.47 ft
From Node:	NSR0390	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0310	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	664.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0390OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.10 ft	Invert:	10.00 ft
From Node:	NSR0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0790	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	628.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Channel Link: RSR0390OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.00 ft	Invert:	8.80 ft
From Node:	NSR0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0310	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	606.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0390OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.60 ft	Invert:	6.00 ft
From Node:	NSR0390	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0281	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	620.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0410		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.06 ft	Invert:	6.72 ft
From Node:	NSR0410	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0390	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft

		Bottom Clip			
Flow Direction:	Both				
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0430

		Bottom Clip	
Scenario:	Alt3		
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0410	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.83 ft	Discharge Coefficients	
Control Elevation:	11.83 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0430A

		Bottom Clip	
Scenario:	Alt3		
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0410	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.53 ft	Discharge Coefficients	
Control Elevation:	11.53 ft	Weir Default:	3.200
Max Depth:	0.25 ft	Weir Table:	
Max Width:	0.25 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0430OWD			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0370	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.14 ft	Discharge Coefficients	
Control Elevation:	13.14 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0450		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.24 ft	Invert:	5.55 ft
From Node:	NSR0450	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0390	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	632.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.80 ft	Invert:	11.60 ft
From Node:	NSR0450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0390	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	628.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0470		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.83 ft	Invert:	8.24 ft
From Node:	NSR0470	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0450	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	40.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0470OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0470	Default:	0.00 ft
To Node:	NSR0390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	14.30 ft	Discharge Coefficients	
Control Elevation:	14.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	68.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0490		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.33 ft	Invert:	-2.40 ft
From Node:	NSR0490	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR0890	Geometry: Rectangular		Geometry: Rectangular	

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	200.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.82 ft	Invert:	3.81 ft
From Node:	NSR0490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0490OW	Cross Section:	RSR0490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0510		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.45 ft	Invert:	-1.54 ft
From Node:	NSR0510	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR0490	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	339.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			

Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0510OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0510	Default:	0.00 ft
To Node:	NSR0490	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.20 ft	**Discharge Coefficients**	
Control Elevation:	4.20 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0530

		Upstream		**Downstream**	
Scenario:	Alt3	Invert:	-0.27 ft	Invert:	-0.37 ft
From Node:	NSR0530	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0510	**Geometry: Circular**		**Geometry: Circular**	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	**Bottom Clip**			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	47.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	**Top Clip**			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0530OW

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0530	Default:	0.00 ft

To Node:	NSR0510		
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	5.10 ft	Ref Node:	
Control Elevation:	5.10 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	20.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0530OWB

Scenario:	Alt3	Bottom Clip	
From Node:	NSR0530	Default:	0.00 ft
To Node:	NSR0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.30 ft	Discharge Coefficients	
Control Elevation:	5.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0530OWC

Scenario:	Alt3	Bottom Clip	
From Node:	NSR0530	Default:	0.00 ft
To Node:	NSR0170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	Discharge Coefficients	
Control Elevation:	5.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	30.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0540		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.38 ft	Invert:	-1.45 ft
From Node:	NSR0540	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0510	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	230.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0540OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0510	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.50 ft	Discharge Coefficients	
Control Elevation:	4.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	15.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0540OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.00 ft	Discharge Coefficients	

Control Elevation:	5.00 ft		
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	20.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0540OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.40 ft	**Discharge Coefficients**	
Control Elevation:	5.40 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	60.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0540OWC

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0540	Default:	0.00 ft
To Node:	NSR0530	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	**Discharge Coefficients**	
Control Elevation:	5.20 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0540OWD

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0540	Default:	0.00 ft

To Node:	NSR0165
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.90 ft
Control Elevation:	5.90 ft
Max Depth:	9999.00 ft
Max Width:	70.00 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0550

Scenario:	Alt3
From Node:	NSR0550
To Node:	NSR0540
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	60.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	-1.29 ft	Invert:	-1.38 ft
Manning's N:	0.0130	Manning's N:	0.0130
Geometry: Rectangular		**Geometry: Rectangular**	
Max Depth:	3.50 ft	Max Depth:	3.50 ft
Max Width:	6.00 ft	Max Width:	6.00 ft
Fillet:	0.00 ft	Fillet:	0.00 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0550OW

Scenario:	Alt3
From Node:	NSR0550
To Node:	NSR0540
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	4.20 ft
Control Elevation:	4.20 ft
Max Depth:	9999.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	

Max Width:	70.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0550OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0550	Default:	0.00 ft
To Node:	NSR0165	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.20 ft	**Discharge Coefficients**	
Control Elevation:	5.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	115.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0560		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.06 ft	Invert:	-1.29 ft
From Node:	NSR0560	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0550	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	150.00 ft	**Bottom Clip**			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	**Top Clip**			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0560OW

Scenario:	Alt3	**Bottom Clip**	

From Node:	NSR0560		
To Node:	NSR0550	Default:	0.00 ft
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	4.20 ft	Ref Node:	
Control Elevation:	4.20 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	2.600
Max Width:	65.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0560OWB

Scenario:	Alt3	Bottom Clip	
From Node:	NSR0560	Default:	0.00 ft
To Node:	NSR0550	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	4.50 ft	Discharge Coefficients	
Control Elevation:	4.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	70.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0560OWC

Scenario:	Alt3	Bottom Clip	
From Node:	NSR0560	Default:	0.00 ft
To Node:	NSR0160	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.80 ft	Discharge Coefficients	
Control Elevation:	5.80 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	75.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0570		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.80 ft	Invert:	-1.06 ft
From Node:	NSR0570	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0560	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	480.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.00 ft	Invert:	3.90 ft
From Node:	NSR0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0560	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	328.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0570OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.40 ft	Invert:	4.90 ft
From Node:	NSR0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0180	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	131.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0570OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0180	Default:	0.00 ft
To Node:	NBW0050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.30 ft	**Discharge Coefficients**	
Control Elevation:	5.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	300.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0570OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.40 ft	Invert:	5.50 ft
From Node:	NSR0570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0610	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	562.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0580		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.86 ft	Invert:	0.28 ft
From Node:	NSR0580	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	290.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0580OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0580	Default:	0.00 ft
To Node:	NSR0650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.40 ft	Discharge Coefficients	
Control Elevation:	7.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR0580OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.80 ft	Invert:	4.70 ft
From Node:	NSR0580	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1190	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	220.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				

Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Weir Link: RSR0580OWC

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0580	Default:	0.00 ft
To Node:	NSR0610	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.70 ft	**Discharge Coefficients**	
Control Elevation:	7.70 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0590

		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.70 ft	Invert:	-0.80 ft
From Node:	NSR0590	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0570	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	631.00 ft	**Bottom Clip**			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	**Top Clip**			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0590AOW

Scenario:	Alt3	**Bottom Clip**	

From Node:	NSR0590		
To Node:	NSR0570	Default:	0.00 ft
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	**Top Clip**	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	7.00 ft	Ref Node:	
Control Elevation:	7.00 ft	**Discharge Coefficients**	
Max Depth:	9999.00 ft	Weir Default:	2.400
Max Width:	20.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR0590OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR0590	Default:	0.00 ft
To Node:	NSR0560	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.80 ft	**Discharge Coefficients**	
Control Elevation:	6.80 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0610

		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.40 ft	Invert:	-0.70 ft
From Node:	NSR0610	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0590	**Geometry: Circular**		**Geometry: Circular**	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	**Bottom Clip**			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	153.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	**Top Clip**			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Weir Link: RSR0610OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0610	Default:	0.00 ft
To Node:	NSR0590	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.70 ft	Discharge Coefficients	
Control Elevation:	6.70 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0610OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0610	Default:	0.00 ft
To Node:	NSR0730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.00 ft	Discharge Coefficients	
Control Elevation:	6.00 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	60.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0630		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.29 ft	Invert:	-0.40 ft
From Node:	NSR0630	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0610	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	52.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0650		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.28 ft	Invert:	-0.29 ft
From Node:	NSR0650	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0630	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0650OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.80 ft	Invert:	5.50 ft
From Node:	NSR0650	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	183.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0650OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0650	Default:	0.00 ft
To Node:	NBW1190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.00 ft	Discharge Coefficients	
Control Elevation:	6.00 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RSR0650OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0650	Default:	0.00 ft
To Node:	NSR0660	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.30 ft	Discharge Coefficients	
Control Elevation:	6.30 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	40.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0660		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.10 ft	Invert:	0.00 ft
From Node:	NSR0660	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1169	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	150.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0660OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.70 ft	Invert:	4.70 ft
From Node:	NSR0660	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW1190	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	268.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR0660OWB		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NSR0660	Op Table:	
To Node:	NBW1169	Ref Node:	
Link Count:	1	Top Clip	
Flow Direction:	Both	Default:	0.00 ft
Damping:	0.0000 ft	Op Table:	
Weir Type:	Broad Crested Vertical	Ref Node:	
Geometry Type:	Rectangular	Discharge Coefficients	
Invert:	6.50 ft	Weir Default:	2.400
Control Elevation:	6.50 ft	Weir Table:	
Max Depth:	9999.00 ft	Orifice Default:	0.600
Max Width:	10.00 ft	Orifice Table:	
Fillet:	0.00 ft		

Comment:

Weir Link: RSR0660OWC		Bottom Clip	
Scenario:	Alt3	Default:	0.00 ft
From Node:	NSR0660	Op Table:	
To Node:	NSR0680	Ref Node:	
Link Count:	1		

Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.00 ft
Control Elevation:	6.00 ft
Max Depth:	9999.00 ft
Max Width:	80.00 ft
Fillet:	0.00 ft

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0670		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.35 ft	Invert:	0.28 ft
From Node:	NSR0670	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0650	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	34.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0680		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.72 ft	Invert:	0.72 ft
From Node:	NSR0680	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0710	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	500.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0680OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.10 ft	Invert:	4.20 ft
From Node:	NSR0680	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0570	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	575.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSR0680OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0680	Default:	0.00 ft
To Node:	NSR0650	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.50 ft	Discharge Coefficients	
Control Elevation:	6.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	60.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Pipe Link: RSR0690		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.50 ft	Invert:	0.35 ft
From Node:	NSR0690	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0670	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	75.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft

Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0710		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.72 ft	Invert:	0.50 ft
From Node:	NSR0710	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0690	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	112.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0730		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.57 ft	Invert:	-0.70 ft
From Node:	NSR0730	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0590	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	361.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0730OW

Scenario:	Alt3
From Node:	NSR0730
To Node:	NSR0590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	5.80 ft
Control Elevation:	5.80 ft
Max Depth:	9999.00 ft
Max Width:	25.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0730OWA

Scenario:	Alt3
From Node:	NSR0730
To Node:	NSR0281
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.50 ft
Control Elevation:	6.50 ft
Max Depth:	9999.00 ft
Max Width:	30.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR0730OWB

Scenario:	Alt3
From Node:	NSR0730
To Node:	NSR0590
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	6.00 ft
Control Elevation:	6.00 ft
Max Depth:	9999.00 ft
Max Width:	40.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600

Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0770		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.26 ft	Invert:	-0.57 ft
From Node:	NSR0770	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	305.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR0770OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0770	Default:	0.00 ft
To Node:	NSR0730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	7.50 ft	Discharge Coefficients	
Control Elevation:	7.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR0770OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0770	Default:	0.00 ft

To Node:	NSR0610
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	7.20 ft
Control Elevation:	7.20 ft
Max Depth:	9999.00 ft
Max Width:	20.00 ft
Fillet:	0.00 ft

Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR0780A		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.65 ft	Invert:	2.50 ft
From Node:	NSR0780	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	190.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0780OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.40 ft	Invert:	5.40 ft
From Node:	NSR0780	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0610	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	698.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Weir Link: RSR0780OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0780	Default:	0.00 ft
To Node:	NSR0770	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	8.30 ft	Discharge Coefficients	
Control Elevation:	8.30 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR0790		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.01 ft	Invert:	1.26 ft
From Node:	NSR0790	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0770	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	400.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0790OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.40 ft	Invert:	6.40 ft
From Node:	NSR0790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0770	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	322.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0790OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.00 ft	Invert:	6.00 ft
From Node:	NSR0790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0730	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	630.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0809.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.46 ft	Invert:	2.35 ft
From Node:	NSR0809	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0790	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.58 ft	Max Depth:	3.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	600.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0810B		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.70 ft	Invert:	8.65 ft
From Node:	NSR0810	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0809	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	20.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0810OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.00 ft	Invert:	9.40 ft
From Node:	NSR0810	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	647.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0830B		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.41 ft	Invert:	8.05 ft
From Node:	NSR0830	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0810	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	610.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0830OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.10 ft	Invert:	13.70 ft
From Node:	NSR0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0450	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	408.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0830OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.80 ft	Invert:	14.20 ft
From Node:	NSR0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_HALF	Cross Section:	LOCAL_20FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	650.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR083OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.70 ft	Invert:	13.00 ft
From Node:	NSR0830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0810	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	636.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR0840		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.86 ft	Invert:	10.69 ft
From Node:	NSR0840	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0850	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	584.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Channel Link: RSR0840OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.80 ft	Invert:	15.20 ft
From Node:	NSR0840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	384.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0840OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.10 ft	Invert:	14.60 ft
From Node:	NSR0840	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	332.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0850B		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.69 ft	Invert:	9.41 ft
From Node:	NSR0850	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0830	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	640.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0850OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.20 ft	Invert:	14.30 ft

From Node:	NSR0850	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0830	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	643.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0860		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.84 ft	Invert:	12.29 ft
From Node:	NSR0860	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2380	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	280.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0860OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.30 ft	Invert:	15.30 ft
From Node:	NSR0860	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2380	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	160.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR0860OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.40 ft	Invert:	15.20 ft
From Node:	NSR0860	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	272.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0869		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.39 ft	Invert:	10.69 ft
From Node:	NSR0869	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0850	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	425.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0870B.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.74 ft	Invert:	11.50 ft
From Node:	NSR0870	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0869	Geometry:	Rectangular	Geometry:	Rectangular

Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	3.50 ft	Max Width:	3.50 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	186.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0870OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.90 ft	Invert:	15.20 ft
From Node:	NSR0870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0850	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	500.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0870OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.40 ft	Invert:	15.50 ft
From Node:	NSR0870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0840	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	333.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0880		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.97 ft	Invert:	11.74 ft
From Node:	NSR0880	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0870	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	115.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0880OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.40 ft	Invert:	15.20 ft
From Node:	NSR0880	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0870	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	120.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0881OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.50 ft	Invert:	17.00 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2410	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	LOCAL_30FT_FULL	Cross Section:	LOCAL_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	616.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0881OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.00 ft	Invert:	15.70 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0880	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	828.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0881OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.00 ft	Invert:	15.90 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2380	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	1217.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0890		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.33 ft	Invert:	-2.40 ft
From Node:	NSR0890	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR0250	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	2	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0890OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.79 ft	Invert:	2.78 ft
From Node:	NSR0890	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0890OW	Cross Section:	RSR0890OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR0910		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.27 ft	Invert:	-2.40 ft
From Node:	NSR0910	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0890	Geometry:	Rectangular	Geometry:	Rectangular

Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0910A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-1.27 ft	Invert:	-2.40 ft
From Node:	NSR0910	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0890	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0910OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.57 ft	Invert:	4.56 ft
From Node:	NSR0910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0230	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR0910OW	Cross Section:	RSR0910OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0930		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.02 ft	Invert:	0.92 ft
From Node:	NSR0930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR0910	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	45.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0950		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.55 ft	Invert:	-1.27 ft
From Node:	NSR0950	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0910	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	700.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0950A		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.55 ft	Invert:	-1.27 ft
From Node:	NSR0950	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0910	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	700.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR0950AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.21 ft	Invert:	5.20 ft
From Node:	NSR0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0930	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0950AOW	Cross Section:	RSR0950AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR0950OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.16 ft	Invert:	5.15 ft
From Node:	NSR0950	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0990	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR0950OW	Cross Section:	RSR0950OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				

Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR0970		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.46 ft	Invert:	-0.55 ft
From Node:	NSR0970	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0950	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0970A		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.46 ft	Invert:	-0.55 ft
From Node:	NSR0970	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR0950	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	500.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR0990		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.58 ft	Invert:	0.46 ft
From Node:	NSR0990	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR0970	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	2	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1010OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1010	Default:	0.00 ft
To Node:	NSR0990	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	5.50 ft	Discharge Coefficients	
Control Elevation:	5.50 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR1030		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.26 ft	Invert:	0.58 ft
From Node:	NSR1030	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NSR0990	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	4.00 ft	Bottom Width:	4.00 ft
Length:	616.00 ft	Left Slope:	0.520 (h:v)	Left Slope:	0.520 (h:v)
Contraction Coef:	0.00	Right Slope:	0.570 (h:v)	Right Slope:	0.570 (h:v)
Expansion Coef:	0.00	Bottom Clip			

Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1050OW

Scenario:	Alt3	Bottom Clip	
From Node:	NSR1050	Default:	0.00 ft
To Node:	NSR1030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.20 ft	Discharge Coefficients	
Control Elevation:	6.20 ft	Weir Default:	2.400
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR1070

		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.76 ft	Invert:	4.37 ft
From Node:	NSR1070	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1030	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	70.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1070OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.60 ft	Invert:	6.50 ft
From Node:	NSR1070	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	660.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSR1070OWB			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1070	Default:	0.00 ft
To Node:	NSR1010	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.10 ft	Discharge Coefficients	
Control Elevation:	9.10 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	35.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Weir Link: RSR1070OWC			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1070	Default:	0.00 ft
To Node:	NSR1050	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	9.40 ft	Discharge Coefficients	
Control Elevation:	9.40 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	176.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RSR1090		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.71 ft	Invert:	4.76 ft
From Node:	NSR1090	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1070	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	205.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1090OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1090	Default:	0.00 ft
To Node:	NSR1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.20 ft	Discharge Coefficients	
Control Elevation:	11.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	100.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1110OW			
Scenario:	Alt3	Bottom Clip	

From Node:	NSR1110		
To Node:	NSR1090	Default:	0.00 ft
Link Count:	1	Op Table:	
Flow Direction:	Both	Ref Node:	
Damping:	0.0000 ft	Top Clip	
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	11.50 ft	Ref Node:	
Control Elevation:	11.50 ft	Discharge Coefficients	
Max Depth:	9999.00 ft	Weir Default:	2.400
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: RSR1130OW

Scenario:	Alt3	Bottom Clip	
From Node:	NSR1130	Default:	0.00 ft
To Node:	NSR1090	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	10.48 ft	Discharge Coefficients	
Control Elevation:	10.48 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1130OWA

Scenario:	Alt3	Bottom Clip	
From Node:	NSR1130	Default:	0.00 ft
To Node:	NSR1070	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	11.20 ft	Discharge Coefficients	
Control Elevation:	11.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1150			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1150	Default:	0.00 ft
To Node:	NSR1170	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	10.63 ft	Discharge Coefficients	
Control Elevation:	10.63 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR1150OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.31 ft	Invert:	11.30 ft
From Node:	NSR1150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1130	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1150OW	Cross Section:	RSR1150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1170		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.13 ft	Invert:	7.63 ft
From Node:	NSR1170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft

Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1190		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.80 ft	Invert:	5.87 ft
From Node:	NSR1190	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NSR1090	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	4.00 ft	Bottom Width:	4.00 ft
Length:	436.00 ft	Left Slope:	0.540 (h:v)	Left Slope:	0.540 (h:v)
Contraction Coef:	0.00	Right Slope:	0.550 (h:v)	Right Slope:	0.550 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: From Dale Mabry model

Pipe Link: RSR1210		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.68 ft	Invert:	8.58 ft
From Node:	NSR1210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Weir Link: RSR1210OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1210	Default:	0.00 ft
To Node:	NSR1190	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.30 ft	Discharge Coefficients	
Control Elevation:	12.30 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	45.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR1230		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.10 ft	Invert:	8.80 ft
From Node:	NSR1230	Manning's N:	0.0350	Manning's N:	0.0350
To Node:	NSR1190	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	10.00 ft	Max Depth:	10.00 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	4.00 ft	Bottom Width:	4.00 ft
Length:	660.00 ft	Left Slope:	0.520 (h:v)	Left Slope:	0.520 (h:v)
Contraction Coef:	0.00	Right Slope:	0.570 (h:v)	Right Slope:	0.570 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment: From Dale Mabry model

Channel Link: RSR1270		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.65 ft	Invert:	9.10 ft

From Node:	NSR1270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1230	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1270	Cross Section:	RSR1270
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	467.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment: From Dale Mabry model

Weir Link: RSR1290OW

Scenario:	Alt3	Bottom Clip	
From Node:	NSR1290	Default:	0.00 ft
To Node:	NSR1270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.00 ft	Discharge Coefficients	
Control Elevation:	13.00 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR1310OW

Scenario:	Alt3	Bottom Clip	
From Node:	NSR1310	Default:	0.00 ft
To Node:	NSR1270	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.00 ft	Discharge Coefficients	
Control Elevation:	13.00 ft	Weir Default:	2.600
Max Depth:	833.25 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR1330		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.06 ft	Invert:	9.98 ft
From Node:	NSR1330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1270	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Max Width:	5.50 ft	Max Width:	5.50 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	55.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1350		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.33 ft	Invert:	11.23 ft
From Node:	NSR1350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1330	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	38.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR1350OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1350	Default:	0.00 ft
To Node:	NSR1330	Op Table:	

Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	14.60 ft
Control Elevation:	14.60 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR1370

Scenario:	Alt3
From Node:	NSR1370
To Node:	NSR1330
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	640.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream	
Invert:	10.11 ft
Manning's N:	0.0000
Geometry:	Irregular
Cross Section:	RSR1370

Downstream	
Invert:	9.98 ft
Manning's N:	0.0000
Geometry:	Irregular
Cross Section:	RSR1370

Comment: From Dale Mabry model

Weir Link: RSR1390OW

Scenario:	Alt3
From Node:	NSR1390
To Node:	NSR1370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	14.50 ft
Control Elevation:	14.50 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR1410		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.13 ft	Invert:	11.23 ft
From Node:	NSR1410	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1370	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	303.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1410OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.87 ft	Invert:	11.86 ft
From Node:	NSR1410	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1410OW	Cross Section:	RSR1410OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1430		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.49 ft	Invert:	11.23 ft
From Node:	NSR1430	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1410	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	619.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1430OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.88 ft	Invert:	14.87 ft
From Node:	NSR1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1430OW	Cross Section:	RSR1430OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1450		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.63 ft	Invert:	12.49 ft
From Node:	NSR1450	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	380.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1450OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.82 ft	Invert:	14.81 ft

From Node:	NSR1450	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1590	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1450OW	Cross Section:	RSR1450OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1460		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.97 ft	Invert:	8.84 ft
From Node:	NBW1460	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW1430	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	442.00 ft		Bottom Clip		
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1470		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.16 ft	Invert:	12.40 ft
From Node:	NSR1470	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1430	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	350.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1470OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.13 ft	Invert:	15.12 ft
From Node:	NSR1470	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1430	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1470OW	Cross Section:	RSR1470OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1490		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.15 ft	Invert:	12.97 ft
From Node:	NSR1490	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1470	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1490OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.64 ft	Invert:	15.63 ft

From Node:	NSR1490	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1470	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1490OW	Cross Section:	RSR1490OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1510		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.95 ft	Invert:	10.43 ft
From Node:	NSR1510	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	NSR1490	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both		Bottom Clip		
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	258.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00		Top Clip		
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1510OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.95 ft	Invert:	14.94 ft
From Node:	NSR1510	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1490	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1510OW	Cross Section:	RSR1510OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR1530OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.58 ft	Invert:	12.57 ft
From Node:	NSR1530	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1530OW	Cross Section:	RSR1530OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1550		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.81 ft	Invert:	10.11 ft
From Node:	NSR1550	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1370	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1550	Cross Section:	RSR1550
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	694.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment: From Dale Mabry model

Channel Link: RSR1570OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.84 ft	Invert:	12.83 ft
From Node:	NSR1570	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1550	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RSR1570OW	Cross Section:	RSR1570OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1590OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.38 ft	Invert:	12.37 ft
From Node:	NSR1590	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1590OW	Cross Section:	RSR1590OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1610		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.18 ft	Invert:	10.63 ft
From Node:	NSR1610	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1550	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1610OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.76 ft	Invert:	11.75 ft
From Node:	NSR1610	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1630	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1610OW	Cross Section:	RSR1610OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1630		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.43 ft	Invert:	10.81 ft
From Node:	NSR1630	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1550	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1630	Cross Section:	RSR1630
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	606.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment: From Dale Mabry model

Weir Link: RSR1650OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1650	Default:	0.00 ft
To Node:	NSR1630	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	17.00 ft	Ref Node:	
Control Elevation:	17.00 ft	**Discharge Coefficients**	
Max Depth:	9999.00 ft	Weir Default:	2.400
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RSR1670		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.13 ft	Invert:	12.63 ft
From Node:	NSR1670	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR1630	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	1.41 ft	Max Depth:	1.41 ft
Flow Direction:	Both	Max Width:	1.83 ft	Max Width:	1.83 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	30.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.20	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1690		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	11.51 ft
From Node:	NSR1690	Manning's N:	0.0230	Manning's N:	0.0230
To Node:	NSR1630	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	100.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: RSR1710		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.78 ft	Invert:	12.28 ft
From Node:	NSR1710	Manning's N:	0.0240	Manning's N:	0.0240
To Node:	NSR1690	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	30.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1710OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.05 ft	Invert:	16.04 ft
From Node:	NSR1710	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1690	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1710OW	Cross Section:	RSR1710OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1730		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.58 ft	Invert:	10.82 ft
From Node:	NSR1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1690	Geometry:	Irregular	Geometry:	Irregular

Link Count:	1	Cross Section:	RSR1730	Cross Section:	RSR1730
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	600.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment: From Dale Mabry model

Channel Link: RSR1730OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.43 ft	Invert:	16.42 ft
From Node:	NSR1730	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1950	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1730OW	Cross Section:	RSR1730OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR1750OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR1750	Default:	0.00 ft
To Node:	NSR1730	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.60 ft	Discharge Coefficients	
Control Elevation:	16.60 ft	Weir Default:	2.400
Max Depth:	833.25 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Pipe Link: RSR1770		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	11.36 ft
From Node:	NSR1770	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1730	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	346.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1770OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.35 ft	Invert:	16.34 ft
From Node:	NSR1790	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1770	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1770OW	Cross Section:	RSR1770OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1790		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.82 ft	Invert:	11.63 ft
From Node:	NSR1790	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1770	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	341.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1810		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.02 ft	Invert:	11.82 ft
From Node:	NSR1810	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1790	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	325.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1810OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.76 ft	Invert:	16.75 ft
From Node:	NSR1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1810	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1810OW	Cross Section:	RSR1810OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1830		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.22 ft	Invert:	12.02 ft

From Node:	NSR1830	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1810	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	326.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1830AOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.11 ft	Invert:	17.10 ft
From Node:	NSR1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1670	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1830AOW	Cross Section:	RSR1830AOW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1830OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.72 ft	Invert:	16.71 ft
From Node:	NSR1830	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1790	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1830OW	Cross Section:	RSR1830OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				

Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR1850		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.42 ft	Invert:	12.22 ft
From Node:	NSR1850	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1830	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1850OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.60 ft	Invert:	16.20 ft
From Node:	NSR1870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1850	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL L	Cross Section:	DALE_MABRY_FUL L
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	334.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1870		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.62 ft	Invert:	12.42 ft
From Node:	NSR1870	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1850	Geometry: Circular		Geometry: Circular	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	331.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1870OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.70 ft	Invert:	16.10 ft
From Node:	NSR1870	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1910	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	DALE_MABRY_FUL	Cross Section:	DALE_MABRY_FUL
Flow Direction:	Both		L		L
Damping:	0.0000 ft				
Length:	203.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1890		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.79 ft	Invert:	12.62 ft
From Node:	NSR1890	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	286.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1910		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.97 ft	Invert:	12.79 ft
From Node:	NSR1910	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR1890	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	176.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1910B		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.70 ft	Invert:	6.50 ft
From Node:	NSR1910	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NBW2690	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	5.00 ft	Max Depth:	5.00 ft
Flow Direction:	Both	Max Width:	6.00 ft	Max Width:	6.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	730.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.50	Op Table:		Op Table:	
Exit Loss Coef:	0.50	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1910OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.70 ft	Invert:	16.50 ft
From Node:	NSR1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBW2690	Geometry: Irregular		Geometry: Irregular	

Link Count:	1	Cross Section:	DALE_MABRY_FUL L	Cross Section:	DALE_MABRY_FUL L
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	275.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR1910OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.50 ft	Invert:	16.30 ft
From Node:	NSR1910	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3020	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	311.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1930		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.87 ft	Invert:	11.13 ft
From Node:	NSR1930	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1730	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	71.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Channel Link: RSR1930OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.55 ft	Invert:	16.54 ft
From Node:	NSR1930	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1730	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR1930OW	Cross Section:	RSR1930OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1950		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.11 ft	Invert:	10.93 ft
From Node:	NSR1950	Manning's N:	0.0180	Manning's N:	0.0180
To Node:	NSR1930	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	117.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1970		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.21 ft	Invert:	11.11 ft
From Node:	NSR1970	Manning's N:	0.0210	Manning's N:	0.0210
To Node:	NSR1950	Geometry:	Circular	Geometry:	Circular

Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	67.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR1970OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.65 ft	Invert:	16.64 ft
From Node:	NSR1970	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0310	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR1970OW	Cross Section:	RSR1970OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR1990		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.71 ft	Invert:	11.49 ft
From Node:	NSR1990	Manning's N:	0.0170	Manning's N:	0.0170
To Node:	NSR2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	178.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR1990A		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.49 ft	Invert:	11.21 ft
From Node:	NSR1990	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR1970	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	235.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2030		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.98 ft	Invert:	11.80 ft
From Node:	NSR2030	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	184.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2030A		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.80 ft	Invert:	11.71 ft
From Node:	NSR2030	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR2010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	69.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2050OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.39 ft	Invert:	16.38 ft
From Node:	NSR2050	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2050OW	Cross Section:	RSR2050OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2070		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.22 ft	Invert:	11.98 ft
From Node:	NSR2070	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR2050	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	231.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2090		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.86 ft	Invert:	12.72 ft
From Node:	NSR2090	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NSR2070	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	60.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2110		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.05 ft	Invert:	12.86 ft
From Node:	NSR2110	Manning's N:	0.0160	Manning's N:	0.0160
To Node:	NSR2090	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	178.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2110OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.16 ft	Invert:	16.15 ft
From Node:	NSR2110	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NBB0370	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2110OW	Cross Section:	RSR2110OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Pipe Link: RSR2130		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.30 ft	Invert:	13.05 ft
From Node:	NSR2130	Manning's N:	0.0150	Manning's N:	0.0150
To Node:	NSR2110	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	247.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2150		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.46 ft	Invert:	11.03 ft
From Node:	NSR2150	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1930	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	442.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2150OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.86 ft	Invert:	16.85 ft

From Node:	NSR2150	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2210	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2150OW	Cross Section:	RSR2150OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2170		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.98 ft	Invert:	11.46 ft
From Node:	NSR2170	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2150	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	494.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2190		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.17 ft	Invert:	11.98 ft
From Node:	NSR2190	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2170	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	3.16 ft	Max Depth:	3.16 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	178.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2210		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.23 ft	Invert:	12.21 ft
From Node:	NSR2210	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2190	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	12.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2210OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.39 ft	Invert:	16.38 ft
From Node:	NSR2210	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2250	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2210OW	Cross Section:	RSR2210OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2230		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.21 ft	Invert:	12.17 ft
From Node:	NSR2230	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2190	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	42.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2250		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.31 ft	Invert:	12.21 ft
From Node:	NSR2250	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2230	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	85.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2270		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.64 ft	Invert:	12.31 ft
From Node:	NSR2270	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2250	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	105.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2270OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.02 ft	Invert:	16.01 ft
From Node:	NSR2270	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2250	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	RSR2270OW	Cross Section:	RSR2270OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2290		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.75 ft	Invert:	12.64 ft
From Node:	NSR2290	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2270	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	135.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR2310		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.75 ft	Invert:	12.64 ft
From Node:	NSR2310	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2290	Geometry:	Horizontal Ellipse	Geometry:	Horizontal Ellipse
Link Count:	1	Max Depth:	2.42 ft	Max Depth:	2.42 ft
Flow Direction:	Both	Bottom Clip			

Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	105.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2310OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.93 ft	Invert:	16.92 ft
From Node:	NSR2310	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2270	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2310OW	Cross Section:	RSR2310OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR2330		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.61 ft	Invert:	13.15 ft
From Node:	NSR2330	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2310	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	287.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR2330OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.80 ft	Invert:	16.79 ft
From Node:	NSR2350	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR2330	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	RSR2330OW	Cross Section:	RSR2330OW
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	33.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Pipe Link: RSR2350		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.12 ft	Invert:	13.61 ft
From Node:	NSR2350	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR2330	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Link Count:	1	Max Depth:	1.58 ft	Max Depth:	1.58 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	319.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000
Comment:					

Pipe Link: RSR2370		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.82 ft	Invert:	10.82 ft
From Node:	NSR2370	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSR1930	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	23.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR2390OW

Scenario:	Alt3
From Node:	NSR2390
To Node:	NSR2370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	17.90 ft
Control Elevation:	17.90 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.400
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR2410

Scenario:	Alt3
From Node:	NSR2410
To Node:	NSR2370
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	560.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	14.13 ft	Invert:	10.73 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry:	Irregular	Geometry:	Irregular
Cross Section:	RSR2410	Cross Section:	RSR2410

Comment: From Dale Mabry model

Channel Link: RSR2430OW

Scenario:	Alt3
From Node:	NSR2430

Upstream		Downstream	
Invert:	17.74 ft	Invert:	17.73 ft
Manning's N:	0.0000	Manning's N:	0.0000

To Node:	NSR2410
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	33.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Geometry: Irregular		Geometry: Irregular	
Cross Section:	RSR2430OW	Cross Section:	RSR2430OW

Comment:

Weir Link: RSR2450OW

Scenario:	Alt3
From Node:	NSR2450
To Node:	NSR2410
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	17.70 ft
Control Elevation:	17.70 ft
Max Depth:	833.25 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Channel Link: RSR2775OW

Scenario:	Alt3
From Node:	NBW2775
To Node:	NBW0270
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	288.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	6.80 ft	Invert:	5.10 ft
Manning's N:	0.0000	Manning's N:	0.0000
Geometry: Irregular		Geometry: Irregular	
Cross Section:	CURB_20FT_FULL	Cross Section:	CURB_20FT_FULL

Comment:

Weir Link: RSR2775OWB

Scenario:	Alt3	**Bottom Clip**	
From Node:	NBW2775	Default:	0.00 ft
To Node:	NBW0330	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	6.50 ft	**Discharge Coefficients**	
Control Elevation:	6.50 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	70.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR3000

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR3000	Default:	0.00 ft
To Node:	NSR3005	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	14.42 ft	**Discharge Coefficients**	
Control Elevation:	14.42 ft	Weir Default:	3.200
Max Depth:	3.28 ft	Weir Table:	
Max Width:	1.75 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: RSR3000A

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSR3000	Default:	0.00 ft
To Node:	NSR3005	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	

Geometry Type:	Rectangular
Invert:	15.08 ft
Control Elevation:	15.08 ft
Max Depth:	2.62 ft
Max Width:	3.08 ft
Fillet:	0.00 ft

Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: RSR3000OWA

Scenario:	Alt3
From Node:	NSR3000
To Node:	NSR1870
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	17.00 ft
Control Elevation:	17.00 ft
Max Depth:	9999.00 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Pipe Link: RSR3001

Scenario:	Alt3
From Node:	NSR3005
To Node:	NSR1870
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Length:	144.00 ft
FHWA Code:	0
Entr Loss Coef:	0.50
Exit Loss Coef:	0.50
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Upstream		Downstream	
Invert:	14.05 ft	Invert:	12.62 ft
Manning's N:	0.0130	Manning's N:	0.0130
Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	
Max Depth:	1.17 ft	Max Depth:	1.17 ft
Bottom Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000
Top Clip			
Default:	0.00 ft	Default:	0.00 ft
Op Table:		Op Table:	
Ref Node:		Ref Node:	
Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSR3020		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.17 ft	Invert:	11.94 ft
From Node:	NSR3020	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR3040	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	615.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: RSR3020OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.50 ft	Invert:	15.50 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	420.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR3020OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.60 ft	Invert:	16.50 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	870.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				

Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR3020OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.60 ft	Invert:	17.40 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0881	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_30FT_FULL	Cross Section:	LOCAL_30FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	150.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Channel Link: RSR3020OWC		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.90 ft	Invert:	16.00 ft
From Node:	NSR3020	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1870	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_HALF	Cross Section:	CURB_25FT_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	847.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR3040		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.94 ft	Invert:	11.74 ft

From Node:	NSR3040	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0870	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	98.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR3040OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR3040	Default:	0.00 ft
To Node:	NSR0870	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.80 ft	Discharge Coefficients	
Control Elevation:	15.80 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	150.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR3040OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.40 ft	Invert:	15.30 ft
From Node:	NSR3040	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3060	Geometry: Irregular		Geometry: Irregular	
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	579.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				

Energy Switch: Energy

Comment:

Channel Link: RSR3040OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	16.50 ft	Invert:	15.50 ft
From Node:	NSR3040	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3060	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	311.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Weir Link: RSR3040OWC			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR3040	Default:	0.00 ft
To Node:	NSR0880	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.20 ft	Discharge Coefficients	
Control Elevation:	16.20 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	200.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Channel Link: RSR3041OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.60 ft	Invert:	16.30 ft
From Node:	NBW2690	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR0881	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	CURB_25FT_FULL	Cross Section:	CURB_25FT_FULL
Flow Direction:	Both				

Damping:	0.0000 ft
Length:	530.00 ft
Contraction Coef:	0.00
Expansion Coef:	0.00
Entr Loss Coef:	0.00
Exit Loss Coef:	0.00
Bend Loss Coef:	0.00
Bend Location:	0.00 dec
Energy Switch:	Energy

Comment:

Channel Link: RSR3041OWB		Upstream		Downstream	
Scenario:	Alt3	Invert:	17.10 ft	Invert:	16.00 ft
From Node:	NSR0881	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR3040	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	HENDERSON_HALF	Cross Section:	HENDERSON_HALF
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	895.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				

Comment:

Pipe Link: RSR3060		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.95 ft	Invert:	11.86 ft
From Node:	NSR3060	Manning's N:	0.0130	Manning's N:	0.0130
To Node:	NSR0840	Geometry:	Circular	Geometry:	Circular
Link Count:	1	Max Depth:	1.25 ft	Max Depth:	1.25 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	43.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.50	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.50	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: RSR3060OW			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR3060	Default:	0.00 ft
To Node:	NSR0840	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	15.80 ft	Discharge Coefficients	
Control Elevation:	15.80 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	20.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	
Comment:			

Channel Link: RSR3060OWA		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.60 ft	Invert:	14.30 ft
From Node:	NSR3060	Manning's N:	0.0000	Manning's N:	0.0000
To Node:	NSR1510	Geometry:	Irregular	Geometry:	Irregular
Link Count:	1	Cross Section:	LOCAL_20FT_FULL	Cross Section:	LOCAL_20FT_FULL
Flow Direction:	Both				
Damping:	0.0000 ft				
Length:	332.00 ft				
Contraction Coef:	0.00				
Expansion Coef:	0.00				
Entr Loss Coef:	0.00				
Exit Loss Coef:	0.00				
Bend Loss Coef:	0.00				
Bend Location:	0.00 dec				
Energy Switch:	Energy				
Comment:					

Weir Link: RSRS0430OWA			
Scenario:	Alt3	Bottom Clip	
From Node:	NSR0430	Default:	0.00 ft
To Node:	NSR0390	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	13.14 ft	Discharge Coefficients	
Control Elevation:	13.14 ft	Weir Default:	2.600
Max Depth:	9999.00 ft	Weir Table:	

Max Width:	80.00 ft		
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment:

Pipe Link: RSW0030		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.69 ft	Invert:	-0.97 ft
From Node:	NSW0030	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSW0010	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	1.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: RSW0050		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.39 ft	Invert:	-0.69 ft
From Node:	NSW0050	Manning's N:	0.0120	Manning's N:	0.0120
To Node:	NSW0030	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	507.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.20	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: SL15(2)		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.63 ft	Invert:	1.63 ft
From Node:	Lois	Manning's N:	0.0140	Manning's N:	0.0140

		Upstream		Downstream	
To Node:	Hubert	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	636.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: SR1670OW		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.83 ft	Invert:	14.93 ft
From Node:	NSR1670	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	NBB0430	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1220.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ShamBox1.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.22 ft	Invert:	-0.64 ft
From Node:	Shmrck1.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	326.00 ft	Bottom Clip			

FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ShamBox1.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.64 ft	Invert:	-1.12 ft
From Node:	Shmrck1.2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shamrock2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	288.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: ShamBox2.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.22 ft	Invert:	-0.64 ft
From Node:	Shmrck1.1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	326.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	

	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Pipe Link: ShamBox2.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.64 ft	Invert:	-1.12 ft
From Node:	Shmrck1.2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shamrock2	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	288.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: Sl14(2)		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	1.14 ft
From Node:	Hubert	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry:	Rectangular	Geometry:	Rectangular
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	597.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: VascOW		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.63 ft	Invert:	4.23 ft
From Node:	M4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	H1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	850.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Weir Link: W01			
Scenario:	Alt3	Bottom Clip	
From Node:	N01	Default:	0.00 ft
To Node:	N01A	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.65 ft	Discharge Coefficients	
Control Elevation:	17.65 ft	Weir Default:	3.200
Max Depth:	2.37 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: CS-5A from Selmon plans

Weir Link: W01B			
Scenario:	Alt3	Bottom Clip	
From Node:	N01	Default:	0.00 ft
To Node:	N01A	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Horizontal	Op Table:	

Geometry Type:	Rectangular		
Invert:	20.02 ft	Ref Node:	
Control Elevation:	20.02 ft	Discharge Coefficients	
Max Depth:	4.33 ft	Weir Default:	3.200
Max Width:	3.33 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: CS-5A from Selmon plans

Weir Link: W01C

Scenario:	Alt3	Bottom Clip	
From Node:	N01	Default:	0.00 ft
To Node:	N04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.00 ft	Discharge Coefficients	
Control Elevation:	18.00 ft	Weir Default:	3.200
Max Depth:	1.20 ft	Weir Table:	
Max Width:	1.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: CS-5B from Selmon plans

Weir Link: W01D

Scenario:	Alt3	Bottom Clip	
From Node:	N01	Default:	0.00 ft
To Node:	N04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Horizontal	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.20 ft	Discharge Coefficients	
Control Elevation:	19.20 ft	Weir Default:	3.200
Max Depth:	3.00 ft	Weir Table:	
Max Width:	2.33 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: CS-5B from Selmon plans

Weir Link: WCypEast

Scenario:	Alt3
From Node:	NCL4010
To Node:	NCypEast
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	29.00 ft
Control Elevation:	29.00 ft
Cross Section:	XCypEast

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WCypWest

Scenario:	Alt3
From Node:	NCL4000
To Node:	NCypWest
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	29.93 ft
Control Elevation:	29.93 ft
Cross Section:	XCypWest

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	2.800
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WRU0390

Scenario:	Alt3
From Node:	NRU0390
To Node:	NRU0380
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Sharp Crested Vertical
Geometry Type:	Rectangular
Invert:	17.28 ft
Control Elevation:	17.28 ft
Max Depth:	1.22 ft
Max Width:	3.67 ft

Bottom Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Top Clip	
Default:	0.00 ft
Op Table:	
Ref Node:	
Discharge Coefficients	
Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment: Added per ERP 21192 (page 18, 35)

Weir Link: WRU0390B

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0390	Default:	0.00 ft
To Node:	NRU0380	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.50 ft	**Discharge Coefficients**	
Control Elevation:	18.50 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	14.17 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Added per ERP 21192 (page 18, 35)

Weir Link: WRU0990

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU0990	Default:	0.00 ft
To Node:	NRU0980	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.04 ft	**Discharge Coefficients**	
Control Elevation:	16.04 ft	Weir Default:	3.200
Max Depth:	2.10 ft	Weir Table:	
Max Width:	5.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WRU1020

Scenario:	Alt3	**Bottom Clip**	
From Node:	STORAGE12	Default:	0.00 ft
To Node:	NRU1020	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	15.14 ft	Ref Node:	
Control Elevation:	15.14 ft	Discharge Coefficients	
Max Depth:	4.10 ft	Weir Default:	3.200
Max Width:	50.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: Updated per ERP1978

Weir Link: WRU1020B

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1020	Default:	0.00 ft
To Node:	NRU1025	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.14 ft	Discharge Coefficients	
Control Elevation:	16.14 ft	Weir Default:	3.200
Max Depth:	0.67 ft	Weir Table:	
Max Width:	1.75 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 19758

Weir Link: WRU1020C

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1020	Default:	0.00 ft
To Node:	NRU1025	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.34 ft	Discharge Coefficients	
Control Elevation:	19.34 ft	Weir Default:	3.200
Max Depth:	0.70 ft	Weir Table:	
Max Width:	3.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 19758

Weir Link: WRU1035

Scenario:	Alt3	**Bottom Clip**	
From Node:	STORAGE13	Default:	0.00 ft
To Node:	NRU1035	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.24 ft	**Discharge Coefficients**	
Control Elevation:	16.24 ft	Weir Default:	3.200
Max Depth:	3.70 ft	Weir Table:	
Max Width:	50.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 20364

Weir Link: WRU1035B

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1035	Default:	0.00 ft
To Node:	NRU1037	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Circular	Ref Node:	
Invert:	16.91 ft	**Discharge Coefficients**	
Control Elevation:	16.91 ft	Weir Default:	3.200
Max Depth:	0.58 ft	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment: Updated per ERP 20364

Weir Link: WRU1035C

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1035	Default:	0.00 ft
To Node:	NRU1037	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	19.94 ft	**Discharge Coefficients**	
Control Elevation:	19.94 ft	Weir Default:	3.200
Max Depth:	2.20 ft	Weir Table:	
Max Width:	14.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment: Updated per ERP 20364

Weir Link: WRU1036

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1036	Default:	0.00 ft
To Node:	NRU1030	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.04 ft	**Discharge Coefficients**	
Control Elevation:	16.04 ft	Weir Default:	2.800
Max Depth:	0.75 ft	Weir Table:	
Max Width:	8.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WRU1188

Scenario:	Alt3	**Bottom Clip**	
From Node:	NRU1188	Default:	0.00 ft
To Node:	NRU1184	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	18.00 ft	**Discharge Coefficients**	
Control Elevation:	18.00 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	10.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WRU1225

Scenario:	Alt3	**Bottom Clip**	
From Node:	STORAGE14	Default:	0.00 ft
To Node:	NRU1225	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	19.44 ft	Ref Node:	
Control Elevation:	19.44 ft	Discharge Coefficients	
Max Depth:	4.00 ft	Weir Default:	3.200
Max Width:	27.00 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: See ERP 11814

Weir Link: WRU1225B

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1225	Default:	0.00 ft
To Node:	NRU1220	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	22.98 ft	Discharge Coefficients	
Control Elevation:	22.98 ft	Weir Default:	2.600
Cross Section:	XOW850	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WRU1225C

Scenario:	Alt3	Bottom Clip	
From Node:	NRU1225	Default:	0.00 ft
To Node:	NRU1220	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	23.17 ft	Discharge Coefficients	
Control Elevation:	23.17 ft	Weir Default:	2.600
Cross Section:	XOW851	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WRU1225D

Scenario:	Alt3
From Node:	NRU1225
To Node:	NSH80
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	23.10 ft
Control Elevation:	23.10 ft
Cross Section:	XOW852

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH02

Scenario:	Alt3
From Node:	STORAGE11
To Node:	NSH02
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	16.54 ft
Control Elevation:	16.54 ft
Max Depth:	4.00 ft
Max Width:	50.00 ft
Fillet:	0.00 ft

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: WinnDixie vault per ERP 9274

Weir Link: WSH02B

Scenario:	Alt3
From Node:	NSH02
To Node:	NSH60
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Paved Road Vertical
Geometry Type:	Irregular
Invert:	21.12 ft
Control Elevation:	21.12 ft
Cross Section:	XOW809

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600

	Orifice Table:

Comment:

Weir Link: WSH02C

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH02	Default:	0.00 ft
To Node:	NSH04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.19 ft	**Discharge Coefficients**	
Control Elevation:	21.19 ft	Weir Default:	3.200
Cross Section:	XOW807	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WSH02D

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH02	Default:	0.00 ft
To Node:	PondA	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.12 ft	**Discharge Coefficients**	
Control Elevation:	21.12 ft	Weir Default:	3.200
Cross Section:	XOW808	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WSH02E

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH02	Default:	0.00 ft
To Node:	NSH03	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft		
Weir Type:	Broad Crested Vertical	Default:	0.00 ft
Geometry Type:	Rectangular	Op Table:	
Invert:	20.63 ft	Ref Node:	
Control Elevation:	20.63 ft	Discharge Coefficients	
Max Depth:	1.41 ft	Weir Default:	3.200
Max Width:	2.99 ft	Weir Table:	
Fillet:	0.00 ft	Orifice Default:	0.600
		Orifice Table:	

Comment: ERP 9274

Weir Link: WSH28

Scenario:	Alt3	Bottom Clip	
From Node:	NSH28	Default:	0.00 ft
To Node:	NSH31	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	8.00 ft	Discharge Coefficients	
Control Elevation:	8.00 ft	Weir Default:	3.200
Max Depth:	9999.00 ft	Weir Table:	
Max Width:	8.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WSH49

Scenario:	Alt3	Bottom Clip	
From Node:	NSH49	Default:	0.00 ft
To Node:	NSH83	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.25 ft	Discharge Coefficients	
Control Elevation:	20.25 ft	Weir Default:	2.600
Cross Section:	XOW900	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WSH53

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH53	Default:	0.00 ft
To Node:	NSH53B	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	14.30 ft	**Discharge Coefficients**	
Control Elevation:	14.30 ft	Weir Default:	2.800
Max Depth:	2.00 ft	Weir Table:	
Max Width:	5.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment:

Weir Link: WSH60

Scenario:	Alt3	**Bottom Clip**	
From Node:	STORAGE9	Default:	0.00 ft
To Node:	NSH60	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	16.14 ft	**Discharge Coefficients**	
Control Elevation:	16.14 ft	Weir Default:	3.200
Max Depth:	2.50 ft	Weir Table:	
Max Width:	2.50 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Updated per ERP 31682

Weir Link: WSH60B

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH60	Default:	0.00 ft
To Node:	NSH61	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	17.25 ft	**Discharge Coefficients**	
Control Elevation:	17.25 ft	Weir Default:	3.200
Max Depth:	3.11 ft	Weir Table:	
Max Width:	2.00 ft	Orifice Default:	0.600

Fillet:	0.00 ft		
		Orifice Table:	

Comment: Updated per ERP 31682

Weir Link: WSH60C

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH60	Default:	0.00 ft
To Node:	NSH50	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.56 ft	**Discharge Coefficients**	
Control Elevation:	20.56 ft	Weir Default:	3.200
Cross Section:	XOW804	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WSH60D

Scenario:	Alt3	**Bottom Clip**	
From Node:	NSH60	Default:	0.00 ft
To Node:	NSH04	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Paved Road Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	21.02 ft	**Discharge Coefficients**	
Control Elevation:	21.02 ft	Weir Default:	3.200
Cross Section:	XOW805	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: WSH65

Scenario:	Alt3	**Bottom Clip**	
From Node:	STORAGE10	Default:	0.00 ft
To Node:	NSH65	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	**Top Clip**	

Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Rectangular
Invert:	18.59 ft
Control Elevation:	18.59 ft
Max Depth:	2.50 ft
Max Width:	2.50 ft
Fillet:	0.00 ft

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 28940

Weir Link: WSH65B

Scenario:	Alt3
From Node:	NSH65
To Node:	NSH50
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	22.61 ft
Control Elevation:	22.61 ft
Cross Section:	XOW806

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	3.200
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment: Updated per ERP 28940

Weir Link: WSH81

Scenario:	Alt3
From Node:	NSH81
To Node:	NSH49
Link Count:	1
Flow Direction:	Both
Damping:	0.0000 ft
Weir Type:	Broad Crested Vertical
Geometry Type:	Irregular
Invert:	20.76 ft
Control Elevation:	20.76 ft
Cross Section:	XOW902

Bottom Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Top Clip

Default:	0.00 ft
Op Table:	
Ref Node:	

Discharge Coefficients

Weir Default:	2.600
Weir Table:	
Orifice Default:	0.600
Orifice Table:	

Comment:

Weir Link: WSH82			
Scenario:	Alt3	Bottom Clip	
From Node:	NSH82	Default:	0.00 ft
To Node:	NSH49	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:	
Geometry Type:	Irregular	Ref Node:	
Invert:	20.74 ft	Discharge Coefficients	
Control Elevation:	20.74 ft	Weir Default:	2.600
Cross Section:	XOW901	Weir Table:	
		Orifice Default:	0.600
		Orifice Table:	

Comment:

Weir Link: Weir_NCL3250			
Scenario:	Alt3	Bottom Clip	
From Node:	NCL3250A	Default:	0.00 ft
To Node:	NCL3250	Op Table:	
Link Count:	1	Ref Node:	
Flow Direction:	Both	Top Clip	
Damping:	0.0000 ft	Default:	0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:	
Geometry Type:	Rectangular	Ref Node:	
Invert:	12.00 ft	Discharge Coefficients	
Control Elevation:	12.00 ft	Weir Default:	3.200
Max Depth:	3.00 ft	Weir Table:	
Max Width:	8.00 ft	Orifice Default:	0.600
Fillet:	0.00 ft	Orifice Table:	

Comment: Proposed internal weir

Channel Link: gutter11.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.93 ft	Invert:	6.53 ft
From Node:	L6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	V3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	292.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	

Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter12.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.63 ft	Invert:	6.93 ft
From Node:	L5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L6	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	286.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter12.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.43 ft	Invert:	7.63 ft
From Node:	L4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L5	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	286.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft

	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N:	0.0000	Manning's N: 0.0000

Comment:

Channel Link: gutter13.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.33 ft	Invert:	6.13 ft
From Node:	M1.1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	250.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.03 ft	Invert:	6.33 ft
From Node:	M1.2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	214.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.3		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.13 ft	Invert:	7.03 ft
From Node:	M1.3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	236.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.4		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.43 ft	Invert:	8.43 ft
From Node:	L3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.5		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	10.43 ft
From Node:	L2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	252.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter13.6		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.53 ft	Invert:	11.63 ft
From Node:	L1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	212.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter19.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.83 ft	Invert:	6.53 ft
From Node:	G9	Manning's N:	0.0200	Manning's N:	0.0200

		Upstream		Downstream	
To Node:	V3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter19.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.83 ft	Invert:	7.93 ft
From Node:	G9	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Clark2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	940.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter20.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.93 ft	Invert:	6.93 ft
From Node:	G8	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L6	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter21.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.83 ft	Invert:	8.43 ft
From Node:	G7	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter23.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.43 ft	Invert:	10.43 ft
From Node:	G5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter24.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.23 ft	Invert:	11.53 ft
From Node:	G4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	L1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1500.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter31.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.73 ft	Invert:	12.93 ft
From Node:	DM2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G8	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1400.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter32.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.23 ft	Invert:	13.43 ft
From Node:	DM1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G5	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1400.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutter32.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.23 ft	Invert:	12.73 ft
From Node:	DM1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G6	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1050.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			

	Default: 0.00 ft		Default: 0.00 ft
	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutterL1		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.53 ft	Invert:	7.13 ft
From Node:	L1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL2		Upstream		Downstream	
Scenario:	Alt3	Invert:	11.63 ft	Invert:	7.03 ft
From Node:	L2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutterL3		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.43 ft	Invert:	6.33 ft
From Node:	L3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M1.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL4		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.43 ft	Invert:	5.53 ft
From Node:	L4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1580.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL5		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.63 ft	Invert:	5.53 ft
From Node:	L5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterL6		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.93 ft	Invert:	5.13 ft
From Node:	L6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL10		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.63 ft	Invert:	5.43 ft
From Node:	M4	Manning's N:	0.0200	Manning's N:	0.0200

		Geometry: Trapezoidal		Geometry: Trapezoidal	
To Node:	M5.1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Link Count:	1	Extrapolation:	Normal	Extrapolation:	Normal
Flow Direction:	Both	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Damping:	0.0000 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Length:	175.00 ft	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Contraction Coef:	0.00		Bottom Clip		
Expansion Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec		Top Clip		
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL11		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.13 ft	Invert:	4.63 ft
From Node:	M3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00		Bottom Clip		
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy		Top Clip		
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL12		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.53 ft	Invert:	5.13 ft
From Node:	M2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	292.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL13		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.13 ft	Invert:	5.53 ft
From Node:	M1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	360.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL14		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.33 ft	Invert:	5.43 ft
From Node:	Hubert	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M5.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	597.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL15		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.73 ft	Invert:	5.33 ft
From Node:	Lois	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Hubert	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	636.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL16		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.93 ft	Invert:	6.73 ft
From Node:	Clark2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Lois	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	642.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL17		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.93 ft	Invert:	7.93 ft
From Node:	Clark1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Clark2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	445.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL19		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.83 ft	Invert:	11.93 ft
From Node:	G9	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G10	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	164.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			

	Default: 0.00 ft		Default: 0.00 ft
	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutterSL20		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.93 ft	Invert:	12.83 ft
From Node:	G8	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G9	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	295.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL21		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.83 ft	Invert:	12.93 ft
From Node:	G7	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G8	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	559.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	

	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Channel Link: gutterSL22		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.73 ft	Invert:	13.83 ft
From Node:	G6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G7	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	646.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL23		Upstream		Downstream	
Scenario:	Alt3	Invert:	13.43 ft	Invert:	13.83 ft
From Node:	G5	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G7	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	304.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL24		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.23 ft	Invert:	13.43 ft
From Node:	G4	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G5	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	513.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL25		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.53 ft	Invert:	14.23 ft
From Node:	G3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	497.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL26		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.63 ft	Invert:	13.83 ft
From Node:	G2	Manning's N:	0.0200	Manning's N:	0.0200

		Upstream		Downstream	
To Node:	G3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	630.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL27		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.03 ft	Invert:	13.83 ft
From Node:	G1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	G3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	468.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL29		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.63 ft	Invert:	12.63 ft
From Node:	Church1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Church2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal

Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	130.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL31		Upstream		Downstream	
Scenario:	Alt3	Invert:	14.73 ft	Invert:	13.83 ft
From Node:	DM2	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	DM3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	525.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL32		Upstream		Downstream	
Scenario:	Alt3	Invert:	15.23 ft	Invert:	14.73 ft
From Node:	DM1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	DM2	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	785.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)

Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL4		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.48 ft	Invert:	5.47 ft
From Node:	Sevilla1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	Sevilla3	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	275.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL6		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.23 ft	Invert:	4.73 ft
From Node:	H1	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	H2.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	175.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	

Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterSL9		Upstream		Downstream	
Scenario:	Alt3	Invert:	5.56 ft	Invert:	4.65 ft
From Node:	M6	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M5.1	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	50.00 ft	Bottom Width:	50.00 ft
Length:	150.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			
		Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Channel Link: gutterV3		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.53 ft	Invert:	4.63 ft
From Node:	V3	Manning's N:	0.0200	Manning's N:	0.0200
To Node:	M4	Geometry: Trapezoidal		Geometry: Trapezoidal	
Link Count:	1	Max Depth:	0.50 ft	Max Depth:	0.50 ft
Flow Direction:	Both	Extrapolation:	Normal	Extrapolation:	Normal
Damping:	0.0000 ft	Bottom Width:	25.00 ft	Bottom Width:	25.00 ft
Length:	1300.00 ft	Left Slope:	1.000 (h:v)	Left Slope:	1.000 (h:v)
Contraction Coef:	0.00	Right Slope:	1.000 (h:v)	Right Slope:	1.000 (h:v)
Expansion Coef:	0.00	Bottom Clip			
Entr Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Exit Loss Coef:	0.00	Op Table:		Op Table:	
Bend Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Location:	0.00 dec	Manning's N:	0.0000	Manning's N:	0.0000
Energy Switch:	Energy	Top Clip			

	Default: 0.00 ft		Default: 0.00 ft
	Op Table:		Op Table:
	Ref Node:		Ref Node:
	Manning's N: 0.0000		Manning's N: 0.0000

Comment:

Pipe Link: pipeSL10		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.58 ft	Invert:	1.14 ft
From Node:	M4	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL11		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.74 ft	Invert:	1.58 ft
From Node:	M3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M4	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	300.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL12		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.13 ft	Invert:	1.74 ft

From Node:	M2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	292.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL13		Upstream		Downstream	
Scenario:	Alt3	Invert:	2.46 ft	Invert:	2.01 ft
From Node:	M1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	360.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL14		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.63 ft	Invert:	1.14 ft
From Node:	Hubert	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	5.00 ft	Max Width:	5.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	597.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			

Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL15		Upstream		Downstream	
Scenario:	Alt3	Invert:	3.63 ft	Invert:	1.63 ft
From Node:	Lois	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Hubert	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	636.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL16		Upstream		Downstream	
Scenario:	Alt3	Invert:	4.77 ft	Invert:	3.63 ft
From Node:	Clark2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Lois	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	642.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL17		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.44 ft	Invert:	5.23 ft
From Node:	Clark1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Clark2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	445.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL18		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.74 ft	Invert:	4.77 ft
From Node:	G10	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Clark2	Geometry: Rectangular		Geometry: Rectangular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Max Width:	4.00 ft	Max Width:	4.00 ft
Damping:	0.0000 ft	Fillet:	0.00 ft	Fillet:	0.00 ft
Length:	681.00 ft	Bottom Clip			
FHWA Code:	0	Default:	0.00 ft	Default:	0.00 ft
Entr Loss Coef:	0.00	Op Table:		Op Table:	
Exit Loss Coef:	0.00	Ref Node:		Ref Node:	
Bend Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Bend Location:	0.00 dec	Top Clip			
Energy Switch:	Energy	Default:	0.00 ft	Default:	0.00 ft
		Op Table:		Op Table:	
		Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL19		Upstream		Downstream	
Scenario:	Alt3	Invert:	6.95 ft	Invert:	6.74 ft
From Node:	G9	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G10	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	164.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	

Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL20		Upstream		Downstream	
Scenario:	Alt3	Invert:	7.33 ft	Invert:	6.95 ft
From Node:	G8	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G9	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	295.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL21		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.07 ft	Invert:	7.33 ft
From Node:	G7	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G8	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	4.00 ft	Max Depth:	4.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	559.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL22		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.24 ft	Invert:	8.51 ft
From Node:	G6	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G7	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	646.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL23		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.47 ft	Invert:	8.07 ft
From Node:	G5	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G7	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	304.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL24		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.15 ft	Invert:	8.47 ft
From Node:	G4	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G5	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	513.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			

Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL25		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.79 ft	Invert:	9.15 ft
From Node:	G3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G4	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	497.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL26		Upstream		Downstream	
Scenario:	Alt3	Invert:	12.37 ft	Invert:	10.53 ft
From Node:	G2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.00 ft	Max Depth:	1.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	630.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL27		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.39 ft	Invert:	9.79 ft

From Node:	G1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	G3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	468.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL29		Upstream		Downstream	
Scenario:	Alt3	Invert:	8.63 ft	Invert:	8.33 ft
From Node:	Church1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Church2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	130.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL3		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.23 ft	Invert:	0.83 ft
From Node:	Sevilla2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shamrock2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	175.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	

Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL31		Upstream		Downstream	
Scenario:	Alt3	Invert:	9.36 ft	Invert:	8.79 ft
From Node:	DM2	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	DM3	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	525.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL32		Upstream		Downstream	
Scenario:	Alt3	Invert:	10.66 ft	Invert:	9.36 ft
From Node:	DM1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	DM2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.50 ft	Max Depth:	2.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	785.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL4		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.13 ft	Invert:	0.75 ft
From Node:	Sevilla1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Sevilla3	Geometry: Horizontal Ellipse		Geometry: Horizontal Ellipse	

Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	237.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL4.1		Upstream		Downstream	
Scenario:	Alt3	Invert:	0.72 ft	Invert:	-0.09 ft
From Node:	Sevilla3	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Sevilla4	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.00 ft	Max Depth:	3.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	362.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL4.2		Upstream		Downstream	
Scenario:	Alt3	Invert:	-0.11 ft	Invert:	-0.64 ft
From Node:	Sevilla4	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	Shmrck1.2	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	3.50 ft	Max Depth:	3.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	296.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL6		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.73 ft	Invert:	1.43 ft
From Node:	H1	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	H2.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	1.50 ft	Max Depth:	1.50 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	105.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

Pipe Link: pipeSL9		Upstream		Downstream	
Scenario:	Alt3	Invert:	1.34 ft	Invert:	1.14 ft
From Node:	M6	Manning's N:	0.0140	Manning's N:	0.0140
To Node:	M5.1	Geometry: Circular		Geometry: Circular	
Link Count:	1	Max Depth:	2.00 ft	Max Depth:	2.00 ft
Flow Direction:	Both	Bottom Clip			
Damping:	0.0000 ft	Default:	0.00 ft	Default:	0.00 ft
Length:	123.00 ft	Op Table:		Op Table:	
FHWA Code:	0	Ref Node:		Ref Node:	
Entr Loss Coef:	0.00	Manning's N:	0.0000	Manning's N:	0.0000
Exit Loss Coef:	0.00	Top Clip			
Bend Loss Coef:	0.00	Default:	0.00 ft	Default:	0.00 ft
Bend Location:	0.00 dec	Op Table:		Op Table:	
Energy Switch:	Energy	Ref Node:		Ref Node:	
		Manning's N:	0.0000	Manning's N:	0.0000

Comment:

O.4 Proposed Model Results

Node Max Conditions [Alt3]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
BC_N02	F3A100YR1DAY	0.00	18.00	0.0000	1.99	0.00	0
Church1	F3A100YR1DAY	8.77	10.78	0.0000	1.08	0.40	533
Church2	F3A100YR1DAY	8.77	10.78	0.0000	10.76	10.62	4390
Clark1	F3A100YR1DAY	7.21	8.28	0.0000	1.32	0.56	743
Clark2	F3A100YR1DAY	7.21	8.28	-0.0001	68.97	70.25	23070
DM1	F3A100YR1DAY	11.42	12.35	0.0000	12.43	12.39	1416
DM2	F3A100YR1DAY	10.30	11.12	0.0000	12.39	12.55	2201
DM3	F3A100YR1DAY	9.16	10.83	0.0000	12.55	10.76	2975
E_Outlet	F3A100YR1DAY	0.00	16.94	-0.0032	144.95	44.98	0
E_Outlet2	F3A100YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A100YR1DAY	1.99	4.76	0.0000	2.98	1.64	763
ElP_con.1	F3A100YR1DAY	2.18	5.02	0.0014	97.58	95.71	4221
ElPrad.1	F3A100YR1DAY	1.99	4.80	0.0000	2.15	1.56	17712
G1	F3A100YR1DAY	14.98	16.42	-0.0047	182.82	130.03	40657
G10	F3A100YR1DAY	8.77	10.73	-0.0001	69.00	68.97	4603
G2	F3A100YR1DAY	14.99	16.38	-0.0003	63.24	59.27	32943
G3	F3A100YR1DAY	14.86	16.35	-0.0006	186.55	186.30	27806
G4	F3A100YR1DAY	12.82	15.27	-0.0005	186.30	185.76	57269
G5	F3A100YR1DAY	11.69	14.13	-0.0003	116.42	110.78	48863
G6	F3A100YR1DAY	11.00	9.24	0.0000	15.95	0.00	0
G7	F3A100YR1DAY	11.00	12.68	0.0000	76.25	75.44	3601
G8	F3A100YR1DAY	10.07	11.61	0.0000	61.69	60.88	2143
G9	F3A100YR1DAY	9.41	11.04	0.0001	60.88	59.97	1353

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
H1	F3A100YR1DAY	1.99	5.42	-0.0002	48.34	48.26	16497
H2.1	F3A100YR1DAY	1.99	4.76	-0.0007	142.79	147.44	6105
Hubert	F3A100YR1DAY	3.16	5.75	-0.0001	68.63	73.55	19864
JUNCT1	F3A100YR1DAY	0.00	13.98	0.0000	1.21	1.19	1409
JUNCT10	F3A100YR1DAY	0.00	22.28	0.0000	86.45	86.36	11102
JUNCT2	F3A100YR1DAY	0.00	14.36	0.0000	27.70	27.64	2759
JUNCT3	F3A100YR1DAY	0.00	20.01	0.0000	10.47	9.91	8240
JUNCT4	F3A100YR1DAY	0.00	13.64	0.0000	3.65	3.65	5655
JUNCT6	F3A100YR1DAY	0.00	17.73	-0.0007	209.75	813.51	10287
JUNCT7	F3A100YR1DAY	0.00	19.78	0.0000	161.55	161.67	8389
JUNCT7B	F3A100YR1DAY	0.00	19.43	0.0000	171.34	168.63	24996
JUNCT8	F3A100YR1DAY	0.00	19.78	0.0000	258.36	258.72	11634
JUNCT8B	F3A100YR1DAY	0.00	19.43	0.0000	258.72	254.90	33485
JUNCT9	F3A100YR1DAY	0.00	29.68	0.0000	87.41	87.55	9985
L1	F3A100YR1DAY	11.53	12.19	0.0000	69.99	72.06	51706
L2	F3A100YR1DAY	11.63	11.83	0.0000	19.47	19.78	39236
L3	F3A100YR1DAY	10.43	10.77	0.0000	45.14	44.82	46104
L4	F3A100YR1DAY	8.43	8.72	0.0000	22.36	22.37	50838
L5	F3A100YR1DAY	7.63	7.81	0.0000	9.69	9.44	43662
L6	F3A100YR1DAY	6.93	7.05	0.0000	4.22	3.95	43812
Lois	F3A100YR1DAY	4.82	6.23	0.0001	70.25	68.63	6808
M1	F3A100YR1DAY	2.58	6.80	0.0003	81.30	83.53	24883
M1.1	F3A100YR1DAY	6.33	7.14	0.0000	81.89	81.30	35352
M1.2	F3A100YR1D	7.03	7.49	0.0000	61.23	60.80	28677

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
M1.3	F3A100YR1DAY	7.13	7.80	0.0000	53.28	52.42	28491
M2	F3A100YR1DAY	2.58	6.29	-0.0006	100.72	94.97	60799
M3	F3A100YR1DAY	2.58	5.91	-0.0004	96.71	98.94	39437
M4	F3A100YR1DAY	2.58	5.75	-0.0006	99.14	85.91	53011
M5.1	F3A100YR1DAY	2.57	5.50	0.0003	101.97	97.89	29769
M6	F3A100YR1DAY	2.58	5.50	0.0001	1.60	0.45	558
N01	F3A100YR1DAY	0.00	20.20	0.0000	48.26	29.01	50695
N01A	F3A100YR1DAY	0.00	20.12	-0.0004	12.68	10.01	456
N02	F3A100YR1DAY	0.00	18.32	0.0001	48.00	38.97	54447
N03	F3A100YR1DAY	0.00	18.49	0.0000	7.90	6.70	3869
N04	F3A100YR1DAY	0.00	20.02	0.0001	16.49	16.49	643
N05	F3A100YR1DAY	0.00	17.73	0.0000	102.47	101.51	4387
N06	F3A100YR1DAY	0.00	17.46	-0.0002	70.44	70.71	3292
N07A	F3A100YR1DAY	0.00	17.22	0.0001	76.14	76.41	4247
N08A	F3A100YR1DAY	0.00	16.19	0.0004	148.48	148.27	8095
N09	F3A100YR1DAY	0.00	14.16	0.0001	37.61	37.58	2735
N09A	F3A100YR1DAY	0.00	13.59	-0.0006	143.70	143.72	1359
N10	F3A100YR1DAY	2.00	2.00	0.0000	412.08	0.00	0
N11	F3A100YR1DAY	0.00	17.63	-0.0011	235.47	144.95	457633
NBB0010	F3A100YR1DAY	2.00	2.00	0.0000	142.47	0.00	0
NBB0030	F3A100YR1DAY	5.03	7.97	0.0003	142.48	142.47	557
NBB0050	F3A100YR1DAY	9.15	13.94	-0.0004	250.50	142.48	145191
NBB0070	F3A100YR1DAY	11.30	14.37	-0.0002	114.18	113.06	2549

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBB0090	F3A100YR1DAY	12.67	14.37	-0.0001	137.35	137.27	4467
NBB0110	F3A100YR1DAY	13.46	16.03	0.0001	125.13	125.06	1982
NBB0130	F3A100YR1DAY	15.26	16.97	-0.0001	69.04	57.55	55692
NBB0150	F3A100YR1DAY	14.01	16.37	0.0001	73.22	73.35	1935
NBB0170	F3A100YR1DAY	14.74	16.85	0.0001	73.14	73.22	1452
NBB0190	F3A100YR1DAY	15.42	17.38	0.0001	88.61	73.14	98605
NBB0210	F3A100YR1DAY	15.70	17.38	0.0001	70.44	70.50	1556
NBB0230	F3A100YR1DAY	16.02	17.39	0.0001	70.37	70.44	18757
NBB0250	F3A100YR1DAY	16.31	17.68	0.0001	69.61	69.68	2035
NBB0270	F3A100YR1DAY	17.05	18.14	0.0001	68.47	69.61	44668
NBB0290	F3A100YR1DAY	17.06	18.14	-0.0001	53.31	54.31	1258
NBB0310	F3A100YR1DAY	17.07	18.14	-0.0002	247.36	112.43	628379
NBB0330	F3A100YR1DAY	16.57	17.39	-0.0001	52.58	46.30	49044
NBB0350	F3A100YR1DAY	16.45	17.38	0.0001	28.26	29.20	1396
NBB0370	F3A100YR1DAY	16.33	17.38	-0.0001	101.88	59.74	80873
NBB0390	F3A100YR1DAY	16.32	17.38	-0.0001	21.04	21.84	1832
NBB0410	F3A100YR1DAY	16.30	17.38	-0.0002	79.64	56.45	67696
NBB0430	F3A100YR1DAY	15.45	16.44	-0.0003	170.71	206.89	67696
NBW0010	F3A100YR1DAY	2.00	2.00	0.0000	1076.81	0.00	0
NBW0030	F3A100YR1DAY	3.39	5.12	0.0003	1078.20	1076.81	77364
NBW0050	F3A100YR1DAY	3.92	5.62	0.0000	120.84	113.68	78881
NBW0070	F3A100YR1DAY	3.57	5.44	-0.0006	330.75	519.20	74553
NBW0090	F3A100YR1DAY	3.66	5.31	0.0000	49.81	54.27	54163
NBW0130	F3A100YR1D	3.73	5.52	0.0000	334.56	335.70	14687

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW0150	F3A100YR1DAY	3.93	5.35	0.0001	46.96	45.63	23760
NBW0170	F3A100YR1DAY	3.98	5.34	0.0001	46.64	48.33	52372
NBW0190	F3A100YR1DAY	3.89	5.62	0.0001	334.20	334.56	5986
NBW0210	F3A100YR1DAY	6.25	6.46	0.0000	15.54	15.18	7808
NBW0230	F3A100YR1DAY	4.01	5.89	-0.0001	332.98	333.35	6617
NBW0250	F3A100YR1DAY	4.88	6.67	0.0000	331.51	331.64	5687
NBW0270	F3A100YR1DAY	5.49	6.75	0.0001	70.56	61.68	60148
NBW0290	F3A100YR1DAY	5.91	6.75	0.0000	55.53	52.54	59978
NBW0310	F3A100YR1DAY	6.38	7.68	0.0000	36.16	25.82	94628
NBW0330	F3A100YR1DAY	5.50	7.27	0.0000	320.72	320.76	24909
NBW0350	F3A100YR1DAY	4.97	5.89	0.0000	15.74	15.72	15827
NBW0370	F3A100YR1DAY	5.52	7.28	0.0001	11.05	9.47	20716
NBW0390	F3A100YR1DAY	5.52	7.28	0.0001	19.29	8.10	71682
NBW0410	F3A100YR1DAY	5.54	7.41	-0.0001	318.76	318.91	3446
NBW0430	F3A100YR1DAY	5.89	7.85	0.0000	12.66	10.90	57625
NBW0450	F3A100YR1DAY	5.89	7.85	-0.0001	319.51	318.76	12762
NBW0470	F3A100YR1DAY	5.89	7.85	0.0000	9.23	7.69	45203
NBW0490	F3A100YR1DAY	5.92	7.99	-0.0001	317.37	317.24	3184
NBW0510	F3A100YR1DAY	6.72	7.99	0.0000	8.57	8.56	30102
NBW0530	F3A100YR1DAY	6.22	8.38	0.0001	316.90	316.90	4802
NBW0550	F3A100YR1DAY	6.72	9.61	0.0000	299.74	291.94	400846
NBW0570	F3A100YR1DAY	7.09	9.58	0.0000	280.43	266.82	159829
NBW0590	F3A100YR1DAY	10.03	10.37	0.0002	476.00	475.01	90294

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0610	F3A100YR1DAY	6.45	8.61	0.0000	289.76	289.68	10923
NBW0630	F3A100YR1DAY	6.22	8.38	0.0000	19.44	8.59	90881
NBW0650	F3A100YR1DAY	6.66	9.58	0.0001	299.50	291.04	23467
NBW0670	F3A100YR1DAY	6.66	9.58	0.0000	26.28	6.31	40928
NBW0690	F3A100YR1DAY	6.71	9.60	-0.0001	240.38	238.56	11932
NBW0710	F3A100YR1DAY	6.71	9.60	0.0000	33.56	12.25	103392
NBW0730	F3A100YR1DAY	6.72	9.61	-0.0001	264.62	235.43	290735
NBW0750	F3A100YR1DAY	7.06	9.62	0.0002	322.18	297.59	150040
NBW0770	F3A100YR1DAY	7.06	9.62	-0.0004	49.11	40.14	35418
NBW0790	F3A100YR1DAY	8.11	9.62	0.0000	42.42	42.10	25840
NBW0810	F3A100YR1DAY	7.06	9.62	0.0000	81.55	68.10	75962
NBW0830	F3A100YR1DAY	8.41	9.62	0.0001	65.38	65.04	13486
NBW0850	F3A100YR1DAY	10.17	10.20	-0.0001	65.03	60.28	24178
NBW0870	F3A100YR1DAY	7.06	9.63	0.0000	358.39	315.18	311548
NBW0890	F3A100YR1DAY	7.06	9.62	-0.0005	16.47	17.03	1027
NBW0910	F3A100YR1DAY	7.06	9.62	0.0001	313.60	285.90	182374
NBW0930	F3A100YR1DAY	8.03	9.58	-0.0001	45.77	45.55	1301
NBW0950	F3A100YR1DAY	8.82	9.53	-0.0001	91.03	50.75	198410
NBW0970	F3A100YR1DAY	8.82	9.53	0.0001	41.25	39.45	40629
NBW0990	F3A100YR1DAY	8.82	9.53	0.0002	14.92	14.46	785
NBW1010	F3A100YR1DAY	8.83	9.54	0.0000	39.27	39.24	2467
NBW1030	F3A100YR1DAY	9.19	11.60	0.0000	101.08	41.65	77737
NBW1050	F3A100YR1DAY	9.30	11.60	0.0001	16.35	15.72	900
NBW1070	F3A100YR1D	9.34	11.60	0.0000	395.50	395.59	76677

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW1090	F3A100YR1DAY	3.78	5.60	0.0000	487.58	475.75	22204
NBW1130	F3A100YR1DAY	4.51	5.67	0.0000	294.25	293.85	39486
NBW1150	F3A100YR1DAY	4.53	5.78	-0.0001	324.25	322.61	79136
NBW1169	F3A100YR1DAY	4.09	5.73	0.0000	463.95	455.39	25804
NBW1170	F3A100YR1DAY	4.30	5.86	-0.0001	457.94	454.91	10415
NBW1190	F3A100YR1DAY	6.13	6.91	-0.0001	94.97	79.90	82017
NBW1210	F3A100YR1DAY	7.17	7.89	-0.0002	388.76	384.40	176126
NBW1230	F3A100YR1DAY	7.17	7.95	-0.0002	402.43	379.99	259136
NBW1250	F3A100YR1DAY	4.74	6.40	-0.0001	417.52	414.33	9317
NBW1270	F3A100YR1DAY	6.14	6.91	-0.0001	44.57	37.80	57091
NBW1310	F3A100YR1DAY	5.21	6.58	0.0002	439.42	411.24	8703
NBW1330	F3A100YR1DAY	7.56	8.97	-0.0021	329.20	374.73	3073
NBW1350	F3A100YR1DAY	10.95	11.76	0.0002	62.47	62.32	17163
NBW1351	F3A100YR1DAY	8.89	11.12	0.0004	318.46	318.07	31803
NBW1352	F3A100YR1DAY	9.96	13.10	0.0006	310.25	310.24	7956
NBW1353	F3A100YR1DAY	11.01	15.04	0.0005	303.30	303.32	8196
NBW1370	F3A100YR1DAY	10.02	11.05	-0.0005	239.17	236.57	47254
NBW1390	F3A100YR1DAY	15.24	15.58	0.0003	407.08	405.39	223434
NBW1410	F3A100YR1DAY	15.58	15.86	0.0003	225.20	225.04	33489
NBW1430	F3A100YR1DAY	15.79	15.97	0.0002	212.24	211.85	32326
NBW1450	F3A100YR1DAY	16.94	17.23	-0.0003	353.76	352.90	127044
NBW1460	F3A100YR1DAY	16.43	16.77	-0.0002	149.56	150.37	4273
NBW1470	F3A100YR1DAY	17.14	17.55	-0.0002	434.99	426.21	264489

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1480	F3A100YR1DAY	18.11	18.21	0.0001	21.52	21.40	18377
NBW1490	F3A100YR1DAY	17.86	18.41	0.0001	262.79	259.58	155092
NBW1510	F3A100YR1DAY	18.12	18.72	-0.0001	138.39	139.75	40988
NBW1530	F3A100YR1DAY	17.92	18.77	0.0000	14.04	12.20	1182
NBW1550	F3A100YR1DAY	17.75	18.86	0.0001	68.95	59.84	57426
NBW1570	F3A100YR1DAY	18.21	18.90	0.0002	135.65	136.92	2604
NBW1590	F3A100YR1DAY	18.12	18.71	-0.0001	76.92	75.85	24192
NBW1610	F3A100YR1DAY	18.13	18.71	0.0001	45.21	37.84	31234
NBW1630	F3A100YR1DAY	18.13	18.46	0.0001	35.12	34.94	1805
NBW1650	F3A100YR1DAY	18.81	19.78	0.0001	21.19	12.64	53426
NBW1670	F3A100YR1DAY	18.89	19.78	0.0001	51.24	43.00	48119
NBW1690	F3A100YR1DAY	19.03	19.79	0.0001	33.39	28.79	33058
NBW1710	F3A100YR1DAY	19.26	19.79	0.0000	2.25	1.52	998
NBW1730	F3A100YR1DAY	18.65	19.65	-0.0002	426.17	421.57	348776
NBW1750	F3A100YR1DAY	18.82	19.75	-0.0001	223.80	215.36	95092
NBW1770	F3A100YR1DAY	18.82	19.78	-0.0001	197.38	145.40	202844
NBW1790	F3A100YR1DAY	18.91	19.78	-0.0001	45.04	38.70	52769
NBW1820	F3A100YR1DAY	18.72	19.42	0.0000	134.30	128.39	183297
NBW1830	F3A100YR1DAY	18.74	19.65	-0.0001	76.74	75.43	94439
NBW1840	F3A100YR1DAY	18.39	18.99	0.0000	171.47	148.62	153608
NBW1850	F3A100YR1DAY	18.74	19.68	-0.0002	215.81	198.63	159864
NBW1860	F3A100YR1DAY	18.39	18.99	-0.0001	21.94	16.18	24982
NBW1870	F3A100YR1DAY	18.72	19.42	-0.0002	48.61	49.57	41554
NBW1890	F3A100YR1D	19.06	20.04	-0.0001	44.42	44.36	2614

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW1910	F3A100YR1DAY	19.27	20.27	-0.0001	84.97	83.27	13596
NBW1930	F3A100YR1DAY	19.27	20.26	0.0000	50.49	41.54	49226
NBW1950	F3A100YR1DAY	18.97	19.69	0.0000	4.05	2.34	450
NBW1970	F3A100YR1DAY	18.96	19.69	0.0000	19.47	18.15	17256
NBW1990	F3A100YR1DAY	19.27	20.06	0.0000	138.41	130.70	159356
NBW2010	F3A100YR1DAY	19.65	20.02	-0.0001	18.59	20.44	12781
NBW2030	F3A100YR1DAY	19.65	20.02	0.0000	42.70	40.42	99988
NBW2050	F3A100YR1DAY	19.26	20.28	0.0000	126.50	116.63	137361
NBW2060	F3A100YR1DAY	0.00	20.28	0.0000	37.60	30.04	73539
NBW2070	F3A100YR1DAY	19.26	20.28	0.0000	182.08	115.53	208883
NBW2090	F3A100YR1DAY	19.10	19.30	0.0002	71.57	70.74	22411
NBW2110	F3A100YR1DAY	18.92	19.30	0.0002	251.96	222.22	180475
NBW2130	F3A100YR1DAY	18.92	19.30	-0.0002	101.58	83.37	34896
NBW2140	F3A100YR1DAY	20.00	19.31	0.0001	9.86	7.35	652
NBW2145	F3A100YR1DAY	0.00	19.45	-0.0012	25.03	100.92	40777
NBW2150	F3A100YR1DAY	19.26	20.28	0.0000	117.81	104.70	33500
NBW2170	F3A100YR1DAY	19.12	20.28	0.0000	5.45	5.29	941
NBW2190	F3A100YR1DAY	19.10	20.27	0.0000	12.08	6.54	30402
NBW2210	F3A100YR1DAY	19.47	20.27	0.0000	42.66	43.24	52290
NBW2230	F3A100YR1DAY	19.47	20.27	-0.0002	95.10	84.79	89368
NBW2250	F3A100YR1DAY	19.51	20.27	0.0000	32.53	33.10	11710
NBW2270	F3A100YR1DAY	19.57	20.27	-0.0001	31.49	32.05	43551
NBW2290	F3A100YR1DAY	19.65	20.27	-0.0002	121.41	111.52	212861

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2310	F3A100YR1DAY	19.82	20.16	-0.0002	116.54	113.58	156628
NBW2330	F3A100YR1DAY	19.82	20.16	-0.0002	46.59	31.09	89286
NBW2350	F3A100YR1DAY	16.05	16.64	0.0001	213.89	212.70	78900
NBW2370	F3A100YR1DAY	16.11	16.65	-0.0001	51.44	48.27	56850
NBW2380	F3A100YR1DAY	12.29	16.66	0.0004	334.25	324.69	97160
NBW2385	F3A100YR1DAY	18.49	18.51	0.0000	7.07	7.05	6894
NBW2387	F3A100YR1DAY	16.11	16.66	0.0000	0.78	0.80	482
NBW2390	F3A100YR1DAY	16.42	18.04	0.0001	165.38	169.32	75003
NBW2410	F3A100YR1DAY	16.59	18.46	-0.0002	287.04	284.78	188033
NBW2430	F3A100YR1DAY	16.23	18.52	0.0001	403.52	402.86	123265
NBW2450	F3A100YR1DAY	16.15	18.61	-0.0002	165.43	162.05	4396
NBW2470	F3A100YR1DAY	16.43	18.86	0.0002	417.57	418.67	47205
NBW2490	F3A100YR1DAY	16.90	18.86	-0.0004	89.38	307.61	23629
NBW2510	F3A100YR1DAY	17.74	18.85	-0.0001	72.60	71.62	9426
NBW2530	F3A100YR1DAY	17.92	18.77	0.0001	63.11	63.58	2010
NBW2550	F3A100YR1DAY	17.95	18.75	-0.0001	2.49	2.90	450
NBW2570	F3A100YR1DAY	17.96	18.75	0.0000	5.45	3.28	12727
NBW2590	F3A100YR1DAY	18.06	18.74	-0.0001	51.29	51.67	1098
NBW2610	F3A100YR1DAY	17.00	18.97	-0.0008	477.97	475.74	137975
NBW2630	F3A100YR1DAY	17.98	18.97	-0.0001	223.88	199.84	43594
NBW2650	F3A100YR1DAY	16.97	18.95	-0.0003	27.14	28.03	47080
NBW2670	F3A100YR1DAY	16.42	18.95	0.0001	56.97	36.80	51252
NBW2680	F3A100YR1DAY	17.73	18.59	-0.0001	198.48	198.27	27882
NBW2690	F3A100YR1D	15.40	18.38	0.0002	413.21	409.93	119224

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW2710	F3A100YR1DAY	17.73	18.63	0.0001	3.85	2.59	529
NBW2730	F3A100YR1DAY	18.29	18.75	0.0000	3.67	2.76	6332
NBW2770	F3A100YR1DAY	18.09	18.98	0.0001	13.26	13.27	1310
NBW2775	F3A100YR1DAY	6.59	7.24	0.0000	43.80	43.75	67107
NBW2780	F3A100YR1DAY	18.38	18.94	0.0001	198.63	195.03	202917
NBW2790	F3A100YR1DAY	18.38	18.98	0.0000	317.37	293.37	176591
NBW2810	F3A100YR1DAY	18.39	18.99	-0.0002	117.68	104.32	88024
NBW2830	F3A100YR1DAY	18.40	18.99	0.0000	93.23	64.96	207900
NC01	F3A100YR1DAY	0.00	6.34	0.0001	46.31	45.95	5167
NC01B	F3A100YR1DAY	0.00	5.97	0.0000	37.44	37.38	7384
NC02	F3A100YR1DAY	0.00	9.01	0.0001	181.74	181.63	12706
NC03	F3A100YR1DAY	0.00	5.02	0.0001	213.87	213.77	16753
NC04	F3A100YR1DAY	0.00	4.14	0.0000	150.22	144.93	64188
NC05	F3A100YR1DAY	0.00	4.12	-0.0001	163.56	161.02	71063
NC06	F3A100YR1DAY	0.00	4.08	0.0000	173.94	173.46	31388
NC07	F3A100YR1DAY	0.00	4.08	-0.0001	158.72	158.68	28758
NC08	F3A100YR1DAY	0.00	4.03	0.0000	182.91	182.71	21061
NCL0010	F3A100YR1DAY	2.00	2.00	0.0000	928.14	0.00	0
NCL0030	F3A100YR1DAY	2.36	3.21	-0.0002	611.24	611.22	6856
NCL0050	F3A100YR1DAY	2.36	3.21	0.0000	0.37	0.83	439
NCL0070	F3A100YR1DAY	5.20	5.88	0.0000	286.97	283.12	89721
NCL0090	F3A100YR1DAY	6.06	6.44	0.0000	102.04	83.95	106369
NCL0110	F3A100YR1DAY	3.04	4.07	-0.0008	639.37	639.09	6623

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0130	F3A100YR1DAY	4.05	4.22	0.0003	160.82	160.86	565
NCL0150	F3A100YR1DAY	4.95	5.54	-0.0001	162.55	162.61	2802
NCL0170	F3A100YR1DAY	5.08	5.60	0.0001	106.94	107.00	1472
NCL0190	F3A100YR1DAY	5.08	5.62	0.0000	4.55	4.38	438
NCL0210	F3A100YR1DAY	5.85	7.13	0.0000	110.92	102.57	52797
NCL0230	F3A100YR1DAY	6.60	7.95	-0.0002	79.81	33.18	103609
NCL0250	F3A100YR1DAY	6.60	7.95	-0.0001	3.91	4.13	608
NCL0270	F3A100YR1DAY	6.60	7.95	0.0001	8.19	5.79	3992
NCL0290	F3A100YR1DAY	5.90	7.17	-0.0001	65.06	65.71	924
NCL0310	F3A100YR1DAY	6.10	7.36	0.0011	64.65	65.06	1045
NCL0330	F3A100YR1DAY	5.95	7.13	-0.0001	24.14	30.44	16464
NCL0350	F3A100YR1DAY	6.60	7.95	-0.0003	265.34	207.71	131492
NCL0370	F3A100YR1DAY	7.36	8.17	0.0002	247.31	243.76	44823
NCL0390	F3A100YR1DAY	4.02	5.06	-0.0022	461.01	478.06	4339
NCL0410	F3A100YR1DAY	4.09	5.32	-0.0001	9.34	9.30	819
NCL0430	F3A100YR1DAY	4.23	5.65	0.0000	10.66	10.07	2050
NCL0450	F3A100YR1DAY	4.75	5.74	-0.0008	451.43	451.45	3676
NCL0470	F3A100YR1DAY	5.43	6.34	-0.0010	449.92	449.95	3437
NCL0490	F3A100YR1DAY	6.48	7.21	-0.0009	583.15	585.46	79574
NCL0510	F3A100YR1DAY	6.67	7.54	0.0001	44.89	42.53	7751
NCL0530	F3A100YR1DAY	8.10	8.70	0.0003	37.43	21.72	1171
NCL0550	F3A100YR1DAY	8.17	8.75	-0.0001	45.16	37.43	81227
NCL0570	F3A100YR1DAY	8.66	9.16	-0.0001	24.93	21.09	11760
NCL0590	F3A100YR1D	7.00	7.75	0.0007	489.26	489.86	18935

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL0610	F3A100YR1DAY	7.52	8.30	0.0007	474.93	475.25	4800
NCL0630	F3A100YR1DAY	8.06	9.07	0.0003	471.71	471.79	7941
NCL0650	F3A100YR1DAY	8.12	9.15	-0.0003	57.12	102.60	1613
NCL0670	F3A100YR1DAY	8.67	9.90	0.0006	119.40	57.12	1693
NCL0690	F3A100YR1DAY	8.76	9.94	0.0003	26.14	35.14	605
NCL0710	F3A100YR1DAY	8.95	10.02	-0.0002	27.24	25.75	600
NCL0730	F3A100YR1DAY	9.26	10.19	-0.0002	29.07	27.24	554
NCL0750	F3A100YR1DAY	9.56	10.31	0.0000	249.23	229.55	97775
NCL0770	F3A100YR1DAY	10.12	10.55	0.0001	117.71	117.64	2178
NCL0790	F3A100YR1DAY	8.69	9.96	0.0004	49.75	101.59	895
NCL0810	F3A100YR1DAY	8.84	10.38	0.0000	55.29	49.75	49631
NCL0830	F3A100YR1DAY	8.93	10.38	-0.0007	398.58	399.29	59128
NCL0850	F3A100YR1DAY	9.01	10.39	-0.0001	118.20	104.80	39834
NCL0870	F3A100YR1DAY	9.37	10.56	-0.0002	131.85	131.47	2022
NCL0890	F3A100YR1DAY	9.65	10.67	-0.0001	119.04	118.84	1587
NCL0910	F3A100YR1DAY	9.71	10.54	0.0000	27.59	27.27	21483
NCL0930	F3A100YR1DAY	9.57	11.16	-0.0001	191.23	188.14	18600
NCL0950	F3A100YR1DAY	9.89	11.34	-0.0001	173.38	170.79	18677
NCL0970	F3A100YR1DAY	10.41	11.80	0.0001	46.30	45.19	2263
NCL0990	F3A100YR1DAY	11.00	11.91	0.0001	67.47	66.15	13224
NCL1010	F3A100YR1DAY	11.14	12.51	0.0001	14.43	14.19	903
NCL1030	F3A100YR1DAY	9.67	10.59	-0.0002	25.02	33.53	2178
NCL1050	F3A100YR1DAY	10.46	10.61	0.0000	11.61	10.20	6633

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1070	F3A100YR1DAY	9.30	11.67	0.0000	4.29	4.32	631
NCL1090	F3A100YR1DAY	9.76	11.71	0.0000	32.30	17.14	32358
NCL1110	F3A100YR1DAY	9.85	11.38	-0.0001	19.67	19.40	35227
NCL1130	F3A100YR1DAY	9.76	11.70	-0.0001	45.73	20.31	126898
NCL1150	F3A100YR1DAY	9.76	11.71	-0.0001	792.16	782.16	304180
NCL1170	F3A100YR1DAY	10.59	12.79	-0.0004	465.76	393.56	162759
NCL1190	F3A100YR1DAY	10.72	13.34	0.0000	109.26	109.30	1850
NCL1210	F3A100YR1DAY	10.63	12.80	0.0000	60.18	28.83	59164
NCL1230	F3A100YR1DAY	10.94	14.06	0.0000	109.22	109.26	1432
NCL1250	F3A100YR1DAY	11.11	14.49	0.0000	109.18	109.22	1231
NCL1270	F3A100YR1DAY	11.34	14.98	0.0000	289.47	187.68	239452
NCL1290	F3A100YR1DAY	13.06	15.00	0.0001	262.01	244.95	78330
NCL1310	F3A100YR1DAY	14.77	16.00	0.0001	258.84	256.58	67024
NCL1330	F3A100YR1DAY	10.60	12.79	-0.0003	447.58	437.64	95245
NCL1350	F3A100YR1DAY	10.63	12.80	0.0001	421.17	412.35	72627
NCL1370	F3A100YR1DAY	10.63	12.83	-0.0002	265.89	263.30	21403
NCL1390	F3A100YR1DAY	10.63	14.98	0.0000	81.70	68.96	37621
NCL1410	F3A100YR1DAY	10.63	14.98	-0.0002	82.47	80.99	10467
NCL1430	F3A100YR1DAY	10.70	12.81	-0.0004	629.86	478.99	272585
NCL1450	F3A100YR1DAY	10.93	13.29	0.0006	499.50	498.99	3036
NCL1470	F3A100YR1DAY	12.72	14.76	0.0001	349.18	348.34	4425
NCL1490	F3A100YR1DAY	14.45	14.94	0.0000	9.03	9.10	784
NCL1510	F3A100YR1DAY	11.06	13.27	-0.0008	68.36	79.86	19356
NCL1530	F3A100YR1D	12.54	13.26	-0.0002	112.67	110.85	22713

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL1550	F3A100YR1DAY	13.13	13.58	-0.0001	43.22	42.00	1021
NCL1570	F3A100YR1DAY	13.31	14.26	0.0001	7.31	7.23	504
NCL1590	F3A100YR1DAY	13.70	14.28	0.0000	3.61	3.11	1307
NCL1610	F3A100YR1DAY	13.37	14.49	0.0001	4.76	4.44	469
NCL1630	F3A100YR1DAY	13.57	13.80	0.0003	98.21	98.16	2987
NCL1650	F3A100YR1DAY	13.68	14.07	0.0002	105.08	105.04	2230
NCL1670	F3A100YR1DAY	14.02	15.18	0.0001	228.27	228.23	17304
NCL1690	F3A100YR1DAY	17.47	18.00	0.0001	72.40	72.33	7466
NCL1710	F3A100YR1DAY	17.89	18.24	0.0001	64.70	64.75	3577
NCL1730	F3A100YR1DAY	18.27	19.50	0.0019	270.68	270.16	50485
NCL1750	F3A100YR1DAY	18.24	19.35	-0.0015	33.03	33.05	513
NCL1770	F3A100YR1DAY	18.07	18.34	0.0001	60.61	60.57	3360
NCL1790	F3A100YR1DAY	15.78	16.80	0.0001	341.23	340.49	5863
NCL1810	F3A100YR1DAY	18.13	18.53	0.0001	94.55	86.36	59162
NCL1830	F3A100YR1DAY	18.39	18.86	0.0001	322.05	321.73	6249
NCL1850	F3A100YR1DAY	18.50	19.00	-0.0003	66.97	79.05	909
NCL1870	F3A100YR1DAY	19.01	19.67	0.0001	66.69	66.97	999
NCL1890	F3A100YR1DAY	19.15	19.85	0.0001	68.84	67.58	987
NCL1910	F3A100YR1DAY	19.15	19.85	0.0001	4.47	1.11	528
NCL1930	F3A100YR1DAY	19.91	20.03	0.0000	7.78	7.68	1637
NCL1950	F3A100YR1DAY	19.15	19.85	0.0000	1.05	0.17	502
NCL1970	F3A100YR1DAY	21.67	21.69	0.0000	4.29	4.27	3382
NCL1990	F3A100YR1DAY	19.58	20.41	-0.0001	71.61	68.84	884

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2010	F3A100YR1DAY	19.74	20.45	0.0001	41.83	39.61	1104
NCL2030	F3A100YR1DAY	19.76	20.02	0.0001	30.91	26.46	44845
NCL2050	F3A100YR1DAY	19.76	20.49	0.0001	41.43	38.15	1411
NCL2070	F3A100YR1DAY	19.76	20.02	-0.0001	7.45	8.58	1202
NCL2090	F3A100YR1DAY	19.87	20.88	0.0002	45.14	41.43	1414
NCL2110	F3A100YR1DAY	20.03	20.92	-0.0005	47.92	43.09	48841
NCL2130	F3A100YR1DAY	19.87	20.94	0.0001	168.80	180.37	145886
NCL2150	F3A100YR1DAY	20.75	21.64	-0.0004	176.36	158.71	276074
NCL2170	F3A100YR1DAY	19.85	20.92	0.0002	286.19	283.12	116212
NCL2230	F3A100YR1DAY	19.13	19.98	0.0001	322.02	319.18	67056
NCL2250	F3A100YR1DAY	19.55	20.48	0.0001	213.69	209.96	4444
NCL2270	F3A100YR1DAY	20.05	21.06	0.0001	371.22	370.08	72260
NCL2290	F3A100YR1DAY	19.88	20.92	0.0001	18.19	15.43	25232
NCL2310	F3A100YR1DAY	20.45	21.30	0.0001	100.76	100.57	1779
NCL2330	F3A100YR1DAY	20.74	21.47	0.0001	211.12	199.65	141335
NCL2350	F3A100YR1DAY	20.78	21.50	0.0001	94.31	93.70	16857
NCL2370	F3A100YR1DAY	20.81	21.50	-0.0001	91.67	90.94	2298
NCL2390	F3A100YR1DAY	20.84	21.53	0.0000	216.97	177.01	235944
NCL2410	F3A100YR1DAY	21.07	21.55	0.0000	31.07	30.71	1380
NCL2430	F3A100YR1DAY	21.32	21.68	0.0000	29.50	29.25	1472
NCL2450	F3A100YR1DAY	21.25	21.63	0.0000	6.69	6.53	493
NCL2470	F3A100YR1DAY	20.93	21.53	0.0000	30.70	30.34	846
NCL2490	F3A100YR1DAY	21.54	21.68	0.0000	26.04	25.86	2431
NCL2510	F3A100YR1D	21.70	21.63	0.0000	226.29	226.74	139592

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL2530	F3A100YR1DAY	21.70	21.62	0.0000	100.49	102.22	65099
NCL2540	F3A100YR1DAY	0.00	22.32	0.0000	139.90	137.36	62507
NCL2550	F3A100YR1DAY	21.70	21.62	0.0000	111.10	111.57	24315
NCL2570	F3A100YR1DAY	21.51	21.57	0.0001	15.44	15.71	1503
NCL2580	F3A100YR1DAY	0.00	21.55	-0.0002	199.95	199.05	46093
NCL2590	F3A100YR1DAY	21.17	21.55	0.0000	344.17	339.15	183293
NCL2610	F3A100YR1DAY	21.14	21.54	0.0000	236.84	236.61	37859
NCL2630	F3A100YR1DAY	20.86	21.13	0.0000	135.43	129.52	60017
NCL2631	F3A100YR1DAY	0.00	21.01	-0.0001	118.77	109.27	52323
NCL2650	F3A100YR1DAY	21.17	21.71	0.0000	134.15	113.83	170623
NCL2670	F3A100YR1DAY	21.93	22.34	-0.0004	143.38	168.77	82393
NCL2690	F3A100YR1DAY	21.96	22.59	0.0000	99.26	104.24	68103
NCL2710	F3A100YR1DAY	21.96	22.71	0.0000	88.73	78.17	91465
NCL2730	F3A100YR1DAY	21.95	22.83	0.0000	54.98	53.53	34925
NCL2750	F3A100YR1DAY	21.84	23.19	0.0000	174.50	173.41	54761
NCL2770	F3A100YR1DAY	21.71	22.52	0.0000	43.96	43.98	1389
NCL2780	F3A100YR1DAY	0.00	22.46	0.0000	46.57	46.82	34125
NCL2790	F3A100YR1DAY	21.84	22.46	0.0000	254.98	239.08	172623
NCL2810	F3A100YR1DAY	22.11	22.94	-0.0001	170.69	169.82	34228
NCL2830	F3A100YR1DAY	23.09	23.27	-0.0001	37.33	36.21	18154
NCL2835	F3A100YR1DAY	0.00	23.94	0.0000	7.95	7.96	1074
NCL2840	F3A100YR1DAY	0.00	23.86	0.0000	169.93	169.64	30289
NCL2845	F3A100YR1DAY	0.00	24.39	-0.0001	95.39	95.14	20186

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2850	F3A100YR1DAY	20.82	21.49	0.0001	17.71	17.99	6789
NCL2870	F3A100YR1DAY	20.83	21.39	0.0001	16.70	16.98	1246
NCL2890	F3A100YR1DAY	20.83	21.29	-0.0002	18.66	17.35	28472
NCL2910	F3A100YR1DAY	20.83	21.29	0.0001	133.57	132.98	48082
NCL2930	F3A100YR1DAY	19.55	20.51	0.0003	310.43	313.04	40636
NCL2950	F3A100YR1DAY	19.53	20.50	0.0002	151.02	151.43	43881
NCL2970	F3A100YR1DAY	20.49	20.81	0.0002	95.71	92.75	31105
NCL2990	F3A100YR1DAY	19.33	20.29	0.0002	143.29	143.70	12514
NCL3010	F3A100YR1DAY	19.35	20.29	0.0002	209.84	136.79	325539
NCL3030	F3A100YR1DAY	19.58	20.32	0.0002	154.86	112.34	129144
NCL3050	F3A100YR1DAY	19.94	20.39	0.0002	125.71	115.62	73274
NCL3070	F3A100YR1DAY	20.14	20.44	0.0001	70.72	62.83	43286
NCL3090	F3A100YR1DAY	19.59	20.30	0.0002	160.29	142.63	123088
NCL3110	F3A100YR1DAY	19.59	20.30	0.0003	119.03	85.33	154078
NCL3130	F3A100YR1DAY	19.59	20.31	0.0002	45.58	24.86	79780
NCL3150	F3A100YR1DAY	19.54	20.28	0.0002	199.08	185.28	86976
NCL3170	F3A100YR1DAY	19.71	20.48	0.0002	160.24	159.49	54761
NCL3190	F3A100YR1DAY	20.31	20.81	0.0002	182.99	169.36	167227
NCL3210	F3A100YR1DAY	20.32	20.81	0.0002	140.64	132.86	84106
NCL3230	F3A100YR1DAY	20.32	20.83	0.0002	115.61	112.79	38854
NCL3250	F3A100YR1DAY	19.11	19.39	-0.0002	201.09	199.39	148487
NCL3250A	F3A100YR1DAY	0.00	19.81	0.0004	132.75	131.69	2677
NCL3270	F3A100YR1DAY	19.11	19.77	-0.0001	37.89	36.28	16472
NCL3280	F3A100YR1D	0.00	20.02	0.0000	60.20	59.45	22444

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL3290	F3A100YR1DAY	20.16	20.68	0.0000	59.56	58.06	37174
NCL3300	F3A100YR1DAY	0.00	19.88	0.0000	22.29	22.28	3998
NCL3310	F3A100YR1DAY	20.19	20.84	0.0000	2.70	2.73	768
NCL3330	F3A100YR1DAY	20.75	20.87	0.0000	8.11	7.54	437
NCL3350	F3A100YR1DAY	20.51	20.86	0.0001	67.98	64.26	58504
NCL3360	F3A100YR1DAY	0.00	20.85	0.0000	23.11	20.75	26675
NCL3365	F3A100YR1DAY	0.00	20.49	0.0001	67.99	67.21	37054
NCL3370	F3A100YR1DAY	20.64	21.26	-0.0001	223.94	221.40	115348
NCL3390	F3A100YR1DAY	20.83	21.29	0.0001	227.45	226.81	44727
NCL3410	F3A100YR1DAY	20.83	21.29	0.0001	2.42	1.81	476
NCL3430	F3A100YR1DAY	20.83	21.29	0.0000	6.27	1.48	6401
NCL3450	F3A100YR1DAY	18.92	19.38	0.0002	436.59	330.54	205006
NCL3470	F3A100YR1DAY	19.11	19.40	0.0001	531.77	436.80	272725
NCL3471	F3A100YR1DAY	0.00	19.39	-0.0002	145.17	142.79	5436
NCL3490	F3A100YR1DAY	19.15	19.41	0.0001	212.39	201.79	52112
NCL3510	F3A100YR1DAY	20.64	20.11	0.0001	187.59	186.71	36478
NCL3520	F3A100YR1DAY	0.00	19.78	0.0000	471.70	471.79	75245
NCL3530	F3A100YR1DAY	20.66	21.02	0.0001	255.73	253.80	79840
NCL3550	F3A100YR1DAY	20.66	21.04	0.0001	4.36	4.69	736
NCL3570	F3A100YR1DAY	20.66	21.05	-0.0001	2.44	2.54	627
NCL3590	F3A100YR1DAY	20.66	21.06	0.0000	4.93	2.33	8167
NCL3610	F3A100YR1DAY	20.66	21.02	-0.0002	38.35	39.06	1320
NCL3630	F3A100YR1DAY	20.64	21.01	-0.0001	416.16	412.38	134736

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3635	F3A100YR1DAY	0.00	21.01	0.0001	21.51	23.84	1915
NCL3640	F3A100YR1DAY	0.00	21.01	0.0001	56.23	51.46	65141
NCL3650	F3A100YR1DAY	18.92	19.31	0.0001	10.15	10.19	503
NCL3670	F3A100YR1DAY	18.92	19.30	0.0000	18.41	32.41	63541
NCL3690	F3A100YR1DAY	18.92	19.37	0.0002	153.89	145.19	2631
NCL3730	F3A100YR1DAY	18.92	19.36	0.0000	494.53	359.26	140875
NCL3740	F3A100YR1DAY	0.00	19.38	0.0002	287.95	267.70	40415
NCL3750	F3A100YR1DAY	18.93	19.73	-0.0011	280.66	253.57	303189
NCL3770	F3A100YR1DAY	18.93	19.73	-0.0006	81.51	37.66	115144
NCL4000	F3A100YR1DAY	0.00	29.91	0.0000	87.46	87.41	9334
NCL4010	F3A100YR1DAY	0.00	29.67	0.0000	77.71	77.38	15901
NCypEast	F3A100YR1DAY	32.00	29.00	0.0000	19.05	0.00	0
NCypWest	F3A100YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3A100YR1DAY	2.00	2.00	0.0000	597.68	78.17	0
NOC0030	F3A100YR1DAY	1.14	2.51	0.0377	597.72	597.68	1913
NOC0050	F3A100YR1DAY	1.20	2.80	-0.0306	513.06	513.25	3059
NOC0070	F3A100YR1DAY	1.45	3.84	0.0085	495.92	496.10	8919
NOC0090	F3A100YR1DAY	2.91	3.96	0.0021	127.63	127.73	446
NOC0110	F3A100YR1DAY	1.65	3.93	0.0094	296.68	296.83	455
NOC0130	F3A100YR1DAY	3.06	4.74	0.0038	296.62	296.68	528
NOC0150	F3A100YR1DAY	3.08	4.76	0.0000	4.44	4.22	500
NOC0170	F3A100YR1DAY	4.56	4.94	0.0000	25.08	25.06	1913
NOC0190	F3A100YR1DAY	5.09	6.05	0.0004	299.70	299.95	2795
NOC0210	F3A100YR1D	5.68	6.17	0.0001	49.83	48.69	9969

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NOC0230	F3A100YR1DAY	5.12	6.12	0.0001	10.98	10.64	742
NOC0250	F3A100YR1DAY	5.30	6.63	0.0001	11.50	10.98	1980
NOC0270	F3A100YR1DAY	5.57	7.23	0.0000	9.11	5.32	13297
NOC0290	F3A100YR1DAY	5.11	6.26	0.0003	402.36	402.40	1836
NOC0310	F3A100YR1DAY	5.27	6.72	0.0001	100.24	84.42	60217
NOC0330	F3A100YR1DAY	5.85	7.13	0.0001	409.75	409.62	224849
NOC0350	F3A100YR1DAY	5.89	7.21	0.0001	393.95	360.19	225305
NOC0370	F3A100YR1DAY	6.47	7.50	0.0001	312.30	310.26	97091
NOC0390	F3A100YR1DAY	6.60	7.95	0.0001	137.37	117.38	69363
NOC0410	F3A100YR1DAY	6.95	7.94	0.0001	65.29	42.14	96396
NOC0430	F3A100YR1DAY	7.01	7.57	0.0001	70.21	67.22	41457
NOC0450	F3A100YR1DAY	7.62	7.76	0.0001	46.49	45.45	25353
NOC0470	F3A100YR1DAY	8.12	8.30	0.0001	32.10	30.33	29955
NOC0490	F3A100YR1DAY	7.67	7.79	0.0001	7.32	6.95	1051
NRU0010	F3A100YR1DAY	2.00	2.00	0.0000	696.23	0.00	0
NRU0030	F3A100YR1DAY	2.84	3.69	0.0005	438.06	392.77	2468
NRU0050	F3A100YR1DAY	4.36	5.99	-0.0020	392.78	438.06	2036
NRU0070	F3A100YR1DAY	5.61	7.88	0.0006	422.05	392.78	50068
NRU0090	F3A100YR1DAY	5.66	7.88	-0.0001	141.42	92.51	52131
NRU0110	F3A100YR1DAY	6.23	7.91	-0.0002	332.99	302.15	38371
NRU0130	F3A100YR1DAY	7.66	9.59	0.0003	279.31	278.79	2616
NRU0150	F3A100YR1DAY	7.71	9.65	0.0007	256.63	256.80	1528
NRU0160	F3A100YR1DAY	0.00	15.05	0.0001	194.43	194.32	4959

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0165	F3A100YR1DAY	0.00	15.42	0.0000	8.86	8.37	1063
NRU0170	F3A100YR1DAY	14.45	17.72	-0.0001	272.02	200.09	122951
NRU0172	F3A100YR1DAY	0.00	17.73	0.0001	10.01	11.17	831
NRU0174	F3A100YR1DAY	0.00	17.75	-0.0001	18.61	10.01	10644
NRU0176	F3A100YR1DAY	0.00	16.32	0.0000	11.19	11.19	761
NRU0178	F3A100YR1DAY	0.00	17.42	0.0000	7.57	7.59	956
NRU0180	F3A100YR1DAY	0.00	17.75	0.0000	269.21	208.48	242309
NRU0190	F3A100YR1DAY	14.45	17.72	-0.0002	19.95	17.48	27263
NRU0210	F3A100YR1DAY	14.45	17.53	0.0003	26.67	19.90	20633
NRU0230	F3A100YR1DAY	13.39	15.24	-0.0003	40.62	39.87	24461
NRU0250	F3A100YR1DAY	14.62	17.72	-0.0002	877.27	241.62	73920
NRU0270	F3A100YR1DAY	15.05	17.73	-0.0001	176.10	196.86	19329
NRU0290	F3A100YR1DAY	16.30	19.08	-0.0001	100.18	79.23	106371
NRU0310	F3A100YR1DAY	16.13	18.02	0.0001	94.50	94.18	7974
NRU0330	F3A100YR1DAY	18.25	18.65	0.0001	25.18	24.34	1352
NRU0335	F3A100YR1DAY	0.00	19.49	0.0001	14.14	11.54	19195
NRU0340	F3A100YR1DAY	0.00	19.10	0.0001	99.90	89.35	73094
NRU0343	F3A100YR1DAY	0.00	19.69	0.0001	12.32	9.57	917
NRU0345	F3A100YR1DAY	0.00	19.90	0.0001	89.10	82.11	100410
NRU0350	F3A100YR1DAY	19.50	19.35	0.0001	19.72	15.79	26515
NRU0370	F3A100YR1DAY	19.51	19.35	0.0001	14.35	10.66	19065
NRU0380	F3A100YR1DAY	23.33	19.27	0.0001	7.99	8.10	470
NRU0390	F3A100YR1DAY	27.00	19.26	-0.0002	38.81	23.53	30036
NRU0410	F3A100YR1D	19.56	19.41	0.0001	10.38	7.66	1096

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU0425	F3A100YR1DAY	15.53	16.89	0.0001	7.68	3.37	4982
NRU0430	F3A100YR1DAY	19.61	19.47	0.0001	7.66	5.13	1072
NRU0450	F3A100YR1DAY	19.66	19.53	0.0001	5.13	3.16	1044
NRU0470	F3A100YR1DAY	19.72	19.81	0.0001	3.54	3.06	785
NRU0490	F3A100YR1DAY	20.36	19.94	-0.0001	5.06	3.54	3546
NRU0495	F3A100YR1DAY	0.00	15.81	0.0004	769.62	769.65	2716
NRU0500	F3A100YR1DAY	0.00	16.18	-0.0007	767.92	767.97	5646
NRU0510	F3A100YR1DAY	19.67	20.31	-0.0002	49.64	35.75	88878
NRU0530	F3A100YR1DAY	16.95	18.36	0.0001	58.91	60.27	2251
NRU0550	F3A100YR1DAY	17.92	18.73	-0.0002	169.08	158.47	97856
NRU0570	F3A100YR1DAY	18.16	19.16	-0.0001	122.91	121.63	21731
NRU0590	F3A100YR1DAY	18.51	19.74	0.0001	76.33	75.20	35184
NRU0610	F3A100YR1DAY	18.78	19.93	0.0001	76.68	67.80	92461
NRU0612	F3A100YR1DAY	0.00	19.93	0.0001	53.42	40.20	61374
NRU0615	F3A100YR1DAY	0.00	20.05	0.0001	11.53	6.52	2090
NRU0616	F3A100YR1DAY	0.00	20.31	0.0001	10.71	9.49	23418
NRU0618	F3A100YR1DAY	0.00	20.64	0.0001	23.38	19.16	21522
NRU0620	F3A100YR1DAY	0.00	20.14	0.0001	36.09	33.52	32834
NRU0630	F3A100YR1DAY	18.79	19.81	0.0001	58.48	57.80	30776
NRU0650	F3A100YR1DAY	18.79	19.67	0.0001	91.46	87.74	43351
NRU0670	F3A100YR1DAY	18.78	19.49	-0.0001	64.58	64.55	1429
NRU0690	F3A100YR1DAY	18.84	19.29	0.0001	107.15	104.60	32473
NRU0710	F3A100YR1DAY	18.86	19.28	0.0001	199.81	194.17	49217

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0730	F3A100YR1DAY	18.85	19.29	0.0001	73.27	68.15	50246
NRU0740	F3A100YR1DAY	0.00	19.27	0.0001	205.37	195.75	34493
NRU0745	F3A100YR1DAY	0.00	19.25	0.0001	205.95	187.95	50345
NRU0747	F3A100YR1DAY	18.87	19.25	0.0001	113.47	111.70	1655
NRU0750	F3A100YR1DAY	18.87	19.25	0.0001	252.45	143.84	252738
NRU0770	F3A100YR1DAY	18.88	19.25	0.0001	37.48	35.45	990
NRU0785	F3A100YR1DAY	0.00	19.25	0.0001	120.96	89.83	62470
NRU0790	F3A100YR1DAY	18.88	19.25	0.0003	660.03	605.27	142813
NRU0810	F3A100YR1DAY	18.88	19.24	0.0001	27.90	23.98	11353
NRU0820	F3A100YR1DAY	0.00	19.23	0.0001	6.39	3.32	442
NRU0830	F3A100YR1DAY	18.99	19.30	-0.0004	519.31	520.53	38634
NRU0840	F3A100YR1DAY	9999.00	19.34	-0.0006	464.15	465.27	2258
NRU0850	F3A100YR1DAY	19.11	19.36	0.0002	195.33	193.00	2553
NRU0870	F3A100YR1DAY	19.32	19.38	-0.0003	43.49	44.37	560
NRU0890	F3A100YR1DAY	19.35	19.39	0.0000	83.33	68.59	71656
NRU0910	F3A100YR1DAY	19.35	19.41	0.0000	3.73	3.17	581
NRU0930	F3A100YR1DAY	19.35	19.84	0.0000	3.92	3.73	1908
NRU0950	F3A100YR1DAY	19.11	19.38	-0.0003	219.72	197.78	37901
NRU0955	F3A100YR1DAY	0.00	19.38	-0.0001	279.47	247.71	58667
NRU0960	F3A100YR1DAY	0.00	19.40	0.0002	345.11	326.46	41902
NRU0965	F3A100YR1DAY	0.00	19.40	0.0002	350.81	321.47	104616
NRU0970	F3A100YR1DAY	19.34	19.39	0.0001	66.28	55.81	87431
NRU0980	F3A100YR1DAY	0.00	19.39	-0.0003	20.21	20.98	1097
NRU0990	F3A100YR1D	19.39	19.39	0.0003	41.50	41.09	440

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU1010	F3A100YR1DAY	19.70	19.39	0.0002	42.15	41.50	31496
NRU1015	F3A100YR1DAY	0.00	20.36	0.0001	27.38	15.28	45066
NRU1020	F3A100YR1DAY	0.00	21.81	-0.0060	23.96	111.95	866
NRU1025	F3A100YR1DAY	0.00	21.22	0.0001	12.62	12.41	724
NRU1030	F3A100YR1DAY	19.70	19.40	-0.0001	197.88	174.41	130071
NRU1035	F3A100YR1DAY	0.00	19.00	0.0000	1.60	1.48	436
NRU1036	F3A100YR1DAY	0.00	19.40	-0.0002	19.49	20.98	437
NRU1037	F3A100YR1DAY	0.00	19.35	0.0001	3.44	3.99	688
NRU1040	F3A100YR1DAY	0.00	19.40	0.0002	125.35	115.28	74510
NRU1045	F3A100YR1DAY	0.00	21.89	0.0001	25.97	16.88	42702
NRU1046	F3A100YR1DAY	0.00	21.85	0.0060	16.88	14.92	935
NRU1050	F3A100YR1DAY	19.70	19.40	0.0001	201.34	185.74	108208
NRU1070	F3A100YR1DAY	19.83	19.55	0.0001	77.51	75.69	31096
NRU1090	F3A100YR1DAY	18.86	19.25	-0.0002	114.48	112.60	1336
NRU1110	F3A100YR1DAY	18.86	19.24	-0.0001	159.30	153.85	80457
NRU1130	F3A100YR1DAY	18.86	19.24	-0.0001	36.17	33.38	776
NRU1150	F3A100YR1DAY	18.86	19.25	-0.0001	76.85	73.99	79730
NRU1170	F3A100YR1DAY	18.86	19.25	0.0001	57.83	49.74	50005
NRU1182	F3A100YR1DAY	0.00	18.64	0.0000	18.24	18.09	2980
NRU1184	F3A100YR1DAY	0.00	18.73	0.0000	13.47	13.08	873
NRU1185	F3A100YR1DAY	0.00	19.31	0.0001	23.30	17.32	43653
NRU1186	F3A100YR1DAY	0.00	18.72	0.0000	5.83	4.83	790
NRU1188	F3A100YR1DAY	0.00	18.73	0.0000	13.30	5.38	37904

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1190	F3A100YR1DAY	18.86	19.15	0.0000	9.84	7.79	576
NRU1210	F3A100YR1DAY	18.86	19.12	0.0000	7.79	6.71	720
NRU1220	F3A100YR1DAY	0.00	19.38	0.0001	37.75	36.82	2046
NRU1225	F3A100YR1DAY	0.00	23.04	0.0000	8.41	8.08	8973
NRU1230	F3A100YR1DAY	18.88	18.73	0.0002	678.94	679.07	4555
NRU1232	F3A100YR1DAY	0.00	18.37	0.0008	704.37	704.50	3681
NRU1234	F3A100YR1DAY	0.00	19.23	-0.0001	29.95	29.83	13665
NRU1240	F3A100YR1DAY	0.00	19.24	-0.0001	22.36	21.89	12156
NRU1250	F3A100YR1DAY	4.07	4.88	-0.0004	303.01	304.37	2104
NRU1270	F3A100YR1DAY	4.78	5.64	0.0004	297.34	297.35	1667
NRU1290	F3A100YR1DAY	5.41	6.41	-0.0002	281.07	281.15	3103
NRU1310	F3A100YR1DAY	6.42	7.59	0.0001	280.97	281.07	5051
NRU1330	F3A100YR1DAY	8.29	9.93	0.0001	350.72	350.46	3357
NRU1350	F3A100YR1DAY	9.32	11.32	0.0001	344.11	341.78	7706
NRU1370	F3A100YR1DAY	11.03	13.74	0.0001	348.55	334.61	25488
NRU1390	F3A100YR1DAY	11.84	13.78	0.0001	105.10	71.57	63194
NRU1410	F3A100YR1DAY	12.56	14.88	0.0002	272.20	272.28	7257
NRU1430	F3A100YR1DAY	15.53	16.89	-0.0001	91.58	41.38	129299
NRU1450	F3A100YR1DAY	15.94	16.40	0.0001	64.17	63.66	13938
NRU1470	F3A100YR1DAY	15.97	16.45	0.0001	6.65	6.69	980
NRU1490	F3A100YR1DAY	16.09	16.65	0.0001	15.18	12.30	24399
NRU1510	F3A100YR1DAY	15.12	17.74	0.0001	234.29	226.05	176590
NRU1530	F3A100YR1DAY	15.71	17.75	-0.0001	101.12	107.57	50503
NRU1550	F3A100YR1D	15.40	17.75	0.0000	121.59	126.56	42724

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU1570	F3A100YR1DAY	16.20	18.13	0.0000	58.54	51.88	39314
NRU1590	F3A100YR1DAY	16.40	18.13	0.0000	13.50	8.40	18410
NRU1610	F3A100YR1DAY	16.56	18.37	0.0000	55.85	46.47	54760
NRU1630	F3A100YR1DAY	16.69	18.38	-0.0002	37.29	37.35	1538
NRU1650	F3A100YR1DAY	16.84	18.38	0.0000	49.01	37.46	53525
NRU1670	F3A100YR1DAY	16.89	18.38	0.0000	125.03	35.83	233359
NRU1690	F3A100YR1DAY	16.89	18.26	0.0000	62.02	60.78	38135
NRU1710	F3A100YR1DAY	16.60	18.28	0.0001	34.47	34.20	1426
NRU1730	F3A100YR1DAY	16.58	18.36	0.0000	106.18	25.84	195266
NRU1750	F3A100YR1DAY	16.58	18.36	-0.0001	14.82	16.87	720
NRU1770	F3A100YR1DAY	16.58	18.36	0.0000	45.52	42.93	14995
NRU1790	F3A100YR1DAY	17.21	18.43	0.0000	27.09	24.45	40893
NRU1810	F3A100YR1DAY	16.58	18.36	0.0000	15.32	8.35	40629
NRU1830	F3A100YR1DAY	17.12	18.62	0.0000	46.72	29.63	66474
NRU1850	F3A100YR1DAY	17.07	18.32	-0.0001	25.08	25.05	1054
NRU1870	F3A100YR1DAY	17.20	18.43	-0.0001	25.11	25.08	907
NRU1890	F3A100YR1DAY	17.38	18.63	0.0000	70.03	25.11	129038
NRU1910	F3A100YR1DAY	17.71	18.63	0.0000	34.02	22.87	51878
NRU1930	F3A100YR1DAY	15.71	17.75	0.0000	66.63	88.15	161476
NRU1950	F3A100YR1DAY	16.43	17.95	0.0000	56.50	56.75	1646
NRU1970	F3A100YR1DAY	16.86	18.08	0.0000	56.25	56.50	1037
NRU1990	F3A100YR1DAY	17.09	18.14	-0.0001	56.00	56.25	7391
NRU2010	F3A100YR1DAY	18.02	18.72	0.0001	12.63	10.81	8382

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2030	F3A100YR1DAY	18.39	18.73	-0.0001	20.47	19.31	44037
NRU2050	F3A100YR1DAY	18.40	18.80	0.0001	4.79	3.18	453
NRU2070	F3A100YR1DAY	18.41	18.81	0.0000	8.83	4.79	20098
NRU2090	F3A100YR1DAY	17.16	18.22	-0.0001	48.39	48.52	14587
NRU2110	F3A100YR1DAY	17.28	18.32	0.0000	46.06	46.20	18739
NRU2130	F3A100YR1DAY	17.49	18.40	-0.0001	45.40	45.54	12189
NRU2150	F3A100YR1DAY	17.69	18.63	0.0001	13.40	6.65	64042
NRU2170	F3A100YR1DAY	17.07	18.53	0.0001	3.85	3.92	769
NRU2190	F3A100YR1DAY	17.08	18.53	0.0000	19.41	3.85	65700
NRU2210	F3A100YR1DAY	17.33	18.39	0.0001	8.75	8.91	539
NRU2230	F3A100YR1DAY	17.33	18.39	0.0000	71.80	20.99	156307
NRU2250	F3A100YR1DAY	17.31	18.38	0.0001	17.28	10.78	45922
NRU2270	F3A100YR1DAY	17.61	18.43	0.0001	32.63	30.75	16999
NRU2290	F3A100YR1DAY	17.67	18.43	-0.0001	28.66	28.78	7419
NRU2310	F3A100YR1DAY	17.68	18.43	0.0001	25.62	26.87	16255
NRU2330	F3A100YR1DAY	17.68	18.44	0.0002	32.09	10.92	11382
NRU2350	F3A100YR1DAY	17.68	18.44	-0.0004	6.18	30.86	655
NRU2370	F3A100YR1DAY	17.37	18.29	0.0001	6.06	6.18	528
NRU2390	F3A100YR1DAY	17.36	18.30	0.0000	17.32	6.06	37923
NRU2410	F3A100YR1DAY	17.72	18.39	0.0001	27.61	27.53	21920
NRU2430	F3A100YR1DAY	17.83	18.39	0.0001	23.32	22.91	16369
NRU2450	F3A100YR1DAY	18.06	18.39	0.0001	10.47	9.54	19732
NRU2470	F3A100YR1DAY	15.72	17.76	0.0000	13.85	13.68	1460
NRU2490	F3A100YR1D	15.75	17.79	0.0000	14.16	13.85	1430

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU2510	F3A100YR1DAY	15.75	17.83	0.0001	11.03	11.35	959
NRU2530	F3A100YR1DAY	15.76	18.00	0.0001	10.78	11.03	582
NRU2550	F3A100YR1DAY	16.53	17.78	0.0001	251.76	244.50	107181
NRU2570	F3A100YR1DAY	17.71	18.73	0.0001	243.59	238.09	112619
NRU2590	F3A100YR1DAY	18.30	18.75	0.0001	35.96	30.85	9958
NRU2610	F3A100YR1DAY	18.62	19.30	0.0001	119.21	118.85	31633
NRU2630	F3A100YR1DAY	19.41	19.74	0.0001	103.76	103.29	80366
NRU2650	F3A100YR1DAY	19.54	20.16	0.0002	93.38	91.60	99115
NRU2670	F3A100YR1DAY	16.64	17.19	0.0000	46.81	44.46	20727
NRU2690	F3A100YR1DAY	17.09	18.15	0.0000	292.57	127.49	605356
NSH02	F3A100YR1DAY	0.00	21.33	-0.0005	22.38	110.55	20448
NSH03	F3A100YR1DAY	0.00	19.44	-0.0227	5.65	12.94	767
NSH04	F3A100YR1DAY	0.00	17.86	0.0001	52.26	51.26	4605
NSH05	F3A100YR1DAY	0.00	11.34	-0.0001	802.01	804.37	5036
NSH07	F3A100YR1DAY	0.00	8.51	0.0001	75.11	75.07	10355
NSH08	F3A100YR1DAY	0.00	10.24	0.0000	32.12	30.32	5115
NSH09	F3A100YR1DAY	0.00	10.75	0.0000	82.58	82.43	17705
NSH10	F3A100YR1DAY	0.00	19.17	0.0000	36.80	35.95	34170
NSH11	F3A100YR1DAY	0.00	21.15	0.0000	12.75	12.68	6845
NSH12	F3A100YR1DAY	0.00	11.23	-0.0004	806.83	978.88	4119
NSH13	F3A100YR1DAY	0.00	10.98	0.0011	1001.04	1027.11	4602
NSH14	F3A100YR1DAY	0.00	10.73	0.0025	1032.47	1020.85	1911
NSH15	F3A100YR1DAY	0.00	18.76	0.0000	9.14	9.08	6222

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH16	F3A100YR1DAY	0.00	10.95	0.0003	47.31	48.55	641
NSH17	F3A100YR1DAY	0.00	10.48	0.0018	1021.60	1018.29	2161
NSH18	F3A100YR1DAY	0.00	10.29	0.0014	1039.36	878.35	3005
NSH19	F3A100YR1DAY	0.00	9.20	-0.0008	879.60	878.59	5396
NSH20	F3A100YR1DAY	0.00	20.24	0.0000	5.94	5.73	13766
NSH21	F3A100YR1DAY	0.00	11.24	-0.0001	30.37	30.29	11092
NSH22	F3A100YR1DAY	0.00	14.36	0.0001	46.67	46.37	8770
NSH23	F3A100YR1DAY	0.00	18.45	0.0000	20.07	19.86	5256
NSH24	F3A100YR1DAY	0.00	14.37	0.0001	32.21	31.79	8777
NSH25	F3A100YR1DAY	0.00	14.12	-0.0001	28.71	26.90	13269
NSH26	F3A100YR1DAY	0.00	13.95	-0.0001	113.74	105.22	61110
NSH26A	F3A100YR1DAY	0.00	12.99	0.0001	47.39	47.31	2058
NSH27	F3A100YR1DAY	0.00	13.03	0.0000	26.14	21.17	39051
NSH27A	F3A100YR1DAY	0.00	12.95	0.0000	18.09	16.51	921
NSH27AA	F3A100YR1DAY	0.00	12.99	0.0001	11.74	12.11	562
NSH27B	F3A100YR1DAY	0.00	11.64	-0.0001	16.51	17.61	1032
NSH27C	F3A100YR1DAY	0.00	9.39	-0.0003	17.61	16.65	1036
NSH28	F3A100YR1DAY	0.00	9.91	0.0000	39.88	39.45	10967
NSH29	F3A100YR1DAY	0.00	9.78	-0.0001	17.96	13.62	8428
NSH31	F3A100YR1DAY	0.00	9.88	0.0001	8.26	5.50	480
NSH33	F3A100YR1DAY	0.00	16.63	0.0000	3.85	3.65	8887
NSH34	F3A100YR1DAY	0.00	9.48	0.0001	82.79	82.75	6493
NSH35	F3A100YR1DAY	0.00	8.10	-0.0001	84.85	84.83	4778
NSH36	F3A100YR1D	0.00	8.07	0.0002	22.88	21.98	805

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSH37	F3A100YR1DAY	0.00	10.85	0.0014	1031.88	1032.02	2110
NSH41	F3A100YR1DAY	0.00	14.78	0.0000	7.22	7.20	466
NSH42	F3A100YR1DAY	0.00	7.37	0.0004	89.49	89.35	1025
NSH43	F3A100YR1DAY	0.00	7.43	0.0006	48.95	49.05	507
NSH44	F3A100YR1DAY	0.00	9.79	-0.0001	57.83	57.83	833
NSH45	F3A100YR1DAY	0.00	16.54	0.0000	54.11	53.08	29464
NSH48	F3A100YR1DAY	0.00	18.46	0.0000	24.85	24.70	5822
NSH49	F3A100YR1DAY	0.00	20.41	-0.0001	26.23	24.65	5034
NSH50	F3A100YR1DAY	0.00	17.19	-0.0011	734.36	734.43	6021
NSH51	F3A100YR1DAY	0.00	19.06	-0.0001	52.53	47.45	15799
NSH52	F3A100YR1DAY	0.00	17.46	-0.0012	729.97	730.10	4052
NSH53	F3A100YR1DAY	0.00	17.92	0.0002	63.17	62.45	1030
NSH53B	F3A100YR1DAY	0.00	17.57	-0.0004	40.70	39.44	448
NSH54	F3A100YR1DAY	0.00	17.88	0.0001	36.02	33.52	1255
NSH55	F3A100YR1DAY	0.00	18.12	0.0005	712.30	712.34	5311
NSH55B	F3A100YR1DAY	0.00	18.15	0.0001	15.94	14.68	447
NSH56	F3A100YR1DAY	0.00	18.75	0.0001	8.53	8.85	5053
NSH57	F3A100YR1DAY	0.00	19.24	-0.0001	17.30	17.14	5820
NSH60	F3A100YR1DAY	0.00	19.66	-0.0001	23.93	23.88	436
NSH61	F3A100YR1DAY	0.00	17.29	0.0000	23.88	23.69	451
NSH65	F3A100YR1DAY	0.00	21.07	0.0000	5.77	5.40	470
NSH71	F3A100YR1DAY	9999.00	18.38	0.0000	29.31	29.21	2463
NSH75	F3A100YR1DAY	0.00	7.49	0.0024	899.13	899.19	4066

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH76	F3A100YR1DAY	0.00	6.12	-0.0109	887.38	887.33	2030
NSH80	F3A100YR1DAY	0.00	16.69	0.0012	750.06	750.28	6657
NSH81	F3A100YR1DAY	0.00	20.81	0.0000	0.68	0.07	2614
NSH82	F3A100YR1DAY	0.00	20.92	0.0000	3.47	3.02	7642
NSH83	F3A100YR1DAY	0.00	16.98	-0.0001	31.86	31.74	1486
NSH85	F3A100YR1DAY	0.00	16.53	-0.0014	752.78	752.77	4681
NSHSelmonDS	F3A100YR1DAY	9999.00	12.29	0.0002	800.47	800.77	6356
NSHSelmonUS	F3A100YR1DAY	9999.00	15.33	0.0002	769.65	769.69	3189
NSR0000	F3A100YR1DAY	2.00	2.00	0.0000	330.26	49.82	0
NSR0005	F3A100YR1DAY	2.00	2.00	0.0000	11.15	0.00	0
NSR0010	F3A100YR1DAY	2.00	2.00	0.0000	577.50	0.00	0
NSR0030	F3A100YR1DAY	2.92	3.92	0.0000	579.75	577.50	223562
NSR0032	F3A100YR1DAY	4.88	5.39	0.0000	21.10	18.83	25764
NSR0034	F3A100YR1DAY	3.63	4.27	0.0000	115.06	98.27	98716
NSR0050	F3A100YR1DAY	3.44	4.62	0.0000	561.91	559.49	129195
NSR0070	F3A100YR1DAY	3.45	4.45	-0.0001	35.49	18.90	78909
NSR0090	F3A100YR1DAY	3.68	4.28	-0.0001	57.03	43.65	56305
NSR0100	F3A100YR1DAY	2.25	4.00	0.0000	11.35	11.15	3441
NSR0102	F3A100YR1DAY	4.24	4.63	0.0000	6.18	5.54	4275
NSR0105	F3A100YR1DAY	1.91	3.11	-0.0300	330.29	330.26	484
NSR0110	F3A100YR1DAY	3.93	4.83	0.0000	77.06	76.27	40203
NSR0112	F3A100YR1DAY	2.31	3.60	0.0301	329.26	329.25	469
NSR0115	F3A100YR1DAY	4.25	4.45	0.0000	5.73	5.46	10006
NSR0120	F3A100YR1D	2.62	4.00	0.0227	326.88	326.93	479

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0130	F3A100YR1DAY	4.16	5.21	0.0000	75.00	74.57	48908
NSR0135	F3A100YR1DAY	4.22	5.60	0.0000	60.61	60.48	44425
NSR0140	F3A100YR1DAY	3.28	4.84	-0.0158	324.20	324.28	10064
NSR0150	F3A100YR1DAY	3.64	5.08	0.0002	443.41	444.50	29727
NSR0160	F3A100YR1DAY	3.56	5.15	0.0118	307.50	306.71	26365
NSR0165	F3A100YR1DAY	4.03	5.65	0.0000	132.37	132.24	36045
NSR0170	F3A100YR1DAY	3.70	5.24	0.0000	79.28	79.23	17359
NSR0180	F3A100YR1DAY	3.83	5.63	0.0000	139.67	136.19	47406
NSR0190	F3A100YR1DAY	4.04	5.29	-0.0001	59.36	59.89	6393
NSR0210	F3A100YR1DAY	4.26	5.97	-0.0001	59.23	59.07	22348
NSR0230	F3A100YR1DAY	4.26	5.98	0.0000	82.85	58.63	164602
NSR0250	F3A100YR1DAY	3.93	5.27	-0.0051	415.36	415.07	12764
NSR0270	F3A100YR1DAY	3.98	5.33	0.0000	198.81	191.71	118772
NSR0280	F3A100YR1DAY	5.41	6.11	-0.0006	358.08	357.64	50511
NSR0281	F3A100YR1DAY	5.97	6.82	0.0002	287.74	287.48	23773
NSR0290	F3A100YR1DAY	6.70	7.29	-0.0007	190.03	188.98	45830
NSR0310	F3A100YR1DAY	9.28	9.57	0.0001	164.42	163.26	77612
NSR0330	F3A100YR1DAY	9.65	10.31	-0.0001	9.85	9.86	470
NSR0350	F3A100YR1DAY	10.32	11.70	-0.0001	9.86	9.85	446
NSR0370	F3A100YR1DAY	10.35	11.73	0.0000	18.60	9.86	22303
NSR0390	F3A100YR1DAY	11.96	12.44	-0.0001	142.36	142.00	80799
NSR0410	F3A100YR1DAY	12.27	13.16	0.0001	9.10	9.67	510
NSR0430	F3A100YR1DAY	12.28	13.17	0.0000	15.33	9.10	33866

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0450	F3A100YR1DAY	13.04	14.22	-0.0001	87.32	87.10	42530
NSR0470	F3A100YR1DAY	13.10	14.68	-0.0002	64.22	64.13	16718
NSR0490	F3A100YR1DAY	4.41	5.42	0.0086	244.81	241.68	52797
NSR0510	F3A100YR1DAY	4.48	5.58	0.0024	121.85	119.68	27069
NSR0530	F3A100YR1DAY	4.55	5.67	0.0003	57.72	56.06	79654
NSR0540	F3A100YR1DAY	4.55	5.73	0.0005	172.05	166.83	116980
NSR0550	F3A100YR1DAY	4.56	5.73	0.0015	398.56	396.90	34624
NSR0560	F3A100YR1DAY	4.66	5.78	0.0002	192.58	187.84	128803
NSR0570	F3A100YR1DAY	5.28	5.94	0.0003	290.53	289.91	65116
NSR0580	F3A100YR1DAY	6.13	6.91	-0.0001	39.49	21.18	124719
NSR0590	F3A100YR1DAY	6.15	6.93	-0.0001	157.08	155.85	82872
NSR0610	F3A100YR1DAY	6.26	6.99	-0.0002	183.86	175.38	85496
NSR0630	F3A100YR1DAY	6.26	6.99	-0.0001	16.59	16.65	475
NSR0650	F3A100YR1DAY	6.25	6.95	-0.0001	159.20	117.42	222954
NSR0660	F3A100YR1DAY	6.13	6.90	-0.0001	110.71	107.67	79937
NSR0670	F3A100YR1DAY	6.24	6.95	-0.0001	6.61	7.20	520
NSR0680	F3A100YR1DAY	6.14	6.83	-0.0001	149.59	147.27	173992
NSR0690	F3A100YR1DAY	6.24	6.94	-0.0001	6.23	6.61	599
NSR0710	F3A100YR1DAY	6.23	6.93	0.0000	6.15	6.23	861
NSR0730	F3A100YR1DAY	6.29	7.03	-0.0001	233.88	218.36	212424
NSR0770	F3A100YR1DAY	6.81	7.93	0.0001	237.96	237.66	30868
NSR0780	F3A100YR1DAY	6.74	7.45	-0.0001	93.16	92.36	30051
NSR0790	F3A100YR1DAY	8.35	10.96	-0.0003	485.66	484.65	92688
NSR0791	F3A100YR1D	7.13	8.84	0.0001	251.70	251.59	5596

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0809	F3A100YR1DAY	12.76	12.03	0.0004	76.03	93.17	2122
NSR0810	F3A100YR1DAY	13.45	13.81	0.0000	330.30	330.11	60626
NSR0830	F3A100YR1DAY	15.10	15.69	-0.0001	430.06	428.28	180752
NSR0840	F3A100YR1DAY	16.09	16.44	0.0000	89.57	89.87	58175
NSR0850	F3A100YR1DAY	15.64	16.39	-0.0003	332.13	331.27	82336
NSR0860	F3A100YR1DAY	16.41	16.64	0.0001	21.12	21.01	18904
NSR0869	F3A100YR1DAY	16.03	16.75	0.0000	30.04	29.77	1504
NSR0870	F3A100YR1DAY	16.24	16.94	0.0001	278.49	278.34	53587
NSR0880	F3A100YR1DAY	16.24	16.98	0.0000	120.27	120.01	27261
NSR0881	F3A100YR1DAY	14.14	18.03	0.0005	456.38	454.84	194720
NSR0890	F3A100YR1DAY	4.02	5.29	0.0953	280.45	261.24	149656
NSR0910	F3A100YR1DAY	4.79	5.98	-0.0029	224.34	223.81	98874
NSR0930	F3A100YR1DAY	5.54	7.29	0.0000	301.61	50.28	338071
NSR0950	F3A100YR1DAY	5.63	7.30	0.0009	437.32	399.42	206425
NSR0970	F3A100YR1DAY	6.14	7.34	0.0003	142.00	141.87	3616
NSR0990	F3A100YR1DAY	6.27	7.35	0.0001	272.35	271.42	4554
NSR1010	F3A100YR1DAY	6.30	7.38	0.0000	67.42	64.07	20834
NSR1030	F3A100YR1DAY	8.54	9.55	0.0002	209.93	209.37	10071
NSR1050	F3A100YR1DAY	8.56	9.63	0.0000	154.57	151.11	32536
NSR1070	F3A100YR1DAY	9.58	9.88	-0.0014	309.59	305.99	74756
NSR1090	F3A100YR1DAY	11.30	11.52	-0.0002	173.37	173.46	8782
NSR1110	F3A100YR1DAY	11.57	11.61	0.0000	4.40	4.38	3049
NSR1130	F3A100YR1DAY	11.29	11.45	0.0000	49.26	49.19	16531

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1150	F3A100YR1DAY	11.39	11.67	0.0000	10.62	9.77	13551
NSR1170	F3A100YR1DAY	11.38	11.65	0.0000	3.27	3.13	450
NSR1190	F3A100YR1DAY	12.70	13.46	0.0000	172.25	172.24	14610
NSR1210	F3A100YR1DAY	12.70	13.46	0.0000	37.40	7.70	99458
NSR1230	F3A100YR1DAY	14.76	15.62	0.0000	168.63	168.61	9770
NSR1270	F3A100YR1DAY	14.99	15.79	0.0000	168.65	168.63	6276
NSR1290	F3A100YR1DAY	14.99	15.80	0.0000	12.18	2.12	28260
NSR1310	F3A100YR1DAY	14.99	15.80	0.0000	46.51	14.13	186244
NSR1330	F3A100YR1DAY	15.44	16.61	0.0000	167.74	166.23	23781
NSR1350	F3A100YR1DAY	15.45	16.62	0.0000	62.93	34.54	388891
NSR1370	F3A100YR1DAY	15.56	16.69	-0.0001	172.84	166.53	21929
NSR1390	F3A100YR1DAY	15.56	16.69	0.0000	6.17	3.48	11395
NSR1410	F3A100YR1DAY	15.56	16.69	-0.0001	39.56	32.64	106936
NSR1430	F3A100YR1DAY	15.76	16.79	0.0000	81.47	77.70	63961
NSR1450	F3A100YR1DAY	15.74	16.79	0.0000	105.87	78.33	177795
NSR1470	F3A100YR1DAY	15.96	16.81	0.0000	84.07	77.62	95824
NSR1490	F3A100YR1DAY	16.21	16.83	0.0000	101.33	76.75	253590
NSR1510	F3A100YR1DAY	16.21	16.83	0.0000	56.67	49.16	86611
NSR1530	F3A100YR1DAY	15.56	16.69	0.0000	9.24	4.00	28595
NSR1550	F3A100YR1DAY	15.68	16.77	-0.0001	200.04	193.09	34955
NSR1570	F3A100YR1DAY	15.68	16.76	-0.0001	43.00	34.85	34037
NSR1590	F3A100YR1DAY	15.68	16.77	0.0001	82.11	94.37	64372
NSR1610	F3A100YR1DAY	15.75	16.82	0.0002	34.35	23.11	66247
NSR1630	F3A100YR1D	15.75	16.82	0.0000	115.14	110.46	21008

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR1650	F3A100YR1DAY	16.39	17.12	0.0000	5.20	5.20	537
NSR1670	F3A100YR1DAY	15.92	17.41	0.0003	149.92	133.50	105997
NSR1690	F3A100YR1DAY	16.24	17.62	0.0000	97.37	92.41	24231
NSR1710	F3A100YR1DAY	16.25	17.62	0.0000	13.21	10.64	46631
NSR1730	F3A100YR1DAY	16.32	17.66	0.0000	102.05	97.59	23092
NSR1750	F3A100YR1DAY	16.68	17.66	0.0000	5.47	5.35	6424
NSR1770	F3A100YR1DAY	17.23	17.58	0.0000	26.74	13.89	24458
NSR1790	F3A100YR1DAY	17.24	17.57	0.0000	33.09	18.02	42397
NSR1810	F3A100YR1DAY	17.25	17.57	0.0000	12.36	9.62	19435
NSR1830	F3A100YR1DAY	17.25	17.57	0.0000	118.30	114.35	125810
NSR1850	F3A100YR1DAY	16.95	18.32	0.0000	16.99	12.49	14336
NSR1870	F3A100YR1DAY	16.93	18.32	0.0001	114.04	36.21	188810
NSR1890	F3A100YR1DAY	16.05	18.32	0.0001	13.39	13.89	1056
NSR1910	F3A100YR1DAY	15.45	18.32	0.0004	203.13	196.01	184346
NSR1930	F3A100YR1DAY	16.53	17.72	0.0002	78.17	76.79	15338
NSR1950	F3A100YR1DAY	16.70	17.68	0.0000	28.25	28.10	16916
NSR1970	F3A100YR1DAY	16.84	18.14	0.0000	50.32	31.08	118002
NSR1990	F3A100YR1DAY	16.86	17.95	0.0000	9.07	9.07	949
NSR2010	F3A100YR1DAY	16.91	17.80	0.0000	26.47	12.34	63771
NSR2030	F3A100YR1DAY	16.90	17.64	0.0000	12.34	12.35	751
NSR2050	F3A100YR1DAY	16.88	17.39	0.0000	27.12	24.05	37256
NSR2070	F3A100YR1DAY	16.81	17.39	-0.0001	6.62	6.51	781
NSR2090	F3A100YR1DAY	16.72	17.38	0.0000	6.51	6.41	673

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2110	F3A100YR1DAY	16.54	17.38	0.0000	27.49	23.62	44367
NSR2130	F3A100YR1DAY	16.50	16.64	0.0000	27.49	23.88	89275
NSR2150	F3A100YR1DAY	17.60	18.24	0.0000	107.38	65.99	285565
NSR2170	F3A100YR1DAY	17.62	18.25	0.0012	31.06	31.20	2087
NSR2190	F3A100YR1DAY	17.62	18.25	-0.0008	30.93	31.06	967
NSR2210	F3A100YR1DAY	17.62	18.26	0.0000	112.00	77.98	311679
NSR2230	F3A100YR1DAY	17.62	18.25	-0.0014	18.88	18.55	675
NSR2250	F3A100YR1DAY	17.63	18.26	0.0001	26.96	21.88	15515
NSR2270	F3A100YR1DAY	17.63	18.26	0.0001	34.17	23.42	52937
NSR2290	F3A100YR1DAY	17.63	18.26	-0.0001	18.45	18.21	888
NSR2310	F3A100YR1DAY	17.63	18.26	0.0000	26.66	19.32	41984
NSR2330	F3A100YR1DAY	17.65	18.42	0.0000	29.97	11.52	56438
NSR2350	F3A100YR1DAY	17.65	18.43	0.0000	39.58	15.43	109287
NSR2370	F3A100YR1DAY	16.66	18.12	0.0000	63.28	57.54	9676
NSR2390	F3A100YR1DAY	18.07	18.17	0.0000	21.60	16.43	73672
NSR2410	F3A100YR1DAY	16.66	18.13	0.0000	69.45	47.17	24152
NSR2430	F3A100YR1DAY	17.99	18.13	0.0000	4.77	4.75	4168
NSR2450	F3A100YR1DAY	18.06	18.31	0.0000	64.21	61.88	33680
NSR3000	F3A100YR1DAY	17.04	18.32	-0.0727	20.42	49.45	58332
NSR3005	F3A100YR1DAY	17.02	18.32	0.1453	49.45	4.05	566
NSR3020	F3A100YR1DAY	17.61	18.10	-0.0001	206.06	205.42	119077
NSR3040	F3A100YR1DAY	16.25	16.99	0.0000	249.75	246.64	144532
NSR3060	F3A100YR1DAY	16.21	16.84	0.0000	71.62	68.47	70538
NSW0010	F3A100YR1D	2.00	2.00	0.0000	33.37	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSW0030	F3A100YR1DAY	2.13	3.45	0.0003	33.37	33.37	587
NSW0050	F3A100YR1DAY	4.04	6.45	-0.0003	57.43	33.37	57503
Outfall	F3A100YR1DAY	2.00	2.00	0.0000	142.26	0.00	0
Outfall_NE	F3A100YR1DAY	21.00	21.27	-0.0003	9.60	0.00	0
PondA	F3A100YR1DAY	0.00	19.22	0.0294	41.46	29.31	29802
PondB	F3A100YR1DAY	0.00	17.63	0.0000	212.65	145.38	193759
SH_OUTFALL	F3A100YR1DAY	2.00	2.00	0.0000	1208.21	36.97	0
STORAGE1	F3A100YR1DAY	0.00	20.87	0.0000	7.54	1.29	7405
STORAGE10	F3A100YR1DAY	0.00	21.07	0.0000	5.40	0.53	9148
STORAGE11	F3A100YR1DAY	0.00	21.33	0.0004	110.55	0.01	18648
STORAGE12	F3A100YR1DAY	0.00	21.81	0.0005	106.64	5.91	10262
STORAGE13	F3A100YR1DAY	0.00	19.00	0.0000	1.48	1.29	5323
STORAGE14	F3A100YR1DAY	0.00	23.04	0.0000	8.08	0.04	13395
STORAGE2	F3A100YR1DAY	0.00	19.30	0.0000	27.46	7.53	18426
STORAGE4	F3A100YR1DAY	0.00	19.45	0.0003	91.63	3.35	12088
STORAGE5	F3A100YR1DAY	0.00	21.53	0.0000	13.56	6.32	20042
STORAGE8	F3A100YR1DAY	0.00	18.93	0.0000	3.32	2.47	6098
STORAGE9	F3A100YR1DAY	0.00	19.66	0.0008	8.87	1.73	11761
Sevilla1	F3A100YR1DAY	1.20	2.61	0.0000	0.57	0.09	804
Sevilla2	F3A100YR1DAY	1.23	2.37	0.0000	0.28	0.04	610
Sevilla3	F3A100YR1DAY	1.20	2.61	0.0000	1.50	0.57	1339
Sevilla4	F3A100YR1DAY	1.20	2.61	0.0000	2.46	1.50	1450
Shamrock2	F3A100YR1DAY	1.11	2.37	0.0002	142.25	142.26	5389

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Shmrck1.1	F3A100YR1DAY	1.38	2.96	0.0002	144.51	142.28	6206
Shmrck1.2	F3A100YR1DAY	1.20	2.61	0.0003	142.28	142.27	3971
THEA_JUNCT1	F3A100YR1DAY	0.00	14.83	0.0000	37.15	37.14	667
THEA_JUNCT2	F3A100YR1DAY	0.00	13.78	0.0000	37.14	37.14	501
THEA_Watrous	F3A100YR1DAY	0.00	16.85	0.0002	37.17	37.15	812
V3	F3A100YR1DAY	6.53	6.63	0.0000	1.65	1.47	36742
BC_N02	F3A10YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	F3A10YR1DAY	8.77	9.69	0.0000	0.49	0.31	533
Church2	F3A10YR1DAY	8.77	9.69	0.0000	6.13	5.30	4390
Clark1	F3A10YR1DAY	7.21	8.13	0.0000	0.83	0.55	742
Clark2	F3A10YR1DAY	7.21	8.13	-0.0001	60.44	59.99	20681
DM1	F3A10YR1DAY	11.42	11.75	0.0000	6.03	6.16	1409
DM2	F3A10YR1DAY	10.30	10.53	0.0000	6.16	5.95	2165
DM3	F3A10YR1DAY	9.16	9.75	0.0000	5.95	6.13	2979
E_Outlet	F3A10YR1DAY	0.00	16.39	0.0002	84.68	41.17	0
E_Outlet2	F3A10YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A10YR1DAY	1.99	2.74	0.0000	0.39	0.29	763
ElP_con.1	F3A10YR1DAY	2.18	2.90	-0.0001	71.10	71.07	4221
ElPrad.1	F3A10YR1DAY	1.99	2.74	0.0000	0.19	0.12	632
G1	F3A10YR1DAY	14.98	15.74	-0.0004	84.00	67.09	40774
G10	F3A10YR1DAY	8.77	9.68	0.0001	60.83	60.44	4601
G2	F3A10YR1DAY	14.99	15.70	-0.0003	27.13	37.65	32918
G3	F3A10YR1DAY	14.86	15.68	-0.0005	103.82	93.14	27806
G4	F3A10YR1DA	12.82	14.75	-0.0005	93.14	90.13	57240

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
G5	F3A10YR1DAY	11.69	13.34	0.0001	69.20	69.16	1864
G6	F3A10YR1DAY	11.00	9.24	0.0000	11.29	0.00	0
G7	F3A10YR1DAY	11.00	11.68	0.0000	69.16	69.03	3601
G8	F3A10YR1DAY	10.07	10.68	0.0000	57.77	57.59	2143
G9	F3A10YR1DAY	9.41	10.08	0.0001	57.59	57.38	1353
H1	F3A10YR1DAY	1.99	2.74	0.0000	0.14	0.12	514
H2.1	F3A10YR1DAY	1.99	2.74	-0.0001	71.07	71.04	6105
Hubert	F3A10YR1DAY	3.16	3.60	0.0000	59.96	59.58	5965
JUNCT1	F3A10YR1DAY	0.00	13.82	0.0000	0.63	0.55	1154
JUNCT10	F3A10YR1DAY	0.00	22.09	0.0000	53.30	53.08	10692
JUNCT2	F3A10YR1DAY	0.00	14.06	0.0000	11.55	11.48	1729
JUNCT3	F3A10YR1DAY	0.00	19.64	0.0000	0.00	0.00	436
JUNCT4	F3A10YR1DAY	0.00	13.61	0.0000	2.36	2.32	4670
JUNCT6	F3A10YR1DAY	0.00	15.84	0.0000	76.74	76.42	9316
JUNCT7	F3A10YR1DAY	0.00	19.51	0.0000	96.56	96.44	8387
JUNCT7B	F3A10YR1DAY	0.00	19.00	0.0000	96.44	97.18	25981
JUNCT8	F3A10YR1DAY	0.00	19.51	0.0000	157.97	157.55	11633
JUNCT8B	F3A10YR1DAY	0.00	19.01	0.0000	160.67	162.51	36582
JUNCT9	F3A10YR1DAY	0.00	29.51	0.0000	48.93	48.97	9424
L1	F3A10YR1DAY	11.53	11.86	0.0000	21.06	21.65	51703
L2	F3A10YR1DAY	11.63	11.71	0.0000	4.39	4.05	41893
L3	F3A10YR1DAY	10.43	10.47	0.0000	1.59	1.32	32936
L4	F3A10YR1DAY	8.43	8.45	0.0000	0.60	0.38	50837

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
L5	F3A10YR1DAY	7.63	7.64	0.0000	0.15	0.11	43662
L6	F3A10YR1DAY	6.93	6.94	0.0000	0.04	0.03	43812
Lois	F3A10YR1DAY	4.82	4.96	-0.0001	59.99	59.96	6808
M1	F3A10YR1DAY	2.58	6.31	-0.0002	18.01	16.43	24804
M1.1	F3A10YR1DAY	6.33	6.69	0.0000	21.59	18.01	35066
M1.2	F3A10YR1DAY	7.03	7.27	0.0000	18.96	20.89	28312
M1.3	F3A10YR1DAY	7.13	7.50	0.0000	17.53	16.66	28489
M2	F3A10YR1DAY	2.58	5.63	-0.0005	16.61	12.56	60345
M3	F3A10YR1DAY	2.58	4.91	0.0000	12.56	12.56	1185
M4	F3A10YR1DAY	2.58	3.83	0.0000	12.56	12.57	909
M5.1	F3A10YR1DAY	2.57	3.22	0.0000	71.16	71.11	6163
M6	F3A10YR1DAY	2.58	3.22	0.0000	0.38	0.23	558
N01	F3A10YR1DAY	0.00	19.49	0.0000	27.56	20.14	26777
N01A	F3A10YR1DAY	0.00	19.14	0.0001	9.99	9.74	456
N02	F3A10YR1DAY	0.00	16.17	0.0001	24.96	24.56	692
N03	F3A10YR1DAY	0.00	16.54	0.0000	1.73	1.70	595
N04	F3A10YR1DAY	0.00	18.61	0.0001	10.65	10.53	643
N05	F3A10YR1DAY	0.00	16.12	0.0000	74.38	73.92	4408
N06	F3A10YR1DAY	0.00	15.69	0.0002	66.34	66.62	3292
N07A	F3A10YR1DAY	0.00	14.50	0.0001	71.74	72.10	4248
N08A	F3A10YR1DAY	0.00	13.36	0.0002	106.21	106.28	1955
N09	F3A10YR1DAY	0.00	11.70	0.0001	11.19	10.83	468
N09A	F3A10YR1DAY	0.00	11.55	0.0003	114.54	114.54	1361
N10	F3A10YR1DA	2.00	2.00	0.0000	243.86	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
N11	F3A10YR1DAY	0.00	16.59	-0.0007	61.72	84.68	145220
NBB0010	F3A10YR1DAY	2.00	2.00	0.0000	128.30	0.00	0
NBB0030	F3A10YR1DAY	5.03	6.84	0.0004	128.30	128.30	557
NBB0050	F3A10YR1DAY	9.15	11.69	-0.0003	161.52	128.30	57557
NBB0070	F3A10YR1DAY	11.30	13.32	0.0001	112.69	111.81	2549
NBB0090	F3A10YR1DAY	12.67	13.86	0.0001	98.65	98.22	2257
NBB0110	F3A10YR1DAY	13.46	14.72	0.0001	91.92	92.38	1982
NBB0130	F3A10YR1DAY	15.26	16.59	-0.0003	42.66	28.25	43108
NBB0150	F3A10YR1DAY	14.01	15.20	0.0001	71.84	71.97	1935
NBB0170	F3A10YR1DAY	14.74	15.84	0.0001	71.71	71.84	1452
NBB0190	F3A10YR1DAY	15.42	16.44	0.0001	71.59	71.71	32975
NBB0210	F3A10YR1DAY	15.70	16.59	0.0001	69.23	69.34	1556
NBB0230	F3A10YR1DAY	16.02	16.78	0.0001	69.12	69.23	4110
NBB0250	F3A10YR1DAY	16.31	17.07	0.0001	68.35	68.47	2036
NBB0270	F3A10YR1DAY	17.05	17.51	0.0001	67.68	68.35	14617
NBB0290	F3A10YR1DAY	17.06	17.51	0.0001	56.02	54.31	1258
NBB0310	F3A10YR1DAY	17.07	17.51	-0.0002	173.31	103.85	358779
NBB0330	F3A10YR1DAY	16.57	16.84	0.0002	40.51	38.86	17533
NBB0350	F3A10YR1DAY	16.45	16.82	0.0002	27.50	28.54	1396
NBB0370	F3A10YR1DAY	16.33	16.79	0.0002	72.38	52.95	60765
NBB0390	F3A10YR1DAY	16.32	16.79	0.0002	21.13	22.01	1835
NBB0410	F3A10YR1DAY	16.30	16.79	-0.0002	64.51	52.57	37661
NBB0430	F3A10YR1DAY	15.45	15.83	-0.0003	101.46	98.35	67617

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0010	F3A10YR1DAY	2.00	2.00	0.0000	708.32	0.00	0
NBW0030	F3A10YR1DAY	3.39	3.88	0.0002	708.86	708.32	44889
NBW0050	F3A10YR1DAY	3.92	4.14	0.0000	11.00	9.41	5826
NBW0070	F3A10YR1DAY	3.57	4.16	-0.0003	228.79	519.20	35974
NBW0090	F3A10YR1DAY	3.66	3.89	0.0000	7.32	5.84	14921
NBW0130	F3A10YR1DAY	3.73	4.33	0.0000	226.68	227.73	14482
NBW0150	F3A10YR1DAY	3.93	4.35	0.0001	10.31	9.92	1933
NBW0170	F3A10YR1DAY	3.98	4.35	0.0001	5.53	4.16	10274
NBW0190	F3A10YR1DAY	3.89	4.48	0.0001	225.04	225.27	5978
NBW0210	F3A10YR1DAY	6.25	6.34	0.0000	9.58	9.38	6143
NBW0230	F3A10YR1DAY	4.01	4.63	0.0001	224.16	224.29	3871
NBW0250	F3A10YR1DAY	4.88	5.55	0.0000	223.33	223.40	5589
NBW0270	F3A10YR1DAY	5.49	5.66	0.0001	45.31	40.61	23897
NBW0290	F3A10YR1DAY	5.91	5.95	0.0000	34.54	35.03	13014
NBW0310	F3A10YR1DAY	6.38	6.64	0.0000	12.01	11.36	4673
NBW0330	F3A10YR1DAY	5.50	6.33	0.0000	218.46	218.34	23494
NBW0350	F3A10YR1DAY	4.97	4.97	0.0000	9.27	9.26	2521
NBW0370	F3A10YR1DAY	5.52	6.33	-0.0001	11.02	9.90	6170
NBW0390	F3A10YR1DAY	5.52	6.33	-0.0001	11.37	8.67	26803
NBW0410	F3A10YR1DAY	5.54	6.39	0.0001	215.12	215.37	3446
NBW0430	F3A10YR1DAY	5.89	6.76	0.0000	6.95	6.12	14886
NBW0450	F3A10YR1DAY	5.89	6.76	0.0001	215.90	215.12	11715
NBW0470	F3A10YR1DAY	5.89	6.76	0.0000	5.07	4.25	9989
NBW0490	F3A10YR1DA	5.92	6.82	-0.0001	214.04	214.20	3151

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW0510	F3A10YR1DAY	6.72	6.82	0.0001	4.14	4.13	1674
NBW0530	F3A10YR1DAY	6.22	7.19	0.0000	213.71	213.53	4802
NBW0550	F3A10YR1DAY	6.72	7.89	0.0000	171.79	161.60	223700
NBW0570	F3A10YR1DAY	7.09	7.86	0.0000	166.31	165.35	22184
NBW0590	F3A10YR1DAY	10.03	10.09	-0.0003	235.52	234.60	84766
NBW0610	F3A10YR1DAY	6.45	7.42	-0.0001	193.04	192.97	8693
NBW0630	F3A10YR1DAY	6.22	7.19	0.0000	6.39	2.82	39869
NBW0650	F3A10YR1DAY	6.66	7.85	0.0000	194.12	193.36	21532
NBW0670	F3A10YR1DAY	6.66	7.85	0.0000	9.82	4.55	32916
NBW0690	F3A10YR1DAY	6.71	7.88	-0.0001	151.56	151.92	10003
NBW0710	F3A10YR1DAY	6.71	7.88	0.0000	15.79	10.15	42852
NBW0730	F3A10YR1DAY	6.72	7.89	-0.0001	143.13	146.34	195442
NBW0750	F3A10YR1DAY	7.06	7.91	0.0001	166.15	159.58	100448
NBW0770	F3A10YR1DAY	7.06	7.91	-0.0002	28.02	21.86	22937
NBW0790	F3A10YR1DAY	8.11	8.08	0.0000	23.88	23.70	1403
NBW0810	F3A10YR1DAY	7.06	7.91	0.0000	50.45	36.80	36689
NBW0830	F3A10YR1DAY	8.41	8.22	-0.0001	36.96	36.71	2097
NBW0850	F3A10YR1DAY	10.17	9.51	0.0001	35.90	33.75	4537
NBW0870	F3A10YR1DAY	7.06	7.94	0.0000	136.75	121.86	186225
NBW0890	F3A10YR1DAY	7.06	7.92	-0.0004	16.76	17.38	1027
NBW0910	F3A10YR1DAY	7.06	7.92	-0.0001	145.02	137.02	128672
NBW0930	F3A10YR1DAY	8.03	8.20	-0.0001	40.41	40.33	1301
NBW0950	F3A10YR1DAY	8.82	8.60	-0.0001	53.98	40.41	73190

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0970	F3A10YR1DAY	8.82	8.60	0.0002	36.37	35.17	18236
NBW0990	F3A10YR1DAY	8.82	8.62	-0.0003	14.86	14.60	785
NBW1010	F3A10YR1DAY	8.83	8.72	0.0000	35.74	35.72	1120
NBW1030	F3A10YR1DAY	9.19	10.56	0.0000	74.15	35.13	51498
NBW1050	F3A10YR1DAY	9.30	10.57	-0.0001	17.92	17.45	900
NBW1070	F3A10YR1DAY	9.34	10.57	0.0000	177.80	167.38	66411
NBW1090	F3A10YR1DAY	3.78	4.32	0.0001	433.24	432.85	13438
NBW1130	F3A10YR1DAY	4.51	5.24	-0.0001	74.42	74.27	26352
NBW1150	F3A10YR1DAY	4.53	5.26	-0.0001	77.66	75.96	61480
NBW1169	F3A10YR1DAY	4.09	4.57	0.0000	418.21	416.83	17276
NBW1170	F3A10YR1DAY	4.30	4.76	0.0001	412.40	411.89	6246
NBW1190	F3A10YR1DAY	6.13	6.40	-0.0001	39.19	35.28	52856
NBW1210	F3A10YR1DAY	7.17	7.43	-0.0003	132.46	125.69	124490
NBW1230	F3A10YR1DAY	7.17	7.45	-0.0002	186.91	118.99	183986
NBW1250	F3A10YR1DAY	4.74	5.26	-0.0001	371.01	370.07	7386
NBW1270	F3A10YR1DAY	6.14	6.40	-0.0001	11.86	12.80	14780
NBW1310	F3A10YR1DAY	5.21	5.64	0.0003	435.85	368.43	8354
NBW1330	F3A10YR1DAY	7.56	9.05	-0.0043	330.69	380.40	3075
NBW1350	F3A10YR1DAY	10.95	11.68	0.0002	38.08	38.35	8594
NBW1351	F3A10YR1DAY	8.89	10.62	0.0004	269.17	271.19	8277
NBW1352	F3A10YR1DAY	9.96	11.93	0.0006	261.03	261.26	7956
NBW1353	F3A10YR1DAY	11.01	13.20	0.0005	258.98	259.21	8196
NBW1370	F3A10YR1DAY	10.02	10.96	0.0004	209.47	224.07	39918
NBW1390	F3A10YR1DA	15.24	15.41	0.0004	272.95	272.12	121925

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1410	F3A10YR1DAY	15.58	15.68	0.0003	190.74	186.70	25092
NBW1430	F3A10YR1DAY	15.79	15.81	-0.0002	159.82	164.13	20694
NBW1450	F3A10YR1DAY	16.94	17.02	-0.0004	248.06	247.84	112974
NBW1460	F3A10YR1DAY	16.43	16.52	-0.0002	153.05	153.89	4273
NBW1470	F3A10YR1DAY	17.14	17.30	-0.0002	270.37	264.61	194415
NBW1480	F3A10YR1DAY	18.11	18.16	0.0001	13.24	12.74	16205
NBW1490	F3A10YR1DAY	17.86	18.14	-0.0001	168.94	166.23	88594
NBW1510	F3A10YR1DAY	18.12	18.37	0.0003	122.19	120.22	25085
NBW1530	F3A10YR1DAY	17.92	18.31	0.0001	17.71	12.41	1197
NBW1550	F3A10YR1DAY	17.75	18.26	-0.0001	38.24	33.61	16790
NBW1570	F3A10YR1DAY	18.21	18.54	0.0002	122.06	117.18	2604
NBW1590	F3A10YR1DAY	18.12	18.37	0.0001	43.15	36.58	20408
NBW1610	F3A10YR1DAY	18.13	18.37	0.0001	33.20	31.67	13213
NBW1630	F3A10YR1DAY	18.13	18.27	0.0001	23.09	23.08	1807
NBW1650	F3A10YR1DAY	18.81	19.24	0.0001	15.27	12.78	21439
NBW1670	F3A10YR1DAY	18.89	19.24	0.0001	33.38	31.31	17049
NBW1690	F3A10YR1DAY	19.03	19.24	0.0001	20.81	19.33	9922
NBW1710	F3A10YR1DAY	19.26	19.24	0.0001	4.38	1.70	998
NBW1730	F3A10YR1DAY	18.65	19.23	0.0004	186.62	174.58	251979
NBW1750	F3A10YR1DAY	18.82	19.24	-0.0001	129.46	120.78	42278
NBW1770	F3A10YR1DAY	18.82	19.24	0.0001	121.15	106.39	113711
NBW1790	F3A10YR1DAY	18.91	19.24	0.0001	27.91	26.97	11586
NBW1820	F3A10YR1DAY	18.72	18.98	0.0000	60.06	46.40	127471

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1830	F3A10YR1DAY	18.74	19.26	0.0001	56.13	57.92	53418
NBW1840	F3A10YR1DAY	18.39	18.56	0.0000	97.71	88.36	99907
NBW1850	F3A10YR1DAY	18.74	19.27	0.0001	119.53	110.06	112542
NBW1860	F3A10YR1DAY	18.39	18.56	-0.0001	13.50	10.14	19326
NBW1870	F3A10YR1DAY	18.72	18.98	-0.0002	27.21	20.66	34065
NBW1890	F3A10YR1DAY	19.06	19.52	0.0001	38.83	38.63	2614
NBW1910	F3A10YR1DAY	19.27	19.69	0.0001	52.77	52.51	3955
NBW1930	F3A10YR1DAY	19.27	19.68	0.0001	32.37	31.07	18412
NBW1950	F3A10YR1DAY	18.97	19.28	0.0001	5.44	2.68	450
NBW1970	F3A10YR1DAY	18.96	19.27	0.0000	11.64	11.57	5744
NBW1990	F3A10YR1DAY	19.27	19.65	0.0001	62.00	57.43	96596
NBW2010	F3A10YR1DAY	19.65	19.70	0.0001	10.68	10.91	9975
NBW2030	F3A10YR1DAY	19.65	19.70	0.0001	12.90	9.51	50952
NBW2050	F3A10YR1DAY	19.26	19.79	0.0001	46.30	26.91	94548
NBW2060	F3A10YR1DAY	0.00	19.79	0.0000	20.41	17.91	40757
NBW2070	F3A10YR1DAY	19.26	19.79	0.0002	95.42	68.87	156001
NBW2090	F3A10YR1DAY	19.10	18.67	0.0002	70.65	60.40	5668
NBW2110	F3A10YR1DAY	18.92	18.00	0.0001	81.60	78.34	28794
NBW2130	F3A10YR1DAY	18.92	17.99	-0.0002	85.57	83.74	16753
NBW2140	F3A10YR1DAY	20.00	18.49	0.0000	8.96	7.52	652
NBW2145	F3A10YR1DAY	0.00	19.17	-0.0005	15.74	56.57	17176
NBW2150	F3A10YR1DAY	19.26	19.79	0.0001	74.44	73.27	21915
NBW2170	F3A10YR1DAY	19.12	19.83	0.0001	5.70	4.69	931
NBW2190	F3A10YR1DA	19.10	19.86	0.0001	6.90	5.31	9966

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2210	F3A10YR1DAY	19.47	19.80	0.0001	40.54	41.40	10321
NBW2230	F3A10YR1DAY	19.47	19.81	-0.0002	53.79	52.76	46455
NBW2250	F3A10YR1DAY	19.51	19.80	0.0001	32.14	32.80	2381
NBW2270	F3A10YR1DAY	19.57	19.81	0.0001	31.13	31.77	12345
NBW2290	F3A10YR1DAY	19.65	19.81	-0.0002	40.18	32.49	93039
NBW2310	F3A10YR1DAY	19.82	19.82	-0.0002	34.97	29.42	97942
NBW2330	F3A10YR1DAY	19.82	19.82	-0.0002	26.81	16.04	53241
NBW2350	F3A10YR1DAY	16.05	16.22	0.0001	79.77	79.01	42473
NBW2370	F3A10YR1DAY	16.11	16.24	-0.0001	18.72	16.47	58361
NBW2380	F3A10YR1DAY	12.29	14.76	0.0004	257.50	257.75	10756
NBW2385	F3A10YR1DAY	18.49	18.50	0.0000	4.31	4.29	6514
NBW2387	F3A10YR1DAY	16.11	15.78	0.0000	0.53	0.52	479
NBW2390	F3A10YR1DAY	16.42	17.34	0.0001	53.13	52.82	9650
NBW2410	F3A10YR1DAY	16.59	18.10	-0.0002	101.39	98.61	144786
NBW2430	F3A10YR1DAY	16.23	18.11	0.0001	165.14	163.18	59401
NBW2450	F3A10YR1DAY	16.15	18.12	0.0002	163.25	163.91	4396
NBW2470	F3A10YR1DAY	16.43	18.25	0.0002	378.28	195.45	37714
NBW2490	F3A10YR1DAY	16.90	18.25	-0.0004	77.98	318.10	21023
NBW2510	F3A10YR1DAY	17.74	18.26	-0.0001	74.54	73.65	2040
NBW2530	F3A10YR1DAY	17.92	18.31	0.0001	63.28	63.80	2010
NBW2550	F3A10YR1DAY	17.95	18.32	-0.0001	2.64	3.02	450
NBW2570	F3A10YR1DAY	17.96	18.33	0.0000	3.43	2.64	5897
NBW2590	F3A10YR1DAY	18.06	18.35	0.0001	51.46	51.87	1098

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2610	F3A10YR1DAY	17.00	18.30	-0.0008	206.70	200.47	88917
NBW2630	F3A10YR1DAY	17.98	18.37	0.0001	165.46	158.60	36352
NBW2650	F3A10YR1DAY	16.97	18.30	-0.0004	27.86	28.93	20703
NBW2670	F3A10YR1DAY	16.42	18.30	0.0001	30.11	30.93	23401
NBW2680	F3A10YR1DAY	17.73	18.01	-0.0001	46.41	43.80	26935
NBW2690	F3A10YR1DAY	15.40	17.88	0.0002	251.94	246.09	78440
NBW2710	F3A10YR1DAY	17.73	18.03	0.0001	2.79	2.49	533
NBW2730	F3A10YR1DAY	18.29	18.53	0.0000	2.30	0.76	4926
NBW2770	F3A10YR1DAY	18.09	18.41	0.0001	13.27	13.29	1309
NBW2775	F3A10YR1DAY	6.59	6.61	0.0000	13.79	10.12	27700
NBW2780	F3A10YR1DAY	18.38	18.54	-0.0001	65.57	62.72	92148
NBW2790	F3A10YR1DAY	18.38	18.55	0.0000	197.48	194.73	97949
NBW2810	F3A10YR1DAY	18.39	18.56	-0.0002	74.50	73.38	69650
NBW2830	F3A10YR1DAY	18.40	18.57	-0.0001	57.28	47.73	122627
NC01	F3A10YR1DAY	0.00	4.53	0.0000	17.64	17.58	3239
NC01B	F3A10YR1DAY	0.00	5.86	0.0000	15.91	15.84	5342
NC02	F3A10YR1DAY	0.00	8.64	0.0001	122.68	122.67	5689
NC03	F3A10YR1DAY	0.00	4.81	0.0001	142.47	142.45	8281
NC04	F3A10YR1DAY	0.00	3.61	0.0000	58.56	54.65	31012
NC05	F3A10YR1DAY	0.00	3.60	-0.0001	61.50	58.83	42228
NC06	F3A10YR1DAY	0.00	3.56	0.0000	65.37	64.78	19417
NC07	F3A10YR1DAY	0.00	3.56	-0.0001	56.19	56.08	18890
NC08	F3A10YR1DAY	0.00	3.53	0.0000	64.62	64.45	14624
NCL0010	F3A10YR1DA	2.00	2.00	0.0000	684.36	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0030	F3A10YR1DAY	2.36	2.94	-0.0002	537.44	537.42	6856
NCL0050	F3A10YR1DAY	2.36	2.94	0.0000	0.37	1.06	439
NCL0070	F3A10YR1DAY	5.20	5.51	0.0000	148.81	147.65	53978
NCL0090	F3A10YR1DAY	6.06	6.17	-0.0001	58.21	43.77	76196
NCL0110	F3A10YR1DAY	3.04	3.61	-0.0008	603.13	603.10	6623
NCL0130	F3A10YR1DAY	4.05	3.76	-0.0002	144.24	144.31	565
NCL0150	F3A10YR1DAY	4.95	4.96	0.0000	144.17	144.24	2802
NCL0170	F3A10YR1DAY	5.08	5.09	-0.0001	77.89	77.92	1472
NCL0190	F3A10YR1DAY	5.08	5.10	0.0000	2.86	2.53	438
NCL0210	F3A10YR1DAY	5.85	5.83	-0.0001	96.82	98.06	10289
NCL0230	F3A10YR1DAY	6.60	6.94	-0.0002	40.56	31.98	43702
NCL0250	F3A10YR1DAY	6.60	6.95	0.0001	3.79	3.94	602
NCL0270	F3A10YR1DAY	6.60	6.95	0.0001	5.15	4.34	2028
NCL0290	F3A10YR1DAY	5.90	5.90	-0.0001	62.69	63.05	924
NCL0310	F3A10YR1DAY	6.10	6.20	0.0006	62.35	62.69	1045
NCL0330	F3A10YR1DAY	5.95	5.97	-0.0001	22.04	22.24	8457
NCL0350	F3A10YR1DAY	6.60	6.95	-0.0003	119.00	92.35	79005
NCL0370	F3A10YR1DAY	7.36	7.61	0.0002	106.75	104.95	22630
NCL0390	F3A10YR1DAY	4.02	4.54	-0.0022	445.34	472.06	4339
NCL0410	F3A10YR1DAY	4.09	4.66	-0.0002	6.49	6.38	819
NCL0430	F3A10YR1DAY	4.23	4.81	-0.0001	6.69	6.49	639
NCL0450	F3A10YR1DAY	4.75	5.22	-0.0005	435.77	435.87	3676
NCL0470	F3A10YR1DAY	5.43	5.83	-0.0010	434.07	434.15	3437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0490	F3A10YR1DAY	6.48	6.78	-0.0006	493.49	495.26	42416
NCL0510	F3A10YR1DAY	6.67	6.97	0.0002	35.12	34.92	1146
NCL0530	F3A10YR1DAY	8.10	8.17	0.0004	40.47	20.37	1172
NCL0550	F3A10YR1DAY	8.17	8.23	-0.0002	30.57	40.47	32921
NCL0570	F3A10YR1DAY	8.66	8.48	0.0001	15.44	15.13	841
NCL0590	F3A10YR1DAY	7.00	7.32	0.0008	435.90	436.19	3590
NCL0610	F3A10YR1DAY	7.52	7.90	0.0007	423.75	423.79	3640
NCL0630	F3A10YR1DAY	8.06	8.54	-0.0003	422.37	422.41	4608
NCL0650	F3A10YR1DAY	8.12	8.59	-0.0003	50.04	102.61	1613
NCL0670	F3A10YR1DAY	8.67	9.15	0.0003	129.05	50.04	1693
NCL0690	F3A10YR1DAY	8.76	9.21	0.0002	34.74	35.14	605
NCL0710	F3A10YR1DAY	8.95	9.33	-0.0001	34.43	34.25	601
NCL0730	F3A10YR1DAY	9.26	9.56	-0.0001	34.79	34.43	554
NCL0750	F3A10YR1DAY	9.56	9.77	0.0000	114.04	102.68	56818
NCL0770	F3A10YR1DAY	10.12	10.27	0.0000	68.67	68.62	2178
NCL0790	F3A10YR1DAY	8.69	9.17	-0.0003	31.67	101.59	895
NCL0810	F3A10YR1DAY	8.84	9.37	0.0001	32.02	31.67	4682
NCL0830	F3A10YR1DAY	8.93	9.63	0.0005	374.36	376.42	37257
NCL0850	F3A10YR1DAY	9.01	9.65	0.0001	99.34	92.86	18177
NCL0870	F3A10YR1DAY	9.37	9.84	-0.0001	116.95	116.67	2022
NCL0890	F3A10YR1DAY	9.65	10.01	-0.0001	103.11	102.78	1590
NCL0910	F3A10YR1DAY	9.71	10.01	0.0001	7.60	7.05	6174
NCL0930	F3A10YR1DAY	9.57	10.34	0.0001	100.61	99.70	2112
NCL0950	F3A10YR1DA	9.89	10.67	0.0001	87.60	87.35	3196

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0970	F3A10YR1DAY	10.41	11.08	0.0001	45.05	44.30	2269
NCL0990	F3A10YR1DAY	11.00	11.47	0.0001	37.07	36.00	4234
NCL1010	F3A10YR1DAY	11.14	11.65	0.0001	7.95	7.76	638
NCL1030	F3A10YR1DAY	9.67	9.87	-0.0002	22.42	33.52	1470
NCL1050	F3A10YR1DAY	10.46	9.89	0.0001	7.29	6.85	613
NCL1070	F3A10YR1DAY	9.30	10.63	0.0001	4.14	4.17	631
NCL1090	F3A10YR1DAY	9.76	10.71	0.0000	36.08	15.95	20883
NCL1110	F3A10YR1DAY	9.85	10.38	0.0001	17.26	17.29	2095
NCL1130	F3A10YR1DAY	9.76	10.71	-0.0001	23.08	16.33	65880
NCL1150	F3A10YR1DAY	9.76	10.71	0.0001	542.05	544.30	221522
NCL1170	F3A10YR1DAY	10.59	11.84	0.0004	415.14	352.15	117702
NCL1190	F3A10YR1DAY	10.72	11.98	0.0001	79.15	78.59	1851
NCL1210	F3A10YR1DAY	10.63	11.86	0.0001	47.08	15.19	55754
NCL1230	F3A10YR1DAY	10.94	12.15	0.0001	79.71	79.15	1432
NCL1250	F3A10YR1DAY	11.11	12.26	0.0001	80.28	79.71	1231
NCL1270	F3A10YR1DAY	11.34	12.38	0.0001	96.47	93.63	24375
NCL1290	F3A10YR1DAY	13.06	13.36	0.0001	62.38	62.28	6011
NCL1310	F3A10YR1DAY	14.77	15.06	-0.0001	60.19	59.80	18086
NCL1330	F3A10YR1DAY	10.60	11.84	-0.0002	239.37	243.57	82950
NCL1350	F3A10YR1DAY	10.63	11.86	0.0001	243.89	237.86	67213
NCL1370	F3A10YR1DAY	10.63	11.87	-0.0002	85.76	84.59	6976
NCL1390	F3A10YR1DAY	10.63	12.26	0.0001	29.56	29.34	11588
NCL1410	F3A10YR1DAY	10.63	12.27	0.0001	29.61	28.98	7997

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1430	F3A10YR1DAY	10.70	11.89	0.0004	512.77	420.04	201294
NCL1450	F3A10YR1DAY	10.93	12.50	0.0010	445.22	444.83	3036
NCL1470	F3A10YR1DAY	12.72	13.92	0.0002	340.28	339.65	4424
NCL1490	F3A10YR1DAY	14.45	14.60	0.0000	5.50	5.47	783
NCL1510	F3A10YR1DAY	11.06	12.55	-0.0008	60.30	79.87	4612
NCL1530	F3A10YR1DAY	12.54	12.86	0.0002	81.22	80.42	11250
NCL1550	F3A10YR1DAY	13.13	13.31	-0.0001	43.29	42.09	1021
NCL1570	F3A10YR1DAY	13.31	13.58	0.0001	4.75	4.63	504
NCL1590	F3A10YR1DAY	13.70	13.72	0.0000	2.14	2.13	1307
NCL1610	F3A10YR1DAY	13.37	13.67	0.0001	2.90	2.65	469
NCL1630	F3A10YR1DAY	13.57	13.64	0.0003	74.39	74.38	2663
NCL1650	F3A10YR1DAY	13.68	13.80	0.0002	75.61	75.62	1293
NCL1670	F3A10YR1DAY	14.02	14.48	0.0001	77.90	77.89	6136
NCL1690	F3A10YR1DAY	17.47	17.70	0.0001	51.85	51.78	4540
NCL1710	F3A10YR1DAY	17.89	18.04	0.0001	47.77	47.80	3206
NCL1730	F3A10YR1DAY	18.27	18.76	0.0002	109.43	109.47	19229
NCL1750	F3A10YR1DAY	18.24	18.69	-0.0003	23.42	23.43	513
NCL1770	F3A10YR1DAY	18.07	18.17	0.0001	36.22	36.22	2902
NCL1790	F3A10YR1DAY	15.78	15.89	0.0001	335.38	334.86	5863
NCL1810	F3A10YR1DAY	18.13	18.28	0.0001	58.06	53.21	33933
NCL1830	F3A10YR1DAY	18.39	17.84	0.0001	313.76	313.47	6250
NCL1850	F3A10YR1DAY	18.50	18.01	-0.0003	73.99	79.05	910
NCL1870	F3A10YR1DAY	19.01	18.84	0.0002	73.33	73.99	1002
NCL1890	F3A10YR1DA	19.15	19.05	0.0002	72.66	73.33	988

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL1910	F3A10YR1DAY	19.15	19.05	0.0001	4.36	1.17	538
NCL1930	F3A10YR1DAY	19.91	19.91	0.0000	4.91	4.90	1636
NCL1950	F3A10YR1DAY	19.15	19.05	0.0000	0.78	0.21	504
NCL1970	F3A10YR1DAY	21.67	21.66	0.0000	2.70	2.69	3234
NCL1990	F3A10YR1DAY	19.58	19.74	0.0001	72.37	71.86	889
NCL2010	F3A10YR1DAY	19.74	19.89	0.0001	45.89	44.48	1104
NCL2030	F3A10YR1DAY	19.76	19.82	-0.0001	16.33	13.27	34038
NCL2050	F3A10YR1DAY	19.76	19.94	0.0001	42.05	40.79	1411
NCL2070	F3A10YR1DAY	19.76	19.82	-0.0001	3.99	4.58	1202
NCL2090	F3A10YR1DAY	19.87	20.23	0.0001	44.18	42.05	1414
NCL2110	F3A10YR1DAY	20.03	20.26	-0.0001	30.16	28.83	3897
NCL2130	F3A10YR1DAY	19.87	20.28	0.0001	90.18	96.04	62888
NCL2150	F3A10YR1DAY	20.75	21.30	-0.0004	92.53	85.65	181829
NCL2170	F3A10YR1DAY	19.85	20.26	-0.0001	136.93	137.13	44480
NCL2230	F3A10YR1DAY	19.13	18.98	0.0004	236.60	236.83	5806
NCL2250	F3A10YR1DAY	19.55	19.67	0.0002	214.71	211.87	4444
NCL2270	F3A10YR1DAY	20.05	20.56	0.0001	203.60	202.99	26149
NCL2290	F3A10YR1DAY	19.88	20.26	0.0001	12.43	11.97	4726
NCL2310	F3A10YR1DAY	20.45	20.91	0.0001	106.40	105.55	1779
NCL2330	F3A10YR1DAY	20.74	21.16	0.0001	148.48	138.79	103972
NCL2350	F3A10YR1DAY	20.78	21.18	0.0001	96.71	95.54	7578
NCL2370	F3A10YR1DAY	20.81	21.19	0.0001	92.57	91.35	2298
NCL2390	F3A10YR1DAY	20.84	21.22	0.0001	144.50	124.52	148853

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2410	F3A10YR1DAY	21.07	21.27	0.0000	30.82	31.34	1380
NCL2430	F3A10YR1DAY	21.32	21.37	0.0000	29.82	30.16	1472
NCL2450	F3A10YR1DAY	21.25	21.33	0.0000	5.25	5.07	493
NCL2470	F3A10YR1DAY	20.93	21.23	0.0000	20.29	19.83	846
NCL2490	F3A10YR1DAY	21.54	21.39	0.0000	27.09	26.81	1524
NCL2510	F3A10YR1DAY	21.70	21.39	0.0000	120.88	121.75	93188
NCL2530	F3A10YR1DAY	21.70	21.39	0.0000	52.65	54.16	45984
NCL2540	F3A10YR1DAY	0.00	22.08	0.0000	79.11	78.32	46002
NCL2550	F3A10YR1DAY	21.70	21.39	0.0000	63.98	64.46	15645
NCL2570	F3A10YR1DAY	21.51	21.36	0.0001	16.92	17.10	1503
NCL2580	F3A10YR1DAY	0.00	21.34	-0.0002	119.79	118.87	33644
NCL2590	F3A10YR1DAY	21.17	21.34	0.0000	200.61	198.34	136031
NCL2610	F3A10YR1DAY	21.14	21.34	0.0000	138.06	137.78	29601
NCL2630	F3A10YR1DAY	20.86	20.94	0.0000	86.55	83.99	49182
NCL2631	F3A10YR1DAY	0.00	20.71	-0.0001	94.68	71.43	43390
NCL2650	F3A10YR1DAY	21.17	21.48	0.0001	98.36	82.76	117111
NCL2670	F3A10YR1DAY	21.93	22.16	-0.0003	107.98	120.83	58307
NCL2690	F3A10YR1DAY	21.96	22.39	-0.0001	61.86	75.35	53998
NCL2710	F3A10YR1DAY	21.96	22.47	0.0000	53.14	54.10	70996
NCL2730	F3A10YR1DAY	21.95	22.59	0.0000	35.31	34.92	11499
NCL2750	F3A10YR1DAY	21.84	22.97	0.0000	103.63	103.08	32925
NCL2770	F3A10YR1DAY	21.71	22.40	0.0000	29.28	29.29	1389
NCL2780	F3A10YR1DAY	0.00	22.24	0.0000	23.11	21.90	26545
NCL2790	F3A10YR1DA	21.84	22.27	0.0000	151.14	144.87	121035

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2810	F3A10YR1DAY	22.11	22.79	-0.0001	97.09	96.53	23110
NCL2830	F3A10YR1DAY	23.09	22.92	-0.0001	19.25	18.80	3599
NCL2835	F3A10YR1DAY	0.00	23.80	0.0000	7.90	7.97	1077
NCL2840	F3A10YR1DAY	0.00	23.75	0.0000	94.87	94.61	24714
NCL2845	F3A10YR1DAY	0.00	24.28	-0.0001	52.26	52.08	15879
NCL2850	F3A10YR1DAY	20.82	21.19	0.0000	22.26	22.81	1361
NCL2870	F3A10YR1DAY	20.83	21.15	-0.0001	21.17	21.67	1245
NCL2890	F3A10YR1DAY	20.83	21.11	0.0002	19.85	21.17	21404
NCL2910	F3A10YR1DAY	20.83	21.11	-0.0001	76.11	75.49	43368
NCL2930	F3A10YR1DAY	19.55	19.70	0.0004	135.07	133.44	5415
NCL2950	F3A10YR1DAY	19.53	19.70	0.0002	130.79	129.69	6824
NCL2970	F3A10YR1DAY	20.49	20.58	0.0002	59.32	58.24	15496
NCL2990	F3A10YR1DAY	19.33	19.70	0.0002	121.28	121.79	5885
NCL3010	F3A10YR1DAY	19.35	19.72	0.0002	108.86	117.42	209252
NCL3030	F3A10YR1DAY	19.58	19.79	0.0002	98.96	87.54	61177
NCL3050	F3A10YR1DAY	19.94	20.06	0.0002	81.02	74.68	37662
NCL3070	F3A10YR1DAY	20.14	20.19	0.0000	43.86	41.98	20830
NCL3090	F3A10YR1DAY	19.59	19.79	0.0002	125.60	83.76	86989
NCL3110	F3A10YR1DAY	19.59	19.79	0.0002	73.83	48.50	98873
NCL3130	F3A10YR1DAY	19.59	19.80	0.0002	28.14	22.79	39840
NCL3150	F3A10YR1DAY	19.54	19.78	0.0002	135.32	133.81	48746
NCL3170	F3A10YR1DAY	19.71	20.27	0.0001	81.06	80.48	33851
NCL3190	F3A10YR1DAY	20.31	20.49	-0.0003	89.42	81.29	131041

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3210	F3A10YR1DAY	20.32	20.49	-0.0003	61.32	56.02	61965
NCL3230	F3A10YR1DAY	20.32	20.51	-0.0002	47.91	46.97	22893
NCL3250	F3A10YR1DAY	19.11	18.42	0.0002	199.31	201.19	59713
NCL3250A	F3A10YR1DAY	0.00	19.11	0.0002	133.81	132.79	2677
NCL3270	F3A10YR1DAY	19.11	19.01	0.0000	33.89	33.00	1736
NCL3280	F3A10YR1DAY	0.00	19.22	0.0000	30.92	30.01	1342
NCL3290	F3A10YR1DAY	20.16	20.16	0.0000	26.67	24.80	18599
NCL3300	F3A10YR1DAY	0.00	19.73	0.0000	7.53	7.53	1687
NCL3310	F3A10YR1DAY	20.19	20.13	0.0000	1.91	2.85	772
NCL3330	F3A10YR1DAY	20.75	20.09	0.0000	5.03	4.74	437
NCL3350	F3A10YR1DAY	20.51	20.65	0.0000	33.14	31.34	44482
NCL3360	F3A10YR1DAY	0.00	20.64	0.0000	11.37	9.67	19611
NCL3365	F3A10YR1DAY	0.00	20.25	0.0001	27.78	27.28	24805
NCL3370	F3A10YR1DAY	20.64	21.05	-0.0002	130.85	126.40	96174
NCL3390	F3A10YR1DAY	20.83	21.11	0.0001	124.44	123.85	41975
NCL3410	F3A10YR1DAY	20.83	21.11	0.0001	2.27	2.31	477
NCL3430	F3A10YR1DAY	20.83	21.11	0.0000	5.90	1.38	4441
NCL3450	F3A10YR1DAY	18.92	18.04	0.0001	255.07	252.52	117038
NCL3470	F3A10YR1DAY	19.11	18.31	0.0001	233.07	198.33	134637
NCL3471	F3A10YR1DAY	0.00	18.15	0.0002	123.51	122.14	5436
NCL3490	F3A10YR1DAY	19.15	18.69	0.0001	133.32	127.02	31634
NCL3510	F3A10YR1DAY	20.64	19.82	0.0001	107.68	106.90	28349
NCL3520	F3A10YR1DAY	0.00	19.51	-0.0001	260.61	259.58	32391
NCL3530	F3A10YR1DA	20.66	20.72	0.0001	154.38	150.70	65636

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL3550	F3A10YR1DAY	20.66	20.72	0.0001	4.59	4.30	736
NCL3570	F3A10YR1DAY	20.66	20.74	0.0001	2.63	2.43	629
NCL3590	F3A10YR1DAY	20.66	20.79	0.0000	3.16	1.36	5615
NCL3610	F3A10YR1DAY	20.66	20.72	-0.0001	40.96	41.24	1320
NCL3630	F3A10YR1DAY	20.64	20.71	-0.0001	241.19	236.15	118312
NCL3635	F3A10YR1DAY	0.00	20.71	0.0001	22.51	24.49	1916
NCL3640	F3A10YR1DAY	0.00	20.72	0.0001	29.54	26.34	43209
NCL3650	F3A10YR1DAY	18.92	18.26	0.0001	7.58	5.94	503
NCL3670	F3A10YR1DAY	18.92	18.27	0.0000	11.58	11.32	2388
NCL3690	F3A10YR1DAY	18.92	17.94	0.0001	138.35	131.81	2628
NCL3730	F3A10YR1DAY	18.92	17.83	0.0000	403.89	392.49	118499
NCL3740	F3A10YR1DAY	0.00	18.02	0.0001	242.74	239.28	23357
NCL3750	F3A10YR1DAY	18.93	19.23	-0.0012	214.02	125.16	239466
NCL3770	F3A10YR1DAY	18.93	19.23	-0.0007	77.63	41.97	99259
NCL4000	F3A10YR1DAY	0.00	29.79	0.0000	48.97	48.93	7165
NCL4010	F3A10YR1DAY	0.00	29.51	0.0000	41.32	41.09	14000
NCypEast	F3A10YR1DAY	32.00	29.00	0.0000	10.75	0.00	0
NCypWest	F3A10YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3A10YR1DAY	2.00	2.00	0.0000	473.03	86.56	0
NOC0030	F3A10YR1DAY	1.14	2.32	0.0176	473.11	473.03	594
NOC0050	F3A10YR1DAY	1.20	2.51	0.0139	423.11	423.24	530
NOC0070	F3A10YR1DAY	1.45	3.24	0.0065	412.22	411.95	905
NOC0090	F3A10YR1DAY	2.91	3.45	0.0024	124.53	124.63	446

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0110	F3A10YR1DAY	1.65	3.32	0.0071	265.92	266.12	455
NOC0130	F3A10YR1DAY	3.06	4.03	0.0042	265.85	265.92	528
NOC0150	F3A10YR1DAY	3.08	4.04	0.0000	2.96	2.72	500
NOC0170	F3A10YR1DAY	4.56	4.83	0.0000	15.77	15.76	1455
NOC0190	F3A10YR1DAY	5.09	5.17	-0.0005	263.64	263.70	1077
NOC0210	F3A10YR1DAY	5.68	5.91	-0.0001	31.25	30.57	4209
NOC0230	F3A10YR1DAY	5.12	5.21	-0.0001	9.05	8.75	742
NOC0250	F3A10YR1DAY	5.30	5.57	0.0000	9.54	9.05	984
NOC0270	F3A10YR1DAY	5.57	6.17	0.0000	5.70	4.84	876
NOC0290	F3A10YR1DAY	5.11	5.31	-0.0003	313.93	314.07	1836
NOC0310	F3A10YR1DAY	5.27	5.53	0.0001	62.99	62.38	1436
NOC0330	F3A10YR1DAY	5.85	5.83	-0.0001	266.97	269.82	54344
NOC0350	F3A10YR1DAY	5.89	5.94	-0.0001	218.52	217.74	9652
NOC0370	F3A10YR1DAY	6.47	6.76	0.0001	153.11	153.15	26742
NOC0390	F3A10YR1DAY	6.60	6.94	-0.0001	57.45	54.26	27139
NOC0410	F3A10YR1DAY	6.95	7.03	0.0000	53.88	43.06	32832
NOC0430	F3A10YR1DAY	7.01	7.07	0.0000	37.68	33.49	15124
NOC0450	F3A10YR1DAY	7.62	7.40	0.0000	26.63	26.31	9481
NOC0470	F3A10YR1DAY	8.12	7.95	-0.0001	17.70	16.81	17271
NOC0490	F3A10YR1DAY	7.67	7.41	0.0001	5.55	4.36	1051
NRU0010	F3A10YR1DAY	2.00	2.00	0.0000	611.90	0.00	0
NRU0030	F3A10YR1DAY	2.84	3.40	0.0002	335.63	335.62	2468
NRU0050	F3A10YR1DAY	4.36	4.93	-0.0001	335.62	335.63	2036
NRU0070	F3A10YR1DA	5.61	6.31	0.0006	339.12	335.62	19977

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0090	F3A10YR1DAY	5.66	6.32	0.0002	85.39	67.22	21611
NRU0110	F3A10YR1DAY	6.23	6.59	-0.0002	263.91	257.12	18148
NRU0130	F3A10YR1DAY	7.66	7.83	0.0019	233.58	233.36	2616
NRU0150	F3A10YR1DAY	7.71	7.87	-0.0035	220.63	220.65	1530
NRU0160	F3A10YR1DAY	0.00	13.79	0.0001	165.25	165.24	4959
NRU0165	F3A10YR1DAY	0.00	13.99	0.0000	4.96	4.55	474
NRU0170	F3A10YR1DAY	14.45	15.78	-0.0001	173.49	161.94	35836
NRU0172	F3A10YR1DAY	0.00	15.99	0.0001	8.47	10.09	831
NRU0174	F3A10YR1DAY	0.00	16.42	-0.0001	10.11	8.47	8962
NRU0176	F3A10YR1DAY	0.00	16.27	0.0000	7.72	7.76	761
NRU0178	F3A10YR1DAY	0.00	16.48	0.0000	7.68	7.72	957
NRU0180	F3A10YR1DAY	0.00	16.54	-0.0001	92.10	82.24	109833
NRU0190	F3A10YR1DAY	14.45	15.78	0.0001	18.85	18.48	1391
NRU0210	F3A10YR1DAY	14.45	15.83	-0.0001	16.56	15.61	2844
NRU0230	F3A10YR1DAY	13.39	15.15	-0.0001	25.17	24.09	21449
NRU0250	F3A10YR1DAY	14.62	15.78	-0.0002	145.74	143.39	17369
NRU0270	F3A10YR1DAY	15.05	15.99	0.0001	124.89	124.80	2605
NRU0290	F3A10YR1DAY	16.30	18.41	-0.0004	45.43	32.18	56343
NRU0310	F3A10YR1DAY	16.13	16.69	0.0001	86.62	86.55	2502
NRU0330	F3A10YR1DAY	18.25	17.84	0.0001	25.71	25.86	1352
NRU0335	F3A10YR1DAY	0.00	19.29	0.0001	8.72	5.90	14045
NRU0340	F3A10YR1DAY	0.00	18.60	0.0001	51.78	50.77	27188
NRU0343	F3A10YR1DAY	0.00	19.33	-0.0001	12.39	11.14	918

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0345	F3A10YR1DAY	0.00	19.57	-0.0001	45.33	36.06	68629
NRU0350	F3A10YR1DAY	19.50	18.73	0.0001	12.16	11.76	1134
NRU0370	F3A10YR1DAY	19.51	18.73	0.0001	12.89	10.62	6328
NRU0380	F3A10YR1DAY	23.33	18.65	0.0002	6.75	8.18	470
NRU0390	F3A10YR1DAY	27.00	18.61	-0.0002	23.71	17.64	17433
NRU0410	F3A10YR1DAY	19.56	18.76	0.0001	9.96	7.39	1095
NRU0425	F3A10YR1DAY	15.53	16.18	0.0001	6.92	5.64	4982
NRU0430	F3A10YR1DAY	19.61	18.78	0.0001	7.39	4.97	1071
NRU0450	F3A10YR1DAY	19.66	18.81	0.0001	4.97	2.89	1043
NRU0470	F3A10YR1DAY	19.72	18.93	0.0001	2.70	2.02	784
NRU0490	F3A10YR1DAY	20.36	18.99	-0.0001	2.85	2.13	532
NRU0495	F3A10YR1DAY	0.00	14.05	0.0009	749.43	687.64	2716
NRU0500	F3A10YR1DAY	0.00	14.37	0.0015	726.42	748.31	5646
NRU0510	F3A10YR1DAY	19.67	19.88	-0.0002	23.82	15.94	40672
NRU0530	F3A10YR1DAY	16.95	17.50	0.0001	53.49	54.20	2251
NRU0550	F3A10YR1DAY	17.92	18.33	-0.0002	98.72	85.60	75125
NRU0570	F3A10YR1DAY	18.16	18.60	-0.0001	63.31	62.81	1524
NRU0590	F3A10YR1DAY	18.51	18.96	0.0001	42.57	43.09	2995
NRU0610	F3A10YR1DAY	18.78	19.17	0.0001	41.03	41.53	21990
NRU0612	F3A10YR1DAY	0.00	19.16	0.0001	32.04	30.35	9340
NRU0615	F3A10YR1DAY	0.00	19.63	0.0001	11.44	7.35	2139
NRU0616	F3A10YR1DAY	0.00	20.05	0.0000	5.67	4.69	6080
NRU0618	F3A10YR1DAY	0.00	20.04	0.0000	12.87	11.96	2359
NRU0620	F3A10YR1DA	0.00	19.88	-0.0001	19.82	16.61	22115

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0630	F3A10YR1DAY	18.79	19.04	0.0001	39.54	36.84	7264
NRU0650	F3A10YR1DAY	18.79	18.93	0.0001	60.16	55.01	16579
NRU0670	F3A10YR1DAY	18.78	18.79	0.0001	55.01	55.05	1429
NRU0690	F3A10YR1DAY	18.84	18.58	0.0001	70.15	66.82	11705
NRU0710	F3A10YR1DAY	18.86	18.39	0.0001	113.58	111.11	21047
NRU0730	F3A10YR1DAY	18.85	18.62	0.0001	33.75	31.06	27138
NRU0740	F3A10YR1DAY	0.00	17.61	0.0001	118.05	117.29	11413
NRU0745	F3A10YR1DAY	0.00	17.15	0.0001	122.47	120.37	18625
NRU0747	F3A10YR1DAY	18.87	17.15	-0.0001	111.53	109.93	1657
NRU0750	F3A10YR1DAY	18.87	17.14	0.0001	152.77	139.88	100094
NRU0770	F3A10YR1DAY	18.88	17.15	0.0001	34.74	33.54	1017
NRU0785	F3A10YR1DAY	0.00	17.15	0.0001	64.72	60.75	13105
NRU0790	F3A10YR1DAY	18.88	17.15	-0.0003	556.89	557.59	33209
NRU0810	F3A10YR1DAY	18.88	17.14	0.0001	5.15	1.89	5290
NRU0820	F3A10YR1DAY	0.00	17.09	0.0000	1.89	1.88	442
NRU0830	F3A10YR1DAY	18.99	17.56	-0.0005	550.96	551.57	4681
NRU0840	F3A10YR1DAY	9999.00	17.77	-0.0001	498.65	499.21	2258
NRU0850	F3A10YR1DAY	19.11	17.89	0.0002	174.41	173.00	2553
NRU0870	F3A10YR1DAY	19.32	18.07	-0.0003	35.16	35.93	560
NRU0890	F3A10YR1DAY	19.35	18.08	0.0000	47.50	55.36	59614
NRU0910	F3A10YR1DAY	19.35	18.09	0.0000	2.01	1.96	581
NRU0930	F3A10YR1DAY	19.35	19.60	0.0000	2.15	2.01	1742
NRU0950	F3A10YR1DAY	19.11	18.11	-0.0002	160.12	157.56	24354

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0955	F3A10YR1DAY	0.00	18.11	-0.0001	175.38	170.70	25976
NRU0960	F3A10YR1DAY	0.00	18.31	0.0002	184.91	181.02	24981
NRU0965	F3A10YR1DAY	0.00	18.36	-0.0003	193.98	190.25	34839
NRU0970	F3A10YR1DAY	19.34	18.17	0.0001	19.49	18.05	21086
NRU0980	F3A10YR1DAY	0.00	18.19	0.0012	15.73	16.46	1097
NRU0990	F3A10YR1DAY	19.39	18.21	-0.0007	38.23	38.01	440
NRU1010	F3A10YR1DAY	19.70	18.38	-0.0001	38.55	38.23	990
NRU1015	F3A10YR1DAY	0.00	19.50	0.0001	19.08	15.66	16470
NRU1020	F3A10YR1DAY	0.00	20.81	-0.0060	20.47	99.65	866
NRU1025	F3A10YR1DAY	0.00	20.30	0.0001	12.01	11.51	724
NRU1030	F3A10YR1DAY	19.70	18.50	0.0001	82.90	80.40	71517
NRU1035	F3A10YR1DAY	0.00	17.99	0.0000	1.33	1.22	436
NRU1036	F3A10YR1DAY	0.00	18.50	0.0001	15.92	16.53	437
NRU1037	F3A10YR1DAY	0.00	18.45	0.0001	3.22	2.42	683
NRU1040	F3A10YR1DAY	0.00	18.49	0.0001	37.31	23.15	31174
NRU1045	F3A10YR1DAY	0.00	20.90	0.0001	16.32	14.83	16353
NRU1046	F3A10YR1DAY	0.00	20.86	0.0060	14.83	13.35	932
NRU1050	F3A10YR1DAY	19.70	18.50	0.0002	62.82	57.76	35718
NRU1070	F3A10YR1DAY	19.83	19.17	0.0001	25.57	24.80	12618
NRU1090	F3A10YR1DAY	18.86	17.00	0.0001	112.13	110.26	1336
NRU1110	F3A10YR1DAY	18.86	16.85	0.0001	143.26	141.68	5320
NRU1130	F3A10YR1DAY	18.86	17.04	-0.0004	33.36	31.72	776
NRU1150	F3A10YR1DAY	18.86	17.56	0.0006	35.58	34.81	2949
NRU1170	F3A10YR1DA	18.86	18.84	0.0001	31.86	27.08	19660

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1182	F3A10YR1DAY	0.00	17.11	0.0000	16.99	17.21	1155
NRU1184	F3A10YR1DAY	0.00	17.44	0.0000	14.01	14.05	872
NRU1185	F3A10YR1DAY	0.00	18.96	-0.0001	13.36	9.04	21511
NRU1186	F3A10YR1DAY	0.00	17.52	0.0000	5.74	5.25	791
NRU1188	F3A10YR1DAY	0.00	18.07	0.0000	6.35	0.64	27099
NRU1190	F3A10YR1DAY	18.86	18.15	0.0000	9.37	7.52	576
NRU1210	F3A10YR1DAY	18.86	17.85	0.0000	7.52	6.92	719
NRU1220	F3A10YR1DAY	0.00	16.79	0.0001	29.31	30.16	2046
NRU1225	F3A10YR1DAY	0.00	21.51	0.0000	4.62	4.46	436
NRU1230	F3A10YR1DAY	18.88	16.60	0.0002	622.34	622.51	4559
NRU1232	F3A10YR1DAY	0.00	16.27	0.0008	631.06	631.21	3681
NRU1234	F3A10YR1DAY	0.00	16.27	0.0000	1.53	1.66	450
NRU1240	F3A10YR1DAY	0.00	16.61	0.0000	5.37	5.36	452
NRU1250	F3A10YR1DAY	4.07	4.59	-0.0002	278.83	278.82	2104
NRU1270	F3A10YR1DAY	4.78	5.24	-0.0002	274.66	274.67	1667
NRU1290	F3A10YR1DAY	5.41	5.88	-0.0001	261.70	261.78	3103
NRU1310	F3A10YR1DAY	6.42	6.89	0.0001	261.64	261.70	5053
NRU1330	F3A10YR1DAY	8.29	8.85	0.0001	320.72	320.69	3357
NRU1350	F3A10YR1DAY	9.32	10.01	0.0001	315.81	315.73	2409
NRU1370	F3A10YR1DAY	11.03	12.09	0.0001	311.07	309.88	5323
NRU1390	F3A10YR1DAY	11.84	12.84	0.0001	64.83	54.23	22407
NRU1410	F3A10YR1DAY	12.56	13.55	0.0002	255.71	255.95	7364
NRU1430	F3A10YR1DAY	15.53	16.18	-0.0001	60.71	32.85	69222

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1450	F3A10YR1DAY	15.94	16.16	0.0001	39.82	38.91	7322
NRU1470	F3A10YR1DAY	15.97	16.21	0.0001	7.10	7.09	981
NRU1490	F3A10YR1DAY	16.09	16.43	0.0001	9.55	7.67	12531
NRU1510	F3A10YR1DAY	15.12	16.26	0.0001	200.18	205.30	64032
NRU1530	F3A10YR1DAY	15.71	16.47	0.0001	82.94	87.94	13736
NRU1550	F3A10YR1DAY	15.40	16.27	0.0000	76.57	77.24	2129
NRU1570	F3A10YR1DAY	16.20	17.09	0.0000	53.12	52.21	6859
NRU1590	F3A10YR1DAY	16.40	17.09	0.0000	8.26	7.60	3923
NRU1610	F3A10YR1DAY	16.56	17.54	0.0001	41.72	40.19	19183
NRU1630	F3A10YR1DAY	16.69	17.62	0.0001	34.98	35.08	1538
NRU1650	F3A10YR1DAY	16.84	17.68	0.0001	34.89	34.98	27745
NRU1670	F3A10YR1DAY	16.89	17.71	0.0001	86.72	33.26	162022
NRU1690	F3A10YR1DAY	16.89	17.66	0.0001	44.24	43.80	5539
NRU1710	F3A10YR1DAY	16.60	17.42	0.0001	34.33	34.11	1350
NRU1730	F3A10YR1DAY	16.58	17.37	0.0000	91.62	24.66	152804
NRU1750	F3A10YR1DAY	16.58	17.37	-0.0002	17.73	17.09	720
NRU1770	F3A10YR1DAY	16.58	17.37	0.0000	30.66	30.53	5467
NRU1790	F3A10YR1DAY	17.21	17.49	0.0000	9.61	7.86	5216
NRU1810	F3A10YR1DAY	16.58	17.37	0.0000	10.83	7.35	20577
NRU1830	F3A10YR1DAY	17.12	17.60	0.0000	22.86	19.95	7078
NRU1850	F3A10YR1DAY	17.07	17.89	0.0001	25.03	24.84	1048
NRU1870	F3A10YR1DAY	17.20	18.03	0.0001	25.24	25.03	908
NRU1890	F3A10YR1DAY	17.38	18.22	0.0001	50.04	25.24	64931
NRU1910	F3A10YR1DA	17.71	18.22	0.0001	20.97	18.51	17194

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1930	F3A10YR1DAY	15.71	16.47	-0.0001	53.25	78.81	76630
NRU1950	F3A10YR1DAY	16.43	16.93	0.0001	51.47	51.79	1646
NRU1970	F3A10YR1DAY	16.86	17.21	0.0001	51.17	51.47	1037
NRU1990	F3A10YR1DAY	17.09	17.37	0.0001	50.86	51.17	1719
NRU2010	F3A10YR1DAY	18.02	18.23	0.0001	12.93	12.44	1554
NRU2030	F3A10YR1DAY	18.39	18.48	0.0001	12.39	10.62	26278
NRU2050	F3A10YR1DAY	18.40	18.49	0.0001	4.74	5.23	453
NRU2070	F3A10YR1DAY	18.41	18.50	-0.0001	4.67	4.74	18726
NRU2090	F3A10YR1DAY	17.16	17.41	-0.0001	35.45	35.76	2243
NRU2110	F3A10YR1DAY	17.28	17.48	0.0001	34.86	34.28	1563
NRU2130	F3A10YR1DAY	17.49	17.63	-0.0001	37.01	36.79	1931
NRU2150	F3A10YR1DAY	17.69	17.90	0.0001	7.65	5.90	11673
NRU2170	F3A10YR1DAY	17.07	17.43	0.0001	3.46	3.56	770
NRU2190	F3A10YR1DAY	17.08	17.44	0.0000	10.81	3.46	28468
NRU2210	F3A10YR1DAY	17.33	17.39	0.0001	6.33	6.33	538
NRU2230	F3A10YR1DAY	17.33	17.04	0.0000	27.50	3.29	80841
NRU2250	F3A10YR1DAY	17.31	17.04	0.0001	3.63	1.92	13236
NRU2270	F3A10YR1DAY	17.61	17.72	0.0001	30.88	30.61	1505
NRU2290	F3A10YR1DAY	17.67	17.75	0.0001	19.94	19.49	1150
NRU2310	F3A10YR1DAY	17.68	17.76	0.0001	14.65	15.06	7712
NRU2330	F3A10YR1DAY	17.68	17.76	0.0001	33.31	8.10	2709
NRU2350	F3A10YR1DAY	17.68	17.76	-0.0001	4.91	30.85	654
NRU2370	F3A10YR1DAY	17.37	17.29	0.0001	4.71	4.91	528

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2390	F3A10YR1DAY	17.36	17.26	0.0000	9.55	4.71	33541
NRU2410	F3A10YR1DAY	17.72	17.75	0.0001	10.11	10.00	6723
NRU2430	F3A10YR1DAY	17.83	17.79	0.0001	9.39	9.52	5379
NRU2450	F3A10YR1DAY	18.06	17.83	0.0001	3.47	2.51	4354
NRU2470	F3A10YR1DAY	15.72	16.47	0.0001	6.46	5.65	1459
NRU2490	F3A10YR1DAY	15.75	16.48	0.0001	8.60	7.97	1429
NRU2510	F3A10YR1DAY	15.75	16.48	0.0001	7.97	5.10	946
NRU2530	F3A10YR1DAY	15.76	16.48	0.0001	5.10	2.20	582
NRU2550	F3A10YR1DAY	16.53	17.01	0.0001	107.35	105.71	25552
NRU2570	F3A10YR1DAY	17.71	18.10	0.0001	105.05	99.46	52410
NRU2590	F3A10YR1DAY	18.30	18.45	0.0001	36.52	31.90	8731
NRU2610	F3A10YR1DAY	18.62	18.91	0.0001	56.75	56.01	20933
NRU2630	F3A10YR1DAY	19.41	19.40	-0.0002	49.01	47.00	49133
NRU2650	F3A10YR1DAY	19.54	19.81	-0.0002	36.59	32.42	49666
NRU2670	F3A10YR1DAY	16.64	16.91	0.0000	27.90	26.99	8078
NRU2690	F3A10YR1DAY	17.09	17.52	0.0000	179.82	92.71	333508
NSH02	F3A10YR1DAY	0.00	20.88	-0.0002	13.62	19.51	5470
NSH03	F3A10YR1DAY	0.00	18.27	-0.0227	1.20	12.94	767
NSH04	F3A10YR1DAY	0.00	16.08	0.0000	45.94	42.13	4610
NSH05	F3A10YR1DAY	0.00	8.79	0.0001	718.37	718.90	5036
NSH07	F3A10YR1DAY	0.00	8.29	0.0001	34.46	34.08	9826
NSH08	F3A10YR1DAY	0.00	7.92	0.0000	19.02	17.62	1795
NSH09	F3A10YR1DAY	0.00	10.49	0.0000	46.84	42.82	10191
NSH10	F3A10YR1DA	0.00	19.07	0.0000	20.05	19.56	30388

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH11	F3A10YR1DAY	0.00	21.09	0.0000	7.73	7.65	6588
NSH12	F3A10YR1DAY	0.00	8.59	0.0000	722.15	722.94	4113
NSH13	F3A10YR1DAY	0.00	8.43	0.0012	733.79	734.73	4602
NSH14	F3A10YR1DAY	0.00	8.36	0.0011	740.41	739.76	1911
NSH15	F3A10YR1DAY	0.00	18.71	0.0000	5.51	5.45	6222
NSH16	F3A10YR1DAY	0.00	8.93	0.0003	43.23	48.55	675
NSH17	F3A10YR1DAY	0.00	8.30	-0.0011	740.91	741.52	2161
NSH18	F3A10YR1DAY	0.00	8.26	-0.0007	784.46	783.66	3005
NSH19	F3A10YR1DAY	0.00	7.45	-0.0005	786.76	786.91	5396
NSH20	F3A10YR1DAY	0.00	20.20	0.0000	3.48	3.29	11656
NSH21	F3A10YR1DAY	0.00	11.11	-0.0001	12.94	12.66	9389
NSH22	F3A10YR1DAY	0.00	14.06	0.0001	39.48	31.24	5161
NSH23	F3A10YR1DAY	0.00	18.26	0.0000	11.97	11.90	3096
NSH24	F3A10YR1DAY	0.00	14.06	0.0000	19.55	17.98	5707
NSH25	F3A10YR1DAY	0.00	13.92	-0.0001	16.95	15.62	7511
NSH26	F3A10YR1DAY	0.00	13.59	-0.0001	59.47	44.14	38091
NSH26A	F3A10YR1DAY	0.00	12.62	0.0000	43.23	43.23	2060
NSH27	F3A10YR1DAY	0.00	12.52	0.0000	7.66	8.61	15262
NSH27A	F3A10YR1DAY	0.00	12.44	0.0000	17.67	16.06	921
NSH27AA	F3A10YR1DAY	0.00	12.46	0.0001	8.61	9.36	560
NSH27B	F3A10YR1DAY	0.00	11.20	-0.0001	16.06	18.34	1033
NSH27C	F3A10YR1DAY	0.00	9.07	-0.0001	18.34	16.13	1035
NSH28	F3A10YR1DAY	0.00	9.62	0.0000	17.67	13.90	8820

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH29	F3A10YR1DAY	0.00	7.43	-0.0001	11.08	11.85	648
NSH31	F3A10YR1DAY	0.00	9.60	0.0001	7.65	5.56	480
NSH33	F3A10YR1DAY	0.00	16.58	0.0000	2.42	2.36	4319
NSH34	F3A10YR1DAY	0.00	9.19	0.0001	31.04	31.02	3078
NSH35	F3A10YR1DAY	0.00	7.90	-0.0001	25.61	25.56	3038
NSH36	F3A10YR1DAY	0.00	7.86	0.0001	22.52	21.59	805
NSH37	F3A10YR1DAY	0.00	8.39	0.0012	738.90	739.74	2109
NSH41	F3A10YR1DAY	0.00	14.47	0.0000	4.38	4.36	466
NSH42	F3A10YR1DAY	0.00	4.06	0.0003	55.32	55.31	447
NSH43	F3A10YR1DAY	0.00	4.61	-0.0005	44.18	44.25	507
NSH44	F3A10YR1DAY	0.00	6.90	-0.0001	13.53	16.18	670
NSH45	F3A10YR1DAY	0.00	16.30	0.0000	29.33	28.88	19125
NSH48	F3A10YR1DAY	0.00	18.26	0.0000	14.81	14.79	2951
NSH49	F3A10YR1DAY	0.00	17.90	0.0000	14.49	14.37	473
NSH50	F3A10YR1DAY	0.00	15.25	-0.0012	657.79	682.91	6021
NSH51	F3A10YR1DAY	0.00	16.98	0.0000	31.33	31.17	1329
NSH52	F3A10YR1DAY	0.00	15.48	-0.0012	653.62	653.78	4431
NSH53	F3A10YR1DAY	0.00	15.98	0.0000	40.85	40.49	1029
NSH53B	F3A10YR1DAY	0.00	15.60	0.0001	19.96	20.62	448
NSH54	F3A10YR1DAY	0.00	16.06	0.0000	33.29	32.18	1255
NSH55	F3A10YR1DAY	0.00	16.04	0.0005	632.65	632.75	5311
NSH55B	F3A10YR1DAY	0.00	16.06	0.0000	9.23	9.23	447
NSH56	F3A10YR1DAY	0.00	16.28	0.0000	5.00	5.15	465
NSH57	F3A10YR1DA	0.00	16.28	0.0000	5.03	5.00	454

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH60	F3A10YR1DAY	0.00	18.96	-0.0001	14.55	18.72	436
NSH61	F3A10YR1DAY	0.00	15.54	0.0000	14.30	14.18	451
NSH65	F3A10YR1DAY	0.00	20.57	0.0000	3.18	3.04	463
NSH71	F3A10YR1DAY	9999.00	15.29	0.0000	13.20	13.07	2436
NSH75	F3A10YR1DAY	0.00	6.05	-0.0023	804.02	805.09	4066
NSH76	F3A10YR1DAY	0.00	5.04	-0.0125	762.25	762.21	2030
NSH80	F3A10YR1DAY	0.00	14.81	-0.0012	693.34	701.77	6657
NSH81	F3A10YR1DAY	0.00	20.60	0.0000	0.37	0.00	2178
NSH82	F3A10YR1DAY	0.00	20.83	0.0000	2.01	0.40	5702
NSH83	F3A10YR1DAY	0.00	14.86	-0.0001	14.35	14.38	1486
NSH85	F3A10YR1DAY	0.00	14.66	-0.0014	703.45	722.25	4681
NSHSelmonDS	F3A10YR1DAY	9999.00	10.89	0.0002	716.85	716.83	6356
NSHSelmonUS	F3A10YR1DAY	9999.00	13.60	0.0003	687.64	687.55	3189
NSR0000	F3A10YR1DAY	2.00	2.00	0.0000	281.74	17.50	0
NSR0005	F3A10YR1DAY	2.00	2.00	0.0000	6.69	0.00	0
NSR0010	F3A10YR1DAY	2.00	2.00	0.0000	406.86	0.00	0
NSR0030	F3A10YR1DAY	2.92	3.30	0.0000	423.15	406.86	218705
NSR0032	F3A10YR1DAY	4.88	5.24	0.0000	12.36	7.57	22427
NSR0034	F3A10YR1DAY	3.63	3.92	0.0000	67.64	60.71	46046
NSR0050	F3A10YR1DAY	3.44	3.82	0.0000	372.88	369.78	94828
NSR0070	F3A10YR1DAY	3.45	3.81	0.0001	28.26	21.42	38767
NSR0090	F3A10YR1DAY	3.68	3.93	-0.0001	35.16	31.04	18385
NSR0100	F3A10YR1DAY	2.25	2.72	0.0000	6.74	6.69	524

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0102	F3A10YR1DAY	4.24	4.39	0.0000	3.79	3.46	2973
NSR0105	F3A10YR1DAY	1.91	2.81	-0.0681	281.78	281.74	484
NSR0110	F3A10YR1DAY	3.93	4.19	0.0000	16.03	15.41	6606
NSR0112	F3A10YR1DAY	2.31	3.17	0.0769	280.08	280.06	469
NSR0115	F3A10YR1DAY	4.25	4.38	0.0000	3.03	2.64	8675
NSR0120	F3A10YR1DAY	2.62	3.45	-0.0456	277.23	277.27	479
NSR0130	F3A10YR1DAY	4.16	4.61	0.0000	10.74	8.08	10574
NSR0135	F3A10YR1DAY	4.22	4.74	0.0000	3.96	3.69	689
NSR0140	F3A10YR1DAY	3.28	4.04	-0.0140	273.47	273.49	477
NSR0150	F3A10YR1DAY	3.64	4.12	0.0003	356.66	357.08	29291
NSR0160	F3A10YR1DAY	3.56	4.29	0.0098	270.48	270.90	11632
NSR0165	F3A10YR1DAY	4.03	5.09	0.0000	4.46	3.50	13176
NSR0170	F3A10YR1DAY	3.70	4.28	0.0000	6.01	4.60	8819
NSR0180	F3A10YR1DAY	3.83	4.59	0.0000	7.22	5.28	8568
NSR0190	F3A10YR1DAY	4.04	4.41	0.0001	36.36	36.62	3228
NSR0210	F3A10YR1DAY	4.26	4.69	0.0001	35.45	36.00	9280
NSR0230	F3A10YR1DAY	4.26	4.70	0.0000	35.14	34.92	44324
NSR0250	F3A10YR1DAY	3.93	4.35	0.0043	324.58	324.38	12764
NSR0270	F3A10YR1DAY	3.98	4.43	0.0000	97.67	96.19	27233
NSR0280	F3A10YR1DAY	5.41	5.88	-0.0005	250.38	249.13	31450
NSR0281	F3A10YR1DAY	5.97	6.54	0.0004	244.17	243.76	17676
NSR0290	F3A10YR1DAY	6.70	6.91	-0.0004	103.35	102.51	35064
NSR0310	F3A10YR1DAY	9.28	9.37	-0.0001	91.25	89.89	62951
NSR0330	F3A10YR1DA	9.65	9.86	0.0001	7.93	7.95	470

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0350	F3A10YR1DAY	10.32	10.76	0.0001	8.21	7.93	446
NSR0370	F3A10YR1DAY	10.35	10.80	0.0000	11.28	8.21	9569
NSR0390	F3A10YR1DAY	11.96	12.24	0.0001	53.50	50.59	75231
NSR0410	F3A10YR1DAY	12.27	12.66	0.0001	9.45	10.18	510
NSR0430	F3A10YR1DAY	12.28	12.67	0.0000	9.31	9.45	20546
NSR0450	F3A10YR1DAY	13.04	14.02	-0.0001	38.45	37.56	32429
NSR0470	F3A10YR1DAY	13.10	14.40	-0.0001	26.57	25.94	13286
NSR0490	F3A10YR1DAY	4.41	4.73	0.0045	161.04	159.97	28787
NSR0510	F3A10YR1DAY	4.48	4.93	0.0015	85.06	85.21	15278
NSR0530	F3A10YR1DAY	4.55	4.99	-0.0006	10.78	8.62	18023
NSR0540	F3A10YR1DAY	4.55	5.17	0.0005	86.93	80.71	85905
NSR0550	F3A10YR1DAY	4.56	5.18	0.0015	312.34	312.05	20538
NSR0560	F3A10YR1DAY	4.66	5.21	0.0003	104.76	111.69	69343
NSR0570	F3A10YR1DAY	5.28	5.49	0.0003	96.55	99.06	56623
NSR0580	F3A10YR1DAY	6.13	6.40	-0.0001	21.42	15.34	102865
NSR0590	F3A10YR1DAY	6.15	6.43	-0.0001	89.91	86.51	53139
NSR0610	F3A10YR1DAY	6.26	6.46	-0.0002	54.99	47.95	67521
NSR0630	F3A10YR1DAY	6.26	6.46	-0.0001	17.03	17.09	475
NSR0650	F3A10YR1DAY	6.25	6.44	-0.0001	59.83	39.35	169160
NSR0660	F3A10YR1DAY	6.13	6.40	-0.0001	44.19	17.96	68580
NSR0670	F3A10YR1DAY	6.24	6.43	0.0001	6.93	7.62	520
NSR0680	F3A10YR1DAY	6.14	6.39	-0.0001	21.16	9.23	132882
NSR0690	F3A10YR1DAY	6.24	6.43	-0.0001	6.50	6.93	599

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0710	F3A10YR1DAY	6.23	6.42	0.0000	6.42	6.50	861
NSR0730	F3A10YR1DAY	6.29	6.50	-0.0001	134.12	109.88	161856
NSR0770	F3A10YR1DAY	6.81	7.33	0.0001	110.65	109.03	14218
NSR0780	F3A10YR1DAY	6.74	6.84	-0.0001	14.25	13.31	20319
NSR0790	F3A10YR1DAY	8.35	10.14	-0.0003	362.36	339.94	47937
NSR0791	F3A10YR1DAY	7.13	8.30	-0.0002	233.71	233.70	5596
NSR0809	F3A10YR1DAY	12.76	11.28	0.0004	73.61	93.59	2123
NSR0810	F3A10YR1DAY	13.45	13.54	-0.0002	190.64	189.69	60274
NSR0830	F3A10YR1DAY	15.10	15.32	-0.0001	205.13	200.61	136078
NSR0840	F3A10YR1DAY	16.09	16.14	0.0001	30.19	30.74	38270
NSR0850	F3A10YR1DAY	15.64	15.86	-0.0003	146.79	139.09	80332
NSR0860	F3A10YR1DAY	16.41	16.44	0.0000	9.10	9.10	13930
NSR0869	F3A10YR1DAY	16.03	16.23	0.0001	31.19	30.12	1505
NSR0870	F3A10YR1DAY	16.24	16.45	0.0002	98.74	99.55	36629
NSR0880	F3A10YR1DAY	16.24	16.47	0.0001	36.81	36.35	13539
NSR0881	F3A10YR1DAY	14.14	17.06	0.0005	253.03	252.57	46386
NSR0890	F3A10YR1DAY	4.02	4.40	-0.0514	271.24	265.12	51898
NSR0910	F3A10YR1DAY	4.79	5.11	0.0029	192.72	194.40	31025
NSR0930	F3A10YR1DAY	5.54	6.17	0.0000	146.74	39.18	289810
NSR0950	F3A10YR1DAY	5.63	6.17	0.0004	271.13	270.94	62163
NSR0970	F3A10YR1DAY	6.14	6.47	-0.0002	139.27	139.57	3616
NSR0990	F3A10YR1DAY	6.27	6.55	0.0001	205.69	205.65	4324
NSR1010	F3A10YR1DAY	6.30	6.58	0.0000	43.64	43.00	12930
NSR1030	F3A10YR1DA	8.54	8.89	-0.0001	163.19	162.89	9869

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1050	F3A10YR1DAY	8.56	8.94	0.0000	73.25	71.43	23835
NSR1070	F3A10YR1DAY	9.58	9.69	-0.0006	207.57	206.40	48154
NSR1090	F3A10YR1DAY	11.30	11.41	0.0004	150.53	150.55	8267
NSR1110	F3A10YR1DAY	11.57	11.58	0.0000	2.71	2.70	2961
NSR1130	F3A10YR1DAY	11.29	11.36	0.0000	24.12	24.09	15025
NSR1150	F3A10YR1DAY	11.39	11.53	0.0000	6.66	4.62	9460
NSR1170	F3A10YR1DAY	11.38	11.52	0.0001	4.62	3.67	451
NSR1190	F3A10YR1DAY	12.70	13.16	0.0000	149.73	149.71	13564
NSR1210	F3A10YR1DAY	12.70	13.16	-0.0001	23.27	8.97	78438
NSR1230	F3A10YR1DAY	14.76	15.23	0.0000	147.67	147.63	9640
NSR1270	F3A10YR1DAY	14.99	15.43	0.0000	147.71	147.67	6276
NSR1290	F3A10YR1DAY	14.99	15.43	0.0000	9.87	2.65	23518
NSR1310	F3A10YR1DAY	14.99	15.43	0.0000	28.78	13.89	98667
NSR1330	F3A10YR1DAY	15.44	16.06	0.0000	147.54	146.07	22876
NSR1350	F3A10YR1DAY	15.45	16.07	0.0000	32.74	22.70	150013
NSR1370	F3A10YR1DAY	15.56	16.16	0.0000	144.28	136.66	21929
NSR1390	F3A10YR1DAY	15.56	16.16	0.0000	3.81	3.36	5042
NSR1410	F3A10YR1DAY	15.56	16.16	-0.0001	29.07	26.86	33257
NSR1430	F3A10YR1DAY	15.76	16.26	0.0000	51.11	43.99	39586
NSR1450	F3A10YR1DAY	15.74	16.26	0.0000	69.03	48.17	107637
NSR1470	F3A10YR1DAY	15.96	16.28	0.0000	50.24	45.03	42446
NSR1490	F3A10YR1DAY	16.21	16.35	0.0000	55.40	40.97	143713
NSR1510	F3A10YR1DAY	16.21	16.35	0.0000	32.72	30.23	29546

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1530	F3A10YR1DAY	15.56	16.16	0.0000	5.70	4.09	11795
NSR1550	F3A10YR1DAY	15.68	16.25	-0.0001	147.83	134.36	34084
NSR1570	F3A10YR1DAY	15.68	16.25	0.0000	6.26	4.31	34037
NSR1590	F3A10YR1DAY	15.68	16.25	-0.0001	60.72	54.94	35357
NSR1610	F3A10YR1DAY	15.75	16.32	-0.0002	21.18	18.65	24630
NSR1630	F3A10YR1DAY	15.75	16.32	0.0000	102.22	91.75	20154
NSR1650	F3A10YR1DAY	16.39	17.09	0.0000	3.21	3.21	436
NSR1670	F3A10YR1DAY	15.92	16.79	0.0002	67.82	60.56	47452
NSR1690	F3A10YR1DAY	16.24	16.92	0.0000	89.05	78.84	21984
NSR1710	F3A10YR1DAY	16.25	16.92	0.0000	8.17	7.95	13653
NSR1730	F3A10YR1DAY	16.32	16.97	0.0000	87.79	80.29	12677
NSR1750	F3A10YR1DAY	16.68	16.97	0.0000	3.37	3.37	871
NSR1770	F3A10YR1DAY	17.23	17.44	0.0000	27.39	15.24	21012
NSR1790	F3A10YR1DAY	17.24	17.45	0.0000	32.80	17.31	36266
NSR1810	F3A10YR1DAY	17.25	17.45	0.0000	9.42	7.41	15056
NSR1830	F3A10YR1DAY	17.25	17.45	-0.0001	58.85	51.99	99220
NSR1850	F3A10YR1DAY	16.95	17.88	0.0000	11.53	9.47	13810
NSR1870	F3A10YR1DAY	16.93	17.88	0.0001	47.65	32.90	128471
NSR1890	F3A10YR1DAY	16.05	17.88	0.0001	13.34	13.73	1056
NSR1910	F3A10YR1DAY	15.45	17.88	0.0005	69.38	65.63	118062
NSR1930	F3A10YR1DAY	16.53	17.12	-0.0001	64.77	64.33	5011
NSR1950	F3A10YR1DAY	16.70	17.16	-0.0001	20.55	20.03	9998
NSR1970	F3A10YR1DAY	16.84	17.50	-0.0001	32.36	25.48	58422
NSR1990	F3A10YR1DA	16.86	17.39	0.0000	9.97	8.86	949

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR2010	F3A10YR1DAY	16.91	17.29	-0.0001	16.32	10.39	39820
NSR2030	F3A10YR1DAY	16.90	17.18	-0.0001	10.39	10.39	751
NSR2050	F3A10YR1DAY	16.88	17.00	0.0000	15.95	15.35	19626
NSR2070	F3A10YR1DAY	16.81	16.95	0.0000	6.38	6.37	781
NSR2090	F3A10YR1DAY	16.72	16.89	0.0000	6.37	6.35	673
NSR2110	F3A10YR1DAY	16.54	16.79	0.0000	18.86	18.13	21924
NSR2130	F3A10YR1DAY	16.50	16.54	0.0000	17.80	13.76	89615
NSR2150	F3A10YR1DAY	17.60	17.44	0.0000	59.24	48.94	196025
NSR2170	F3A10YR1DAY	17.62	17.49	0.0001	27.85	27.67	2087
NSR2190	F3A10YR1DAY	17.62	17.51	-0.0001	28.03	27.85	967
NSR2210	F3A10YR1DAY	17.62	17.55	0.0000	55.01	42.48	111815
NSR2230	F3A10YR1DAY	17.62	17.53	-0.0001	20.65	20.17	675
NSR2250	F3A10YR1DAY	17.63	17.55	0.0001	23.88	20.65	13324
NSR2270	F3A10YR1DAY	17.63	17.55	-0.0001	27.92	21.54	26003
NSR2290	F3A10YR1DAY	17.63	17.56	-0.0001	18.62	18.40	888
NSR2310	F3A10YR1DAY	17.63	17.57	0.0000	21.29	18.67	21195
NSR2330	F3A10YR1DAY	17.65	18.01	0.0000	21.89	12.78	43090
NSR2350	F3A10YR1DAY	17.65	18.01	0.0001	24.85	12.48	57588
NSR2370	F3A10YR1DAY	16.66	17.15	0.0000	32.63	28.28	9676
NSR2390	F3A10YR1DAY	18.07	18.05	0.0000	13.22	7.13	64000
NSR2410	F3A10YR1DAY	16.66	17.16	0.0000	43.18	28.80	19074
NSR2430	F3A10YR1DAY	17.99	18.00	0.0000	2.94	2.93	3087
NSR2450	F3A10YR1DAY	18.06	18.14	0.0000	39.32	38.48	19821

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR3000	F3A10YR1DAY	17.04	17.88	-0.0727	8.55	49.45	34003
NSR3005	F3A10YR1DAY	17.02	17.88	0.1453	49.45	4.00	566
NSR3020	F3A10YR1DAY	17.61	17.76	-0.0001	41.63	39.70	72402
NSR3040	F3A10YR1DAY	16.25	16.48	0.0000	77.47	74.66	58891
NSR3060	F3A10YR1DAY	16.21	16.34	0.0001	25.73	24.14	47393
NSW0010	F3A10YR1DAY	2.00	2.00	0.0000	28.75	0.00	0
NSW0030	F3A10YR1DAY	2.13	3.08	-0.0004	28.76	28.75	587
NSW0050	F3A10YR1DAY	4.04	5.31	0.0001	32.15	28.76	4899
Outfall	F3A10YR1DAY	2.00	2.00	0.0000	71.05	0.00	0
Outfall_NE	F3A10YR1DAY	21.00	20.51	-0.0003	8.60	0.00	0
PondA	F3A10YR1DAY	0.00	18.27	0.0294	22.45	13.20	26018
PondB	F3A10YR1DAY	0.00	16.12	0.0000	122.93	69.43	79701
SH_OUTFALL	F3A10YR1DAY	2.00	2.00	0.0000	956.45	46.90	0
STORAGE1	F3A10YR1DAY	0.00	20.09	0.0000	4.74	1.47	7405
STORAGE10	F3A10YR1DAY	0.00	20.57	0.0000	3.04	0.04	9148
STORAGE11	F3A10YR1DAY	0.00	20.88	0.0000	19.51	0.01	18648
STORAGE12	F3A10YR1DAY	0.00	20.81	0.0004	94.03	5.91	10262
STORAGE13	F3A10YR1DAY	0.00	17.99	0.0000	1.22	1.00	5323
STORAGE14	F3A10YR1DAY	0.00	21.51	0.0000	4.46	0.00	13395
STORAGE2	F3A10YR1DAY	0.00	18.27	0.0000	8.21	2.16	18426
STORAGE4	F3A10YR1DAY	0.00	19.17	0.0001	48.16	2.73	12088
STORAGE5	F3A10YR1DAY	0.00	21.23	0.0000	15.98	5.95	20042
STORAGE8	F3A10YR1DAY	0.00	16.88	0.0000	1.88	1.11	4742
STORAGE9	F3A10YR1DA	0.00	18.96	0.0006	7.52	1.68	11761

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
Sevilla1	F3A10YR1DAY	1.20	2.16	0.0000	0.05	0.03	804
Sevilla2	F3A10YR1DAY	1.23	2.09	0.0000	0.02	0.01	610
Sevilla3	F3A10YR1DAY	1.20	2.16	0.0000	0.12	0.09	1339
Sevilla4	F3A10YR1DAY	1.20	2.16	0.0000	0.20	0.16	1450
Shamrock2	F3A10YR1DAY	1.11	2.09	0.0001	71.08	71.05	5389
Shmrck1.1	F3A10YR1DAY	1.38	2.29	-0.0001	71.03	71.05	6206
Shmrck1.2	F3A10YR1DAY	1.20	2.16	0.0001	71.05	71.08	3971
THEA_JUNCT1	F3A10YR1DAY	0.00	14.28	0.0000	32.37	32.37	667
THEA_JUNCT2	F3A10YR1DAY	0.00	13.49	0.0000	32.37	32.37	501
THEA_Watrous	F3A10YR1DAY	0.00	15.82	0.0002	32.39	32.37	813
V3	F3A10YR1DAY	6.53	6.53	0.0000	0.01	0.01	36626
BC_N02	F3A233YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	F3A233YR1DAY	8.77	8.63	0.0000	0.00	0.00	436
Church2	F3A233YR1DAY	8.77	8.39	0.0000	3.36	2.84	4390
Clark1	F3A233YR1DAY	7.21	6.91	0.0000	0.41	0.21	741
Clark2	F3A233YR1DAY	7.21	6.91	0.0000	36.29	36.27	4366
DM1	F3A233YR1DAY	11.42	11.45	0.0000	3.25	3.37	1347
DM2	F3A233YR1DAY	10.30	10.22	0.0000	3.37	3.18	2049
DM3	F3A233YR1DAY	9.16	9.18	0.0000	3.18	3.36	2978
E_Outlet	F3A233YR1DAY	0.00	16.06	0.0005	60.41	27.53	0
E_Outlet2	F3A233YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A233YR1DAY	1.99	2.25	0.0000	0.29	0.24	763
ElP_con.1	F3A233YR1DAY	2.18	2.33	-0.0001	36.17	36.18	4221

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
ElPrad.1	F3A233YR1DAY	1.99	2.25	0.0000	0.14	0.09	623
G1	F3A233YR1DAY	14.98	14.70	-0.0006	44.56	38.15	31408
G10	F3A233YR1DAY	8.77	8.34	0.0000	36.30	36.29	4590
G2	F3A233YR1DAY	14.99	14.92	-0.0001	10.09	9.65	32920
G3	F3A233YR1DAY	14.86	14.44	-0.0003	47.43	40.66	14812
G4	F3A233YR1DAY	12.82	12.30	0.0000	40.66	40.65	2076
G5	F3A233YR1DAY	11.69	11.34	0.0000	40.65	40.64	1864
G6	F3A233YR1DAY	11.00	9.24	0.0000	5.70	0.00	0
G7	F3A233YR1DAY	11.00	10.56	0.0000	40.64	40.63	3601
G8	F3A233YR1DAY	10.07	9.76	0.0000	34.93	34.93	2143
G9	F3A233YR1DAY	9.41	9.24	0.0001	34.93	34.93	1353
H1	F3A233YR1DAY	1.99	2.25	0.0000	0.11	0.10	512
H2.1	F3A233YR1DAY	1.99	2.25	0.0001	36.18	36.17	6105
Hubert	F3A233YR1DAY	3.16	2.97	0.0000	36.27	36.24	5965
JUNCT1	F3A233YR1DAY	0.00	13.69	0.0000	0.25	0.21	908
JUNCT10	F3A233YR1DAY	0.00	21.87	0.0000	30.80	30.73	8711
JUNCT2	F3A233YR1DAY	0.00	13.50	0.0000	0.00	0.00	436
JUNCT3	F3A233YR1DAY	0.00	19.64	0.0000	0.00	0.00	436
JUNCT4	F3A233YR1DAY	0.00	13.58	0.0000	1.47	1.44	3846
JUNCT6	F3A233YR1DAY	0.00	14.77	0.0000	0.00	0.00	436
JUNCT7	F3A233YR1DAY	0.00	18.93	0.0000	19.38	19.37	4899
JUNCT7B	F3A233YR1DAY	0.00	18.59	0.0000	23.42	23.13	13875
JUNCT8	F3A233YR1DAY	0.00	19.14	0.0000	52.88	52.98	9435
JUNCT8B	F3A233YR1D	0.00	18.64	0.0000	52.98	52.29	30520

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
JUNCT9	F3A233YR1DAY	0.00	29.38	0.0000	25.55	25.52	8979
L1	F3A233YR1DAY	11.53	11.53	0.0000	0.00	0.00	436
L2	F3A233YR1DAY	11.63	11.63	0.0000	0.00	0.00	436
L3	F3A233YR1DAY	10.43	10.43	0.0000	0.00	0.00	436
L4	F3A233YR1DAY	8.43	8.43	0.0000	0.00	0.00	436
L5	F3A233YR1DAY	7.63	7.63	0.0000	0.00	0.00	436
L6	F3A233YR1DAY	6.93	6.93	0.0000	0.00	0.00	436
Lois	F3A233YR1DAY	4.82	4.53	0.0000	36.27	36.27	6808
M1	F3A233YR1DAY	2.58	2.53	0.0000	0.03	0.01	629
M1.1	F3A233YR1DAY	6.33	6.33	0.0000	0.00	0.00	436
M1.2	F3A233YR1DAY	7.03	7.03	0.0000	0.00	0.00	436
M1.3	F3A233YR1DAY	7.13	7.13	0.0000	0.00	0.00	436
M2	F3A233YR1DAY	2.58	2.53	0.0000	0.40	0.17	1054
M3	F3A233YR1DAY	2.58	2.53	0.0000	0.59	0.47	1167
M4	F3A233YR1DAY	2.58	2.54	0.0000	0.94	0.78	908
M5.1	F3A233YR1DAY	2.57	2.54	0.0000	36.24	36.21	6162
M6	F3A233YR1DAY	2.58	2.54	0.0000	0.31	0.21	558
N01	F3A233YR1DAY	0.00	18.98	0.0000	14.78	11.20	13450
N01A	F3A233YR1DAY	0.00	18.38	-0.0001	8.17	8.02	456
N02	F3A233YR1DAY	0.00	13.88	0.0000	11.48	12.09	691
N03	F3A233YR1DAY	0.00	16.25	0.0000	0.42	0.41	573
N04	F3A233YR1DAY	0.00	17.39	0.0000	3.09	3.09	562
N05	F3A233YR1DAY	0.00	13.37	0.0000	43.56	42.67	4412

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N06	F3A233YR1DAY	0.00	11.85	-0.0002	47.78	48.33	3292
N07A	F3A233YR1DAY	0.00	9.59	0.0002	57.40	58.68	4249
N08A	F3A233YR1DAY	0.00	8.49	-0.0001	79.15	79.26	1954
N09	F3A233YR1DAY	0.00	8.49	0.0000	5.58	5.58	467
N09A	F3A233YR1DAY	0.00	7.49	-0.0002	82.62	82.65	1361
N10	F3A233YR1DAY	2.00	2.00	0.0000	143.66	0.00	0
N11	F3A233YR1DAY	0.00	16.13	-0.0003	48.39	60.41	74964
NBB0010	F3A233YR1DAY	2.00	2.00	0.0000	112.41	0.00	0
NBB0030	F3A233YR1DAY	5.03	5.72	-0.0019	112.43	112.41	557
NBB0050	F3A233YR1DAY	9.15	9.44	0.0004	112.82	112.43	2226
NBB0070	F3A233YR1DAY	11.30	11.34	0.0001	99.70	99.71	2549
NBB0090	F3A233YR1DAY	12.67	12.56	0.0001	91.80	92.30	1994
NBB0110	F3A233YR1DAY	13.46	13.29	0.0001	88.67	89.16	1981
NBB0130	F3A233YR1DAY	15.26	15.15	-0.0002	25.94	23.51	13324
NBB0150	F3A233YR1DAY	14.01	13.80	0.0001	68.44	68.78	1936
NBB0170	F3A233YR1DAY	14.74	14.48	0.0001	68.10	68.44	1452
NBB0190	F3A233YR1DAY	15.42	15.12	0.0001	67.77	68.10	1476
NBB0210	F3A233YR1DAY	15.70	15.46	0.0001	65.44	65.62	1555
NBB0230	F3A233YR1DAY	16.02	15.86	0.0001	65.32	65.44	1635
NBB0250	F3A233YR1DAY	16.31	16.21	0.0001	64.63	64.69	2036
NBB0270	F3A233YR1DAY	17.05	16.82	0.0001	64.87	64.63	2232
NBB0290	F3A233YR1DAY	17.06	16.84	0.0002	57.02	53.73	1258
NBB0310	F3A233YR1DAY	17.07	16.86	0.0002	120.22	88.56	204605
NBB0330	F3A233YR1D	16.57	16.47	0.0002	29.58	29.48	3568

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBB0350	F3A233YR1DAY	16.45	16.31	0.0002	21.50	22.84	1396
NBB0370	F3A233YR1DAY	16.33	16.15	0.0002	44.16	40.45	27515
NBB0390	F3A233YR1DAY	16.32	16.14	0.0002	17.57	18.63	1838
NBB0410	F3A233YR1DAY	16.30	16.11	0.0002	45.29	42.86	28873
NBB0430	F3A233YR1DAY	15.45	15.42	-0.0002	45.31	50.64	65379
NBW0010	F3A233YR1DAY	2.00	2.00	0.0000	528.10	0.00	0
NBW0030	F3A233YR1DAY	3.39	3.33	0.0000	528.35	528.10	38062
NBW0050	F3A233YR1DAY	3.92	3.53	0.0000	6.21	4.57	3635
NBW0070	F3A233YR1DAY	3.57	3.45	0.0000	150.06	151.12	25487
NBW0090	F3A233YR1DAY	3.66	3.54	0.0000	4.42	3.84	2586
NBW0130	F3A233YR1DAY	3.73	3.60	0.0000	147.16	147.66	14027
NBW0150	F3A233YR1DAY	3.93	3.63	-0.0001	7.33	7.01	442
NBW0170	F3A233YR1DAY	3.98	3.64	0.0000	3.34	2.98	1233
NBW0190	F3A233YR1DAY	3.89	3.73	0.0001	144.40	144.59	5758
NBW0210	F3A233YR1DAY	6.25	6.24	0.0000	5.80	5.68	4893
NBW0230	F3A233YR1DAY	4.01	3.82	0.0001	142.83	142.92	2785
NBW0250	F3A233YR1DAY	4.88	4.60	0.0000	141.43	141.48	5283
NBW0270	F3A233YR1DAY	5.49	5.22	-0.0001	22.37	21.23	10115
NBW0290	F3A233YR1DAY	5.91	5.78	0.0000	18.38	16.92	10374
NBW0310	F3A233YR1DAY	6.38	5.97	0.0000	6.22	6.07	743
NBW0330	F3A233YR1DAY	5.50	5.19	0.0000	131.44	131.94	19673
NBW0350	F3A233YR1DAY	4.97	4.93	0.0000	5.25	5.24	2460
NBW0370	F3A233YR1DAY	5.52	5.20	-0.0001	7.33	6.86	1031

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0390	F3A233YR1DAY	5.52	5.20	-0.0001	6.45	5.95	4134
NBW0410	F3A233YR1DAY	5.54	5.22	-0.0002	125.61	125.84	3446
NBW0430	F3A233YR1DAY	5.89	5.53	-0.0002	3.51	2.92	847
NBW0450	F3A233YR1DAY	5.89	5.53	-0.0001	126.19	125.61	10354
NBW0470	F3A233YR1DAY	5.89	5.53	-0.0001	2.56	1.92	834
NBW0490	F3A233YR1DAY	5.92	5.56	-0.0002	124.20	124.53	2668
NBW0510	F3A233YR1DAY	6.72	6.58	0.0000	1.83	1.82	1636
NBW0530	F3A233YR1DAY	6.22	5.85	0.0000	123.76	123.71	4802
NBW0550	F3A233YR1DAY	6.72	6.27	0.0000	66.60	55.08	82488
NBW0570	F3A233YR1DAY	7.09	6.78	0.0000	74.72	74.50	3385
NBW0590	F3A233YR1DAY	10.03	9.79	-0.0003	77.18	75.19	63821
NBW0610	F3A233YR1DAY	6.45	6.04	-0.0001	107.69	107.53	6589
NBW0630	F3A233YR1DAY	6.22	5.85	0.0000	2.17	1.38	5758
NBW0650	F3A233YR1DAY	6.66	6.17	0.0000	109.44	107.64	19096
NBW0670	F3A233YR1DAY	6.66	6.17	0.0000	2.66	1.99	7698
NBW0690	F3A233YR1DAY	6.71	6.25	-0.0001	87.99	86.68	8169
NBW0710	F3A233YR1DAY	6.71	6.25	0.0000	9.49	9.05	10220
NBW0730	F3A233YR1DAY	6.72	6.26	-0.0001	89.03	82.05	60874
NBW0750	F3A233YR1DAY	7.06	6.89	0.0001	77.55	53.41	71906
NBW0770	F3A233YR1DAY	7.06	6.89	-0.0003	14.80	11.90	8917
NBW0790	F3A233YR1DAY	8.11	7.10	0.0000	12.60	12.20	769
NBW0810	F3A233YR1DAY	7.06	6.89	0.0000	38.74	29.98	18523
NBW0830	F3A233YR1DAY	8.41	7.10	-0.0001	19.81	19.42	1332
NBW0850	F3A233YR1D	10.17	7.39	0.0001	18.29	17.80	755

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW0870	F3A233YR1DAY	7.06	6.89	0.0001	21.36	14.04	53591
NBW0890	F3A233YR1DAY	7.06	6.89	-0.0002	16.27	16.84	1027
NBW0910	F3A233YR1DAY	7.06	6.89	-0.0001	40.91	29.92	70164
NBW0930	F3A233YR1DAY	8.03	7.03	-0.0001	29.11	28.79	1301
NBW0950	F3A233YR1DAY	8.82	7.24	-0.0001	29.44	29.11	3082
NBW0970	F3A233YR1DAY	8.82	7.27	0.0001	20.18	20.33	2937
NBW0990	F3A233YR1DAY	8.82	7.33	-0.0002	19.83	19.86	785
NBW1010	F3A233YR1DAY	8.83	7.78	0.0000	19.80	19.83	1120
NBW1030	F3A233YR1DAY	9.19	8.35	-0.0001	19.43	19.50	4825
NBW1050	F3A233YR1DAY	9.30	8.78	-0.0001	18.82	18.81	900
NBW1070	F3A233YR1DAY	9.34	8.93	-0.0001	24.24	18.96	31822
NBW1090	F3A233YR1DAY	3.78	3.67	0.0000	372.84	371.79	11808
NBW1130	F3A233YR1DAY	4.51	4.27	0.0001	13.75	12.73	9512
NBW1150	F3A233YR1DAY	4.53	4.32	0.0000	11.54	9.18	14644
NBW1169	F3A233YR1DAY	4.09	3.96	0.0000	359.93	358.43	15868
NBW1170	F3A233YR1DAY	4.30	4.19	0.0001	355.84	355.28	5822
NBW1190	F3A233YR1DAY	6.13	5.49	-0.0001	10.89	6.98	32418
NBW1210	F3A233YR1DAY	7.17	5.76	-0.0002	33.63	30.23	33495
NBW1230	F3A233YR1DAY	7.17	6.24	-0.0001	36.75	25.86	83599
NBW1250	F3A233YR1DAY	4.74	4.61	0.0001	324.39	323.41	7383
NBW1270	F3A233YR1DAY	6.14	5.68	0.0000	7.16	6.42	7980
NBW1310	F3A233YR1DAY	5.21	5.11	-0.0001	324.77	323.94	7871
NBW1330	F3A233YR1DAY	7.56	7.39	-0.0002	286.41	286.41	3185

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1350	F3A233YR1DAY	10.95	9.40	0.0002	23.04	22.97	493
NBW1351	F3A233YR1DAY	8.89	8.68	0.0002	245.66	245.41	8277
NBW1352	F3A233YR1DAY	9.96	9.82	0.0005	241.79	239.85	7956
NBW1353	F3A233YR1DAY	11.01	10.96	0.0005	243.59	235.20	8196
NBW1370	F3A233YR1DAY	10.02	9.76	0.0004	207.07	197.16	6358
NBW1390	F3A233YR1DAY	15.24	15.12	-0.0004	202.45	192.26	78485
NBW1410	F3A233YR1DAY	15.58	15.48	0.0003	190.48	186.32	18424
NBW1430	F3A233YR1DAY	15.79	15.70	-0.0002	151.39	155.28	19403
NBW1450	F3A233YR1DAY	16.94	16.81	-0.0005	162.13	160.89	96958
NBW1460	F3A233YR1DAY	16.43	16.32	0.0002	143.17	144.26	4273
NBW1470	F3A233YR1DAY	17.14	17.04	-0.0002	161.79	156.46	102645
NBW1480	F3A233YR1DAY	18.11	18.04	0.0001	7.99	4.93	12683
NBW1490	F3A233YR1DAY	17.86	17.64	-0.0001	105.38	102.37	14890
NBW1510	F3A233YR1DAY	18.12	17.85	0.0002	121.83	112.54	8021
NBW1530	F3A233YR1DAY	17.92	17.61	0.0001	17.68	13.04	1245
NBW1550	F3A233YR1DAY	17.75	17.46	0.0001	21.14	20.49	8090
NBW1570	F3A233YR1DAY	18.21	17.96	0.0002	120.24	109.36	2604
NBW1590	F3A233YR1DAY	18.12	17.95	0.0001	30.98	28.36	10160
NBW1610	F3A233YR1DAY	18.13	17.98	0.0001	27.18	26.67	2974
NBW1630	F3A233YR1DAY	18.13	18.03	0.0001	13.63	13.47	1566
NBW1650	F3A233YR1DAY	18.81	18.83	0.0001	12.82	11.22	3690
NBW1670	F3A233YR1DAY	18.89	18.89	0.0001	21.55	20.66	5458
NBW1690	F3A233YR1DAY	19.03	18.97	0.0001	12.89	12.72	8053
NBW1710	F3A233YR1D	19.26	18.97	0.0001	3.26	1.49	998

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW1730	F3A233YR1DAY	18.65	18.33	0.0004	112.56	97.27	102043
NBW1750	F3A233YR1DAY	18.82	18.36	0.0001	82.05	81.66	7464
NBW1770	F3A233YR1DAY	18.82	18.82	0.0001	73.99	65.05	49605
NBW1790	F3A233YR1DAY	18.91	18.91	0.0001	17.05	16.93	1904
NBW1820	F3A233YR1DAY	18.72	18.58	0.0000	36.32	23.82	66164
NBW1830	F3A233YR1DAY	18.74	18.48	0.0001	55.95	56.36	1976
NBW1840	F3A233YR1DAY	18.39	18.32	0.0000	52.73	44.25	70781
NBW1850	F3A233YR1DAY	18.74	18.50	0.0001	58.94	54.93	46558
NBW1860	F3A233YR1DAY	18.39	18.32	-0.0001	8.15	5.38	15409
NBW1870	F3A233YR1DAY	18.72	18.58	-0.0002	27.16	18.64	21849
NBW1890	F3A233YR1DAY	19.06	18.61	0.0001	32.35	32.73	2614
NBW1910	F3A233YR1DAY	19.27	18.69	0.0001	34.58	34.57	1873
NBW1930	F3A233YR1DAY	19.27	18.77	0.0001	32.07	32.08	1927
NBW1950	F3A233YR1DAY	18.97	18.93	0.0001	5.58	2.89	450
NBW1970	F3A233YR1DAY	18.96	18.93	0.0000	6.96	6.85	2100
NBW1990	F3A233YR1DAY	19.27	18.87	0.0001	30.33	28.97	25135
NBW2010	F3A233YR1DAY	19.65	19.02	0.0001	9.25	8.96	1242
NBW2030	F3A233YR1DAY	19.65	19.03	0.0001	7.76	7.52	1484
NBW2050	F3A233YR1DAY	19.26	18.89	0.0001	29.71	22.06	26915
NBW2060	F3A233YR1DAY	0.00	19.46	0.0000	11.85	9.68	23081
NBW2070	F3A233YR1DAY	19.26	18.89	0.0002	66.04	57.92	45549
NBW2090	F3A233YR1DAY	19.10	17.40	0.0001	69.34	62.80	2747
NBW2110	F3A233YR1DAY	18.92	15.57	0.0001	81.51	77.41	2262

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2130	F3A233YR1DAY	18.92	14.85	0.0001	80.91	77.43	1726
NBW2140	F3A233YR1DAY	20.00	15.15	0.0000	4.37	4.28	652
NBW2145	F3A233YR1DAY	0.00	17.48	0.0000	9.88	9.45	436
NBW2150	F3A233YR1DAY	19.26	19.21	0.0002	45.24	45.81	3810
NBW2170	F3A233YR1DAY	19.12	19.23	0.0003	15.52	4.84	911
NBW2190	F3A233YR1DAY	19.10	19.25	0.0002	8.03	4.06	491
NBW2210	F3A233YR1DAY	19.47	19.35	0.0001	43.11	43.48	1886
NBW2230	F3A233YR1DAY	19.47	19.54	-0.0002	20.80	15.87	33879
NBW2250	F3A233YR1DAY	19.51	19.42	0.0001	33.82	34.19	2383
NBW2270	F3A233YR1DAY	19.57	19.50	0.0001	33.11	33.48	2580
NBW2290	F3A233YR1DAY	19.65	19.58	-0.0002	19.65	17.65	55653
NBW2310	F3A233YR1DAY	19.82	19.63	-0.0002	18.09	20.46	63167
NBW2330	F3A233YR1DAY	19.82	19.63	-0.0002	14.69	12.43	35507
NBW2350	F3A233YR1DAY	16.05	15.89	0.0001	43.32	42.80	4473
NBW2370	F3A233YR1DAY	16.11	16.08	-0.0001	10.04	7.44	58428
NBW2380	F3A233YR1DAY	12.29	12.35	0.0004	243.09	238.80	10756
NBW2385	F3A233YR1DAY	18.49	18.48	0.0000	2.55	2.54	6453
NBW2387	F3A233YR1DAY	16.11	15.71	0.0000	0.37	0.36	476
NBW2390	F3A233YR1DAY	16.42	16.25	0.0001	30.39	30.32	2672
NBW2410	F3A233YR1DAY	16.59	16.63	0.0001	29.34	28.28	2374
NBW2430	F3A233YR1DAY	16.23	16.62	0.0001	45.56	45.05	5939
NBW2450	F3A233YR1DAY	16.15	16.55	0.0002	159.43	156.58	4396
NBW2470	F3A233YR1DAY	16.43	16.67	0.0001	80.70	78.36	24403
NBW2490	F3A233YR1D	16.90	16.92	-0.0001	76.88	76.66	6459

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NBW2510	F3A233YR1DAY	17.74	17.35	0.0001	73.50	73.04	2032
NBW2530	F3A233YR1DAY	17.92	17.60	0.0001	58.77	58.68	2011
NBW2550	F3A233YR1DAY	17.95	17.62	0.0001	2.10	2.90	450
NBW2570	F3A233YR1DAY	17.96	17.67	0.0000	2.15	2.10	3049
NBW2590	F3A233YR1DAY	18.06	17.76	0.0001	48.40	47.31	1098
NBW2610	F3A233YR1DAY	17.00	17.05	-0.0004	91.41	93.77	24487
NBW2630	F3A233YR1DAY	17.98	17.88	0.0001	84.74	84.78	41001
NBW2650	F3A233YR1DAY	16.97	17.02	-0.0002	27.49	27.99	2850
NBW2670	F3A233YR1DAY	16.42	16.51	0.0001	29.37	29.94	1830
NBW2680	F3A233YR1DAY	17.73	17.51	-0.0001	29.90	29.78	2997
NBW2690	F3A233YR1DAY	15.40	15.73	0.0002	241.04	236.19	7486
NBW2710	F3A233YR1DAY	17.73	17.52	-0.0001	1.90	4.34	531
NBW2730	F3A233YR1DAY	18.29	18.07	0.0000	1.43	0.25	4356
NBW2770	F3A233YR1DAY	18.09	18.00	0.0001	13.27	13.31	1310
NBW2775	F3A233YR1DAY	6.59	6.13	0.0000	6.92	5.26	10465
NBW2780	F3A233YR1DAY	18.38	18.30	-0.0003	33.11	26.96	43535
NBW2790	F3A233YR1DAY	18.38	18.31	0.0000	100.76	100.16	77160
NBW2810	F3A233YR1DAY	18.39	18.32	-0.0001	39.98	39.43	66445
NBW2830	F3A233YR1DAY	18.40	18.32	-0.0001	34.48	25.94	94798
NC01	F3A233YR1DAY	0.00	3.79	0.0000	7.38	7.34	699
NC01B	F3A233YR1DAY	0.00	5.73	0.0000	7.99	8.17	3469
NC02	F3A233YR1DAY	0.00	5.98	0.0000	85.95	85.99	1890
NC03	F3A233YR1DAY	0.00	3.86	-0.0001	93.89	93.89	1211

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NC04	F3A233YR1DAY	0.00	3.14	0.0000	16.49	15.62	15501
NC05	F3A233YR1DAY	0.00	3.13	-0.0001	16.28	14.52	25550
NC06	F3A233YR1DAY	0.00	2.98	0.0000	14.21	13.99	7701
NC07	F3A233YR1DAY	0.00	2.56	0.0000	7.06	7.04	437
NC08	F3A233YR1DAY	0.00	2.95	0.0000	12.06	11.97	5706
NCL0010	F3A233YR1DAY	2.00	2.00	0.0000	486.78	0.00	0
NCL0030	F3A233YR1DAY	2.36	2.68	-0.0002	459.03	459.01	6856
NCL0050	F3A233YR1DAY	2.36	2.68	0.0000	0.42	1.10	439
NCL0070	F3A233YR1DAY	5.20	4.94	0.0000	56.03	55.59	14344
NCL0090	F3A233YR1DAY	6.06	5.87	-0.0001	31.38	20.73	47601
NCL0110	F3A233YR1DAY	3.04	3.18	0.0006	539.20	539.17	6623
NCL0130	F3A233YR1DAY	4.05	3.25	0.0003	99.28	99.33	565
NCL0150	F3A233YR1DAY	4.95	3.78	0.0001	99.33	99.28	2802
NCL0170	F3A233YR1DAY	5.08	3.86	-0.0001	55.20	55.37	1380
NCL0190	F3A233YR1DAY	5.08	3.87	0.0000	1.80	1.64	438
NCL0210	F3A233YR1DAY	5.85	4.17	0.0000	65.11	65.25	1234
NCL0230	F3A233YR1DAY	6.60	4.45	0.0000	13.40	12.75	566
NCL0250	F3A233YR1DAY	6.60	4.40	0.0000	0.36	0.14	527
NCL0270	F3A233YR1DAY	6.60	5.82	0.0000	3.24	3.23	1041
NCL0290	F3A233YR1DAY	5.90	4.29	-0.0001	49.42	49.51	924
NCL0310	F3A233YR1DAY	6.10	4.86	0.0007	49.38	49.42	1045
NCL0330	F3A233YR1DAY	5.95	4.86	0.0000	1.25	1.38	513
NCL0350	F3A233YR1DAY	6.60	5.40	-0.0002	51.57	49.14	7165
NCL0370	F3A233YR1D	7.36	7.04	0.0001	35.00	34.62	6344

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL0390	F3A233YR1DAY	4.02	4.04	-0.0021	433.36	464.41	4339
NCL0410	F3A233YR1DAY	4.09	4.09	-0.0001	3.88	3.73	819
NCL0430	F3A233YR1DAY	4.23	4.14	0.0000	4.17	3.88	639
NCL0450	F3A233YR1DAY	4.75	4.70	-0.0016	425.68	425.79	3676
NCL0470	F3A233YR1DAY	5.43	5.31	-0.0010	422.10	422.22	3437
NCL0490	F3A233YR1DAY	6.48	6.27	0.0009	425.03	427.48	18756
NCL0510	F3A233YR1DAY	6.67	6.37	-0.0001	26.31	26.00	1146
NCL0530	F3A233YR1DAY	8.10	7.20	0.0004	40.47	16.95	1182
NCL0550	F3A233YR1DAY	8.17	7.24	-0.0001	17.99	40.47	880
NCL0570	F3A233YR1DAY	8.66	7.37	0.0001	9.45	8.57	841
NCL0590	F3A233YR1DAY	7.00	6.76	0.0011	401.61	401.74	3392
NCL0610	F3A233YR1DAY	7.52	7.27	0.0007	398.29	398.43	3640
NCL0630	F3A233YR1DAY	8.06	7.81	-0.0004	397.05	397.19	4608
NCL0650	F3A233YR1DAY	8.12	7.86	-0.0003	46.66	102.61	1613
NCL0670	F3A233YR1DAY	8.67	8.37	0.0003	130.86	46.66	1695
NCL0690	F3A233YR1DAY	8.76	8.46	0.0002	35.01	35.14	605
NCL0710	F3A233YR1DAY	8.95	8.65	0.0002	34.49	34.50	601
NCL0730	F3A233YR1DAY	9.26	8.97	-0.0001	34.74	34.49	554
NCL0750	F3A233YR1DAY	9.56	9.33	0.0000	52.61	43.54	35298
NCL0770	F3A233YR1DAY	10.12	9.90	0.0000	35.76	35.76	2178
NCL0790	F3A233YR1DAY	8.69	8.38	-0.0003	27.86	101.59	895
NCL0810	F3A233YR1DAY	8.84	8.51	0.0001	27.68	27.86	1379
NCL0830	F3A233YR1DAY	8.93	8.75	-0.0008	354.30	356.16	19491

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0850	F3A233YR1DAY	9.01	8.79	0.0001	57.96	54.75	5640
NCL0870	F3A233YR1DAY	9.37	8.86	0.0001	75.10	74.68	2021
NCL0890	F3A233YR1DAY	9.65	8.92	-0.0001	61.59	61.05	1591
NCL0910	F3A233YR1DAY	9.71	8.92	0.0001	4.77	3.98	490
NCL0930	F3A233YR1DAY	9.57	9.03	0.0001	58.21	57.61	2112
NCL0950	F3A233YR1DAY	9.89	9.18	0.0001	47.58	46.39	3174
NCL0970	F3A233YR1DAY	10.41	9.29	0.0000	28.74	24.65	2266
NCL0990	F3A233YR1DAY	11.00	9.41	0.0000	18.86	18.74	1485
NCL1010	F3A233YR1DAY	11.14	9.45	0.0000	4.04	3.97	638
NCL1030	F3A233YR1DAY	9.67	8.88	-0.0002	18.79	33.53	1466
NCL1050	F3A233YR1DAY	10.46	8.89	0.0001	4.86	3.77	623
NCL1070	F3A233YR1DAY	9.30	8.93	0.0001	3.41	1.70	628
NCL1090	F3A233YR1DAY	9.76	9.81	0.0000	32.55	13.17	16498
NCL1110	F3A233YR1DAY	9.85	9.47	0.0001	16.50	16.65	2094
NCL1130	F3A233YR1DAY	9.76	9.80	-0.0001	15.09	15.83	16487
NCL1150	F3A233YR1DAY	9.76	9.81	0.0001	366.49	378.34	157449
NCL1170	F3A233YR1DAY	10.59	10.82	0.0005	365.97	349.61	72789
NCL1190	F3A233YR1DAY	10.72	10.86	0.0001	49.10	48.69	1854
NCL1210	F3A233YR1DAY	10.63	10.85	0.0001	18.76	13.09	42690
NCL1230	F3A233YR1DAY	10.94	10.91	0.0001	49.51	49.10	1432
NCL1250	F3A233YR1DAY	11.11	10.94	0.0001	49.94	49.51	1231
NCL1270	F3A233YR1DAY	11.34	10.99	0.0001	50.39	49.94	1215
NCL1290	F3A233YR1DAY	13.06	11.60	0.0001	29.89	27.84	1408
NCL1310	F3A233YR1D	14.77	13.34	0.0000	21.37	21.25	788

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL1330	F3A233YR1DAY	10.60	10.83	-0.0002	113.27	116.38	71095
NCL1350	F3A233YR1DAY	10.63	10.85	0.0001	115.22	112.29	40773
NCL1370	F3A233YR1DAY	10.63	10.85	-0.0002	11.28	21.16	866
NCL1390	F3A233YR1DAY	10.63	10.86	0.0001	8.86	4.04	563
NCL1410	F3A233YR1DAY	10.63	10.86	0.0001	4.49	1.22	556
NCL1430	F3A233YR1DAY	10.70	10.96	0.0004	397.12	356.57	119051
NCL1450	F3A233YR1DAY	10.93	11.47	0.0011	380.54	380.21	3036
NCL1470	F3A233YR1DAY	12.72	12.72	0.0002	319.36	318.88	4423
NCL1490	F3A233YR1DAY	14.45	14.35	0.0000	3.27	3.23	766
NCL1510	F3A233YR1DAY	11.06	11.54	-0.0008	47.55	79.85	864
NCL1530	F3A233YR1DAY	12.54	12.29	0.0002	42.83	41.71	4137
NCL1550	F3A233YR1DAY	13.13	12.83	-0.0001	40.75	40.33	1021
NCL1570	F3A233YR1DAY	13.31	12.89	0.0001	3.98	2.08	504
NCL1590	F3A233YR1DAY	13.70	13.67	0.0000	1.22	1.21	1307
NCL1610	F3A233YR1DAY	13.37	12.90	0.0001	2.21	1.73	469
NCL1630	F3A233YR1DAY	13.57	13.27	0.0003	53.08	39.22	1673
NCL1650	F3A233YR1DAY	13.68	13.32	-0.0002	40.36	52.07	1292
NCL1670	F3A233YR1DAY	14.02	13.35	0.0001	7.71	6.55	681
NCL1690	F3A233YR1DAY	17.47	16.02	0.0000	31.50	30.30	1258
NCL1710	F3A233YR1DAY	17.89	16.27	0.0000	27.86	27.36	614
NCL1730	F3A233YR1DAY	18.27	16.45	0.0002	22.51	22.72	567
NCL1750	F3A233YR1DAY	18.24	16.47	-0.0002	13.78	13.25	513
NCL1770	F3A233YR1DAY	18.07	16.56	0.0001	14.41	13.78	482

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1790	F3A233YR1DAY	15.78	14.48	0.0002	316.82	316.29	5863
NCL1810	F3A233YR1DAY	18.13	17.90	-0.0001	35.06	32.35	12685
NCL1830	F3A233YR1DAY	18.39	16.17	0.0001	292.69	292.50	6250
NCL1850	F3A233YR1DAY	18.50	16.39	-0.0003	68.94	79.06	911
NCL1870	F3A233YR1DAY	19.01	17.50	0.0001	68.67	68.94	1007
NCL1890	F3A233YR1DAY	19.15	17.79	0.0001	68.42	68.67	990
NCL1910	F3A233YR1DAY	19.15	17.79	0.0000	1.48	0.68	526
NCL1930	F3A233YR1DAY	19.91	19.86	0.0000	3.07	3.07	1567
NCL1950	F3A233YR1DAY	19.15	17.77	0.0000	0.00	0.00	480
NCL1970	F3A233YR1DAY	21.67	21.64	0.0000	1.70	1.69	3103
NCL1990	F3A233YR1DAY	19.58	18.72	0.0001	67.99	68.19	881
NCL2010	F3A233YR1DAY	19.74	19.14	0.0001	46.61	45.39	1104
NCL2030	F3A233YR1DAY	19.76	19.21	0.0001	8.03	6.64	6211
NCL2050	F3A233YR1DAY	19.76	19.19	-0.0001	41.98	40.55	1411
NCL2070	F3A233YR1DAY	19.76	19.20	0.0000	2.15	1.38	847
NCL2090	F3A233YR1DAY	19.87	19.40	0.0001	43.59	41.98	1414
NCL2110	F3A233YR1DAY	20.03	19.50	-0.0001	18.94	17.76	873
NCL2130	F3A233YR1DAY	19.87	19.41	0.0001	29.58	28.06	6553
NCL2150	F3A233YR1DAY	20.75	20.68	-0.0004	27.89	24.99	77270
NCL2170	F3A233YR1DAY	19.85	19.25	0.0001	49.81	49.36	2410
NCL2230	F3A233YR1DAY	19.13	17.16	0.0004	232.36	229.49	5806
NCL2250	F3A233YR1DAY	19.55	17.89	0.0002	215.46	211.37	4444
NCL2270	F3A233YR1DAY	20.05	19.38	0.0001	117.90	115.15	2534
NCL2290	F3A233YR1D	19.88	19.41	0.0001	6.34	3.98	802

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL2310	F3A233YR1DAY	20.45	20.17	0.0001	105.97	105.11	1780
NCL2330	F3A233YR1DAY	20.74	20.71	0.0001	107.16	105.97	47086
NCL2350	F3A233YR1DAY	20.78	20.77	0.0001	96.33	95.13	2069
NCL2370	F3A233YR1DAY	20.81	20.80	0.0000	92.21	90.98	2298
NCL2390	F3A233YR1DAY	20.84	20.85	0.0001	92.37	84.99	56443
NCL2410	F3A233YR1DAY	21.07	20.93	0.0000	31.87	32.18	1380
NCL2430	F3A233YR1DAY	21.32	21.03	0.0000	31.02	31.28	1473
NCL2450	F3A233YR1DAY	21.25	21.00	0.0001	4.21	4.06	493
NCL2470	F3A233YR1DAY	20.93	20.88	0.0000	15.31	14.82	846
NCL2490	F3A233YR1DAY	21.54	21.10	0.0001	28.02	28.24	1524
NCL2510	F3A233YR1DAY	21.70	21.14	0.0001	61.08	58.65	62912
NCL2530	F3A233YR1DAY	21.70	21.14	0.0001	29.29	28.31	31988
NCL2540	F3A233YR1DAY	0.00	21.86	0.0000	41.05	40.36	33508
NCL2550	F3A233YR1DAY	21.70	21.14	0.0001	24.43	24.73	9662
NCL2570	F3A233YR1DAY	21.51	21.13	0.0001	18.20	18.44	1503
NCL2580	F3A233YR1DAY	0.00	21.13	-0.0001	63.41	61.21	24129
NCL2590	F3A233YR1DAY	21.17	21.12	0.0001	104.70	99.59	97002
NCL2610	F3A233YR1DAY	21.14	21.12	0.0001	70.45	70.18	22106
NCL2630	F3A233YR1DAY	20.86	20.72	0.0001	51.44	50.58	34500
NCL2631	F3A233YR1DAY	0.00	20.27	-0.0002	56.41	50.60	30900
NCL2650	F3A233YR1DAY	21.17	21.27	0.0001	62.12	55.46	75303
NCL2670	F3A233YR1DAY	21.93	22.07	0.0001	48.14	54.40	47050
NCL2690	F3A233YR1DAY	21.96	22.19	-0.0001	33.11	41.18	40527

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2710	F3A233YR1DAY	21.96	22.23	0.0001	28.15	31.28	52157
NCL2730	F3A233YR1DAY	21.95	22.33	0.0001	26.06	26.30	3456
NCL2750	F3A233YR1DAY	21.84	22.48	0.0001	33.65	33.50	3537
NCL2770	F3A233YR1DAY	21.71	22.19	0.0000	23.44	23.55	1389
NCL2780	F3A233YR1DAY	0.00	22.02	0.0000	8.31	7.80	16979
NCL2790	F3A233YR1DAY	21.84	22.09	0.0000	80.27	75.30	83554
NCL2810	F3A233YR1DAY	22.11	22.61	-0.0001	46.83	45.54	14217
NCL2830	F3A233YR1DAY	23.09	22.62	-0.0001	12.09	11.85	1242
NCL2835	F3A233YR1DAY	0.00	23.67	0.0000	7.76	7.85	1089
NCL2840	F3A233YR1DAY	0.00	23.64	0.0000	48.17	47.76	20010
NCL2845	F3A233YR1DAY	0.00	24.18	-0.0001	26.41	25.84	12657
NCL2850	F3A233YR1DAY	20.82	20.84	0.0000	25.25	25.53	1361
NCL2870	F3A233YR1DAY	20.83	20.88	0.0000	24.49	24.73	1246
NCL2890	F3A233YR1DAY	20.83	20.92	-0.0001	21.61	24.49	15632
NCL2910	F3A233YR1DAY	20.83	20.92	-0.0001	33.30	30.17	40324
NCL2930	F3A233YR1DAY	19.55	17.91	0.0003	135.26	130.12	2980
NCL2950	F3A233YR1DAY	19.53	18.05	0.0002	132.44	124.85	5718
NCL2970	F3A233YR1DAY	20.49	20.32	0.0002	36.25	35.49	5346
NCL2990	F3A233YR1DAY	19.33	18.11	0.0002	100.72	91.00	5903
NCL3010	F3A233YR1DAY	19.35	18.15	0.0002	96.50	78.09	5986
NCL3030	F3A233YR1DAY	19.58	18.15	0.0002	89.35	69.38	6658
NCL3050	F3A233YR1DAY	19.94	19.56	0.0002	48.71	46.39	8103
NCL3070	F3A233YR1DAY	20.14	19.99	0.0000	26.83	23.94	10312
NCL3090	F3A233YR1D	19.59	18.13	0.0002	91.58	89.52	7716

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NCL3110	F3A233YR1DAY	19.59	18.81	0.0001	45.07	36.90	29700
NCL3130	F3A233YR1DAY	19.59	18.85	0.0001	17.07	17.23	4654
NCL3150	F3A233YR1DAY	19.54	17.79	0.0002	134.09	133.91	5792
NCL3170	F3A233YR1DAY	19.71	19.21	0.0001	47.47	45.84	2304
NCL3190	F3A233YR1DAY	20.31	20.05	-0.0003	43.71	40.84	62552
NCL3210	F3A233YR1DAY	20.32	20.08	-0.0003	28.57	28.21	30955
NCL3230	F3A233YR1DAY	20.32	20.13	-0.0002	13.49	13.25	8531
NCL3250	F3A233YR1DAY	19.11	15.53	0.0003	181.18	186.97	5874
NCL3250A	F3A233YR1DAY	0.00	16.65	0.0002	133.91	133.79	2677
NCL3270	F3A233YR1DAY	19.11	16.64	0.0000	29.07	29.15	1736
NCL3280	F3A233YR1DAY	0.00	16.96	0.0000	26.64	26.67	999
NCL3290	F3A233YR1DAY	20.16	18.23	0.0000	22.17	22.27	1660
NCL3300	F3A233YR1DAY	0.00	18.43	0.0000	2.95	2.66	752
NCL3310	F3A233YR1DAY	20.19	18.24	0.0000	1.25	1.40	751
NCL3330	F3A233YR1DAY	20.75	18.43	0.0000	2.31	2.27	437
NCL3350	F3A233YR1DAY	20.51	19.89	0.0000	17.30	14.25	5227
NCL3360	F3A233YR1DAY	0.00	20.28	0.0000	4.36	3.15	6723
NCL3365	F3A233YR1DAY	0.00	20.01	0.0001	7.52	6.57	10959
NCL3370	F3A233YR1DAY	20.64	20.74	-0.0002	45.82	37.43	74028
NCL3390	F3A233YR1DAY	20.83	20.92	-0.0001	43.08	42.23	36729
NCL3410	F3A233YR1DAY	20.83	20.92	0.0001	2.53	2.79	477
NCL3430	F3A233YR1DAY	20.83	20.92	0.0000	2.91	1.52	3562
NCL3450	F3A233YR1DAY	18.92	14.58	-0.0001	208.36	200.07	6329

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3470	F3A233YR1DAY	19.11	14.74	0.0001	107.13	107.05	4739
NCL3471	F3A233YR1DAY	0.00	14.55	0.0001	92.87	90.88	5436
NCL3490	F3A233YR1DAY	19.15	15.33	0.0000	79.08	79.01	2747
NCL3510	F3A233YR1DAY	20.64	17.68	0.0000	72.07	71.74	2861
NCL3520	F3A233YR1DAY	0.00	19.23	-0.0001	81.12	81.11	14063
NCL3530	F3A233YR1DAY	20.66	20.27	-0.0001	73.10	59.24	44130
NCL3550	F3A233YR1DAY	20.66	20.27	-0.0001	3.71	5.44	736
NCL3570	F3A233YR1DAY	20.66	20.27	-0.0001	2.24	3.00	629
NCL3590	F3A233YR1DAY	20.66	20.29	0.0000	1.63	1.25	4356
NCL3610	F3A233YR1DAY	20.66	20.27	-0.0001	41.40	41.71	1320
NCL3630	F3A233YR1DAY	20.64	20.27	-0.0001	95.96	75.22	94588
NCL3635	F3A233YR1DAY	0.00	20.27	-0.0001	22.12	24.38	1919
NCL3640	F3A233YR1DAY	0.00	20.27	-0.0001	13.25	12.44	12305
NCL3650	F3A233YR1DAY	18.92	15.32	-0.0002	2.71	3.75	503
NCL3670	F3A233YR1DAY	18.92	17.80	0.0000	7.28	7.11	436
NCL3690	F3A233YR1DAY	18.92	14.36	-0.0001	94.99	93.72	2302
NCL3730	F3A233YR1DAY	18.92	14.17	0.0000	296.49	273.94	88688
NCL3740	F3A233YR1DAY	0.00	14.37	0.0002	209.04	206.11	4692
NCL3750	F3A233YR1DAY	18.93	18.34	-0.0010	119.57	89.89	117219
NCL3770	F3A233YR1DAY	18.93	18.34	-0.0006	42.68	30.20	60490
NCL4000	F3A233YR1DAY	0.00	29.68	0.0000	25.58	25.55	4980
NCL4010	F3A233YR1DAY	0.00	29.38	0.0000	19.59	19.41	12518
NCypEast	F3A233YR1DAY	32.00	29.00	0.0000	5.49	0.00	0
NCypWest	F3A233YR1D	32.00	29.93	0.0000	0.00	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NOC0010	F3A233YR1DAY	2.00	2.00	0.0000	366.96	58.26	0
NOC0030	F3A233YR1DAY	1.14	2.19	0.0309	367.08	366.96	504
NOC0050	F3A233YR1DAY	1.20	2.31	-0.0244	335.56	335.70	530
NOC0070	F3A233YR1DAY	1.45	2.78	0.0066	327.91	327.59	516
NOC0090	F3A233YR1DAY	2.91	3.00	0.0023	123.06	123.17	446
NOC0110	F3A233YR1DAY	1.65	2.82	0.0082	194.94	195.28	455
NOC0130	F3A233YR1DAY	3.06	3.21	0.0043	194.92	194.94	528
NOC0150	F3A233YR1DAY	3.08	3.22	0.0000	2.17	2.07	499
NOC0170	F3A233YR1DAY	4.56	4.72	0.0000	9.89	9.88	1237
NOC0190	F3A233YR1DAY	5.09	3.83	0.0006	193.01	192.86	1077
NOC0210	F3A233YR1DAY	5.68	4.44	0.0001	19.52	19.00	781
NOC0230	F3A233YR1DAY	5.12	3.85	0.0001	5.82	5.96	742
NOC0250	F3A233YR1DAY	5.30	4.03	0.0001	5.86	5.82	984
NOC0270	F3A233YR1DAY	5.57	4.29	0.0000	3.54	3.17	676
NOC0290	F3A233YR1DAY	5.11	3.90	0.0002	210.21	210.35	1836
NOC0310	F3A233YR1DAY	5.27	4.01	0.0001	39.47	39.48	450
NOC0330	F3A233YR1DAY	5.85	4.12	-0.0001	170.88	170.76	2431
NOC0350	F3A233YR1DAY	5.89	4.33	0.0001	128.33	127.75	1837
NOC0370	F3A233YR1DAY	6.47	5.55	-0.0001	75.36	75.61	2022
NOC0390	F3A233YR1DAY	6.60	5.65	-0.0001	47.69	48.00	2171
NOC0410	F3A233YR1DAY	6.95	6.00	0.0000	39.33	39.73	2497
NOC0430	F3A233YR1DAY	7.01	6.14	0.0000	24.92	25.21	1757
NOC0450	F3A233YR1DAY	7.62	6.29	0.0000	17.45	17.80	2393

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0470	F3A233YR1DAY	8.12	6.57	0.0001	9.25	9.61	726
NOC0490	F3A233YR1DAY	7.67	6.30	0.0000	3.76	3.50	1051
NRU0010	F3A233YR1DAY	2.00	2.00	0.0000	453.89	0.00	0
NRU0030	F3A233YR1DAY	2.84	2.29	-0.0002	200.01	200.63	2468
NRU0050	F3A233YR1DAY	4.36	3.54	0.0001	200.03	200.01	2036
NRU0070	F3A233YR1DAY	5.61	3.95	0.0002	210.23	200.03	2549
NRU0090	F3A233YR1DAY	5.66	4.40	-0.0002	38.15	38.02	700
NRU0110	F3A233YR1DAY	6.23	4.27	-0.0001	176.90	183.35	5430
NRU0130	F3A233YR1DAY	7.66	4.63	0.0027	145.93	166.11	2616
NRU0150	F3A233YR1DAY	7.71	4.65	0.0065	137.87	138.77	496
NRU0160	F3A233YR1DAY	0.00	12.36	0.0000	133.98	133.80	4959
NRU0165	F3A233YR1DAY	0.00	12.78	0.0000	2.97	2.94	474
NRU0170	F3A233YR1DAY	14.45	13.67	-0.0001	131.59	131.43	1440
NRU0172	F3A233YR1DAY	0.00	13.77	0.0000	8.09	8.15	831
NRU0174	F3A233YR1DAY	0.00	14.01	0.0000	7.99	8.09	804
NRU0176	F3A233YR1DAY	0.00	14.71	0.0000	7.93	7.99	761
NRU0178	F3A233YR1DAY	0.00	15.63	0.0001	8.84	7.93	957
NRU0180	F3A233YR1DAY	0.00	16.04	-0.0001	26.05	13.01	68124
NRU0190	F3A233YR1DAY	14.45	14.16	-0.0001	19.58	22.20	516
NRU0210	F3A233YR1DAY	14.45	14.54	-0.0001	17.06	16.27	602
NRU0230	F3A233YR1DAY	13.39	14.94	-0.0001	11.85	9.17	14394
NRU0250	F3A233YR1DAY	14.62	14.18	0.0001	98.68	98.52	1516
NRU0270	F3A233YR1DAY	15.05	14.79	0.0002	86.55	86.67	2625
NRU0290	F3A233YR1D	16.30	15.33	-0.0002	13.48	17.21	623

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU0310	F3A233YR1DAY	16.13	15.26	0.0001	69.56	70.13	2502
NRU0330	F3A233YR1DAY	18.25	16.61	0.0000	29.79	30.49	1352
NRU0335	F3A233YR1DAY	0.00	17.79	0.0000	5.28	5.17	861
NRU0340	F3A233YR1DAY	0.00	17.69	0.0000	26.42	27.08	1262
NRU0343	F3A233YR1DAY	0.00	18.86	-0.0001	12.19	11.42	918
NRU0345	F3A233YR1DAY	0.00	19.26	-0.0001	19.38	13.00	39554
NRU0350	F3A233YR1DAY	19.50	17.73	0.0000	8.26	9.11	977
NRU0370	F3A233YR1DAY	19.51	17.73	0.0000	8.03	6.55	896
NRU0380	F3A233YR1DAY	23.33	17.71	0.0000	2.67	2.66	470
NRU0390	F3A233YR1DAY	27.00	17.53	-0.0002	10.92	10.83	1843
NRU0410	F3A233YR1DAY	19.56	17.73	0.0000	6.48	5.03	1094
NRU0425	F3A233YR1DAY	15.53	15.53	0.0001	6.01	4.54	4902
NRU0430	F3A233YR1DAY	19.61	17.74	0.0000	5.03	3.59	1070
NRU0450	F3A233YR1DAY	19.66	17.74	0.0000	3.59	2.74	1043
NRU0470	F3A233YR1DAY	19.72	17.77	0.0001	2.14	1.98	783
NRU0490	F3A233YR1DAY	20.36	17.78	-0.0001	1.79	1.42	532
NRU0495	F3A233YR1DAY	0.00	11.64	0.0001	521.61	521.57	2716
NRU0500	F3A233YR1DAY	0.00	11.90	0.0001	519.88	519.59	5646
NRU0510	F3A233YR1DAY	19.67	16.13	-0.0001	12.01	11.56	567
NRU0530	F3A233YR1DAY	16.95	15.64	0.0001	37.55	38.01	2250
NRU0550	F3A233YR1DAY	17.92	16.03	0.0001	37.30	37.55	1777
NRU0570	F3A233YR1DAY	18.16	16.06	0.0001	31.47	31.87	1524
NRU0590	F3A233YR1DAY	18.51	16.08	0.0001	29.45	29.83	1745

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0610	F3A233YR1DAY	18.78	16.09	0.0001	27.22	28.73	2520
NRU0612	F3A233YR1DAY	0.00	16.05	0.0001	30.89	30.57	1555
NRU0615	F3A233YR1DAY	0.00	17.15	0.0001	10.10	8.30	2198
NRU0616	F3A233YR1DAY	0.00	17.78	0.0000	2.29	2.15	1353
NRU0618	F3A233YR1DAY	0.00	17.65	0.0000	7.82	7.44	919
NRU0620	F3A233YR1DAY	0.00	18.89	0.0000	10.01	9.95	876
NRU0630	F3A233YR1DAY	18.79	15.86	0.0001	36.69	36.37	2175
NRU0650	F3A233YR1DAY	18.79	15.75	0.0001	47.73	47.38	1810
NRU0670	F3A233YR1DAY	18.78	15.66	0.0001	47.38	47.08	1429
NRU0690	F3A233YR1DAY	18.84	15.51	0.0001	54.40	54.08	1934
NRU0710	F3A233YR1DAY	18.86	15.34	0.0001	79.49	79.13	2312
NRU0730	F3A233YR1DAY	18.85	16.38	-0.0001	16.65	20.17	1119
NRU0740	F3A233YR1DAY	0.00	14.90	0.0001	83.46	83.04	2801
NRU0745	F3A233YR1DAY	0.00	14.37	0.0001	86.32	85.62	3772
NRU0747	F3A233YR1DAY	18.87	13.93	0.0001	85.62	83.03	1657
NRU0750	F3A233YR1DAY	18.87	13.76	0.0001	101.03	99.51	1290
NRU0770	F3A233YR1DAY	18.88	13.76	0.0001	14.67	14.14	1014
NRU0785	F3A233YR1DAY	0.00	13.75	0.0000	17.88	17.26	844
NRU0790	F3A233YR1DAY	18.88	13.75	-0.0002	433.39	423.86	8788
NRU0810	F3A233YR1DAY	18.88	13.75	0.0000	2.83	0.66	757
NRU0820	F3A233YR1DAY	0.00	15.74	0.0000	0.00	0.00	436
NRU0830	F3A233YR1DAY	18.99	14.00	-0.0002	418.40	425.27	4681
NRU0840	F3A233YR1DAY	9999.00	14.11	-0.0006	357.94	358.05	2258
NRU0850	F3A233YR1D	19.11	14.28	0.0002	93.18	93.07	2553

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU0870	F3A233YR1DAY	19.32	14.38	-0.0001	11.70	11.21	560
NRU0890	F3A233YR1DAY	19.35	16.43	0.0000	18.06	11.70	55118
NRU0910	F3A233YR1DAY	19.35	17.05	0.0000	0.97	0.96	580
NRU0930	F3A233YR1DAY	19.35	19.42	0.0000	1.09	0.97	1742
NRU0950	F3A233YR1DAY	19.11	14.40	-0.0001	83.05	82.95	1381
NRU0955	F3A233YR1DAY	0.00	14.44	-0.0001	77.12	77.00	2070
NRU0960	F3A233YR1DAY	0.00	14.51	0.0001	75.47	75.35	3512
NRU0965	F3A233YR1DAY	0.00	14.56	0.0002	74.86	74.68	4618
NRU0970	F3A233YR1DAY	19.34	14.45	0.0000	9.09	11.37	1453
NRU0980	F3A233YR1DAY	0.00	14.45	0.0000	4.26	4.85	1097
NRU0990	F3A233YR1DAY	19.39	16.45	0.0001	14.34	14.28	440
NRU1010	F3A233YR1DAY	19.70	16.49	-0.0001	14.41	14.34	463
NRU1015	F3A233YR1DAY	0.00	17.12	0.0000	9.45	9.45	696
NRU1020	F3A233YR1DAY	0.00	18.58	-0.0060	12.59	12.05	866
NRU1025	F3A233YR1DAY	0.00	17.35	0.0000	6.43	6.53	724
NRU1030	F3A233YR1DAY	19.70	14.76	0.0000	59.53	60.05	2307
NRU1035	F3A233YR1DAY	0.00	16.91	0.0000	0.00	0.00	436
NRU1036	F3A233YR1DAY	0.00	16.48	-0.0001	6.66	6.62	437
NRU1037	F3A233YR1DAY	0.00	16.52	0.0000	0.00	0.00	436
NRU1040	F3A233YR1DAY	0.00	16.49	0.0001	6.68	6.61	454
NRU1045	F3A233YR1DAY	0.00	18.61	0.0000	10.22	9.64	581
NRU1046	F3A233YR1DAY	0.00	18.59	0.0060	9.64	8.99	931
NRU1050	F3A233YR1DAY	19.70	14.85	0.0000	39.87	39.76	1693

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1070	F3A233YR1DAY	19.83	16.52	-0.0001	15.76	15.68	1938
NRU1090	F3A233YR1DAY	18.86	13.67	0.0001	89.04	87.00	1336
NRU1110	F3A233YR1DAY	18.86	13.58	0.0001	104.83	103.11	1807
NRU1130	F3A233YR1DAY	18.86	13.71	-0.0002	18.21	25.55	776
NRU1150	F3A233YR1DAY	18.86	13.83	0.0001	18.11	18.21	962
NRU1170	F3A233YR1DAY	18.86	16.71	0.0000	16.17	15.58	1316
NRU1182	F3A233YR1DAY	0.00	15.10	0.0000	11.81	11.72	1155
NRU1184	F3A233YR1DAY	0.00	15.44	0.0000	10.89	10.61	873
NRU1185	F3A233YR1DAY	0.00	16.60	0.0000	7.29	6.61	661
NRU1186	F3A233YR1DAY	0.00	15.57	0.0000	4.79	4.31	790
NRU1188	F3A233YR1DAY	0.00	17.89	0.0000	3.00	0.00	24742
NRU1190	F3A233YR1DAY	18.86	16.28	0.0000	6.20	5.57	576
NRU1210	F3A233YR1DAY	18.86	16.10	0.0000	5.57	4.79	717
NRU1220	F3A233YR1DAY	0.00	13.99	0.0000	16.25	15.66	2046
NRU1225	F3A233YR1DAY	0.00	20.38	0.0000	2.33	2.26	436
NRU1230	F3A233YR1DAY	18.88	13.44	0.0001	479.90	479.56	4561
NRU1232	F3A233YR1DAY	0.00	13.20	0.0001	489.16	488.94	3681
NRU1234	F3A233YR1DAY	0.00	14.24	0.0000	0.31	0.30	446
NRU1240	F3A233YR1DAY	0.00	15.65	0.0000	3.18	3.16	452
NRU1250	F3A233YR1DAY	4.07	4.13	-0.0001	253.31	253.30	2104
NRU1270	F3A233YR1DAY	4.78	4.74	0.0002	251.45	251.43	1667
NRU1290	F3A233YR1DAY	5.41	5.28	-0.0001	244.58	244.59	3103
NRU1310	F3A233YR1DAY	6.42	6.07	0.0000	244.59	244.58	5053
NRU1330	F3A233YR1D	8.29	7.61	0.0000	249.06	248.94	3357

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU1350	F3A233YR1DAY	9.32	8.65	0.0000	246.65	246.64	2409
NRU1370	F3A233YR1DAY	11.03	9.87	0.0000	243.61	243.59	5323
NRU1390	F3A233YR1DAY	11.84	10.53	0.0000	39.32	38.44	1238
NRU1410	F3A233YR1DAY	12.56	10.98	0.0000	204.60	205.17	7197
NRU1430	F3A233YR1DAY	15.53	15.53	-0.0001	44.44	29.32	30604
NRU1450	F3A233YR1DAY	15.94	15.91	0.0001	25.75	25.26	3335
NRU1470	F3A233YR1DAY	15.97	15.94	0.0001	5.57	5.58	981
NRU1490	F3A233YR1DAY	16.09	16.09	0.0001	6.00	5.57	2101
NRU1510	F3A233YR1DAY	15.12	12.62	0.0000	138.92	139.08	10557
NRU1530	F3A233YR1DAY	15.71	14.60	-0.0001	74.08	74.46	2452
NRU1550	F3A233YR1DAY	15.40	14.93	0.0000	55.55	54.20	1677
NRU1570	F3A233YR1DAY	16.20	15.83	0.0000	49.36	47.84	1398
NRU1590	F3A233YR1DAY	16.40	15.92	0.0000	4.94	4.35	1286
NRU1610	F3A233YR1DAY	16.56	16.32	0.0001	42.90	41.39	1573
NRU1630	F3A233YR1DAY	16.69	16.57	0.0001	28.95	28.81	1538
NRU1650	F3A233YR1DAY	16.84	16.77	0.0001	31.83	28.95	1066
NRU1670	F3A233YR1DAY	16.89	16.82	0.0001	39.28	28.09	70472
NRU1690	F3A233YR1DAY	16.89	16.81	0.0001	32.27	31.86	2551
NRU1710	F3A233YR1DAY	16.60	16.40	0.0001	29.72	29.57	1326
NRU1730	F3A233YR1DAY	16.58	16.08	0.0000	63.11	19.72	100746
NRU1750	F3A233YR1DAY	16.58	16.09	-0.0002	17.65	17.31	720
NRU1770	F3A233YR1DAY	16.58	16.09	0.0000	19.87	19.76	1091
NRU1790	F3A233YR1DAY	17.21	16.53	0.0000	5.21	5.00	753

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1810	F3A233YR1DAY	16.58	16.09	0.0000	4.00	3.99	15094
NRU1830	F3A233YR1DAY	17.12	16.52	0.0000	13.03	12.91	602
NRU1850	F3A233YR1DAY	17.07	16.98	0.0001	21.57	21.34	1047
NRU1870	F3A233YR1DAY	17.20	17.08	0.0001	21.83	21.57	908
NRU1890	F3A233YR1DAY	17.38	17.22	0.0001	31.11	21.83	10807
NRU1910	F3A233YR1DAY	17.71	17.52	0.0001	12.69	12.03	1684
NRU1930	F3A233YR1DAY	15.71	14.63	-0.0001	44.20	44.48	1572
NRU1950	F3A233YR1DAY	16.43	15.06	0.0000	43.17	43.27	1646
NRU1970	F3A233YR1DAY	16.86	15.33	0.0000	43.08	43.17	1037
NRU1990	F3A233YR1DAY	17.09	15.47	0.0000	43.01	43.08	1720
NRU2010	F3A233YR1DAY	18.02	16.20	0.0000	9.90	9.71	1370
NRU2030	F3A233YR1DAY	18.39	16.53	0.0001	7.87	6.74	679
NRU2050	F3A233YR1DAY	18.40	16.56	0.0000	2.62	2.98	453
NRU2070	F3A233YR1DAY	18.41	17.73	0.0000	2.63	2.62	436
NRU2090	F3A233YR1DAY	17.16	15.52	0.0000	31.24	31.35	983
NRU2110	F3A233YR1DAY	17.28	15.61	0.0000	30.28	30.34	1563
NRU2130	F3A233YR1DAY	17.49	15.80	0.0000	29.84	29.88	1851
NRU2150	F3A233YR1DAY	17.69	16.15	0.0000	5.07	4.75	1044
NRU2170	F3A233YR1DAY	17.07	16.40	0.0000	2.05	2.33	771
NRU2190	F3A233YR1DAY	17.08	16.47	0.0000	5.70	2.05	25700
NRU2210	F3A233YR1DAY	17.33	15.80	0.0001	3.15	2.58	538
NRU2230	F3A233YR1DAY	17.33	16.25	0.0000	10.13	0.05	76635
NRU2250	F3A233YR1DAY	17.31	16.25	0.0001	1.39	1.29	9787
NRU2270	F3A233YR1D	17.61	15.87	0.0000	23.88	23.89	1283

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NRU2290	F3A233YR1DAY	17.67	15.90	0.0000	18.07	18.20	1150
NRU2310	F3A233YR1DAY	17.68	15.91	0.0000	12.49	12.79	1271
NRU2330	F3A233YR1DAY	17.68	15.93	0.0001	15.01	6.63	757
NRU2350	F3A233YR1DAY	17.68	15.93	-0.0001	2.70	12.21	654
NRU2370	F3A233YR1DAY	17.37	16.16	0.0000	2.78	2.70	528
NRU2390	F3A233YR1DAY	17.36	16.40	0.0000	4.05	2.78	29443
NRU2410	F3A233YR1DAY	17.72	15.93	0.0000	6.53	4.72	1098
NRU2430	F3A233YR1DAY	17.83	15.94	0.0000	5.03	4.11	925
NRU2450	F3A233YR1DAY	18.06	15.94	0.0000	2.58	0.70	588
NRU2470	F3A233YR1DAY	15.72	14.59	0.0000	7.98	4.70	1457
NRU2490	F3A233YR1DAY	15.75	14.59	0.0000	4.85	1.17	1418
NRU2510	F3A233YR1DAY	15.75	14.48	0.0000	1.03	0.61	926
NRU2530	F3A233YR1DAY	15.76	14.48	0.0000	0.61	0.12	571
NRU2550	F3A233YR1DAY	16.53	13.20	0.0000	47.97	46.50	2428
NRU2570	F3A233YR1DAY	17.71	14.23	0.0000	41.87	40.34	2093
NRU2590	F3A233YR1DAY	18.30	15.17	0.0000	31.11	29.88	1428
NRU2610	F3A233YR1DAY	18.62	15.77	0.0000	30.96	29.69	1170
NRU2630	F3A233YR1DAY	19.41	16.69	0.0000	22.06	20.69	1128
NRU2650	F3A233YR1DAY	19.54	17.41	0.0000	11.11	9.57	927
NRU2670	F3A233YR1DAY	16.64	16.13	0.0000	22.21	22.46	2044
NRU2690	F3A233YR1DAY	17.09	16.90	-0.0001	108.32	80.17	158277
NSH02	F3A233YR1DAY	0.00	19.87	0.0000	8.06	7.85	1307
NSH03	F3A233YR1DAY	0.00	18.00	-0.0227	0.28	12.94	767

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH04	F3A233YR1DAY	0.00	13.78	0.0000	31.04	29.31	4612
NSH05	F3A233YR1DAY	0.00	7.46	-0.0001	535.05	535.04	5036
NSH07	F3A233YR1DAY	0.00	6.19	-0.0001	14.84	14.44	623
NSH08	F3A233YR1DAY	0.00	7.22	0.0000	11.55	11.44	1603
NSH09	F3A233YR1DAY	0.00	8.17	0.0001	24.84	19.84	8322
NSH10	F3A233YR1DAY	0.00	18.99	0.0000	10.00	9.67	27483
NSH11	F3A233YR1DAY	0.00	21.04	0.0000	4.55	4.42	6151
NSH12	F3A233YR1DAY	0.00	6.46	0.0000	537.70	537.68	4105
NSH13	F3A233YR1DAY	0.00	6.17	0.0011	544.26	563.53	4600
NSH14	F3A233YR1DAY	0.00	6.14	0.0013	608.63	548.25	1911
NSH15	F3A233YR1DAY	0.00	18.67	0.0000	3.23	3.20	6205
NSH16	F3A233YR1DAY	0.00	7.71	0.0005	29.57	29.57	633
NSH17	F3A233YR1DAY	0.00	6.10	-0.0015	548.97	549.59	2161
NSH18	F3A233YR1DAY	0.00	6.07	-0.0007	574.31	573.25	3006
NSH19	F3A233YR1DAY	0.00	5.35	-0.0004	575.01	575.02	5396
NSH20	F3A233YR1DAY	0.00	20.16	0.0000	1.95	1.77	10634
NSH21	F3A233YR1DAY	0.00	10.23	0.0000	7.78	7.06	587
NSH22	F3A233YR1DAY	0.00	12.66	0.0000	22.31	19.52	2539
NSH23	F3A233YR1DAY	0.00	18.13	0.0000	6.39	6.35	2403
NSH24	F3A233YR1DAY	0.00	13.01	0.0000	10.98	7.54	2413
NSH25	F3A233YR1DAY	0.00	11.79	-0.0001	10.23	11.88	671
NSH26	F3A233YR1DAY	0.00	11.40	0.0001	22.44	21.94	1178
NSH26A	F3A233YR1DAY	0.00	11.23	0.0000	29.59	29.57	2060
NSH27	F3A233YR1D	0.00	10.92	0.0000	4.63	4.01	2877

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSH27A	F3A233YR1DAY	0.00	10.66	0.0000	15.99	15.51	921
NSH27AA	F3A233YR1DAY	0.00	10.75	0.0000	4.01	4.06	561
NSH27B	F3A233YR1DAY	0.00	9.72	-0.0001	15.51	18.09	1033
NSH27C	F3A233YR1DAY	0.00	8.12	-0.0001	18.09	13.87	1035
NSH28	F3A233YR1DAY	0.00	8.99	0.0000	9.09	7.40	7343
NSH29	F3A233YR1DAY	0.00	7.43	-0.0001	6.71	11.85	648
NSH31	F3A233YR1DAY	0.00	8.95	0.0000	7.40	5.39	480
NSH33	F3A233YR1DAY	0.00	16.54	0.0000	1.52	1.47	3594
NSH34	F3A233YR1DAY	0.00	8.48	0.0000	18.70	18.07	773
NSH35	F3A233YR1DAY	0.00	7.23	-0.0001	8.41	8.73	547
NSH36	F3A233YR1DAY	0.00	7.19	-0.0001	20.38	20.32	806
NSH37	F3A233YR1DAY	0.00	6.15	-0.0013	568.43	608.49	1881
NSH41	F3A233YR1DAY	0.00	14.22	0.0000	2.58	2.57	465
NSH42	F3A233YR1DAY	0.00	2.89	0.0002	36.44	36.44	447
NSH43	F3A233YR1DAY	0.00	3.39	0.0003	36.19	36.19	507
NSH44	F3A233YR1DAY	0.00	6.85	0.0000	8.19	8.15	670
NSH45	F3A233YR1DAY	0.00	16.15	0.0000	14.66	14.48	19117
NSH48	F3A233YR1DAY	0.00	18.16	0.0000	8.55	8.52	2405
NSH49	F3A233YR1DAY	0.00	16.90	0.0000	8.38	8.35	473
NSH50	F3A233YR1DAY	0.00	12.51	0.0001	498.04	497.67	6021
NSH51	F3A233YR1DAY	0.00	16.12	0.0000	18.13	18.05	1330
NSH52	F3A233YR1DAY	0.00	12.65	0.0001	492.19	491.90	4413
NSH53	F3A233YR1DAY	0.00	14.50	0.0000	23.64	23.55	1029

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH53B	F3A233YR1DAY	0.00	12.65	0.0001	3.82	0.79	448
NSH54	F3A233YR1DAY	0.00	14.00	0.0000	24.43	24.01	1254
NSH55	F3A233YR1DAY	0.00	13.08	0.0001	491.14	490.82	5311
NSH55B	F3A233YR1DAY	0.00	13.75	-0.0001	5.09	5.07	447
NSH56	F3A233YR1DAY	0.00	13.75	0.0000	2.78	2.76	464
NSH57	F3A233YR1DAY	0.00	14.09	0.0000	2.79	2.78	455
NSH60	F3A233YR1DAY	0.00	18.13	0.0000	8.60	8.27	436
NSH61	F3A233YR1DAY	0.00	14.63	0.0000	5.24	5.23	451
NSH65	F3A233YR1DAY	0.00	19.59	0.0000	1.61	1.60	436
NSH71	F3A233YR1DAY	9999.00	14.83	0.0000	8.29	8.25	2455
NSH75	F3A233YR1DAY	0.00	4.59	-0.0021	583.55	583.51	4064
NSH76	F3A233YR1DAY	0.00	3.57	-0.0096	547.57	547.58	2030
NSH80	F3A233YR1DAY	0.00	12.22	0.0001	507.24	506.99	6657
NSH81	F3A233YR1DAY	0.00	20.12	0.0000	0.19	0.00	1742
NSH82	F3A233YR1DAY	0.00	20.67	0.0000	1.10	0.00	4792
NSH83	F3A233YR1DAY	0.00	12.24	0.0001	8.79	9.23	451
NSH85	F3A233YR1DAY	0.00	12.12	0.0001	510.07	509.88	4681
NSHSelmonDS	F3A233YR1DAY	9999.00	9.54	0.0002	533.75	533.71	6356
NSHSelmonUS	F3A233YR1DAY	9999.00	11.10	-0.0002	521.57	521.58	3189
NSR0000	F3A233YR1DAY	2.00	2.00	0.0000	250.01	22.86	0
NSR0005	F3A233YR1DAY	2.00	2.00	0.0000	3.85	0.00	0
NSR0010	F3A233YR1DAY	2.00	2.00	0.0000	294.21	0.00	0
NSR0030	F3A233YR1DAY	2.92	2.86	0.0000	307.31	294.21	215133
NSR0032	F3A233YR1D	4.88	4.85	0.0000	6.94	2.89	16519

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0034	F3A233YR1DAY	3.63	3.54	0.0000	34.58	33.36	10953
NSR0050	F3A233YR1DAY	3.44	3.31	0.0000	291.65	283.02	82092
NSR0070	F3A233YR1DAY	3.45	3.34	-0.0001	23.36	22.08	15524
NSR0090	F3A233YR1DAY	3.68	3.56	-0.0001	21.27	19.93	6303
NSR0100	F3A233YR1DAY	2.25	2.23	0.0000	3.87	3.85	524
NSR0102	F3A233YR1DAY	4.24	4.25	0.0000	2.76	2.45	2188
NSR0105	F3A233YR1DAY	1.91	2.63	-0.0174	250.07	250.01	484
NSR0110	F3A233YR1DAY	3.93	3.65	0.0000	11.01	10.74	448
NSR0112	F3A233YR1DAY	2.31	2.92	-0.0292	248.87	248.86	457
NSR0115	F3A233YR1DAY	4.25	4.27	0.0000	1.51	1.14	6734
NSR0120	F3A233YR1DAY	2.62	3.14	0.0303	246.37	246.41	479
NSR0130	F3A233YR1DAY	4.16	3.84	0.0000	6.15	5.84	445
NSR0135	F3A233YR1DAY	4.22	3.90	0.0000	2.40	1.92	438
NSR0140	F3A233YR1DAY	3.28	3.62	0.0129	243.84	243.83	477
NSR0150	F3A233YR1DAY	3.64	3.48	0.0003	273.30	271.21	28347
NSR0160	F3A233YR1DAY	3.56	3.81	0.0081	241.85	241.92	1430
NSR0165	F3A233YR1DAY	4.03	3.56	0.0000	2.07	1.72	440
NSR0170	F3A233YR1DAY	3.70	3.50	0.0000	3.65	2.43	1748
NSR0180	F3A233YR1DAY	3.83	3.71	0.0000	4.37	4.03	1782
NSR0190	F3A233YR1DAY	4.04	3.49	-0.0001	14.57	14.25	1310
NSR0210	F3A233YR1DAY	4.26	3.50	-0.0001	13.02	12.53	1568
NSR0230	F3A233YR1DAY	4.26	3.51	0.0000	13.28	10.32	5983
NSR0250	F3A233YR1DAY	3.93	3.74	0.0062	265.44	264.71	12764

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0270	F3A233YR1DAY	3.98	3.79	0.0000	28.99	28.59	5999
NSR0280	F3A233YR1DAY	5.41	5.31	0.0006	197.39	196.71	1046
NSR0281	F3A233YR1DAY	5.97	5.83	0.0004	197.02	190.89	4724
NSR0290	F3A233YR1DAY	6.70	5.96	-0.0004	54.59	54.55	5870
NSR0310	F3A233YR1DAY	9.28	9.13	-0.0001	49.32	46.75	33694
NSR0330	F3A233YR1DAY	9.65	9.38	0.0001	5.95	6.53	470
NSR0350	F3A233YR1DAY	10.32	9.86	0.0001	6.56	5.95	446
NSR0370	F3A233YR1DAY	10.35	10.10	0.0000	6.64	6.56	4788
NSR0390	F3A233YR1DAY	11.96	11.10	0.0001	20.76	20.68	2045
NSR0410	F3A233YR1DAY	12.27	11.57	0.0001	4.54	4.51	510
NSR0430	F3A233YR1DAY	12.28	12.03	0.0000	5.50	4.54	14949
NSR0450	F3A233YR1DAY	13.04	11.77	0.0000	12.70	12.38	1271
NSR0470	F3A233YR1DAY	13.10	11.81	0.0000	7.78	7.39	1155
NSR0490	F3A233YR1DAY	4.41	4.29	0.0060	105.54	104.83	13881
NSR0510	F3A233YR1DAY	4.48	4.41	0.0010	45.83	46.07	8420
NSR0530	F3A233YR1DAY	4.55	4.44	-0.0001	6.51	6.15	765
NSR0540	F3A233YR1DAY	4.55	4.52	0.0005	44.99	40.86	39316
NSR0550	F3A233YR1DAY	4.56	4.54	0.0012	277.01	277.02	5282
NSR0560	F3A233YR1DAY	4.66	4.62	0.0002	85.55	88.79	39273
NSR0570	F3A233YR1DAY	5.28	5.20	0.0001	79.70	80.66	29961
NSR0580	F3A233YR1DAY	6.13	5.95	-0.0001	12.50	7.45	43791
NSR0590	F3A233YR1DAY	6.15	5.97	0.0000	78.36	76.79	26144
NSR0610	F3A233YR1DAY	6.26	6.03	0.0001	17.64	18.25	38035
NSR0630	F3A233YR1D	6.26	6.03	-0.0001	16.77	16.85	475

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR0650	F3A233YR1DAY	6.25	6.02	0.0000	21.56	16.77	110720
NSR0660	F3A233YR1DAY	6.13	4.61	0.0000	4.55	4.07	483
NSR0670	F3A233YR1DAY	6.24	6.02	0.0001	7.10	7.87	520
NSR0680	F3A233YR1DAY	6.14	6.01	-0.0001	11.23	6.53	70104
NSR0690	F3A233YR1DAY	6.24	6.01	-0.0001	6.61	7.10	599
NSR0710	F3A233YR1DAY	6.23	6.01	0.0000	6.53	6.61	861
NSR0730	F3A233YR1DAY	6.29	6.18	0.0000	103.26	80.78	120327
NSR0770	F3A233YR1DAY	6.81	6.65	0.0001	83.02	81.99	4214
NSR0780	F3A233YR1DAY	6.74	6.68	-0.0001	6.77	5.19	10711
NSR0790	F3A233YR1DAY	8.35	8.06	0.0002	282.19	263.46	23827
NSR0791	F3A233YR1DAY	7.13	6.92	-0.0002	187.41	188.79	5596
NSR0809	F3A233YR1DAY	12.76	9.86	-0.0004	69.30	94.20	2127
NSR0810	F3A233YR1DAY	13.45	13.33	-0.0003	109.97	109.27	59924
NSR0830	F3A233YR1DAY	15.10	15.05	-0.0002	108.59	104.57	101105
NSR0840	F3A233YR1DAY	16.09	16.03	0.0001	14.33	14.36	30570
NSR0850	F3A233YR1DAY	15.64	15.58	-0.0004	75.13	72.10	64320
NSR0860	F3A233YR1DAY	16.41	16.39	0.0000	5.49	5.35	6329
NSR0869	F3A233YR1DAY	16.03	16.02	0.0001	30.21	30.02	1505
NSR0870	F3A233YR1DAY	16.24	16.27	0.0001	57.07	57.22	26546
NSR0880	F3A233YR1DAY	16.24	16.28	0.0000	19.04	18.56	9148
NSR0881	F3A233YR1DAY	14.14	14.36	0.0004	243.58	225.27	13396
NSR0890	F3A233YR1DAY	4.02	3.84	-0.1082	244.80	237.21	29787
NSR0910	F3A233YR1DAY	4.79	4.51	0.0024	157.35	156.61	5988

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0930	F3A233YR1DAY	5.54	4.58	0.0000	33.19	13.79	77655
NSR0950	F3A233YR1DAY	5.63	5.36	0.0009	155.30	154.10	11541
NSR0970	F3A233YR1DAY	6.14	5.80	-0.0002	130.98	131.10	3616
NSR0990	F3A233YR1DAY	6.27	5.92	0.0001	137.76	137.91	3846
NSR1010	F3A233YR1DAY	6.30	5.95	0.0000	18.58	18.35	5847
NSR1030	F3A233YR1DAY	8.54	8.16	-0.0001	119.41	119.44	9024
NSR1050	F3A233YR1DAY	8.56	8.16	0.0000	15.70	4.56	17921
NSR1070	F3A233YR1DAY	9.58	9.44	0.0004	137.54	136.73	19525
NSR1090	F3A233YR1DAY	11.30	11.27	0.0004	121.51	121.57	7627
NSR1110	F3A233YR1DAY	11.57	11.56	0.0000	1.64	1.63	2862
NSR1130	F3A233YR1DAY	11.29	11.26	0.0000	14.03	13.14	13270
NSR1150	F3A233YR1DAY	11.39	11.28	0.0000	4.16	4.01	5151
NSR1170	F3A233YR1DAY	11.38	11.28	0.0000	4.01	3.28	451
NSR1190	F3A233YR1DAY	12.70	12.75	0.0000	120.80	120.78	12427
NSR1210	F3A233YR1DAY	12.70	12.76	-0.0001	14.08	10.75	51574
NSR1230	F3A233YR1DAY	14.76	14.68	0.0000	120.22	120.08	9407
NSR1270	F3A233YR1DAY	14.99	14.92	0.0000	120.53	120.30	6127
NSR1290	F3A233YR1DAY	14.99	14.92	0.0000	6.08	2.42	15156
NSR1310	F3A233YR1DAY	14.99	14.92	0.0000	17.54	15.49	32464
NSR1330	F3A233YR1DAY	15.44	15.33	0.0000	122.72	119.22	20787
NSR1350	F3A233YR1DAY	15.45	15.34	0.0000	19.71	19.37	17327
NSR1370	F3A233YR1DAY	15.56	15.46	0.0000	114.89	108.64	20962
NSR1390	F3A233YR1DAY	15.56	15.46	0.0000	2.30	2.30	3049
NSR1410	F3A233YR1D	15.56	15.46	0.0002	23.30	21.74	2382

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR1430	F3A233YR1DAY	15.76	15.65	0.0000	27.52	26.99	7773
NSR1450	F3A233YR1DAY	15.74	15.63	0.0000	30.63	25.59	57821
NSR1470	F3A233YR1DAY	15.96	15.86	0.0000	26.20	25.82	22018
NSR1490	F3A233YR1DAY	16.21	16.12	0.0000	41.45	23.22	104531
NSR1510	F3A233YR1DAY	16.21	16.12	0.0000	25.40	16.95	27089
NSR1530	F3A233YR1DAY	15.56	15.46	-0.0001	3.45	2.03	3180
NSR1550	F3A233YR1DAY	15.68	15.58	0.0000	115.67	103.11	32288
NSR1570	F3A233YR1DAY	15.68	15.58	-0.0001	2.42	0.92	1228
NSR1590	F3A233YR1DAY	15.68	15.58	-0.0001	29.90	32.59	8532
NSR1610	F3A233YR1DAY	15.75	15.67	-0.0001	12.81	11.97	6157
NSR1630	F3A233YR1DAY	15.75	15.67	0.0000	89.93	79.56	18988
NSR1650	F3A233YR1DAY	16.39	17.06	0.0000	1.94	1.94	436
NSR1670	F3A233YR1DAY	15.92	15.92	-0.0002	18.13	15.70	35249
NSR1690	F3A233YR1DAY	16.24	16.10	0.0000	86.35	71.87	18790
NSR1710	F3A233YR1DAY	16.25	16.12	0.0000	4.98	4.33	880
NSR1730	F3A233YR1DAY	16.32	16.19	0.0000	86.46	81.10	8711
NSR1750	F3A233YR1DAY	16.68	16.67	0.0000	2.04	2.04	436
NSR1770	F3A233YR1DAY	17.23	17.28	0.0000	21.72	15.64	17112
NSR1790	F3A233YR1DAY	17.24	17.29	0.0000	23.45	16.42	29114
NSR1810	F3A233YR1DAY	17.25	17.29	0.0000	9.62	8.09	10643
NSR1830	F3A233YR1DAY	17.25	17.29	0.0000	33.78	25.38	66556
NSR1850	F3A233YR1DAY	16.95	17.02	-0.0001	7.32	8.05	13325
NSR1870	F3A233YR1DAY	16.93	17.00	0.0001	24.93	17.28	45043

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1890	F3A233YR1DAY	16.05	16.29	0.0000	13.23	13.55	1056
NSR1910	F3A233YR1DAY	15.45	15.78	0.0003	43.81	40.74	4816
NSR1930	F3A233YR1DAY	16.53	16.37	-0.0001	65.68	65.32	1836
NSR1950	F3A233YR1DAY	16.70	16.58	-0.0001	20.97	20.43	1859
NSR1970	F3A233YR1DAY	16.84	16.75	-0.0001	19.62	18.67	12204
NSR1990	F3A233YR1DAY	16.86	16.75	0.0001	10.31	9.21	949
NSR2010	F3A233YR1DAY	16.91	16.76	-0.0001	11.88	10.31	14743
NSR2030	F3A233YR1DAY	16.90	16.75	-0.0001	6.50	5.26	751
NSR2050	F3A233YR1DAY	16.88	16.75	0.0000	7.77	6.83	10850
NSR2070	F3A233YR1DAY	16.81	16.70	0.0000	5.00	5.00	781
NSR2090	F3A233YR1DAY	16.72	16.63	0.0000	6.11	5.01	673
NSR2110	F3A233YR1DAY	16.54	16.50	0.0000	11.86	11.02	13935
NSR2130	F3A233YR1DAY	16.50	16.47	0.0000	11.85	6.78	89085
NSR2150	F3A233YR1DAY	17.60	16.59	-0.0001	44.32	39.88	65971
NSR2170	F3A233YR1DAY	17.62	16.80	0.0000	31.78	31.74	2087
NSR2190	F3A233YR1DAY	17.62	16.87	0.0001	31.83	31.78	967
NSR2210	F3A233YR1DAY	17.62	17.01	0.0000	29.52	21.66	54014
NSR2230	F3A233YR1DAY	17.62	16.92	-0.0001	21.20	20.54	675
NSR2250	F3A233YR1DAY	17.63	16.99	-0.0001	22.02	21.20	8872
NSR2270	F3A233YR1DAY	17.63	17.00	-0.0001	22.99	20.69	17006
NSR2290	F3A233YR1DAY	17.63	17.02	0.0000	17.84	17.37	888
NSR2310	F3A233YR1DAY	17.63	17.04	0.0000	18.33	17.84	6258
NSR2330	F3A233YR1DAY	17.65	17.58	0.0000	17.12	13.09	18305
NSR2350	F3A233YR1D	17.65	17.58	0.0001	15.55	11.66	21623

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	AY						
NSR2370	F3A233YR1DAY	16.66	16.38	0.0000	16.18	11.80	9676
NSR2390	F3A233YR1DAY	18.07	17.94	0.0000	7.91	0.91	55404
NSR2410	F3A233YR1DAY	16.66	16.38	0.0000	26.00	16.18	16248
NSR2430	F3A233YR1DAY	17.99	17.97	0.0000	1.78	1.77	2497
NSR2450	F3A233YR1DAY	18.06	18.02	0.0000	23.51	23.16	12919
NSR3000	F3A233YR1DAY	17.04	17.06	-0.0727	5.37	49.45	871
NSR3005	F3A233YR1DAY	17.02	17.05	0.1453	49.45	3.97	566
NSR3020	F3A233YR1DAY	17.61	17.68	-0.0001	26.07	22.82	61813
NSR3040	F3A233YR1DAY	16.25	16.29	0.0000	47.35	43.20	31414
NSR3060	F3A233YR1DAY	16.21	16.12	-0.0001	13.04	11.59	38523
NSW0010	F3A233YR1DAY	2.00	2.00	0.0000	17.00	0.00	0
NSW0030	F3A233YR1DAY	2.13	2.38	-0.0003	17.01	17.00	587
NSW0050	F3A233YR1DAY	4.04	3.16	0.0001	17.12	17.01	959
Outfall	F3A233YR1DAY	2.00	2.00	0.0000	36.19	0.00	0
Outfall_NE	F3A233YR1DAY	21.00	18.65	0.0002	8.21	0.00	0
PondA	F3A233YR1DAY	0.00	17.80	0.0294	14.25	8.29	24838
PondB	F3A233YR1DAY	0.00	13.34	0.0000	70.04	47.77	68472
SH_OUTFALL	F3A233YR1DAY	2.00	2.00	0.0000	661.71	34.88	0
STORAGE1	F3A233YR1DAY	0.00	18.43	0.0000	1.75	0.73	7405
STORAGE10	F3A233YR1DAY	0.00	19.59	0.0000	1.60	0.00	9148
STORAGE11	F3A233YR1DAY	0.00	19.87	0.0000	7.85	0.00	18648
STORAGE12	F3A233YR1DAY	0.00	18.57	0.0000	8.22	5.91	10262
STORAGE13	F3A233YR1DAY	0.00	16.91	0.0000	0.00	0.00	5323

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
STORAGE14	F3A233YR1DAY	0.00	20.38	0.0000	2.26	0.00	13395
STORAGE2	F3A233YR1DAY	0.00	17.80	0.0000	5.71	1.22	18426
STORAGE4	F3A233YR1DAY	0.00	17.48	0.0000	8.12	1.57	12088
STORAGE5	F3A233YR1DAY	0.00	20.88	0.0000	14.82	4.26	19757
STORAGE8	F3A233YR1DAY	0.00	14.94	0.0000	0.00	0.00	100
STORAGE9	F3A233YR1DAY	0.00	18.12	0.0000	6.69	1.17	11761
Sevilla1	F3A233YR1DAY	1.20	2.04	0.0000	0.03	0.03	804
Sevilla2	F3A233YR1DAY	1.23	2.02	0.0000	0.01	0.01	609
Sevilla3	F3A233YR1DAY	1.20	2.04	0.0000	0.07	0.07	1339
Sevilla4	F3A233YR1DAY	1.20	2.04	0.0000	0.12	0.12	1450
Shamrock2	F3A233YR1DAY	1.11	2.02	-0.0002	36.27	36.19	5389
Shmrck1.1	F3A233YR1DAY	1.38	2.08	-0.0001	36.17	36.20	6206
Shmrck1.2	F3A233YR1DAY	1.20	2.04	-0.0002	36.20	36.28	3971
THEA_JUNCT1	F3A233YR1DAY	0.00	13.05	0.0000	20.23	20.19	667
THEA_JUNCT2	F3A233YR1DAY	0.00	12.73	0.0000	20.19	20.18	501
THEA_Watrous	F3A233YR1DAY	0.00	13.65	0.0002	20.34	20.23	815
V3	F3A233YR1DAY	6.53	6.53	0.0000	0.00	0.00	436
BC_N02	F3A25YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	F3A25YR1DAY	8.77	10.24	0.0000	0.66	0.40	533
Church2	F3A25YR1DAY	8.77	10.24	0.0000	7.17	6.75	4390
Clark1	F3A25YR1DAY	7.21	8.19	0.0000	0.97	0.57	743
Clark2	F3A25YR1DAY	7.21	8.19	-0.0001	62.88	62.71	21564
DM1	F3A25YR1DAY	11.42	11.86	0.0000	7.14	7.24	1416
DM2	F3A25YR1DA	10.30	10.64	0.0000	7.24	7.13	2186

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
DM3	F3A25YR1DAY	9.16	10.27	0.0000	7.13	7.17	2979
E_Outlet	F3A25YR1DAY	0.00	16.53	0.0005	93.98	41.31	0
E_Outlet2	F3A25YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A25YR1DAY	1.99	2.97	0.0000	0.41	0.31	763
ElP_con.1	F3A25YR1DAY	2.18	3.13	-0.0001	80.87	80.73	4221
ElPrad.1	F3A25YR1DAY	1.99	2.97	0.0000	0.20	0.15	632
G1	F3A25YR1DAY	14.98	15.98	-0.0038	154.50	95.70	40628
G10	F3A25YR1DAY	8.77	10.22	-0.0001	63.49	62.88	4602
G2	F3A25YR1DAY	14.99	15.92	-0.0002	36.68	37.67	32924
G3	F3A25YR1DAY	14.86	15.91	-0.0004	120.44	120.25	27807
G4	F3A25YR1DAY	12.82	14.94	-0.0005	120.25	117.38	57248
G5	F3A25YR1DAY	11.69	13.68	0.0001	82.59	77.23	35772
G6	F3A25YR1DAY	11.00	9.24	0.0000	12.52	0.00	0
G7	F3A25YR1DAY	11.00	11.94	0.0000	71.96	71.77	3601
G8	F3A25YR1DAY	10.07	11.01	0.0000	59.72	59.46	2143
G9	F3A25YR1DAY	9.41	10.51	0.0001	59.46	59.16	1353
H1	F3A25YR1DAY	1.99	3.30	0.0000	5.47	5.46	514
H2.1	F3A25YR1DAY	1.99	2.97	-0.0001	86.06	86.02	6105
Hubert	F3A25YR1DAY	3.16	3.76	0.0000	62.68	62.36	5965
JUNCT1	F3A25YR1DAY	0.00	13.86	0.0000	0.79	0.70	1235
JUNCT10	F3A25YR1DAY	0.00	22.14	0.0000	61.31	61.20	10835
JUNCT2	F3A25YR1DAY	0.00	14.17	0.0000	15.82	15.78	2153
JUNCT3	F3A25YR1DAY	0.00	19.72	0.0000	0.47	0.28	4478

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
JUNCT4	F3A25YR1DAY	0.00	13.62	0.0000	2.71	2.66	4949
JUNCT6	F3A25YR1DAY	0.00	16.39	0.0000	122.18	120.43	10272
JUNCT7	F3A25YR1DAY	0.00	19.60	0.0000	116.07	116.03	8388
JUNCT7B	F3A25YR1DAY	0.00	19.05	0.0000	116.03	116.55	25729
JUNCT8	F3A25YR1DAY	0.00	19.60	0.0000	186.87	186.81	11633
JUNCT8B	F3A25YR1DAY	0.00	19.04	0.0000	192.56	192.64	34815
JUNCT9	F3A25YR1DAY	0.00	29.56	0.0000	58.51	58.58	9578
L1	F3A25YR1DAY	11.53	11.98	0.0000	35.38	36.46	51707
L2	F3A25YR1DAY	11.63	11.76	0.0000	8.59	8.45	41894
L3	F3A25YR1DAY	10.43	10.56	0.0000	9.80	8.95	46099
L4	F3A25YR1DAY	8.43	8.53	0.0000	4.17	3.79	50838
L5	F3A25YR1DAY	7.63	7.68	0.0000	1.55	1.29	43662
L6	F3A25YR1DAY	6.93	6.96	0.0000	0.53	0.39	43812
Lois	F3A25YR1DAY	4.82	5.01	0.0001	62.71	62.68	6808
M1	F3A25YR1DAY	2.58	6.50	-0.0003	34.84	33.95	24843
M1.1	F3A25YR1DAY	6.33	6.84	0.0000	38.45	34.84	35184
M1.2	F3A25YR1DAY	7.03	7.35	0.0000	31.79	34.24	28442
M1.3	F3A25YR1DAY	7.13	7.61	0.0000	28.34	27.51	28489
M2	F3A25YR1DAY	2.58	5.89	-0.0006	36.53	31.82	60587
M3	F3A25YR1DAY	2.58	5.47	-0.0004	31.94	30.37	39362
M4	F3A25YR1DAY	2.58	4.96	-0.0005	30.38	25.01	49902
M5.1	F3A25YR1DAY	2.57	3.45	0.0000	81.06	80.88	6163
M6	F3A25YR1DAY	2.58	3.45	0.0000	0.40	0.23	558
N01	F3A25YR1DA	0.00	19.65	0.0000	32.74	22.48	32129

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
N01A	F3A25YR1DAY	0.00	19.36	0.0001	10.16	9.88	456
N02	F3A25YR1DAY	0.00	17.02	-0.0001	30.83	30.53	4149
N03	F3A25YR1DAY	0.00	17.02	0.0000	2.41	2.80	597
N04	F3A25YR1DAY	0.00	19.37	0.0000	12.56	12.41	643
N05	F3A25YR1DAY	0.00	16.89	0.0000	86.16	85.85	4405
N06	F3A25YR1DAY	0.00	16.58	0.0002	67.81	68.14	3292
N07A	F3A25YR1DAY	0.00	15.69	0.0002	72.99	73.33	4248
N08A	F3A25YR1DAY	0.00	14.51	-0.0002	116.72	116.79	1955
N09	F3A25YR1DAY	0.00	12.56	0.0001	13.51	12.85	468
N09A	F3A25YR1DAY	0.00	12.33	0.0003	126.66	126.66	1360
N10	F3A25YR1DAY	2.00	2.00	0.0000	287.73	0.00	0
N11	F3A25YR1DAY	0.00	16.74	-0.0008	74.25	93.98	176646
NBB0010	F3A25YR1DAY	2.00	2.00	0.0000	133.13	0.00	0
NBB0030	F3A25YR1DAY	5.03	7.21	-0.0006	133.13	133.13	557
NBB0050	F3A25YR1DAY	9.15	12.43	-0.0003	181.44	133.13	85538
NBB0070	F3A25YR1DAY	11.30	13.73	-0.0001	113.61	112.64	2549
NBB0090	F3A25YR1DAY	12.67	14.03	0.0001	107.64	107.65	2685
NBB0110	F3A25YR1DAY	13.46	15.10	0.0001	100.59	100.60	1982
NBB0130	F3A25YR1DAY	15.26	16.71	-0.0003	49.29	36.22	47198
NBB0150	F3A25YR1DAY	14.01	15.56	0.0001	72.32	72.48	1935
NBB0170	F3A25YR1DAY	14.74	16.17	0.0001	72.22	72.32	1452
NBB0190	F3A25YR1DAY	15.42	16.75	0.0001	72.13	72.22	53051
NBB0210	F3A25YR1DAY	15.70	16.83	0.0001	69.63	69.73	1556

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBB0230	F3A25YR1DAY	16.02	16.91	0.0001	69.53	69.63	5425
NBB0250	F3A25YR1DAY	16.31	17.23	0.0001	68.80	68.90	2036
NBB0270	F3A25YR1DAY	17.05	17.69	0.0001	68.08	68.80	21067
NBB0290	F3A25YR1DAY	17.06	17.69	0.0001	55.00	54.33	1258
NBB0310	F3A25YR1DAY	17.07	17.70	-0.0002	187.52	105.84	420459
NBB0330	F3A25YR1DAY	16.57	17.00	0.0002	43.42	40.63	27638
NBB0350	F3A25YR1DAY	16.45	16.99	0.0002	28.06	29.04	1396
NBB0370	F3A25YR1DAY	16.33	16.97	0.0002	83.04	55.82	67423
NBB0390	F3A25YR1DAY	16.32	16.97	0.0002	21.48	22.33	1833
NBB0410	F3A25YR1DAY	16.30	16.97	-0.0002	70.27	53.31	42095
NBB0430	F3A25YR1DAY	15.45	16.00	-0.0003	122.95	175.92	67704
NBW0010	F3A25YR1DAY	2.00	2.00	0.0000	802.37	0.00	0
NBW0030	F3A25YR1DAY	3.39	4.18	0.0002	803.15	802.37	49933
NBW0050	F3A25YR1DAY	3.92	4.21	0.0000	12.94	11.77	6157
NBW0070	F3A25YR1DAY	3.57	4.50	-0.0005	257.10	519.20	43341
NBW0090	F3A25YR1DAY	3.66	4.21	0.0000	8.47	8.03	32014
NBW0130	F3A25YR1DAY	3.73	4.65	0.0000	255.29	256.10	14581
NBW0150	F3A25YR1DAY	3.93	4.64	0.0001	11.15	10.55	9646
NBW0170	F3A25YR1DAY	3.98	4.61	0.0001	6.39	4.14	33805
NBW0190	F3A25YR1DAY	3.89	4.78	-0.0001	254.31	253.80	5987
NBW0210	F3A25YR1DAY	6.25	6.37	0.0000	11.08	10.84	6589
NBW0230	F3A25YR1DAY	4.01	4.96	0.0001	252.54	253.63	5033
NBW0250	F3A25YR1DAY	4.88	5.84	0.0000	251.70	251.79	5655
NBW0270	F3A25YR1DA	5.49	5.85	0.0001	53.16	46.74	28277

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW0290	F3A25YR1DAY	5.91	5.97	0.0000	40.16	40.79	13706
NBW0310	F3A25YR1DAY	6.38	6.82	0.0000	14.38	12.52	10617
NBW0330	F3A25YR1DAY	5.50	6.65	0.0000	246.61	246.50	24038
NBW0350	F3A25YR1DAY	4.97	4.99	0.0000	10.89	10.87	2530
NBW0370	F3A25YR1DAY	5.52	6.66	-0.0001	11.08	9.94	9139
NBW0390	F3A25YR1DAY	5.52	6.66	-0.0001	13.35	8.66	35674
NBW0410	F3A25YR1DAY	5.54	6.73	-0.0002	243.60	243.70	3446
NBW0430	F3A25YR1DAY	5.89	7.12	0.0000	8.37	7.53	27738
NBW0450	F3A25YR1DAY	5.89	7.12	0.0001	244.32	243.60	12326
NBW0470	F3A25YR1DAY	5.89	7.12	0.0000	6.10	5.28	17866
NBW0490	F3A25YR1DAY	5.92	7.20	-0.0001	242.88	242.81	3173
NBW0510	F3A25YR1DAY	6.72	7.20	0.0000	5.20	5.19	7758
NBW0530	F3A25YR1DAY	6.22	7.57	0.0000	242.85	242.82	4802
NBW0550	F3A25YR1DAY	6.72	8.40	0.0000	208.62	199.40	297706
NBW0570	F3A25YR1DAY	7.09	8.36	0.0000	195.84	193.72	49074
NBW0590	F3A25YR1DAY	10.03	10.16	-0.0002	291.93	291.00	86262
NBW0610	F3A25YR1DAY	6.45	7.80	-0.0001	220.66	220.51	9158
NBW0630	F3A25YR1DAY	6.22	7.57	0.0000	8.12	5.66	63690
NBW0650	F3A25YR1DAY	6.66	8.36	0.0000	222.56	221.44	22102
NBW0670	F3A25YR1DAY	6.66	8.36	0.0000	14.11	5.01	38222
NBW0690	F3A25YR1DAY	6.71	8.39	-0.0001	176.39	176.67	10571
NBW0710	F3A25YR1DAY	6.71	8.39	0.0000	18.54	10.38	53086
NBW0730	F3A25YR1DAY	6.72	8.39	-0.0001	176.99	170.16	220355

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0750	F3A25YR1DAY	7.06	8.41	0.0001	211.05	201.14	114737
NBW0770	F3A25YR1DAY	7.06	8.41	-0.0002	33.31	26.76	26941
NBW0790	F3A25YR1DAY	8.11	8.41	0.0000	28.50	28.31	3181
NBW0810	F3A25YR1DAY	7.06	8.41	0.0000	52.78	44.86	49375
NBW0830	F3A25YR1DAY	8.41	8.41	-0.0001	41.98	41.74	3093
NBW0850	F3A25YR1DAY	10.17	9.83	0.0001	43.14	38.48	13550
NBW0870	F3A25YR1DAY	7.06	8.43	0.0000	195.33	172.49	227261
NBW0890	F3A25YR1DAY	7.06	8.41	0.0004	16.80	17.42	1027
NBW0910	F3A25YR1DAY	7.06	8.42	-0.0001	193.94	182.24	143264
NBW0930	F3A25YR1DAY	8.03	8.65	-0.0001	42.52	42.40	1301
NBW0950	F3A25YR1DAY	8.82	8.98	-0.0001	63.05	42.52	112266
NBW0970	F3A25YR1DAY	8.82	8.98	0.0003	37.98	36.02	26350
NBW0990	F3A25YR1DAY	8.82	8.98	-0.0005	14.81	14.44	785
NBW1010	F3A25YR1DAY	8.83	9.01	0.0000	37.01	36.96	1120
NBW1030	F3A25YR1DAY	9.19	10.88	0.0000	84.46	36.24	56925
NBW1050	F3A25YR1DAY	9.30	10.89	-0.0001	17.50	16.97	900
NBW1070	F3A25YR1DAY	9.34	10.89	0.0000	229.04	227.76	67912
NBW1090	F3A25YR1DAY	3.78	4.67	-0.0001	447.49	444.47	15946
NBW1130	F3A25YR1DAY	4.51	5.37	-0.0001	129.84	129.66	29864
NBW1150	F3A25YR1DAY	4.53	5.42	-0.0001	138.97	137.31	66315
NBW1169	F3A25YR1DAY	4.09	4.90	0.0000	430.21	426.79	18040
NBW1170	F3A25YR1DAY	4.30	5.06	0.0001	424.24	423.12	6908
NBW1190	F3A25YR1DAY	6.13	6.55	-0.0001	52.32	44.87	61245
NBW1210	F3A25YR1DA	7.17	7.58	-0.0003	194.15	189.29	154092

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1230	F3A25YR1DAY	7.17	7.61	-0.0002	237.63	180.11	224799
NBW1250	F3A25YR1DAY	4.74	5.60	-0.0001	382.22	380.85	7823
NBW1270	F3A25YR1DAY	6.14	6.55	-0.0001	14.58	13.48	40893
NBW1310	F3A25YR1DAY	5.21	5.89	0.0002	438.88	377.48	8354
NBW1330	F3A25YR1DAY	7.56	9.00	-0.0021	329.44	376.13	3076
NBW1350	F3A25YR1DAY	10.95	11.71	0.0002	44.03	45.83	13555
NBW1351	F3A25YR1DAY	8.89	10.87	0.0004	275.81	280.53	19832
NBW1352	F3A25YR1DAY	9.96	12.34	0.0006	271.36	271.42	7956
NBW1353	F3A25YR1DAY	11.01	13.82	0.0005	267.50	267.58	8196
NBW1370	F3A25YR1DAY	10.02	10.94	0.0004	214.39	221.25	37153
NBW1390	F3A25YR1DAY	15.24	15.45	0.0004	297.76	295.62	145681
NBW1410	F3A25YR1DAY	15.58	15.71	0.0003	191.13	186.89	26534
NBW1430	F3A25YR1DAY	15.79	15.84	-0.0002	168.64	167.63	20660
NBW1450	F3A25YR1DAY	16.94	17.08	-0.0004	277.17	276.91	116903
NBW1460	F3A25YR1DAY	16.43	16.59	-0.0002	151.15	152.02	4273
NBW1470	F3A25YR1DAY	17.14	17.37	-0.0002	313.41	306.87	213292
NBW1480	F3A25YR1DAY	18.11	18.18	0.0001	15.32	15.14	16548
NBW1490	F3A25YR1DAY	17.86	18.22	-0.0002	193.19	191.01	105685
NBW1510	F3A25YR1DAY	18.12	18.47	0.0003	119.50	119.98	28850
NBW1530	F3A25YR1DAY	17.92	18.46	0.0001	17.26	12.16	1188
NBW1550	F3A25YR1DAY	17.75	18.45	0.0001	44.80	39.80	21329
NBW1570	F3A25YR1DAY	18.21	18.64	0.0002	121.19	114.93	2604
NBW1590	F3A25YR1DAY	18.12	18.46	0.0001	46.64	47.29	21510

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1610	F3A25YR1DAY	18.13	18.47	0.0001	34.64	32.59	17445
NBW1630	F3A25YR1DAY	18.13	18.32	0.0001	26.80	26.78	1818
NBW1650	F3A25YR1DAY	18.81	19.37	0.0001	16.79	13.56	30413
NBW1670	F3A25YR1DAY	18.89	19.38	0.0001	38.16	35.29	25599
NBW1690	F3A25YR1DAY	19.03	19.38	0.0001	23.97	22.02	13580
NBW1710	F3A25YR1DAY	19.26	19.38	0.0001	4.58	1.69	998
NBW1730	F3A25YR1DAY	18.65	19.35	0.0004	240.93	234.04	278067
NBW1750	F3A25YR1DAY	18.82	19.37	0.0001	146.54	132.09	52762
NBW1770	F3A25YR1DAY	18.82	19.37	0.0001	138.91	121.10	135491
NBW1790	F3A25YR1DAY	18.91	19.38	0.0001	32.21	30.57	19886
NBW1820	F3A25YR1DAY	18.72	19.14	0.0000	70.44	60.86	147077
NBW1830	F3A25YR1DAY	18.74	19.38	0.0001	56.26	58.09	66785
NBW1840	F3A25YR1DAY	18.39	18.65	0.0000	114.54	104.49	111695
NBW1850	F3A25YR1DAY	18.74	19.40	0.0001	149.09	139.80	128865
NBW1860	F3A25YR1DAY	18.39	18.65	-0.0001	15.62	10.98	20561
NBW1870	F3A25YR1DAY	18.72	19.14	-0.0002	27.37	27.49	37284
NBW1890	F3A25YR1DAY	19.06	19.70	0.0001	41.19	41.14	2614
NBW1910	F3A25YR1DAY	19.27	19.90	0.0001	67.55	67.08	4467
NBW1930	F3A25YR1DAY	19.27	19.90	0.0001	32.54	31.03	29890
NBW1950	F3A25YR1DAY	18.97	19.41	0.0001	5.59	2.49	450
NBW1970	F3A25YR1DAY	18.96	19.40	0.0000	13.89	13.83	7755
NBW1990	F3A25YR1DAY	19.27	19.81	0.0001	85.73	80.33	118449
NBW2010	F3A25YR1DAY	19.65	19.82	0.0001	10.74	10.83	11041
NBW2030	F3A25YR1DA	19.65	19.82	0.0001	14.94	10.67	65859

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2050	F3A25YR1DAY	19.26	19.97	0.0001	63.43	48.08	111064
NBW2060	F3A25YR1DAY	0.00	19.97	0.0000	23.85	21.10	51470
NBW2070	F3A25YR1DAY	19.26	19.97	0.0002	123.47	75.34	180769
NBW2090	F3A25YR1DAY	19.10	18.72	0.0002	70.20	60.41	6468
NBW2110	F3A25YR1DAY	18.92	18.34	0.0002	83.18	80.12	59853
NBW2130	F3A25YR1DAY	18.92	18.34	0.0002	86.05	84.16	24969
NBW2140	F3A25YR1DAY	20.00	18.73	-0.0001	9.57	7.57	652
NBW2145	F3A25YR1DAY	0.00	19.33	-0.0009	18.07	87.56	28588
NBW2150	F3A25YR1DAY	19.26	19.97	0.0001	88.21	84.49	26793
NBW2170	F3A25YR1DAY	19.12	20.02	0.0001	5.43	4.75	936
NBW2190	F3A25YR1DAY	19.10	20.05	0.0001	8.19	5.43	16567
NBW2210	F3A25YR1DAY	19.47	19.98	0.0001	40.43	41.27	18038
NBW2230	F3A25YR1DAY	19.47	19.98	-0.0002	66.31	63.51	63636
NBW2250	F3A25YR1DAY	19.51	19.98	0.0001	31.96	32.62	3647
NBW2270	F3A25YR1DAY	19.57	19.97	0.0001	30.91	31.56	19518
NBW2290	F3A25YR1DAY	19.65	19.98	-0.0002	44.25	36.58	132553
NBW2310	F3A25YR1DAY	19.82	19.90	-0.0002	46.48	43.46	112127
NBW2330	F3A25YR1DAY	19.82	19.90	-0.0002	31.74	19.73	60778
NBW2350	F3A25YR1DAY	16.05	16.29	0.0001	95.52	95.24	65120
NBW2370	F3A25YR1DAY	16.11	16.29	-0.0001	21.32	19.01	57928
NBW2380	F3A25YR1DAY	12.29	15.67	0.0004	264.25	264.93	10756
NBW2385	F3A25YR1DAY	18.49	18.50	0.0000	5.00	4.99	6541
NBW2387	F3A25YR1DAY	16.11	15.81	0.0000	0.60	0.58	480

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2390	F3A25YR1DAY	16.42	17.68	0.0001	80.34	79.60	35035
NBW2410	F3A25YR1DAY	16.59	18.24	-0.0002	153.50	149.80	168149
NBW2430	F3A25YR1DAY	16.23	18.27	-0.0001	233.03	230.78	78813
NBW2450	F3A25YR1DAY	16.15	18.29	0.0002	164.44	162.42	4396
NBW2470	F3A25YR1DAY	16.43	18.45	0.0002	370.49	253.98	39916
NBW2490	F3A25YR1DAY	16.90	18.45	-0.0004	77.46	312.62	21611
NBW2510	F3A25YR1DAY	17.74	18.46	-0.0001	74.08	73.33	3570
NBW2530	F3A25YR1DAY	17.92	18.46	-0.0001	62.44	63.07	2010
NBW2550	F3A25YR1DAY	17.95	18.48	-0.0001	2.62	3.07	450
NBW2570	F3A25YR1DAY	17.96	18.48	0.0000	3.93	2.62	7607
NBW2590	F3A25YR1DAY	18.06	18.47	0.0001	50.61	51.11	1098
NBW2610	F3A25YR1DAY	17.00	18.52	-0.0008	274.74	271.43	102983
NBW2630	F3A25YR1DAY	17.98	18.55	0.0001	183.74	172.15	39327
NBW2650	F3A25YR1DAY	16.97	18.53	-0.0004	27.53	28.66	26435
NBW2670	F3A25YR1DAY	16.42	18.53	0.0001	35.79	30.73	31058
NBW2680	F3A25YR1DAY	17.73	18.17	-0.0001	63.01	60.24	27505
NBW2690	F3A25YR1DAY	15.40	18.07	0.0002	268.34	252.46	88006
NBW2710	F3A25YR1DAY	17.73	18.19	0.0001	2.87	2.53	532
NBW2730	F3A25YR1DAY	18.29	18.65	0.0000	2.64	1.23	5635
NBW2770	F3A25YR1DAY	18.09	18.57	0.0001	13.26	13.29	1310
NBW2775	F3A25YR1DAY	6.59	6.66	0.0000	16.63	13.39	29138
NBW2780	F3A25YR1DAY	18.38	18.62	-0.0001	87.98	86.37	111899
NBW2790	F3A25YR1DAY	18.38	18.64	0.0000	231.32	225.35	109970
NBW2810	F3A25YR1DA	18.39	18.64	-0.0002	87.32	83.54	70925

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2830	F3A25YR1DAY	18.40	18.65	-0.0001	66.32	53.96	134348
NC01	F3A25YR1DAY	0.00	6.14	-0.0001	28.22	27.31	4163
NC01B	F3A25YR1DAY	0.00	5.88	0.0000	19.17	19.13	5776
NC02	F3A25YR1DAY	0.00	8.77	0.0001	136.67	136.67	8788
NC03	F3A25YR1DAY	0.00	4.88	-0.0001	159.76	159.72	11944
NC04	F3A25YR1DAY	0.00	3.78	0.0000	80.74	76.11	39586
NC05	F3A25YR1DAY	0.00	3.77	-0.0001	85.83	82.97	51857
NC06	F3A25YR1DAY	0.00	3.73	0.0000	92.38	91.82	23056
NC07	F3A25YR1DAY	0.00	3.73	-0.0001	83.32	83.25	21614
NC08	F3A25YR1DAY	0.00	3.69	0.0000	95.41	95.24	16465
NCL0010	F3A25YR1DAY	2.00	2.00	0.0000	750.57	0.00	0
NCL0030	F3A25YR1DAY	2.36	3.01	0.0001	559.63	559.61	6856
NCL0050	F3A25YR1DAY	2.36	3.01	0.0000	0.43	1.08	439
NCL0070	F3A25YR1DAY	5.20	5.62	0.0000	185.28	183.48	63895
NCL0090	F3A25YR1DAY	6.06	6.25	-0.0001	69.14	53.33	85004
NCL0110	F3A25YR1DAY	3.04	3.75	-0.0008	615.46	615.45	6623
NCL0130	F3A25YR1DAY	4.05	3.90	-0.0002	151.14	151.20	565
NCL0150	F3A25YR1DAY	4.95	5.19	0.0001	151.07	151.14	2802
NCL0170	F3A25YR1DAY	5.08	5.30	-0.0001	87.53	87.56	1472
NCL0190	F3A25YR1DAY	5.08	5.31	0.0000	3.28	3.00	438
NCL0210	F3A25YR1DAY	5.85	6.26	-0.0001	97.69	99.03	19757
NCL0230	F3A25YR1DAY	6.60	7.24	-0.0002	50.64	32.45	62222
NCL0250	F3A25YR1DAY	6.60	7.24	0.0001	3.88	3.87	598

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0270	F3A25YR1DAY	6.60	7.25	0.0000	5.91	4.38	2464
NCL0290	F3A25YR1DAY	5.90	6.32	-0.0001	63.48	63.86	924
NCL0310	F3A25YR1DAY	6.10	6.56	0.0004	63.43	63.77	1045
NCL0330	F3A25YR1DAY	5.95	6.29	-0.0001	24.01	26.85	12666
NCL0350	F3A25YR1DAY	6.60	7.24	-0.0002	154.47	118.62	96518
NCL0370	F3A25YR1DAY	7.36	7.77	0.0002	140.60	138.34	28109
NCL0390	F3A25YR1DAY	4.02	4.69	-0.0067	449.82	471.53	4339
NCL0410	F3A25YR1DAY	4.09	4.86	-0.0003	7.48	7.37	819
NCL0430	F3A25YR1DAY	4.23	5.06	-0.0001	7.69	7.48	639
NCL0450	F3A25YR1DAY	4.75	5.37	-0.0005	438.81	438.85	3676
NCL0470	F3A25YR1DAY	5.43	5.98	-0.0010	437.19	437.23	3437
NCL0490	F3A25YR1DAY	6.48	6.90	-0.0006	517.47	519.52	52462
NCL0510	F3A25YR1DAY	6.67	7.13	0.0002	37.48	36.96	1743
NCL0530	F3A25YR1DAY	8.10	8.35	0.0004	40.47	21.08	1172
NCL0550	F3A25YR1DAY	8.17	8.41	-0.0002	34.32	40.47	48152
NCL0570	F3A25YR1DAY	8.66	8.73	-0.0001	17.82	16.58	3032
NCL0590	F3A25YR1DAY	7.00	7.46	0.0007	451.32	451.66	6775
NCL0610	F3A25YR1DAY	7.52	8.03	0.0007	434.56	434.76	3640
NCL0630	F3A25YR1DAY	8.06	8.70	-0.0004	431.26	431.29	4608
NCL0650	F3A25YR1DAY	8.12	8.76	-0.0002	50.58	102.61	1613
NCL0670	F3A25YR1DAY	8.67	9.36	0.0003	130.49	50.58	1693
NCL0690	F3A25YR1DAY	8.76	9.41	-0.0002	33.47	35.14	606
NCL0710	F3A25YR1DAY	8.95	9.53	0.0002	33.71	32.98	601
NCL0730	F3A25YR1DA	9.26	9.74	-0.0001	35.05	33.71	554

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0750	F3A25YR1DAY	9.56	9.92	0.0000	145.52	132.75	64991
NCL0770	F3A25YR1DAY	10.12	10.35	0.0000	81.83	81.78	2178
NCL0790	F3A25YR1DAY	8.69	9.39	-0.0003	34.56	101.58	895
NCL0810	F3A25YR1DAY	8.84	9.62	0.0001	35.44	34.56	13164
NCL0830	F3A25YR1DAY	8.93	9.84	0.0005	382.39	384.47	42572
NCL0850	F3A25YR1DAY	9.01	9.86	0.0001	109.02	100.39	24608
NCL0870	F3A25YR1DAY	9.37	10.07	-0.0001	126.17	125.87	2022
NCL0890	F3A25YR1DAY	9.65	10.25	0.0001	111.40	111.05	1589
NCL0910	F3A25YR1DAY	9.71	10.25	0.0001	8.72	7.36	13189
NCL0930	F3A25YR1DAY	9.57	10.64	-0.0001	123.21	122.33	3321
NCL0950	F3A25YR1DAY	9.89	10.90	0.0001	108.58	108.36	3205
NCL0970	F3A25YR1DAY	10.41	11.34	0.0001	45.75	44.77	2270
NCL0990	F3A25YR1DAY	11.00	11.63	0.0001	44.77	43.91	5995
NCL1010	F3A25YR1DAY	11.14	11.89	0.0001	9.56	9.45	638
NCL1030	F3A25YR1DAY	9.67	10.11	-0.0002	23.00	33.52	1475
NCL1050	F3A25YR1DAY	10.46	10.13	0.0001	8.37	7.98	1118
NCL1070	F3A25YR1DAY	9.30	10.94	0.0001	4.25	4.29	631
NCL1090	F3A25YR1DAY	9.76	11.01	0.0000	35.65	16.24	22180
NCL1110	F3A25YR1DAY	9.85	10.62	0.0001	17.63	17.66	2096
NCL1130	F3A25YR1DAY	9.76	11.01	-0.0001	27.19	16.61	87563
NCL1150	F3A25YR1DAY	9.76	11.01	0.0001	612.63	612.91	241753
NCL1170	F3A25YR1DAY	10.59	12.14	0.0005	430.74	357.60	134831
NCL1190	F3A25YR1DAY	10.72	12.38	0.0001	81.70	81.10	1850

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1210	F3A25YR1DAY	10.63	12.16	0.0001	52.26	19.27	57231
NCL1230	F3A25YR1DAY	10.94	12.69	0.0001	82.30	81.70	1432
NCL1250	F3A25YR1DAY	11.11	12.87	0.0001	82.92	82.30	1231
NCL1270	F3A25YR1DAY	11.34	13.08	0.0001	131.92	116.81	88580
NCL1290	F3A25YR1DAY	13.06	13.75	0.0001	105.80	105.33	15826
NCL1310	F3A25YR1DAY	14.77	15.37	-0.0001	103.82	102.51	34081
NCL1330	F3A25YR1DAY	10.60	12.14	-0.0003	288.64	287.09	85855
NCL1350	F3A25YR1DAY	10.63	12.15	0.0001	293.23	286.98	69463
NCL1370	F3A25YR1DAY	10.63	12.18	-0.0002	132.76	131.66	11378
NCL1390	F3A25YR1DAY	10.63	13.07	0.0001	46.92	44.08	26730
NCL1410	F3A25YR1DAY	10.63	13.07	0.0001	48.47	46.19	10467
NCL1430	F3A25YR1DAY	10.70	12.18	0.0004	547.20	435.20	226907
NCL1450	F3A25YR1DAY	10.93	12.77	0.0009	462.21	461.79	3036
NCL1470	F3A25YR1DAY	12.72	14.21	0.0002	343.63	343.01	4425
NCL1490	F3A25YR1DAY	14.45	14.69	0.0000	6.39	6.36	784
NCL1510	F3A25YR1DAY	11.06	12.81	-0.0008	62.70	79.87	9086
NCL1530	F3A25YR1DAY	12.54	12.94	-0.0002	90.85	89.77	13048
NCL1550	F3A25YR1DAY	13.13	13.38	-0.0001	43.26	42.06	1021
NCL1570	F3A25YR1DAY	13.31	13.75	0.0001	5.38	5.30	504
NCL1590	F3A25YR1DAY	13.70	13.80	0.0000	2.51	2.35	1307
NCL1610	F3A25YR1DAY	13.37	13.88	0.0001	3.37	3.16	469
NCL1630	F3A25YR1DAY	13.57	13.69	-0.0002	81.34	81.33	2663
NCL1650	F3A25YR1DAY	13.68	13.88	-0.0002	83.86	83.87	1293
NCL1670	F3A25YR1DA	14.02	14.70	0.0001	114.05	114.05	8347

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL1690	F3A25YR1DAY	17.47	17.80	0.0001	57.68	57.61	5563
NCL1710	F3A25YR1DAY	17.89	18.11	0.0001	52.75	52.77	3311
NCL1730	F3A25YR1DAY	18.27	19.00	0.0006	151.22	151.14	28040
NCL1750	F3A25YR1DAY	18.24	18.90	-0.0006	26.88	26.89	513
NCL1770	F3A25YR1DAY	18.07	18.22	0.0001	42.98	42.96	3108
NCL1790	F3A25YR1DAY	15.78	16.21	0.0001	337.85	337.36	5863
NCL1810	F3A25YR1DAY	18.13	18.36	0.0001	67.22	61.84	40931
NCL1830	F3A25YR1DAY	18.39	18.20	0.0001	317.31	317.01	6250
NCL1850	F3A25YR1DAY	18.50	18.35	-0.0003	69.06	79.05	910
NCL1870	F3A25YR1DAY	19.01	19.12	0.0002	68.21	69.06	1001
NCL1890	F3A25YR1DAY	19.15	19.32	0.0002	69.39	68.21	987
NCL1910	F3A25YR1DAY	19.15	19.32	0.0001	4.48	1.28	538
NCL1930	F3A25YR1DAY	19.91	19.93	0.0000	5.62	5.61	1635
NCL1950	F3A25YR1DAY	19.15	19.32	0.0000	0.91	0.18	505
NCL1970	F3A25YR1DAY	21.67	21.67	0.0000	3.10	3.09	3303
NCL1990	F3A25YR1DAY	19.58	19.96	0.0001	72.35	69.39	889
NCL2010	F3A25YR1DAY	19.74	20.06	0.0001	45.68	44.06	1104
NCL2030	F3A25YR1DAY	19.76	19.88	0.0001	20.64	17.32	37738
NCL2050	F3A25YR1DAY	19.76	20.11	0.0001	42.21	40.29	1411
NCL2070	F3A25YR1DAY	19.76	19.89	-0.0001	5.03	5.84	1202
NCL2090	F3A25YR1DAY	19.87	20.44	-0.0001	44.42	42.21	1414
NCL2110	F3A25YR1DAY	20.03	20.47	0.0004	34.61	32.98	9977
NCL2130	F3A25YR1DAY	19.87	20.49	0.0001	111.30	119.94	85834

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2150	F3A25YR1DAY	20.75	21.40	-0.0004	114.83	105.91	211219
NCL2170	F3A25YR1DAY	19.85	20.47	0.0001	176.06	175.97	64286
NCL2230	F3A25YR1DAY	19.13	19.35	0.0004	238.42	239.09	17173
NCL2250	F3A25YR1DAY	19.55	19.95	0.0002	214.41	210.52	4444
NCL2270	F3A25YR1DAY	20.05	20.72	0.0001	245.68	244.76	39327
NCL2290	F3A25YR1DAY	19.88	20.47	0.0001	14.25	13.41	9070
NCL2310	F3A25YR1DAY	20.45	21.03	0.0001	106.11	105.10	1779
NCL2330	F3A25YR1DAY	20.74	21.25	0.0001	167.00	155.93	116921
NCL2350	F3A25YR1DAY	20.78	21.28	0.0001	96.55	95.19	10001
NCL2370	F3A25YR1DAY	20.81	21.29	0.0001	92.45	91.07	2298
NCL2390	F3A25YR1DAY	20.84	21.31	0.0001	165.58	139.30	177154
NCL2410	F3A25YR1DAY	21.07	21.35	0.0000	30.39	29.95	1380
NCL2430	F3A25YR1DAY	21.32	21.45	0.0000	28.96	28.82	1472
NCL2450	F3A25YR1DAY	21.25	21.42	0.0000	5.63	5.46	493
NCL2470	F3A25YR1DAY	20.93	21.32	0.0000	22.92	22.50	846
NCL2490	F3A25YR1DAY	21.54	21.47	0.0000	26.13	25.72	1524
NCL2510	F3A25YR1DAY	21.70	21.46	0.0000	149.52	149.64	105475
NCL2530	F3A25YR1DAY	21.70	21.46	0.0000	66.37	67.99	50870
NCL2540	F3A25YR1DAY	0.00	22.15	0.0000	95.20	94.02	50924
NCL2550	F3A25YR1DAY	21.70	21.46	0.0000	77.18	77.62	18126
NCL2570	F3A25YR1DAY	21.51	21.42	0.0001	16.10	16.25	1503
NCL2580	F3A25YR1DAY	0.00	21.40	-0.0002	141.22	140.07	37059
NCL2590	F3A25YR1DAY	21.17	21.40	0.0000	237.56	234.87	149346
NCL2610	F3A25YR1DA	21.14	21.40	0.0000	163.42	163.16	31715

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2630	F3A25YR1DAY	20.86	21.01	0.0000	99.33	94.15	52790
NCL2631	F3A25YR1DAY	0.00	20.81	-0.0001	105.89	77.55	45973
NCL2650	F3A25YR1DAY	21.17	21.55	0.0000	110.52	92.77	130832
NCL2670	F3A25YR1DAY	21.93	22.19	-0.0003	117.31	136.92	62010
NCL2690	F3A25YR1DAY	21.96	22.44	0.0000	71.69	81.43	57905
NCL2710	F3A25YR1DAY	21.96	22.53	0.0000	61.52	57.32	76893
NCL2730	F3A25YR1DAY	21.95	22.65	0.0000	39.95	39.43	16664
NCL2750	F3A25YR1DAY	21.84	23.04	0.0000	123.18	122.26	39414
NCL2770	F3A25YR1DAY	21.71	22.44	0.0000	33.19	33.21	1389
NCL2780	F3A25YR1DAY	0.00	22.31	0.0000	29.65	27.78	29149
NCL2790	F3A25YR1DAY	21.84	22.32	0.0000	177.54	170.68	133685
NCL2810	F3A25YR1DAY	22.11	22.83	-0.0001	116.03	115.43	26279
NCL2830	F3A25YR1DAY	23.09	23.04	-0.0001	23.03	21.88	8603
NCL2835	F3A25YR1DAY	0.00	23.84	0.0000	7.90	7.96	1074
NCL2840	F3A25YR1DAY	0.00	23.78	0.0000	113.66	113.39	26145
NCL2845	F3A25YR1DAY	0.00	24.31	0.0000	62.92	62.73	16980
NCL2850	F3A25YR1DAY	20.82	21.29	0.0000	21.08	21.64	1361
NCL2870	F3A25YR1DAY	20.83	21.22	-0.0001	19.92	20.46	1246
NCL2890	F3A25YR1DAY	20.83	21.16	0.0002	18.93	19.92	23376
NCL2910	F3A25YR1DAY	20.83	21.16	-0.0001	90.44	89.64	44463
NCL2930	F3A25YR1DAY	19.55	19.98	0.0004	171.66	172.84	9857
NCL2950	F3A25YR1DAY	19.53	19.97	0.0002	135.02	135.46	17255
NCL2970	F3A25YR1DAY	20.49	20.65	0.0002	68.46	67.01	19321

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2990	F3A25YR1DAY	19.33	19.93	0.0002	127.11	127.55	6487
NCL3010	F3A25YR1DAY	19.35	19.93	0.0002	128.80	126.53	260089
NCL3030	F3A25YR1DAY	19.58	19.98	0.0002	113.52	91.47	83935
NCL3050	F3A25YR1DAY	19.94	20.15	0.0002	92.35	85.71	46029
NCL3070	F3A25YR1DAY	20.14	20.26	0.0000	50.61	47.66	25809
NCL3090	F3A25YR1DAY	19.59	19.98	0.0002	129.45	83.40	99815
NCL3110	F3A25YR1DAY	19.59	19.99	0.0002	82.12	48.89	123975
NCL3130	F3A25YR1DAY	19.59	19.99	0.0002	32.52	23.90	51797
NCL3150	F3A25YR1DAY	19.54	19.97	0.0002	135.24	133.59	64032
NCL3170	F3A25YR1DAY	19.71	20.34	0.0002	101.55	100.94	41310
NCL3190	F3A25YR1DAY	20.31	20.58	-0.0002	113.56	104.38	138202
NCL3210	F3A25YR1DAY	20.32	20.59	-0.0002	81.30	74.92	69384
NCL3230	F3A25YR1DAY	20.32	20.60	-0.0001	65.26	63.62	26994
NCL3250	F3A25YR1DAY	19.11	18.71	0.0004	200.25	200.16	84938
NCL3250A	F3A25YR1DAY	0.00	19.34	0.0004	133.59	132.45	2677
NCL3270	F3A25YR1DAY	19.11	19.44	0.0000	34.38	33.19	2221
NCL3280	F3A25YR1DAY	0.00	19.68	0.0000	31.28	30.07	13803
NCL3290	F3A25YR1DAY	20.16	20.38	0.0000	34.40	30.99	28282
NCL3300	F3A25YR1DAY	0.00	19.77	0.0000	10.54	10.54	2210
NCL3310	F3A25YR1DAY	20.19	20.37	0.0000	2.02	2.75	772
NCL3330	F3A25YR1DAY	20.75	20.46	0.0000	5.94	5.58	437
NCL3350	F3A25YR1DAY	20.51	20.71	0.0001	42.75	40.18	49457
NCL3360	F3A25YR1DAY	0.00	20.71	0.0000	15.40	13.21	21616
NCL3365	F3A25YR1DA	0.00	20.32	0.0001	37.79	37.10	28608

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL3370	F3A25YR1DAY	20.64	21.12	-0.0002	156.01	152.85	101701
NCL3390	F3A25YR1DAY	20.83	21.16	0.0001	151.58	150.84	42849
NCL3410	F3A25YR1DAY	20.83	21.16	0.0001	2.34	2.15	476
NCL3430	F3A25YR1DAY	20.83	21.16	0.0000	6.27	1.28	4879
NCL3450	F3A25YR1DAY	18.92	18.52	0.0002	287.42	264.18	166833
NCL3470	F3A25YR1DAY	19.11	18.63	0.0001	304.34	262.11	179699
NCL3471	F3A25YR1DAY	0.00	18.57	0.0002	132.89	131.03	5436
NCL3490	F3A25YR1DAY	19.15	18.85	0.0001	153.60	148.03	36555
NCL3510	F3A25YR1DAY	20.64	19.91	0.0001	128.88	128.08	29226
NCL3520	F3A25YR1DAY	0.00	19.60	-0.0001	317.64	316.90	44736
NCL3530	F3A25YR1DAY	20.66	20.82	0.0001	182.82	179.39	70564
NCL3550	F3A25YR1DAY	20.66	20.82	0.0001	4.70	4.30	736
NCL3570	F3A25YR1DAY	20.66	20.87	-0.0001	2.69	2.42	628
NCL3590	F3A25YR1DAY	20.66	20.88	0.0000	3.68	1.27	6365
NCL3610	F3A25YR1DAY	20.66	20.81	-0.0001	41.98	42.26	1320
NCL3630	F3A25YR1DAY	20.64	20.81	-0.0001	289.44	284.37	123289
NCL3635	F3A25YR1DAY	0.00	20.81	0.0001	22.71	24.66	1915
NCL3640	F3A25YR1DAY	0.00	20.81	0.0001	36.80	33.42	50953
NCL3650	F3A25YR1DAY	18.92	18.60	0.0001	9.00	6.49	503
NCL3670	F3A25YR1DAY	18.92	18.60	0.0000	13.29	13.06	13263
NCL3690	F3A25YR1DAY	18.92	18.50	0.0002	146.41	138.22	2631
NCL3730	F3A25YR1DAY	18.92	18.47	0.0000	464.36	401.20	129016
NCL3740	F3A25YR1DAY	0.00	18.52	0.0001	250.47	248.26	31082

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3750	F3A25YR1DAY	18.93	19.37	-0.0012	221.64	123.94	261933
NCL3770	F3A25YR1DAY	18.93	19.37	-0.0007	80.49	41.54	104217
NCL4000	F3A25YR1DAY	0.00	29.82	0.0000	58.55	58.51	7820
NCL4010	F3A25YR1DAY	0.00	29.55	0.0000	50.33	50.07	14519
NCypEast	F3A25YR1DAY	32.00	29.00	0.0000	12.85	0.00	0
NCypWest	F3A25YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3A25YR1DAY	2.00	2.00	0.0000	509.80	72.13	0
NOC0030	F3A25YR1DAY	1.14	2.37	0.0239	509.90	509.80	819
NOC0050	F3A25YR1DAY	1.20	2.59	0.0179	451.06	451.21	530
NOC0070	F3A25YR1DAY	1.45	3.42	-0.0215	438.41	438.20	2480
NOC0090	F3A25YR1DAY	2.91	3.60	-0.0030	124.89	124.98	446
NOC0110	F3A25YR1DAY	1.65	3.50	0.0252	278.25	278.40	455
NOC0130	F3A25YR1DAY	3.06	4.26	0.0079	278.18	278.25	528
NOC0150	F3A25YR1DAY	3.08	4.28	0.0000	3.63	3.34	500
NOC0170	F3A25YR1DAY	4.56	4.86	0.0000	18.10	18.50	1605
NOC0190	F3A25YR1DAY	5.09	5.49	-0.0009	275.86	275.92	1077
NOC0210	F3A25YR1DAY	5.68	5.99	0.0002	35.91	35.18	5085
NOC0230	F3A25YR1DAY	5.12	5.55	0.0003	9.78	9.43	742
NOC0250	F3A25YR1DAY	5.30	5.94	0.0000	10.30	9.78	984
NOC0270	F3A25YR1DAY	5.57	6.57	0.0000	6.56	4.88	3685
NOC0290	F3A25YR1DAY	5.11	5.65	-0.0002	340.57	340.65	1836
NOC0310	F3A25YR1DAY	5.27	5.93	0.0003	72.34	71.14	2299
NOC0330	F3A25YR1DAY	5.85	6.27	0.0001	314.26	312.94	115404
NOC0350	F3A25YR1DA	5.89	6.36	-0.0001	265.89	261.24	29601

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NOC0370	F3A25YR1DAY	6.47	6.98	0.0001	194.07	193.11	40262
NOC0390	F3A25YR1DAY	6.60	7.24	-0.0001	71.27	63.52	39067
NOC0410	F3A25YR1DAY	6.95	7.25	0.0001	56.19	43.18	46539
NOC0430	F3A25YR1DAY	7.01	7.24	0.0001	40.94	36.67	21415
NOC0450	F3A25YR1DAY	7.62	7.54	0.0000	31.38	30.61	15491
NOC0470	F3A25YR1DAY	8.12	8.07	-0.0001	21.24	20.03	21951
NOC0490	F3A25YR1DAY	7.67	7.55	0.0000	5.10	4.96	1051
NRU0010	F3A25YR1DAY	2.00	2.00	0.0000	657.42	0.00	0
NRU0030	F3A25YR1DAY	2.84	3.60	-0.0004	368.42	376.01	2468
NRU0050	F3A25YR1DAY	4.36	5.09	0.0022	363.66	368.42	2036
NRU0070	F3A25YR1DAY	5.61	6.70	0.0007	369.76	363.66	24684
NRU0090	F3A25YR1DAY	5.66	6.70	-0.0001	100.47	77.03	28325
NRU0110	F3A25YR1DAY	6.23	6.88	-0.0001	286.20	275.64	21886
NRU0130	F3A25YR1DAY	7.66	8.28	0.0003	249.78	249.55	2616
NRU0150	F3A25YR1DAY	7.71	8.33	-0.0008	234.82	234.63	1506
NRU0160	F3A25YR1DAY	0.00	14.17	0.0001	173.97	173.96	4959
NRU0165	F3A25YR1DAY	0.00	14.46	0.0000	5.74	5.36	474
NRU0170	F3A25YR1DAY	14.45	16.38	-0.0001	187.64	172.43	54315
NRU0172	F3A25YR1DAY	0.00	16.51	0.0001	9.69	10.73	831
NRU0174	F3A25YR1DAY	0.00	16.78	-0.0001	12.74	9.69	10637
NRU0176	F3A25YR1DAY	0.00	16.29	0.0000	7.68	7.71	761
NRU0178	F3A25YR1DAY	0.00	16.68	0.0000	7.64	7.68	957
NRU0180	F3A25YR1DAY	0.00	16.80	-0.0001	143.04	122.27	133867

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0190	F3A25YR1DAY	14.45	16.37	-0.0001	18.64	17.21	4498
NRU0210	F3A25YR1DAY	14.45	16.34	-0.0001	19.09	15.76	6672
NRU0230	F3A25YR1DAY	13.39	15.18	-0.0001	29.45	28.64	22384
NRU0250	F3A25YR1DAY	14.62	16.38	-0.0002	165.54	158.75	26151
NRU0270	F3A25YR1DAY	15.05	16.40	0.0002	135.84	135.40	2603
NRU0290	F3A25YR1DAY	16.30	18.66	-0.0003	60.38	43.87	70427
NRU0310	F3A25YR1DAY	16.13	16.98	0.0001	88.33	88.21	2502
NRU0330	F3A25YR1DAY	18.25	18.00	0.0001	25.45	24.52	1352
NRU0335	F3A25YR1DAY	0.00	19.34	0.0001	10.08	7.38	15908
NRU0340	F3A25YR1DAY	0.00	18.71	0.0001	64.04	62.76	35736
NRU0343	F3A25YR1DAY	0.00	19.42	0.0001	12.51	10.61	918
NRU0345	F3A25YR1DAY	0.00	19.66	-0.0001	56.06	45.37	75178
NRU0350	F3A25YR1DAY	19.50	18.91	0.0001	14.06	13.56	3943
NRU0370	F3A25YR1DAY	19.51	18.91	0.0001	13.03	10.80	8915
NRU0380	F3A25YR1DAY	23.33	18.83	0.0001	7.03	7.97	470
NRU0390	F3A25YR1DAY	27.00	18.81	-0.0002	30.07	19.52	22226
NRU0410	F3A25YR1DAY	19.56	18.95	0.0001	10.05	7.45	1096
NRU0425	F3A25YR1DAY	15.53	16.37	0.0001	7.69	5.11	4982
NRU0430	F3A25YR1DAY	19.61	18.99	0.0001	7.45	4.98	1072
NRU0450	F3A25YR1DAY	19.66	19.03	0.0001	4.98	2.68	1043
NRU0470	F3A25YR1DAY	19.72	19.21	0.0001	2.75	2.48	785
NRU0490	F3A25YR1DAY	20.36	19.29	-0.0001	3.40	2.73	727
NRU0495	F3A25YR1DAY	0.00	14.59	0.0005	751.42	720.26	2716
NRU0500	F3A25YR1DA	0.00	14.93	-0.0013	727.68	750.45	5646

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0510	F3A25YR1DAY	19.67	20.10	-0.0003	30.74	20.25	59193
NRU0530	F3A25YR1DAY	16.95	17.66	0.0001	55.87	57.19	2251
NRU0550	F3A25YR1DAY	17.92	18.39	-0.0001	112.16	105.00	79016
NRU0570	F3A25YR1DAY	18.16	18.72	0.0001	72.78	72.72	2504
NRU0590	F3A25YR1DAY	18.51	19.19	0.0001	46.71	47.12	16457
NRU0610	F3A25YR1DAY	18.78	19.46	0.0001	45.32	45.74	46541
NRU0612	F3A25YR1DAY	0.00	19.45	0.0001	36.54	37.00	22116
NRU0615	F3A25YR1DAY	0.00	19.79	0.0001	11.42	7.17	2112
NRU0616	F3A25YR1DAY	0.00	20.20	-0.0001	7.05	5.52	14434
NRU0618	F3A25YR1DAY	0.00	20.33	0.0001	15.46	12.32	11259
NRU0620	F3A25YR1DAY	0.00	19.93	0.0000	23.86	21.16	24806
NRU0630	F3A25YR1DAY	18.79	19.32	0.0001	41.81	42.42	14493
NRU0650	F3A25YR1DAY	18.79	19.18	0.0001	66.18	62.22	23565
NRU0670	F3A25YR1DAY	18.78	19.02	0.0001	60.58	60.62	1429
NRU0690	F3A25YR1DAY	18.84	18.77	0.0001	75.26	75.06	16007
NRU0710	F3A25YR1DAY	18.86	18.60	0.0001	132.78	131.05	26292
NRU0730	F3A25YR1DAY	18.85	18.71	0.0001	42.10	39.39	30801
NRU0740	F3A25YR1DAY	0.00	17.91	0.0001	139.47	138.70	18412
NRU0745	F3A25YR1DAY	0.00	17.85	0.0001	145.04	142.44	29710
NRU0747	F3A25YR1DAY	18.87	17.85	-0.0001	113.05	111.29	1657
NRU0750	F3A25YR1DAY	18.87	17.85	0.0001	182.54	142.34	135900
NRU0770	F3A25YR1DAY	18.88	17.85	0.0001	36.13	34.66	1020
NRU0785	F3A25YR1DAY	0.00	17.85	0.0001	83.23	74.77	28138

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0790	F3A25YR1DAY	18.88	17.85	-0.0003	553.21	553.13	65014
NRU0810	F3A25YR1DAY	18.88	17.85	0.0001	7.01	4.28	11460
NRU0820	F3A25YR1DAY	0.00	17.81	0.0000	2.71	2.56	442
NRU0830	F3A25YR1DAY	18.99	18.23	-0.0005	545.50	546.37	19246
NRU0840	F3A25YR1DAY	9999.00	18.42	-0.0002	492.48	493.28	2258
NRU0850	F3A25YR1DAY	19.11	18.47	0.0002	183.45	181.55	2553
NRU0870	F3A25YR1DAY	19.32	18.54	-0.0003	38.05	38.89	560
NRU0890	F3A25YR1DAY	19.35	18.54	0.0000	62.84	60.02	61183
NRU0910	F3A25YR1DAY	19.35	18.56	0.0000	2.44	2.33	581
NRU0930	F3A25YR1DAY	19.35	19.67	0.0000	2.59	2.44	1742
NRU0950	F3A25YR1DAY	19.11	18.54	-0.0002	177.27	165.71	38059
NRU0955	F3A25YR1DAY	0.00	18.54	-0.0001	216.26	205.74	40107
NRU0960	F3A25YR1DAY	0.00	18.63	0.0002	239.41	233.27	32450
NRU0965	F3A25YR1DAY	0.00	18.64	-0.0002	243.87	236.32	45733
NRU0970	F3A25YR1DAY	19.34	18.55	0.0001	22.20	19.39	43919
NRU0980	F3A25YR1DAY	0.00	18.57	0.0003	16.90	17.71	1097
NRU0990	F3A25YR1DAY	19.39	18.58	0.0003	40.56	40.27	440
NRU1010	F3A25YR1DAY	19.70	18.64	0.0001	41.00	40.56	6763
NRU1015	F3A25YR1DAY	0.00	19.78	0.0001	21.66	15.46	24624
NRU1020	F3A25YR1DAY	0.00	21.14	-0.0060	22.47	106.94	866
NRU1025	F3A25YR1DAY	0.00	20.62	0.0001	12.35	11.79	724
NRU1030	F3A25YR1DAY	19.70	18.69	0.0001	95.02	81.31	86848
NRU1035	F3A25YR1DAY	0.00	18.28	0.0000	1.44	1.33	436
NRU1036	F3A25YR1DA	0.00	18.69	-0.0001	17.30	18.03	437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1037	F3A25YR1DAY	0.00	18.64	0.0001	3.39	2.87	685
NRU1040	F3A25YR1DAY	0.00	18.69	0.0001	49.08	45.08	43561
NRU1045	F3A25YR1DAY	0.00	21.23	0.0001	18.74	16.12	26862
NRU1046	F3A25YR1DAY	0.00	21.19	0.0060	16.12	14.39	933
NRU1050	F3A25YR1DAY	19.70	18.69	0.0002	93.62	83.50	48225
NRU1070	F3A25YR1DAY	19.83	19.33	0.0001	38.02	41.39	21589
NRU1090	F3A25YR1DAY	18.86	17.84	0.0001	113.79	111.81	1336
NRU1110	F3A25YR1DAY	18.86	17.83	0.0001	148.97	147.31	39457
NRU1130	F3A25YR1DAY	18.86	17.83	-0.0004	35.32	32.96	776
NRU1150	F3A25YR1DAY	18.86	17.83	0.0006	45.93	44.09	9181
NRU1170	F3A25YR1DAY	18.86	18.95	0.0001	38.31	33.64	25558
NRU1182	F3A25YR1DAY	0.00	17.70	0.0000	17.58	17.67	1155
NRU1184	F3A25YR1DAY	0.00	17.97	0.0000	13.68	13.60	872
NRU1185	F3A25YR1DAY	0.00	19.16	-0.0001	15.83	9.06	33995
NRU1186	F3A25YR1DAY	0.00	17.99	0.0000	5.74	5.02	791
NRU1188	F3A25YR1DAY	0.00	18.14	0.0000	7.75	1.62	27926
NRU1190	F3A25YR1DAY	18.86	18.30	0.0000	9.26	7.49	576
NRU1210	F3A25YR1DAY	18.86	18.06	0.0000	7.49	6.91	721
NRU1220	F3A25YR1DAY	0.00	17.70	0.0001	32.68	33.06	2046
NRU1225	F3A25YR1DAY	0.00	22.08	0.0000	5.56	5.36	436
NRU1230	F3A25YR1DAY	18.88	17.34	-0.0002	646.37	646.52	4559
NRU1232	F3A25YR1DAY	0.00	16.98	0.0007	657.01	657.16	3681
NRU1234	F3A25YR1DAY	0.00	16.99	0.0000	1.95	1.60	450

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1240	F3A25YR1DAY	0.00	17.41	-0.0001	6.24	7.90	452
NRU1250	F3A25YR1DAY	4.07	4.67	-0.0003	283.13	283.11	2104
NRU1270	F3A25YR1DAY	4.78	5.35	0.0002	278.53	278.54	1667
NRU1290	F3A25YR1DAY	5.41	6.03	-0.0001	263.56	263.72	3103
NRU1310	F3A25YR1DAY	6.42	7.06	0.0001	263.51	263.56	5052
NRU1330	F3A25YR1DAY	8.29	9.12	0.0001	332.76	332.72	3357
NRU1350	F3A25YR1DAY	9.32	10.39	0.0001	326.93	326.81	2409
NRU1370	F3A25YR1DAY	11.03	12.62	0.0001	322.86	320.02	6356
NRU1390	F3A25YR1DAY	11.84	13.05	0.0001	74.95	64.14	27804
NRU1410	F3A25YR1DAY	12.56	14.03	0.0002	261.89	262.07	7303
NRU1430	F3A25YR1DAY	15.53	16.37	-0.0001	69.08	33.55	83012
NRU1450	F3A25YR1DAY	15.94	16.25	0.0001	44.99	43.75	9357
NRU1470	F3A25YR1DAY	15.97	16.30	0.0001	7.07	7.04	981
NRU1490	F3A25YR1DAY	16.09	16.51	0.0001	10.96	8.48	16744
NRU1510	F3A25YR1DAY	15.12	16.78	0.0001	215.19	213.83	109096
NRU1530	F3A25YR1DAY	15.71	16.84	-0.0001	92.54	98.76	22633
NRU1550	F3A25YR1DAY	15.40	16.78	0.0000	81.57	83.65	10654
NRU1570	F3A25YR1DAY	16.20	17.46	0.0000	54.24	52.25	13903
NRU1590	F3A25YR1DAY	16.40	17.46	0.0000	9.57	8.13	7982
NRU1610	F3A25YR1DAY	16.56	17.85	0.0001	42.62	39.60	29944
NRU1630	F3A25YR1DAY	16.69	17.87	0.0001	35.95	36.03	1538
NRU1650	F3A25YR1DAY	16.84	17.89	0.0001	35.87	35.95	33990
NRU1670	F3A25YR1DAY	16.89	17.90	0.0001	97.70	34.38	184555
NRU1690	F3A25YR1DA	16.89	17.79	0.0001	47.35	45.98	8643

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1710	F3A25YR1DAY	16.60	17.71	-0.0001	34.99	34.74	1394
NRU1730	F3A25YR1DAY	16.58	17.71	0.0000	98.71	25.51	169456
NRU1750	F3A25YR1DAY	16.58	17.71	0.0002	17.46	16.89	720
NRU1770	F3A25YR1DAY	16.58	17.71	0.0000	33.11	33.04	7944
NRU1790	F3A25YR1DAY	17.21	18.02	0.0000	11.38	8.43	15408
NRU1810	F3A25YR1DAY	16.58	17.71	0.0000	12.28	7.96	24131
NRU1830	F3A25YR1DAY	17.12	17.95	0.0000	26.96	21.71	17854
NRU1850	F3A25YR1DAY	17.07	18.01	0.0001	24.94	24.80	1049
NRU1870	F3A25YR1DAY	17.20	18.16	0.0001	25.09	24.94	908
NRU1890	F3A25YR1DAY	17.38	18.35	0.0001	55.64	25.09	85609
NRU1910	F3A25YR1DAY	17.71	18.36	0.0001	24.25	19.59	25111
NRU1930	F3A25YR1DAY	15.71	16.84	-0.0001	56.38	84.60	96407
NRU1950	F3A25YR1DAY	16.43	17.25	0.0001	54.51	54.76	1646
NRU1970	F3A25YR1DAY	16.86	17.51	0.0001	54.28	54.51	1037
NRU1990	F3A25YR1DAY	17.09	17.65	-0.0001	54.04	54.28	1719
NRU2010	F3A25YR1DAY	18.02	18.44	0.0001	12.96	11.08	3687
NRU2030	F3A25YR1DAY	18.39	18.59	-0.0001	13.25	10.91	32888
NRU2050	F3A25YR1DAY	18.40	18.60	0.0001	4.98	4.82	453
NRU2070	F3A25YR1DAY	18.41	18.61	-0.0001	5.54	4.98	19218
NRU2090	F3A25YR1DAY	17.16	17.68	-0.0001	40.23	40.46	3773
NRU2110	F3A25YR1DAY	17.28	17.74	0.0001	37.78	38.01	4452
NRU2130	F3A25YR1DAY	17.49	17.85	-0.0001	37.59	37.31	1933
NRU2150	F3A25YR1DAY	17.69	18.15	0.0001	9.09	6.35	19919

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2170	F3A25YR1DAY	17.07	17.76	0.0001	3.60	3.68	769
NRU2190	F3A25YR1DAY	17.08	17.77	0.0000	13.04	3.60	30661
NRU2210	F3A25YR1DAY	17.33	17.64	0.0001	7.49	7.45	540
NRU2230	F3A25YR1DAY	17.33	17.65	0.0000	41.40	11.84	97880
NRU2250	F3A25YR1DAY	17.31	17.58	0.0001	6.40	5.62	16277
NRU2270	F3A25YR1DAY	17.61	17.92	0.0001	30.99	30.51	3314
NRU2290	F3A25YR1DAY	17.67	17.94	-0.0001	22.56	22.78	1479
NRU2310	F3A25YR1DAY	17.68	17.93	0.0001	17.81	19.28	9621
NRU2330	F3A25YR1DAY	17.68	17.94	0.0002	32.99	8.20	4051
NRU2350	F3A25YR1DAY	17.68	17.94	-0.0002	5.33	30.85	654
NRU2370	F3A25YR1DAY	17.37	17.58	0.0001	5.17	5.33	528
NRU2390	F3A25YR1DAY	17.36	17.57	0.0000	11.92	5.17	34278
NRU2410	F3A25YR1DAY	17.72	17.87	0.0001	14.87	14.81	9143
NRU2430	F3A25YR1DAY	17.83	17.88	0.0001	11.79	11.86	6829
NRU2450	F3A25YR1DAY	18.06	17.96	0.0001	5.04	3.59	7464
NRU2470	F3A25YR1DAY	15.72	16.85	0.0001	7.50	7.98	1460
NRU2490	F3A25YR1DAY	15.75	16.86	0.0001	9.11	8.40	1431
NRU2510	F3A25YR1DAY	15.75	16.87	0.0001	8.40	6.44	956
NRU2530	F3A25YR1DAY	15.76	16.89	0.0001	5.62	5.83	582
NRU2550	F3A25YR1DAY	16.53	17.25	0.0001	147.44	143.65	45903
NRU2570	F3A25YR1DAY	17.71	18.31	0.0001	145.23	137.19	76143
NRU2590	F3A25YR1DAY	18.30	18.52	0.0001	36.42	31.57	9096
NRU2610	F3A25YR1DAY	18.62	19.03	0.0001	71.38	70.45	26542
NRU2630	F3A25YR1DA	19.41	19.48	-0.0002	61.50	59.88	52737

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU2650	F3A25YR1DAY	19.54	19.89	-0.0002	44.26	43.19	61461
NRU2670	F3A25YR1DAY	16.64	17.00	0.0000	32.70	31.28	12057
NRU2690	F3A25YR1DAY	17.09	17.70	0.0000	208.17	100.83	395109
NSH02	F3A25YR1DAY	0.00	21.12	-0.0003	15.82	62.18	11847
NSH03	F3A25YR1DAY	0.00	18.54	-0.0227	3.26	12.94	767
NSH04	F3A25YR1DAY	0.00	16.83	0.0000	49.39	45.72	4610
NSH05	F3A25YR1DAY	0.00	9.34	-0.0001	752.08	752.82	5036
NSH07	F3A25YR1DAY	0.00	8.37	0.0001	47.17	47.10	10193
NSH08	F3A25YR1DAY	0.00	8.60	0.0000	21.98	20.57	1846
NSH09	F3A25YR1DAY	0.00	10.60	0.0000	54.88	53.86	11625
NSH10	F3A25YR1DAY	0.00	19.10	0.0000	24.20	23.63	31203
NSH11	F3A25YR1DAY	0.00	21.11	0.0000	8.99	8.92	6662
NSH12	F3A25YR1DAY	0.00	9.17	0.0000	756.14	757.00	4115
NSH13	F3A25YR1DAY	0.00	9.02	0.0012	769.23	770.24	4604
NSH14	F3A25YR1DAY	0.00	8.95	0.0013	776.84	776.51	1911
NSH15	F3A25YR1DAY	0.00	18.72	0.0000	6.41	6.36	6222
NSH16	F3A25YR1DAY	0.00	9.55	0.0003	44.19	48.55	664
NSH17	F3A25YR1DAY	0.00	8.89	-0.0012	777.84	778.68	2161
NSH18	F3A25YR1DAY	0.00	8.85	-0.0007	822.32	849.05	3005
NSH19	F3A25YR1DAY	0.00	8.00	-0.0002	853.35	825.78	5396
NSH20	F3A25YR1DAY	0.00	20.21	0.0000	4.09	3.91	12021
NSH21	F3A25YR1DAY	0.00	11.14	-0.0001	14.98	14.81	9751
NSH22	F3A25YR1DAY	0.00	14.17	0.0001	41.48	34.86	6476

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH23	F3A25YR1DAY	0.00	18.31	0.0000	14.18	13.96	3825
NSH24	F3A25YR1DAY	0.00	14.17	-0.0001	22.74	21.68	7001
NSH25	F3A25YR1DAY	0.00	13.99	-0.0001	19.61	18.56	9798
NSH26	F3A25YR1DAY	0.00	13.74	-0.0001	73.79	60.83	47264
NSH26A	F3A25YR1DAY	0.00	12.72	0.0000	44.19	44.19	2056
NSH27	F3A25YR1DAY	0.00	12.78	0.0000	10.60	10.98	28912
NSH27A	F3A25YR1DAY	0.00	12.66	0.0000	17.79	16.37	921
NSH27AA	F3A25YR1DAY	0.00	12.69	0.0001	10.98	11.44	561
NSH27B	F3A25YR1DAY	0.00	11.37	-0.0001	16.37	18.32	1033
NSH27C	F3A25YR1DAY	0.00	9.17	-0.0001	18.32	16.45	1036
NSH28	F3A25YR1DAY	0.00	9.72	0.0000	22.34	20.01	9220
NSH29	F3A25YR1DAY	0.00	8.14	-0.0001	12.81	12.10	648
NSH31	F3A25YR1DAY	0.00	9.69	0.0001	7.85	5.52	480
NSH33	F3A25YR1DAY	0.00	16.60	0.0000	2.78	2.71	4563
NSH34	F3A25YR1DAY	0.00	9.25	0.0001	37.90	37.86	3840
NSH35	F3A25YR1DAY	0.00	7.95	0.0001	37.46	37.43	3490
NSH36	F3A25YR1DAY	0.00	7.92	-0.0001	22.68	21.70	805
NSH37	F3A25YR1DAY	0.00	8.98	0.0012	775.05	776.11	2109
NSH41	F3A25YR1DAY	0.00	14.55	0.0000	5.09	5.08	466
NSH42	F3A25YR1DAY	0.00	4.90	0.0002	65.76	65.73	447
NSH43	F3A25YR1DAY	0.00	5.38	-0.0006	46.11	46.20	507
NSH44	F3A25YR1DAY	0.00	9.41	0.0001	27.00	27.00	670
NSH45	F3A25YR1DAY	0.00	16.38	0.0000	35.39	34.45	21884
NSH48	F3A25YR1DA	0.00	18.31	0.0000	17.34	17.18	4269

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH49	F3A25YR1DAY	0.00	18.42	-0.0001	16.94	16.74	473
NSH50	F3A25YR1DAY	0.00	15.89	-0.0011	686.79	686.93	6021
NSH51	F3A25YR1DAY	0.00	17.35	0.0000	36.63	36.86	1330
NSH52	F3A25YR1DAY	0.00	16.14	-0.0012	683.09	683.24	4428
NSH53	F3A25YR1DAY	0.00	16.68	0.0003	48.16	47.38	1030
NSH53B	F3A25YR1DAY	0.00	16.36	-0.0004	28.62	27.54	448
NSH54	F3A25YR1DAY	0.00	16.80	0.0000	34.98	33.42	1255
NSH55	F3A25YR1DAY	0.00	16.74	-0.0005	658.60	658.71	5311
NSH55B	F3A25YR1DAY	0.00	16.76	0.0001	10.91	11.72	447
NSH56	F3A25YR1DAY	0.00	16.99	0.0000	5.88	5.82	465
NSH57	F3A25YR1DAY	0.00	16.99	0.0000	5.93	5.88	455
NSH60	F3A25YR1DAY	0.00	19.16	-0.0001	16.91	19.77	436
NSH61	F3A25YR1DAY	0.00	15.92	0.0000	16.87	16.83	451
NSH65	F3A25YR1DAY	0.00	20.61	0.0000	3.82	3.63	467
NSH71	F3A25YR1DAY	9999.00	15.85	0.0000	15.35	15.24	2441
NSH75	F3A25YR1DAY	0.00	6.49	-0.0007	843.03	843.05	4066
NSH76	F3A25YR1DAY	0.00	5.37	-0.0052	802.37	802.33	2030
NSH80	F3A25YR1DAY	0.00	15.41	0.0011	702.02	702.24	6657
NSH81	F3A25YR1DAY	0.00	20.77	0.0000	0.45	0.01	2503
NSH82	F3A25YR1DAY	0.00	20.86	0.0000	2.37	1.06	6187
NSH83	F3A25YR1DAY	0.00	15.49	-0.0001	16.37	16.15	1486
NSH85	F3A25YR1DAY	0.00	15.25	-0.0020	704.88	723.18	4681
NSHSelmonDS	F3A25YR1DAY	9999.00	11.17	0.0002	750.49	750.53	6356

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSHSelmonUS	F3A25YR1DAY	9999.00	14.13	0.0003	720.26	720.18	3189
NSR0000	F3A25YR1DAY	2.00	2.00	0.0000	290.47	8.42	0
NSR0005	F3A25YR1DAY	2.00	2.00	0.0000	7.82	0.00	0
NSR0010	F3A25YR1DAY	2.00	2.00	0.0000	442.81	0.00	0
NSR0030	F3A25YR1DAY	2.92	3.43	0.0000	459.80	442.81	219507
NSR0032	F3A25YR1DAY	4.88	5.30	0.0000	14.54	10.44	23479
NSR0034	F3A25YR1DAY	3.63	4.03	0.0000	80.25	70.72	59453
NSR0050	F3A25YR1DAY	3.44	3.98	0.0000	397.93	399.96	101234
NSR0070	F3A25YR1DAY	3.45	3.96	0.0001	30.13	21.14	46939
NSR0090	F3A25YR1DAY	3.68	4.04	-0.0001	40.66	34.76	26209
NSR0100	F3A25YR1DAY	2.25	2.98	0.0000	7.90	7.82	524
NSR0102	F3A25YR1DAY	4.24	4.45	0.0000	4.39	4.01	3250
NSR0105	F3A25YR1DAY	1.91	2.86	-0.0290	290.50	290.47	484
NSR0110	F3A25YR1DAY	3.93	4.25	-0.0001	17.98	17.16	14929
NSR0112	F3A25YR1DAY	2.31	3.24	-0.0447	288.42	288.42	469
NSR0115	F3A25YR1DAY	4.25	4.40	0.0000	3.76	3.43	9071
NSR0120	F3A25YR1DAY	2.62	3.54	0.0206	285.44	285.49	479
NSR0130	F3A25YR1DAY	4.16	4.74	0.0000	12.11	8.91	19746
NSR0135	F3A25YR1DAY	4.22	4.90	0.0000	4.58	4.09	3163
NSR0140	F3A25YR1DAY	3.28	4.16	0.0101	282.61	282.62	477
NSR0150	F3A25YR1DAY	3.64	4.31	0.0003	383.53	384.66	29291
NSR0160	F3A25YR1DAY	3.56	4.43	0.0060	280.59	280.94	14193
NSR0165	F3A25YR1DAY	4.03	5.31	0.0000	14.39	12.85	26317
NSR0170	F3A25YR1DA	3.70	5.04	0.0000	13.57	11.52	15197

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0180	F3A25YR1DAY	3.83	5.00	0.0000	19.24	18.74	22221
NSR0190	F3A25YR1DAY	4.04	4.61	-0.0001	50.03	50.19	3361
NSR0210	F3A25YR1DAY	4.26	5.18	-0.0001	50.38	49.70	15757
NSR0230	F3A25YR1DAY	4.26	5.19	0.0000	55.25	49.84	86811
NSR0250	F3A25YR1DAY	3.93	4.54	-0.0059	346.20	345.80	12764
NSR0270	F3A25YR1DAY	3.98	4.62	0.0000	121.72	118.64	38357
NSR0280	F3A25YR1DAY	5.41	5.93	-0.0005	263.49	262.79	35892
NSR0281	F3A25YR1DAY	5.97	6.61	0.0004	256.35	255.91	18901
NSR0290	F3A25YR1DAY	6.70	7.01	-0.0009	126.74	125.56	39034
NSR0310	F3A25YR1DAY	9.28	9.44	-0.0001	111.23	109.57	65330
NSR0330	F3A25YR1DAY	9.65	9.99	0.0001	8.58	8.62	470
NSR0350	F3A25YR1DAY	10.32	11.04	0.0001	8.56	8.58	446
NSR0370	F3A25YR1DAY	10.35	11.07	0.0000	13.12	8.56	11955
NSR0390	F3A25YR1DAY	11.96	12.29	0.0001	71.08	68.94	74756
NSR0410	F3A25YR1DAY	12.27	12.82	-0.0001	10.23	11.02	510
NSR0430	F3A25YR1DAY	12.28	12.83	0.0000	10.82	10.23	23504
NSR0450	F3A25YR1DAY	13.04	14.07	-0.0001	47.12	46.36	35223
NSR0470	F3A25YR1DAY	13.10	14.47	-0.0002	34.19	33.79	14534
NSR0490	F3A25YR1DAY	4.41	4.85	-0.0082	180.18	177.96	30411
NSR0510	F3A25YR1DAY	4.48	5.06	-0.0015	95.94	96.26	17278
NSR0530	F3A25YR1DAY	4.55	5.17	-0.0005	12.47	8.98	34592
NSR0540	F3A25YR1DAY	4.55	5.31	-0.0004	99.87	91.20	95560
NSR0550	F3A25YR1DAY	4.56	5.32	0.0015	327.41	327.99	25024

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0560	F3A25YR1DAY	4.66	5.36	-0.0002	122.60	126.07	83220
NSR0570	F3A25YR1DAY	5.28	5.60	0.0003	125.75	126.26	60808
NSR0580	F3A25YR1DAY	6.13	6.55	-0.0001	24.99	17.78	103401
NSR0590	F3A25YR1DAY	6.15	6.56	-0.0001	97.36	94.04	59167
NSR0610	F3A25YR1DAY	6.26	6.60	-0.0002	77.72	68.90	70657
NSR0630	F3A25YR1DAY	6.26	6.60	-0.0001	17.02	17.09	475
NSR0650	F3A25YR1DAY	6.25	6.58	-0.0001	78.44	60.09	186663
NSR0660	F3A25YR1DAY	6.13	6.54	-0.0001	57.60	33.54	72015
NSR0670	F3A25YR1DAY	6.24	6.58	-0.0001	6.86	7.52	520
NSR0680	F3A25YR1DAY	6.14	6.52	-0.0001	37.44	33.66	148036
NSR0690	F3A25YR1DAY	6.24	6.57	-0.0001	6.48	6.86	599
NSR0710	F3A25YR1DAY	6.23	6.57	0.0000	6.40	6.48	861
NSR0730	F3A25YR1DAY	6.29	6.63	-0.0001	143.59	113.95	175282
NSR0770	F3A25YR1DAY	6.81	7.49	0.0001	119.71	115.99	27045
NSR0780	F3A25YR1DAY	6.74	7.04	-0.0001	37.78	36.45	28923
NSR0790	F3A25YR1DAY	8.35	10.52	0.0002	393.71	358.73	78192
NSR0791	F3A25YR1DAY	7.13	8.52	0.0002	243.81	243.81	5596
NSR0809	F3A25YR1DAY	12.76	11.67	-0.0004	75.19	93.53	2122
NSR0810	F3A25YR1DAY	13.45	13.60	-0.0002	217.51	216.73	60336
NSR0830	F3A25YR1DAY	15.10	15.38	-0.0002	240.82	236.45	142897
NSR0840	F3A25YR1DAY	16.09	16.18	0.0001	36.48	36.96	41964
NSR0850	F3A25YR1DAY	15.64	15.93	-0.0003	169.35	162.13	80811
NSR0860	F3A25YR1DAY	16.41	16.45	0.0000	10.53	10.39	14298
NSR0869	F3A25YR1DA	16.03	16.30	0.0001	30.30	30.06	1504

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0870	F3A25YR1DAY	16.24	16.51	0.0002	117.68	117.42	38810
NSR0880	F3A25YR1DAY	16.24	16.53	0.0001	46.26	45.99	18429
NSR0881	F3A25YR1DAY	14.14	17.56	0.0005	285.05	280.47	191752
NSR0890	F3A25YR1DAY	4.02	4.59	0.1316	274.52	344.22	64293
NSR0910	F3A25YR1DAY	4.79	5.28	-0.0033	205.99	206.33	43525
NSR0930	F3A25YR1DAY	5.54	6.51	0.0000	192.53	45.91	318718
NSR0950	F3A25YR1DAY	5.63	6.52	0.0004	316.10	310.62	102657
NSR0970	F3A25YR1DAY	6.14	6.68	-0.0002	139.46	139.41	3616
NSR0990	F3A25YR1DAY	6.27	6.73	-0.0001	225.74	225.37	4382
NSR1010	F3A25YR1DAY	6.30	6.76	0.0000	50.55	49.42	14473
NSR1030	F3A25YR1DAY	8.54	9.10	0.0001	177.35	176.91	9932
NSR1050	F3A25YR1DAY	8.56	9.15	0.0000	96.46	94.41	25979
NSR1070	F3A25YR1DAY	9.58	9.75	-0.0007	232.90	230.93	61310
NSR1090	F3A25YR1DAY	11.30	11.44	-0.0004	157.01	157.03	8417
NSR1110	F3A25YR1DAY	11.57	11.59	0.0000	3.13	3.12	2996
NSR1130	F3A25YR1DAY	11.29	11.38	0.0000	30.74	30.71	15467
NSR1150	F3A25YR1DAY	11.39	11.58	0.0000	7.66	5.50	10711
NSR1170	F3A25YR1DAY	11.38	11.57	0.0000	4.30	3.44	450
NSR1190	F3A25YR1DAY	12.70	13.25	0.0000	156.20	156.19	13789
NSR1210	F3A25YR1DAY	12.70	13.25	-0.0001	27.40	8.20	84105
NSR1230	F3A25YR1DAY	14.76	15.35	0.0000	153.56	153.53	9678
NSR1270	F3A25YR1DAY	14.99	15.54	0.0000	153.59	153.56	6276
NSR1290	F3A25YR1DAY	14.99	15.54	0.0000	11.41	2.54	24884

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1310	F3A25YR1DAY	14.99	15.54	0.0000	33.23	12.87	122750
NSR1330	F3A25YR1DAY	15.44	16.21	0.0000	152.71	151.45	22923
NSR1350	F3A25YR1DAY	15.45	16.22	0.0000	37.91	21.62	214210
NSR1370	F3A25YR1DAY	15.56	16.30	0.0000	153.99	144.50	21929
NSR1390	F3A25YR1DAY	15.56	16.30	0.0000	4.40	3.21	5674
NSR1410	F3A25YR1DAY	15.56	16.30	0.0001	31.34	29.07	49432
NSR1430	F3A25YR1DAY	15.76	16.40	0.0000	57.50	47.49	47331
NSR1450	F3A25YR1DAY	15.74	16.40	0.0000	83.34	52.31	124969
NSR1470	F3A25YR1DAY	15.96	16.41	0.0000	57.39	49.08	54194
NSR1490	F3A25YR1DAY	16.21	16.44	0.0000	64.35	44.21	165854
NSR1510	F3A25YR1DAY	16.21	16.44	0.0000	37.83	34.73	33708
NSR1530	F3A25YR1DAY	15.56	16.30	0.0000	6.59	4.40	16037
NSR1550	F3A25YR1DAY	15.68	16.39	-0.0001	153.29	144.77	34084
NSR1570	F3A25YR1DAY	15.68	16.39	0.0000	13.30	9.75	20452
NSR1590	F3A25YR1DAY	15.68	16.39	0.0000	67.92	59.61	41572
NSR1610	F3A25YR1DAY	15.75	16.46	0.0004	24.49	20.02	36133
NSR1630	F3A25YR1DAY	15.75	16.46	0.0000	102.74	97.76	20547
NSR1650	F3A25YR1DAY	16.39	17.10	0.0000	3.71	3.71	436
NSR1670	F3A25YR1DAY	15.92	17.01	-0.0002	90.40	81.81	50490
NSR1690	F3A25YR1DAY	16.24	17.13	0.0000	89.45	84.25	22628
NSR1710	F3A25YR1DAY	16.25	17.13	0.0000	9.44	9.28	21277
NSR1730	F3A25YR1DAY	16.32	17.18	0.0000	87.02	82.68	15568
NSR1750	F3A25YR1DAY	16.68	17.18	0.0000	3.90	3.90	1674
NSR1770	F3A25YR1DA	17.23	17.48	0.0000	27.75	14.97	22054

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1790	F3A25YR1DAY	17.24	17.49	0.0000	33.65	17.03	38155
NSR1810	F3A25YR1DAY	17.25	17.49	0.0000	9.40	7.25	16394
NSR1830	F3A25YR1DAY	17.25	17.48	0.0000	71.08	67.60	107501
NSR1850	F3A25YR1DAY	16.95	18.05	0.0000	13.20	10.88	13811
NSR1870	F3A25YR1DAY	16.93	18.05	0.0001	69.27	35.97	163415
NSR1890	F3A25YR1DAY	16.05	18.06	0.0001	13.37	13.80	1056
NSR1910	F3A25YR1DAY	15.45	18.06	0.0004	99.64	79.44	143577
NSR1930	F3A25YR1DAY	16.53	17.30	-0.0002	63.49	63.05	7665
NSR1950	F3A25YR1DAY	16.70	17.30	-0.0001	20.84	20.81	12753
NSR1970	F3A25YR1DAY	16.84	17.69	-0.0001	37.66	27.48	69824
NSR1990	F3A25YR1DAY	16.86	17.55	0.0000	9.67	8.62	949
NSR2010	F3A25YR1DAY	16.91	17.42	-0.0001	18.87	11.23	45607
NSR2030	F3A25YR1DAY	16.90	17.29	-0.0001	11.23	11.23	751
NSR2050	F3A25YR1DAY	16.88	17.06	0.0000	18.85	17.62	22630
NSR2070	F3A25YR1DAY	16.81	17.04	0.0000	6.48	6.45	781
NSR2090	F3A25YR1DAY	16.72	17.02	0.0000	6.45	6.42	673
NSR2110	F3A25YR1DAY	16.54	16.97	0.0000	21.19	20.47	27940
NSR2130	F3A25YR1DAY	16.50	16.56	0.0000	19.95	16.42	89609
NSR2150	F3A25YR1DAY	17.60	17.70	0.0000	73.01	53.30	223350
NSR2170	F3A25YR1DAY	17.62	17.72	0.0001	26.81	26.60	2087
NSR2190	F3A25YR1DAY	17.62	17.73	-0.0001	27.01	26.81	967
NSR2210	F3A25YR1DAY	17.62	17.75	0.0000	69.90	53.80	139866
NSR2230	F3A25YR1DAY	17.62	17.74	-0.0001	20.52	20.04	675

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2250	F3A25YR1DAY	17.63	17.75	-0.0001	24.49	20.52	14256
NSR2270	F3A25YR1DAY	17.63	17.75	-0.0001	29.65	21.82	30767
NSR2290	F3A25YR1DAY	17.63	17.75	-0.0003	18.82	18.59	888
NSR2310	F3A25YR1DAY	17.63	17.76	0.0000	22.65	18.94	25501
NSR2330	F3A25YR1DAY	17.65	18.13	0.0000	24.45	12.55	49241
NSR2350	F3A25YR1DAY	17.65	18.13	0.0001	28.55	13.61	74168
NSR2370	F3A25YR1DAY	16.66	17.40	0.0000	41.01	36.55	9676
NSR2390	F3A25YR1DAY	18.07	18.09	0.0000	15.33	9.69	66867
NSR2410	F3A25YR1DAY	16.66	17.41	0.0000	49.87	32.94	19694
NSR2430	F3A25YR1DAY	17.99	18.01	0.0000	3.40	3.38	3286
NSR2450	F3A25YR1DAY	18.06	18.19	0.0000	45.58	44.44	23137
NSR3000	F3A25YR1DAY	17.04	18.06	-0.0727	9.98	49.45	47037
NSR3005	F3A25YR1DAY	17.02	18.06	0.1453	49.45	4.05	566
NSR3020	F3A25YR1DAY	17.61	17.89	-0.0001	79.79	79.45	74194
NSR3040	F3A25YR1DAY	16.25	16.54	0.0000	93.64	91.01	80858
NSR3060	F3A25YR1DAY	16.21	16.44	0.0001	31.27	30.28	48905
NSW0010	F3A25YR1DAY	2.00	2.00	0.0000	30.57	0.00	0
NSW0030	F3A25YR1DAY	2.13	3.22	-0.0003	30.57	30.57	587
NSW0050	F3A25YR1DAY	4.04	5.74	-0.0002	38.39	30.57	16182
Outfall	F3A25YR1DAY	2.00	2.00	0.0000	86.00	0.00	0
Outfall_NE	F3A25YR1DAY	21.00	20.77	0.0003	8.66	0.00	0
PondA	F3A25YR1DAY	0.00	18.46	0.0294	25.41	15.35	26400
PondB	F3A25YR1DAY	0.00	16.89	0.0000	144.74	76.28	120356
SH_OUTFALL	F3A25YR1DA	2.00	2.00	0.0000	1029.98	3.01	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
STORAGE1	F3A25YR1DAY	0.00	20.46	0.0000	5.58	1.45	7405
STORAGE10	F3A25YR1DAY	0.00	20.61	0.0000	3.63	0.04	9148
STORAGE11	F3A25YR1DAY	0.00	21.12	0.0001	62.18	0.01	18648
STORAGE12	F3A25YR1DAY	0.00	21.14	0.0005	101.53	5.91	10262
STORAGE13	F3A25YR1DAY	0.00	18.27	0.0000	1.33	1.13	5323
STORAGE14	F3A25YR1DAY	0.00	22.08	0.0000	5.36	0.00	13395
STORAGE2	F3A25YR1DAY	0.00	18.60	0.0000	9.01	4.58	18426
STORAGE4	F3A25YR1DAY	0.00	19.33	0.0003	78.27	2.96	12088
STORAGE5	F3A25YR1DAY	0.00	21.32	0.0000	15.55	6.57	20042
STORAGE8	F3A25YR1DAY	0.00	17.55	0.0000	2.56	1.77	6098
STORAGE9	F3A25YR1DAY	0.00	19.16	0.0007	8.39	1.72	11761
Sevilla1	F3A25YR1DAY	1.20	2.24	0.0000	0.06	0.05	804
Sevilla2	F3A25YR1DAY	1.23	2.13	0.0000	0.03	0.02	610
Sevilla3	F3A25YR1DAY	1.20	2.24	0.0000	0.17	0.13	1339
Sevilla4	F3A25YR1DAY	1.20	2.24	0.0000	0.28	0.22	1450
Shamrock2	F3A25YR1DAY	1.11	2.13	-0.0001	86.04	86.01	5389
Shmrck1.1	F3A25YR1DAY	1.38	2.41	-0.0001	86.02	86.02	6206
Shmrck1.2	F3A25YR1DAY	1.20	2.24	-0.0001	86.02	86.04	3971
THEA_JUNCT1	F3A25YR1DAY	0.00	14.47	0.0000	34.01	34.00	667
THEA_JUNCT2	F3A25YR1DAY	0.00	13.59	0.0000	34.00	34.00	501
THEA_Watrous	F3A25YR1DAY	0.00	16.16	0.0002	34.03	34.01	812
V3	F3A25YR1DAY	6.53	6.55	0.0000	0.14	0.09	36709
BC_N02	F3A50YR1DAY	0.00	18.00	0.0000	0.00	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Church1	F3A50YR1DAY	8.77	10.58	0.0000	0.96	0.40	533
Church2	F3A50YR1DAY	8.77	10.58	0.0000	9.35	8.90	4390
Clark1	F3A50YR1DAY	7.21	8.25	0.0000	1.26	0.57	743
Clark2	F3A50YR1DAY	7.21	8.25	-0.0001	66.81	66.50	22557
DM1	F3A50YR1DAY	11.42	12.16	0.0000	10.55	10.53	1416
DM2	F3A50YR1DAY	10.30	10.92	0.0000	10.53	10.71	2201
DM3	F3A50YR1DAY	9.16	10.63	0.0000	10.71	9.35	2980
E_Outlet	F3A50YR1DAY	0.00	16.70	-0.0004	125.07	49.82	0
E_Outlet2	F3A50YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A50YR1DAY	1.99	3.85	0.0001	1.30	0.89	763
ElP_con.1	F3A50YR1DAY	2.18	4.08	0.0014	93.79	95.72	4221
ElPrad.1	F3A50YR1DAY	1.99	3.85	0.0000	0.63	0.39	632
G1	F3A50YR1DAY	14.98	16.30	-0.0037	171.67	118.75	40654
G10	F3A50YR1DAY	8.77	10.55	-0.0001	66.83	66.81	4603
G2	F3A50YR1DAY	14.99	16.25	-0.0003	56.28	52.12	32934
G3	F3A50YR1DAY	14.86	16.23	-0.0010	166.98	166.74	27807
G4	F3A50YR1DAY	12.82	15.18	-0.0005	166.74	165.78	57264
G5	F3A50YR1DAY	11.69	14.01	-0.0003	106.68	99.02	46120
G6	F3A50YR1DAY	11.00	9.24	0.0000	14.68	0.00	0
G7	F3A50YR1DAY	11.00	12.41	0.0000	74.67	74.05	3601
G8	F3A50YR1DAY	10.07	11.35	0.0000	61.13	60.54	2143
G9	F3A50YR1DAY	9.41	10.82	0.0001	60.54	59.89	1353
H1	F3A50YR1DAY	1.99	5.25	-0.0002	37.10	36.70	16505
H2.1	F3A50YR1DA	1.99	3.85	0.0012	125.54	126.29	6105

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
Hubert	F3A50YR1DAY	3.16	4.76	-0.0001	68.80	73.54	5965
JUNCT1	F3A50YR1DAY	0.00	13.94	0.0000	1.12	1.01	1375
JUNCT10	F3A50YR1DAY	0.00	22.23	0.0000	77.66	77.60	11013
JUNCT2	F3A50YR1DAY	0.00	14.32	0.0000	24.14	24.08	2701
JUNCT3	F3A50YR1DAY	0.00	19.93	0.0000	6.69	6.19	7854
JUNCT4	F3A50YR1DAY	0.00	13.63	0.0000	3.41	3.36	5455
JUNCT6	F3A50YR1DAY	0.00	17.40	-0.0013	195.68	795.41	10283
JUNCT7	F3A50YR1DAY	0.00	19.73	0.0000	146.48	146.55	8388
JUNCT7B	F3A50YR1DAY	0.00	19.23	0.0000	151.79	150.11	25154
JUNCT8	F3A50YR1DAY	0.00	19.73	0.0000	236.41	236.74	11634
JUNCT8B	F3A50YR1DAY	0.00	19.24	0.0000	236.74	233.93	33500
JUNCT9	F3A50YR1DAY	0.00	29.64	0.0000	77.77	77.89	9858
L1	F3A50YR1DAY	11.53	12.13	0.0000	59.82	61.64	51706
L2	F3A50YR1DAY	11.63	11.81	0.0000	16.27	16.69	32936
L3	F3A50YR1DAY	10.43	10.71	0.0000	33.43	32.99	46104
L4	F3A50YR1DAY	8.43	8.67	0.0000	16.32	16.38	50838
L5	F3A50YR1DAY	7.63	7.78	0.0000	7.01	6.63	43662
L6	F3A50YR1DAY	6.93	7.02	0.0000	2.89	2.62	43812
Lois	F3A50YR1DAY	4.82	5.42	-0.0001	66.50	68.80	6808
M1	F3A50YR1DAY	2.58	6.73	0.0003	66.48	68.31	24875
M1.1	F3A50YR1DAY	6.33	7.06	0.0000	68.76	66.48	35314
M1.2	F3A50YR1DAY	7.03	7.44	0.0000	52.49	53.49	28599
M1.3	F3A50YR1DAY	7.13	7.75	0.0000	46.07	45.16	28491

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
M2	F3A50YR1DAY	2.58	6.18	-0.0006	80.84	74.85	60750
M3	F3A50YR1DAY	2.58	5.77	-0.0005	75.91	78.28	39418
M4	F3A50YR1DAY	2.58	5.58	-0.0006	78.42	64.96	52775
M5.1	F3A50YR1DAY	2.57	4.49	0.0010	94.13	93.79	6163
M6	F3A50YR1DAY	2.58	4.49	0.0001	1.66	1.39	558
N01	F3A50YR1DAY	0.00	20.04	0.0000	43.10	24.11	45386
N01A	F3A50YR1DAY	0.00	19.85	0.0001	10.29	9.99	456
N02	F3A50YR1DAY	0.00	17.96	0.0001	42.35	38.44	17806
N03	F3A50YR1DAY	0.00	17.98	0.0000	3.90	4.46	2532
N04	F3A50YR1DAY	0.00	19.94	0.0001	13.85	13.69	643
N05	F3A50YR1DAY	0.00	17.48	0.0000	101.17	100.30	4393
N06	F3A50YR1DAY	0.00	17.23	0.0002	69.36	69.65	3292
N07A	F3A50YR1DAY	0.00	17.00	0.0002	74.90	75.20	4247
N08A	F3A50YR1DAY	0.00	16.02	-0.0002	136.69	136.53	4272
N09	F3A50YR1DAY	0.00	13.98	0.0001	24.35	24.31	1578
N09A	F3A50YR1DAY	0.00	13.45	0.0003	142.57	142.57	1359
N10	F3A50YR1DAY	2.00	2.00	0.0000	366.33	0.00	0
N11	F3A50YR1DAY	0.00	17.42	-0.0011	195.74	125.07	392398
NBB0010	F3A50YR1DAY	2.00	2.00	0.0000	139.88	0.00	0
NBB0030	F3A50YR1DAY	5.03	7.76	-0.0005	139.88	139.88	557
NBB0050	F3A50YR1DAY	9.15	13.51	-0.0003	226.01	139.88	127318
NBB0070	F3A50YR1DAY	11.30	14.22	-0.0001	114.24	113.19	2549
NBB0090	F3A50YR1DAY	12.67	14.27	0.0001	128.33	128.20	3745
NBB0110	F3A50YR1DA	13.46	15.74	0.0001	117.56	117.56	1982

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBB0130	F3A50YR1DAY	15.26	16.90	-0.0003	62.47	50.64	53657
NBB0150	F3A50YR1DAY	14.01	16.12	0.0001	72.99	73.13	1935
NBB0170	F3A50YR1DAY	14.74	16.65	0.0001	72.91	72.99	1452
NBB0190	F3A50YR1DAY	15.42	17.21	0.0001	82.02	72.91	83436
NBB0210	F3A50YR1DAY	15.70	17.22	0.0001	70.23	70.29	1556
NBB0230	F3A50YR1DAY	16.02	17.23	0.0001	70.16	70.23	12811
NBB0250	F3A50YR1DAY	16.31	17.53	0.0001	69.37	69.44	2036
NBB0270	F3A50YR1DAY	17.05	18.01	0.0001	68.39	69.37	37287
NBB0290	F3A50YR1DAY	17.06	18.01	0.0001	53.43	54.46	1258
NBB0310	F3A50YR1DAY	17.07	18.01	-0.0002	226.84	110.77	558148
NBB0330	F3A50YR1DAY	16.57	17.27	0.0001	49.44	44.89	44458
NBB0350	F3A50YR1DAY	16.45	17.26	0.0001	28.55	29.46	1396
NBB0370	F3A50YR1DAY	16.33	17.26	0.0001	97.88	58.55	76850
NBB0390	F3A50YR1DAY	16.32	17.26	-0.0001	21.54	22.33	1832
NBB0410	F3A50YR1DAY	16.30	17.25	-0.0002	77.37	55.32	57157
NBB0430	F3A50YR1DAY	15.45	16.32	-0.0003	156.87	194.48	67752
NBW0010	F3A50YR1DAY	2.00	2.00	0.0000	989.10	0.00	0
NBW0030	F3A50YR1DAY	3.39	4.83	0.0003	990.22	989.10	65601
NBW0050	F3A50YR1DAY	3.92	5.29	0.0000	87.05	81.85	54866
NBW0070	F3A50YR1DAY	3.57	5.15	-0.0006	309.50	519.20	62285
NBW0090	F3A50YR1DAY	3.66	4.96	0.0000	33.66	37.79	49584
NBW0130	F3A50YR1DAY	3.73	5.24	0.0000	308.19	309.09	14685
NBW0150	F3A50YR1DAY	3.93	5.07	0.0001	31.03	30.50	20244

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0170	F3A50YR1DAY	3.98	5.03	-0.0001	31.49	32.14	48192
NBW0190	F3A50YR1DAY	3.89	5.35	0.0001	307.92	308.19	5986
NBW0210	F3A50YR1DAY	6.25	6.43	0.0000	14.06	13.74	7418
NBW0230	F3A50YR1DAY	4.01	5.59	0.0001	306.90	307.16	6139
NBW0250	F3A50YR1DAY	4.88	6.39	0.0000	305.86	305.97	5687
NBW0270	F3A50YR1DAY	5.49	6.43	0.0001	64.83	57.65	49009
NBW0290	F3A50YR1DAY	5.91	6.43	0.0000	50.56	48.69	33594
NBW0310	F3A50YR1DAY	6.38	7.44	0.0001	21.11	14.51	39096
NBW0330	F3A50YR1DAY	5.50	7.13	0.0000	297.72	297.65	24909
NBW0350	F3A50YR1DAY	4.97	5.59	0.0000	14.13	14.11	10554
NBW0370	F3A50YR1DAY	5.52	7.13	-0.0001	10.86	9.47	17201
NBW0390	F3A50YR1DAY	5.52	7.13	0.0001	17.31	8.14	63548
NBW0410	F3A50YR1DAY	5.54	7.25	-0.0001	296.15	296.29	3446
NBW0430	F3A50YR1DAY	5.89	7.66	0.0000	11.22	10.17	50382
NBW0450	F3A50YR1DAY	5.89	7.66	0.0001	297.13	296.15	12326
NBW0470	F3A50YR1DAY	5.89	7.66	0.0000	8.18	7.17	38011
NBW0490	F3A50YR1DAY	5.92	7.78	-0.0002	295.27	295.17	3184
NBW0510	F3A50YR1DAY	6.72	7.78	0.0000	7.42	7.40	24395
NBW0530	F3A50YR1DAY	6.22	8.16	0.0001	295.36	295.37	4802
NBW0550	F3A50YR1DAY	6.72	9.27	0.0000	277.30	264.25	379205
NBW0570	F3A50YR1DAY	7.09	9.24	0.0000	252.17	243.52	129783
NBW0590	F3A50YR1DAY	10.03	10.30	0.0002	411.62	410.71	88961
NBW0610	F3A50YR1DAY	6.45	8.40	0.0000	269.70	269.58	10487
NBW0630	F3A50YR1DA	6.22	8.16	0.0000	15.18	8.01	86748

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW0650	F3A50YR1DAY	6.66	9.23	0.0001	277.73	270.96	23082
NBW0670	F3A50YR1DAY	6.66	9.23	0.0000	22.40	5.86	40589
NBW0690	F3A50YR1DAY	6.71	9.26	0.0001	219.00	218.97	11548
NBW0710	F3A50YR1DAY	6.71	9.26	0.0000	28.91	10.70	81387
NBW0730	F3A50YR1DAY	6.72	9.27	-0.0001	238.06	213.20	266865
NBW0750	F3A50YR1DAY	7.06	9.27	0.0002	293.04	275.31	143411
NBW0770	F3A50YR1DAY	7.06	9.27	-0.0004	43.86	36.00	32373
NBW0790	F3A50YR1DAY	8.11	9.28	0.0000	37.78	37.52	18505
NBW0810	F3A50YR1DAY	7.06	9.27	0.0000	71.13	60.00	70544
NBW0830	F3A50YR1DAY	8.41	9.28	0.0001	57.29	56.99	9446
NBW0850	F3A50YR1DAY	10.17	10.12	0.0001	57.73	52.75	21326
NBW0870	F3A50YR1DAY	7.06	9.29	0.0000	309.11	272.22	280798
NBW0890	F3A50YR1DAY	7.06	9.28	0.0004	16.70	17.30	1027
NBW0910	F3A50YR1DAY	7.06	9.28	0.0001	281.85	261.65	168154
NBW0930	F3A50YR1DAY	8.03	9.31	-0.0001	44.97	44.78	1301
NBW0950	F3A50YR1DAY	8.82	9.34	-0.0001	81.72	44.97	167491
NBW0970	F3A50YR1DAY	8.82	9.35	0.0003	40.19	37.88	37475
NBW0990	F3A50YR1DAY	8.82	9.35	-0.0002	14.88	14.43	785
NBW1010	F3A50YR1DAY	8.83	9.36	0.0000	38.47	38.44	1528
NBW1030	F3A50YR1DAY	9.19	11.40	0.0000	96.97	37.75	72820
NBW1050	F3A50YR1DAY	9.30	11.40	0.0001	16.67	16.07	900
NBW1070	F3A50YR1DAY	9.34	11.40	0.0000	343.52	343.29	76254
NBW1090	F3A50YR1DAY	3.78	5.30	0.0000	473.62	464.93	20057

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1130	F3A50YR1DAY	4.51	5.58	0.0001	239.92	239.65	36664
NBW1150	F3A50YR1DAY	4.53	5.67	-0.0001	262.48	261.10	75248
NBW1169	F3A50YR1DAY	4.09	5.44	0.0000	452.76	445.69	21700
NBW1170	F3A50YR1DAY	4.30	5.57	-0.0001	446.70	444.27	8343
NBW1190	F3A50YR1DAY	6.13	6.81	-0.0001	81.30	62.91	76884
NBW1210	F3A50YR1DAY	7.17	7.79	-0.0002	323.26	319.10	170238
NBW1230	F3A50YR1DAY	7.17	7.84	-0.0002	346.02	306.72	250109
NBW1250	F3A50YR1DAY	4.74	6.13	0.0001	406.46	403.63	7825
NBW1270	F3A50YR1DAY	6.14	6.81	-0.0001	34.31	27.69	53493
NBW1310	F3A50YR1DAY	5.21	6.32	0.0002	439.94	401.79	8702
NBW1330	F3A50YR1DAY	7.56	8.98	-0.0021	329.40	375.13	3074
NBW1350	F3A50YR1DAY	10.95	11.74	0.0001	56.08	55.93	16318
NBW1351	F3A50YR1DAY	8.89	11.05	0.0004	305.34	305.46	28176
NBW1352	F3A50YR1DAY	9.96	12.89	0.0006	299.00	299.00	7956
NBW1353	F3A50YR1DAY	11.01	14.71	0.0005	293.68	293.71	8196
NBW1370	F3A50YR1DAY	10.02	11.02	0.0003	231.12	227.61	45853
NBW1390	F3A50YR1DAY	15.24	15.52	0.0003	351.68	350.67	185427
NBW1410	F3A50YR1DAY	15.58	15.80	0.0003	200.66	200.66	30743
NBW1430	F3A50YR1DAY	15.79	15.90	0.0002	188.58	188.25	28794
NBW1450	F3A50YR1DAY	16.94	17.18	-0.0003	329.13	328.57	124013
NBW1460	F3A50YR1DAY	16.43	16.70	0.0002	149.52	150.36	4273
NBW1470	F3A50YR1DAY	17.14	17.49	-0.0002	395.29	387.64	245939
NBW1480	F3A50YR1DAY	18.11	18.20	0.0001	19.46	19.33	17718
NBW1490	F3A50YR1DA	17.86	18.35	0.0001	239.29	236.66	141260

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW1510	F3A50YR1DAY	18.12	18.65	-0.0001	130.25	132.58	37708
NBW1530	F3A50YR1DAY	17.92	18.69	0.0001	14.85	12.16	1184
NBW1550	F3A50YR1DAY	17.75	18.74	0.0001	61.42	53.88	41498
NBW1570	F3A50YR1DAY	18.21	18.83	0.0001	126.49	128.79	2604
NBW1590	F3A50YR1DAY	18.12	18.64	-0.0001	66.08	67.10	23294
NBW1610	F3A50YR1DAY	18.13	18.64	0.0001	40.98	34.78	27180
NBW1630	F3A50YR1DAY	18.13	18.42	0.0001	32.34	32.19	1809
NBW1650	F3A50YR1DAY	18.81	19.65	0.0001	19.88	12.91	47987
NBW1670	F3A50YR1DAY	18.89	19.66	0.0001	47.50	41.75	41447
NBW1690	F3A50YR1DAY	19.03	19.66	0.0001	30.25	27.11	26392
NBW1710	F3A50YR1DAY	19.26	19.66	0.0001	3.30	1.59	998
NBW1730	F3A50YR1DAY	18.65	19.57	0.0003	367.05	360.67	326323
NBW1750	F3A50YR1DAY	18.82	19.63	-0.0002	187.80	163.95	77735
NBW1770	F3A50YR1DAY	18.82	19.65	0.0001	171.36	133.65	181801
NBW1790	F3A50YR1DAY	18.91	19.66	0.0001	40.77	36.83	41128
NBW1820	F3A50YR1DAY	18.72	19.34	0.0000	112.45	106.32	172987
NBW1830	F3A50YR1DAY	18.74	19.57	-0.0001	64.96	62.84	87077
NBW1840	F3A50YR1DAY	18.39	18.88	0.0000	150.23	134.10	140533
NBW1850	F3A50YR1DAY	18.74	19.60	-0.0001	195.14	180.23	149024
NBW1860	F3A50YR1DAY	18.39	18.88	0.0000	19.84	14.50	23133
NBW1870	F3A50YR1DAY	18.72	19.35	-0.0002	41.43	42.95	40137
NBW1890	F3A50YR1DAY	19.06	19.94	0.0001	43.65	43.59	2614
NBW1910	F3A50YR1DAY	19.27	20.17	0.0001	80.65	79.60	8261

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1930	F3A50YR1DAY	19.27	20.16	0.0001	45.46	38.51	44246
NBW1950	F3A50YR1DAY	18.97	19.61	0.0001	5.06	2.34	450
NBW1970	F3A50YR1DAY	18.96	19.60	0.0000	17.74	17.23	14007
NBW1990	F3A50YR1DAY	19.27	19.99	0.0001	121.79	115.12	146595
NBW2010	F3A50YR1DAY	19.65	19.97	0.0001	14.11	15.75	12319
NBW2030	F3A50YR1DAY	19.65	19.97	0.0001	32.99	30.32	94601
NBW2050	F3A50YR1DAY	19.26	20.20	0.0001	103.99	94.32	130217
NBW2060	F3A50YR1DAY	0.00	20.20	0.0000	31.13	26.64	66810
NBW2070	F3A50YR1DAY	19.26	20.20	0.0001	166.11	84.12	200907
NBW2090	F3A50YR1DAY	19.10	19.02	0.0002	70.51	62.71	13247
NBW2110	F3A50YR1DAY	18.92	19.02	0.0002	193.26	184.65	137454
NBW2130	F3A50YR1DAY	18.92	19.02	0.0002	94.62	83.41	32436
NBW2140	F3A50YR1DAY	20.00	19.14	0.0001	9.87	7.43	652
NBW2145	F3A50YR1DAY	0.00	19.42	-0.0012	22.71	99.12	37661
NBW2150	F3A50YR1DAY	19.26	20.19	0.0001	109.52	99.98	31724
NBW2170	F3A50YR1DAY	19.12	20.20	0.0001	5.36	5.20	940
NBW2190	F3A50YR1DAY	19.10	20.21	0.0001	10.78	5.41	26445
NBW2210	F3A50YR1DAY	19.47	20.19	0.0001	42.17	42.78	44994
NBW2230	F3A50YR1DAY	19.47	20.19	-0.0002	86.68	77.97	84470
NBW2250	F3A50YR1DAY	19.51	20.19	0.0001	32.31	32.90	8935
NBW2270	F3A50YR1DAY	19.57	20.19	-0.0001	31.27	31.86	34506
NBW2290	F3A50YR1DAY	19.65	20.19	-0.0002	92.45	84.05	192552
NBW2310	F3A50YR1DAY	19.82	20.08	-0.0002	92.46	90.37	145143
NBW2330	F3A50YR1DA	19.82	20.08	-0.0002	41.64	27.19	81168

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NBW2350	F3A50YR1DAY	16.05	16.53	0.0001	174.83	173.29	78048
NBW2370	F3A50YR1DAY	16.11	16.54	-0.0001	41.98	40.80	57127
NBW2380	F3A50YR1DAY	12.29	16.54	0.0004	322.01	294.08	91243
NBW2385	F3A50YR1DAY	18.49	18.51	0.0000	6.38	6.37	6781
NBW2387	F3A50YR1DAY	16.11	16.54	0.0000	0.72	0.77	482
NBW2390	F3A50YR1DAY	16.42	17.98	0.0001	142.26	143.59	65716
NBW2410	F3A50YR1DAY	16.59	18.40	-0.0002	247.16	245.55	176881
NBW2430	F3A50YR1DAY	16.23	18.45	0.0001	352.15	351.53	109776
NBW2450	F3A50YR1DAY	16.15	18.51	0.0002	166.00	162.81	4396
NBW2470	F3A50YR1DAY	16.43	18.74	0.0002	365.50	365.69	45657
NBW2490	F3A50YR1DAY	16.90	18.74	-0.0004	86.77	308.15	22604
NBW2510	F3A50YR1DAY	17.74	18.74	-0.0001	73.56	72.71	7035
NBW2530	F3A50YR1DAY	17.92	18.69	-0.0001	62.62	63.16	2010
NBW2550	F3A50YR1DAY	17.95	18.69	-0.0001	2.52	3.00	450
NBW2570	F3A50YR1DAY	17.96	18.70	0.0000	4.94	2.52	12023
NBW2590	F3A50YR1DAY	18.06	18.67	-0.0001	50.75	51.20	1098
NBW2610	F3A50YR1DAY	17.00	18.84	-0.0008	415.49	413.91	128354
NBW2630	F3A50YR1DAY	17.98	18.85	0.0000	214.27	194.02	42188
NBW2650	F3A50YR1DAY	16.97	18.83	-0.0004	27.06	28.20	40326
NBW2670	F3A50YR1DAY	16.42	18.83	0.0001	51.44	35.59	45704
NBW2680	F3A50YR1DAY	17.73	18.47	-0.0001	145.12	144.78	27508
NBW2690	F3A50YR1DAY	15.40	18.29	0.0002	358.26	353.37	107243
NBW2710	F3A50YR1DAY	17.73	18.50	0.0001	3.19	2.41	529

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2730	F3A50YR1DAY	18.29	18.73	0.0000	3.33	2.31	6210
NBW2770	F3A50YR1DAY	18.09	18.86	0.0000	13.26	13.28	1310
NBW2775	F3A50YR1DAY	6.59	7.12	0.0000	22.36	19.79	59672
NBW2780	F3A50YR1DAY	18.38	18.84	0.0001	154.57	148.49	171418
NBW2790	F3A50YR1DAY	18.38	18.87	0.0000	291.80	274.74	151005
NBW2810	F3A50YR1DAY	18.39	18.87	-0.0002	109.63	99.82	80816
NBW2830	F3A50YR1DAY	18.40	18.88	0.0000	84.29	62.87	177815
NC01	F3A50YR1DAY	0.00	6.29	-0.0001	40.45	39.98	4928
NC01B	F3A50YR1DAY	0.00	5.95	0.0000	32.13	32.07	6989
NC02	F3A50YR1DAY	0.00	8.93	0.0001	165.07	164.96	10958
NC03	F3A50YR1DAY	0.00	4.97	-0.0001	192.96	192.89	15095
NC04	F3A50YR1DAY	0.00	4.04	0.0000	123.45	119.65	56358
NC05	F3A50YR1DAY	0.00	4.02	-0.0001	134.81	132.52	66406
NC06	F3A50YR1DAY	0.00	3.98	0.0000	145.22	144.74	29241
NC07	F3A50YR1DAY	0.00	3.98	-0.0001	135.09	135.05	27042
NC08	F3A50YR1DAY	0.00	3.94	0.0000	154.73	154.55	19659
NCL0010	F3A50YR1DAY	2.00	2.00	0.0000	870.91	0.00	0
NCL0030	F3A50YR1DAY	2.36	3.15	0.0002	595.64	595.62	6856
NCL0050	F3A50YR1DAY	2.36	3.15	-0.0001	0.56	1.13	439
NCL0070	F3A50YR1DAY	5.20	5.80	0.0000	253.92	251.04	82026
NCL0090	F3A50YR1DAY	6.06	6.38	0.0000	91.08	73.26	100544
NCL0110	F3A50YR1DAY	3.04	3.97	-0.0007	632.71	632.61	6623
NCL0130	F3A50YR1DAY	4.05	4.12	0.0002	158.74	158.80	565
NCL0150	F3A50YR1DA	4.95	5.46	-0.0001	159.74	159.82	2802

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL0170	F3A50YR1DAY	5.08	5.53	0.0000	101.54	101.58	1472
NCL0190	F3A50YR1DAY	5.08	5.55	0.0000	4.13	3.94	438
NCL0210	F3A50YR1DAY	5.85	6.88	-0.0001	102.97	101.47	42222
NCL0230	F3A50YR1DAY	6.60	7.72	-0.0002	71.40	32.99	91236
NCL0250	F3A50YR1DAY	6.60	7.72	-0.0001	3.79	4.04	606
NCL0270	F3A50YR1DAY	6.60	7.72	-0.0001	7.43	5.32	3335
NCL0290	F3A50YR1DAY	5.90	6.93	0.0001	64.65	65.19	924
NCL0310	F3A50YR1DAY	6.10	7.13	0.0012	64.38	64.76	1045
NCL0330	F3A50YR1DAY	5.95	6.89	-0.0001	23.96	29.49	16028
NCL0350	F3A50YR1DAY	6.60	7.72	-0.0003	228.48	177.96	119050
NCL0370	F3A50YR1DAY	7.36	8.05	0.0002	211.70	208.56	39513
NCL0390	F3A50YR1DAY	4.02	4.95	-0.0011	457.51	473.07	4339
NCL0410	F3A50YR1DAY	4.09	5.19	0.0001	9.11	9.01	819
NCL0430	F3A50YR1DAY	4.23	5.50	0.0000	9.67	9.36	931
NCL0450	F3A50YR1DAY	4.75	5.63	0.0007	446.53	446.56	3676
NCL0470	F3A50YR1DAY	5.43	6.23	-0.0010	445.10	445.13	3437
NCL0490	F3A50YR1DAY	6.48	7.11	-0.0010	561.84	564.62	71420
NCL0510	F3A50YR1DAY	6.67	7.41	-0.0001	42.25	40.42	5430
NCL0530	F3A50YR1DAY	8.10	8.60	0.0004	40.35	21.73	1171
NCL0550	F3A50YR1DAY	8.17	8.66	-0.0002	41.25	40.35	72448
NCL0570	F3A50YR1DAY	8.66	9.05	0.0001	22.56	19.27	9448
NCL0590	F3A50YR1DAY	7.00	7.67	0.0007	477.85	478.34	15013
NCL0610	F3A50YR1DAY	7.52	8.23	0.0007	460.85	461.04	3640

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0630	F3A50YR1DAY	8.06	8.95	-0.0004	457.62	457.78	4608
NCL0650	F3A50YR1DAY	8.12	9.02	-0.0003	55.28	102.61	1613
NCL0670	F3A50YR1DAY	8.67	9.75	-0.0004	123.11	55.28	1693
NCL0690	F3A50YR1DAY	8.76	9.79	0.0002	28.01	35.14	605
NCL0710	F3A50YR1DAY	8.95	9.88	-0.0002	29.60	27.52	600
NCL0730	F3A50YR1DAY	9.26	10.06	-0.0002	32.36	29.60	554
NCL0750	F3A50YR1DAY	9.56	10.19	0.0000	215.06	196.94	86736
NCL0770	F3A50YR1DAY	10.12	10.49	0.0001	105.92	105.85	2178
NCL0790	F3A50YR1DAY	8.69	9.80	-0.0003	44.24	101.59	895
NCL0810	F3A50YR1DAY	8.84	10.15	0.0000	48.51	44.24	38939
NCL0830	F3A50YR1DAY	8.93	10.21	0.0006	393.88	396.49	53166
NCL0850	F3A50YR1DAY	9.01	10.22	-0.0001	116.83	104.75	36154
NCL0870	F3A50YR1DAY	9.37	10.38	0.0001	131.57	131.21	2022
NCL0890	F3A50YR1DAY	9.65	10.53	-0.0001	115.94	115.72	1586
NCL0910	F3A50YR1DAY	9.71	10.48	0.0000	20.94	20.50	19326
NCL0930	F3A50YR1DAY	9.57	11.01	-0.0001	168.04	165.39	13797
NCL0950	F3A50YR1DAY	9.89	11.21	-0.0001	150.76	149.13	12208
NCL0970	F3A50YR1DAY	10.41	11.67	0.0001	46.40	45.21	2267
NCL0990	F3A50YR1DAY	11.00	11.83	0.0001	60.05	59.07	10443
NCL1010	F3A50YR1DAY	11.14	12.31	0.0001	12.80	12.71	638
NCL1030	F3A50YR1DAY	9.67	10.42	-0.0002	23.81	33.52	1481
NCL1050	F3A50YR1DAY	10.46	10.45	0.0000	10.53	9.79	4514
NCL1070	F3A50YR1DAY	9.30	11.45	0.0001	4.33	4.36	631
NCL1090	F3A50YR1DA	9.76	11.51	0.0000	35.73	16.87	27138

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL1110	F3A50YR1DAY	9.85	11.09	0.0001	17.33	18.31	16338
NCL1130	F3A50YR1DAY	9.76	11.51	-0.0001	38.57	20.01	117032
NCL1150	F3A50YR1DAY	9.76	11.51	-0.0001	733.31	727.53	275064
NCL1170	F3A50YR1DAY	10.59	12.60	0.0004	455.40	370.40	156525
NCL1190	F3A50YR1DAY	10.72	13.06	0.0001	98.93	98.97	1850
NCL1210	F3A50YR1DAY	10.63	12.61	0.0001	58.04	26.44	58728
NCL1230	F3A50YR1DAY	10.94	13.65	0.0001	98.90	98.93	1432
NCL1250	F3A50YR1DAY	11.11	14.01	0.0001	98.87	98.90	1231
NCL1270	F3A50YR1DAY	11.34	14.41	0.0001	245.72	167.27	206639
NCL1290	F3A50YR1DAY	13.06	14.46	0.0001	213.50	208.26	45396
NCL1310	F3A50YR1DAY	14.77	15.84	0.0001	211.68	208.94	59110
NCL1330	F3A50YR1DAY	10.60	12.60	-0.0003	385.93	380.39	91717
NCL1350	F3A50YR1DAY	10.63	12.61	-0.0002	378.40	371.82	72192
NCL1370	F3A50YR1DAY	10.63	12.64	-0.0002	223.28	221.29	17611
NCL1390	F3A50YR1DAY	10.63	14.41	0.0001	70.80	62.31	36345
NCL1410	F3A50YR1DAY	10.63	14.41	0.0001	74.71	69.81	10467
NCL1430	F3A50YR1DAY	10.70	12.63	0.0004	604.53	464.97	260681
NCL1450	F3A50YR1DAY	10.93	13.14	0.0007	489.06	488.62	3036
NCL1470	F3A50YR1DAY	12.72	14.61	0.0002	348.32	347.56	4425
NCL1490	F3A50YR1DAY	14.45	14.86	0.0000	8.15	8.12	784
NCL1510	F3A50YR1DAY	11.06	13.14	-0.0008	66.66	79.86	17100
NCL1530	F3A50YR1DAY	12.54	13.14	-0.0003	105.94	104.18	19116
NCL1550	F3A50YR1DAY	13.13	13.51	-0.0001	43.22	42.05	1021

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1570	F3A50YR1DAY	13.31	14.08	0.0001	6.65	6.59	504
NCL1590	F3A50YR1DAY	13.70	14.10	0.0000	3.24	2.83	1307
NCL1610	F3A50YR1DAY	13.37	14.28	0.0001	4.30	4.03	469
NCL1630	F3A50YR1DAY	13.57	13.76	-0.0002	92.95	92.91	2926
NCL1650	F3A50YR1DAY	13.68	14.01	0.0002	97.95	97.91	1925
NCL1670	F3A50YR1DAY	14.02	15.05	0.0001	191.06	190.90	14976
NCL1690	F3A50YR1DAY	17.47	17.94	0.0001	67.57	67.53	6926
NCL1710	F3A50YR1DAY	17.89	18.20	0.0001	60.76	60.79	3413
NCL1730	F3A50YR1DAY	18.27	19.36	-0.0010	232.60	232.27	43749
NCL1750	F3A50YR1DAY	18.24	19.22	0.0011	31.41	31.43	513
NCL1770	F3A50YR1DAY	18.07	18.30	0.0001	55.02	54.99	3184
NCL1790	F3A50YR1DAY	15.78	16.63	0.0001	340.90	340.23	5863
NCL1810	F3A50YR1DAY	18.13	18.48	0.0001	85.46	78.24	53366
NCL1830	F3A50YR1DAY	18.39	18.65	0.0001	321.52	320.92	6250
NCL1850	F3A50YR1DAY	18.50	18.80	-0.0003	66.76	79.05	909
NCL1870	F3A50YR1DAY	19.01	19.50	0.0001	66.42	66.76	999
NCL1890	F3A50YR1DAY	19.15	19.68	0.0001	69.03	67.75	987
NCL1910	F3A50YR1DAY	19.15	19.69	0.0001	4.39	1.03	531
NCL1930	F3A50YR1DAY	19.91	19.99	0.0000	7.06	7.01	1633
NCL1950	F3A50YR1DAY	19.15	19.68	0.0000	1.03	0.17	503
NCL1970	F3A50YR1DAY	21.67	21.68	0.0000	3.89	3.88	3371
NCL1990	F3A50YR1DAY	19.58	20.27	0.0002	71.63	69.03	884
NCL2010	F3A50YR1DAY	19.74	20.33	0.0001	43.86	41.67	1104
NCL2030	F3A50YR1DA	19.76	19.98	0.0001	27.76	23.65	42862

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2050	F3A50YR1DAY	19.76	20.38	0.0001	42.28	39.48	1411
NCL2070	F3A50YR1DAY	19.76	19.99	-0.0001	6.72	7.72	1202
NCL2090	F3A50YR1DAY	19.87	20.75	0.0001	45.45	42.28	1414
NCL2110	F3A50YR1DAY	20.03	20.79	-0.0002	43.49	40.09	33040
NCL2130	F3A50YR1DAY	19.87	20.81	0.0001	148.90	159.62	126318
NCL2150	F3A50YR1DAY	20.75	21.56	-0.0004	155.37	140.92	255698
NCL2170	F3A50YR1DAY	19.85	20.79	-0.0004	251.20	249.12	100561
NCL2230	F3A50YR1DAY	19.13	19.78	0.0002	291.57	288.74	50584
NCL2250	F3A50YR1DAY	19.55	20.31	0.0002	214.46	210.48	4444
NCL2270	F3A50YR1DAY	20.05	20.96	0.0001	328.09	327.17	61308
NCL2290	F3A50YR1DAY	19.88	20.79	0.0001	16.99	15.03	19481
NCL2310	F3A50YR1DAY	20.45	21.22	0.0001	103.11	102.01	1779
NCL2330	F3A50YR1DAY	20.74	21.41	0.0001	198.13	186.00	134513
NCL2350	F3A50YR1DAY	20.78	21.43	0.0001	95.43	94.03	14730
NCL2370	F3A50YR1DAY	20.81	21.44	0.0001	92.13	90.72	2298
NCL2390	F3A50YR1DAY	20.84	21.46	0.0000	202.80	164.24	219145
NCL2410	F3A50YR1DAY	21.07	21.49	0.0000	30.64	30.28	1380
NCL2430	F3A50YR1DAY	21.32	21.61	0.0000	29.29	28.93	1472
NCL2450	F3A50YR1DAY	21.25	21.56	0.0000	6.31	6.15	493
NCL2470	F3A50YR1DAY	20.93	21.47	0.0000	28.08	27.71	846
NCL2490	F3A50YR1DAY	21.54	21.61	0.0000	26.20	25.87	1524
NCL2510	F3A50YR1DAY	21.70	21.58	0.0000	201.74	201.93	128689
NCL2530	F3A50YR1DAY	21.70	21.57	0.0000	90.10	91.66	60414

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2540	F3A50YR1DAY	0.00	22.27	0.0000	125.50	123.20	59103
NCL2550	F3A50YR1DAY	21.70	21.57	0.0000	100.30	100.75	22392
NCL2570	F3A50YR1DAY	21.51	21.53	0.0001	15.40	15.56	1503
NCL2580	F3A50YR1DAY	0.00	21.50	-0.0005	180.64	179.71	42778
NCL2590	F3A50YR1DAY	21.17	21.50	0.0000	308.56	304.43	173573
NCL2610	F3A50YR1DAY	21.14	21.49	0.0000	212.32	212.12	35957
NCL2630	F3A50YR1DAY	20.86	21.09	0.0000	123.47	118.02	57175
NCL2631	F3A50YR1DAY	0.00	20.95	-0.0001	116.23	98.51	50279
NCL2650	F3A50YR1DAY	21.17	21.65	0.0000	127.58	105.68	156239
NCL2670	F3A50YR1DAY	21.93	22.26	-0.0004	133.79	159.74	71570
NCL2690	F3A50YR1DAY	21.96	22.54	0.0000	90.03	95.30	64725
NCL2710	F3A50YR1DAY	21.96	22.65	0.0000	80.07	71.31	86946
NCL2730	F3A50YR1DAY	21.95	22.77	0.0000	49.87	48.82	28385
NCL2750	F3A50YR1DAY	21.84	23.15	0.0000	158.38	157.26	50079
NCL2770	F3A50YR1DAY	21.71	22.50	0.0000	40.52	40.53	1389
NCL2780	F3A50YR1DAY	0.00	22.42	0.0000	40.85	40.51	32694
NCL2790	F3A50YR1DAY	21.84	22.42	0.0000	229.40	218.51	158555
NCL2810	F3A50YR1DAY	22.11	22.91	-0.0001	153.07	152.30	31718
NCL2830	F3A50YR1DAY	23.09	23.22	-0.0001	32.24	30.84	16073
NCL2835	F3A50YR1DAY	0.00	23.91	0.0000	7.94	7.96	1074
NCL2840	F3A50YR1DAY	0.00	23.83	0.0000	151.27	150.99	28963
NCL2845	F3A50YR1DAY	0.00	24.37	-0.0001	84.52	84.29	19187
NCL2850	F3A50YR1DAY	20.82	21.44	0.0001	18.55	18.89	5079
NCL2870	F3A50YR1DA	20.83	21.34	-0.0002	17.54	17.88	1245

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL2890	F3A50YR1DAY	20.83	21.25	0.0004	16.94	17.54	26840
NCL2910	F3A50YR1DAY	20.83	21.25	0.0001	118.34	117.70	46814
NCL2930	F3A50YR1DAY	19.55	20.34	0.0003	263.43	264.96	30061
NCL2950	F3A50YR1DAY	19.53	20.34	0.0002	144.39	144.88	33958
NCL2970	F3A50YR1DAY	20.49	20.76	0.0002	86.65	84.31	26832
NCL2990	F3A50YR1DAY	19.33	20.19	0.0002	136.77	137.25	10735
NCL3010	F3A50YR1DAY	19.35	20.19	0.0002	190.35	133.65	308586
NCL3030	F3A50YR1DAY	19.58	20.22	0.0002	141.32	104.93	115020
NCL3050	F3A50YR1DAY	19.94	20.30	0.0002	114.66	106.83	61708
NCL3070	F3A50YR1DAY	20.14	20.38	0.0001	64.04	57.84	37070
NCL3090	F3A50YR1DAY	19.59	20.21	0.0002	133.51	116.31	116425
NCL3110	F3A50YR1DAY	19.59	20.22	0.0002	104.94	71.45	145658
NCL3130	F3A50YR1DAY	19.59	20.22	0.0002	41.24	24.93	71123
NCL3150	F3A50YR1DAY	19.54	20.20	0.0002	175.72	163.21	81945
NCL3170	F3A50YR1DAY	19.71	20.45	0.0002	141.38	140.75	51040
NCL3190	F3A50YR1DAY	20.31	20.74	0.0002	161.30	149.00	159137
NCL3210	F3A50YR1DAY	20.32	20.75	0.0002	120.65	113.41	76326
NCL3230	F3A50YR1DAY	20.32	20.76	0.0002	98.99	96.48	34945
NCL3250	F3A50YR1DAY	19.11	19.16	-0.0002	201.71	200.15	127914
NCL3250A	F3A50YR1DAY	0.00	19.67	0.0004	133.23	132.18	2677
NCL3270	F3A50YR1DAY	19.11	19.70	0.0000	34.84	33.39	15473
NCL3280	F3A50YR1DAY	0.00	19.95	-0.0001	50.07	49.21	20760
NCL3290	F3A50YR1DAY	20.16	20.61	0.0000	50.64	47.93	34814

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3300	F3A50YR1DAY	0.00	19.84	0.0000	16.96	16.96	3236
NCL3310	F3A50YR1DAY	20.19	20.70	0.0000	2.29	2.20	769
NCL3330	F3A50YR1DAY	20.75	20.76	0.0000	7.47	6.97	437
NCL3350	F3A50YR1DAY	20.51	20.81	0.0001	59.68	57.09	55267
NCL3360	F3A50YR1DAY	0.00	20.80	0.0000	20.67	18.84	24940
NCL3365	F3A50YR1DAY	0.00	20.44	0.0001	57.51	56.75	34313
NCL3370	F3A50YR1DAY	20.64	21.22	-0.0002	201.52	199.02	111043
NCL3390	F3A50YR1DAY	20.83	21.25	0.0001	202.17	201.54	44184
NCL3410	F3A50YR1DAY	20.83	21.25	0.0001	2.43	1.84	476
NCL3430	F3A50YR1DAY	20.83	21.25	0.0000	6.44	1.30	5858
NCL3450	F3A50YR1DAY	18.92	19.13	0.0002	389.85	311.71	194776
NCL3470	F3A50YR1DAY	19.11	19.15	0.0001	457.64	374.03	242696
NCL3471	F3A50YR1DAY	0.00	19.14	0.0002	143.18	140.87	5436
NCL3490	F3A50YR1DAY	19.15	19.19	0.0001	191.42	181.91	45428
NCL3510	F3A50YR1DAY	20.64	20.05	0.0001	168.11	167.11	34933
NCL3520	F3A50YR1DAY	0.00	19.73	-0.0001	422.46	421.96	66853
NCL3530	F3A50YR1DAY	20.66	20.96	0.0001	232.07	229.81	77253
NCL3550	F3A50YR1DAY	20.66	20.97	0.0001	4.96	4.57	736
NCL3570	F3A50YR1DAY	20.66	21.01	-0.0001	2.77	2.52	628
NCL3590	F3A50YR1DAY	20.66	21.01	0.0000	4.44	1.87	7546
NCL3610	F3A50YR1DAY	20.66	20.96	0.0001	41.63	42.34	1320
NCL3630	F3A50YR1DAY	20.64	20.95	-0.0001	375.60	371.43	131417
NCL3635	F3A50YR1DAY	0.00	20.95	0.0001	22.38	24.67	1915
NCL3640	F3A50YR1DA	0.00	20.95	0.0001	49.70	45.39	61416

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NCL3650	F3A50YR1DAY	18.92	19.12	0.0001	10.00	9.84	503
NCL3670	F3A50YR1DAY	18.92	19.13	0.0000	16.71	26.76	51336
NCL3690	F3A50YR1DAY	18.92	19.12	0.0002	153.33	144.17	2640
NCL3730	F3A50YR1DAY	18.92	19.11	0.0000	488.66	382.77	138807
NCL3740	F3A50YR1DAY	0.00	19.14	0.0002	267.77	264.47	38105
NCL3750	F3A50YR1DAY	18.93	19.62	-0.0012	253.40	200.10	291607
NCL3770	F3A50YR1DAY	18.93	19.62	-0.0006	81.43	38.76	112308
NCL4000	F3A50YR1DAY	0.00	29.88	0.0000	77.82	77.77	8832
NCL4010	F3A50YR1DAY	0.00	29.64	0.0000	68.55	68.25	15465
NCypEast	F3A50YR1DAY	32.00	29.00	0.0000	17.00	0.00	0
NCypWest	F3A50YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3A50YR1DAY	2.00	2.00	0.0000	570.92	26.84	0
NOC0030	F3A50YR1DAY	1.14	2.47	-0.0237	570.97	570.92	1523
NOC0050	F3A50YR1DAY	1.20	2.73	-0.0163	494.41	494.52	1930
NOC0070	F3A50YR1DAY	1.45	3.71	0.0066	478.64	478.68	6770
NOC0090	F3A50YR1DAY	2.91	3.85	-0.0032	126.47	126.56	446
NOC0110	F3A50YR1DAY	1.65	3.79	0.0073	292.89	293.03	455
NOC0130	F3A50YR1DAY	3.06	4.61	0.0022	292.82	292.89	528
NOC0150	F3A50YR1DAY	3.08	4.63	0.0000	4.16	3.93	500
NOC0170	F3A50YR1DAY	4.56	4.91	0.0000	22.76	22.74	1900
NOC0190	F3A50YR1DAY	5.09	5.92	0.0005	291.34	291.48	1933
NOC0210	F3A50YR1DAY	5.68	6.12	0.0002	45.20	44.27	8020
NOC0230	F3A50YR1DAY	5.12	5.98	0.0001	10.64	10.34	742

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0250	F3A50YR1DAY	5.30	6.45	0.0001	11.06	10.64	984
NOC0270	F3A50YR1DAY	5.57	7.06	0.0000	8.26	5.16	9400
NOC0290	F3A50YR1DAY	5.11	6.11	0.0002	380.98	381.04	1836
NOC0310	F3A50YR1DAY	5.27	6.52	0.0002	90.96	83.31	28068
NOC0330	F3A50YR1DAY	5.85	6.89	-0.0001	385.28	380.60	200126
NOC0350	F3A50YR1DAY	5.89	6.97	-0.0001	356.27	327.47	142264
NOC0370	F3A50YR1DAY	6.47	7.32	0.0001	270.41	269.35	73022
NOC0390	F3A50YR1DAY	6.60	7.71	-0.0001	112.64	99.52	60537
NOC0410	F3A50YR1DAY	6.95	7.71	0.0001	59.55	42.63	80468
NOC0430	F3A50YR1DAY	7.01	7.46	0.0001	62.68	61.49	34413
NOC0450	F3A50YR1DAY	7.62	7.70	0.0001	41.45	40.49	22198
NOC0470	F3A50YR1DAY	8.12	8.23	0.0001	28.46	26.89	27815
NOC0490	F3A50YR1DAY	7.67	7.73	0.0001	6.35	6.29	1051
NRU0010	F3A50YR1DAY	2.00	2.00	0.0000	675.16	0.00	0
NRU0030	F3A50YR1DAY	2.84	3.63	-0.0005	438.10	381.07	2468
NRU0050	F3A50YR1DAY	4.36	5.79	-0.0013	381.07	438.10	2036
NRU0070	F3A50YR1DAY	5.61	7.57	0.0006	410.89	381.07	40089
NRU0090	F3A50YR1DAY	5.66	7.57	-0.0001	128.10	90.11	44430
NRU0110	F3A50YR1DAY	6.23	7.62	-0.0002	318.18	296.17	31677
NRU0130	F3A50YR1DAY	7.66	9.24	-0.0004	271.29	270.90	2616
NRU0150	F3A50YR1DAY	7.71	9.30	-0.0014	253.00	253.02	1528
NRU0160	F3A50YR1DAY	0.00	14.82	0.0001	187.63	187.63	4959
NRU0165	F3A50YR1DAY	0.00	15.10	0.0000	7.53	7.20	474
NRU0170	F3A50YR1DA	14.45	17.39	-0.0001	241.10	191.34	100278

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0172	F3A50YR1DAY	0.00	17.41	0.0001	10.06	11.08	831
NRU0174	F3A50YR1DAY	0.00	17.44	-0.0001	16.88	10.06	10642
NRU0176	F3A50YR1DAY	0.00	16.32	0.0000	9.95	9.95	761
NRU0178	F3A50YR1DAY	0.00	17.19	0.0000	7.59	7.62	957
NRU0180	F3A50YR1DAY	0.00	17.44	-0.0001	228.03	185.57	200869
NRU0190	F3A50YR1DAY	14.45	17.39	-0.0002	18.38	16.08	21916
NRU0210	F3A50YR1DAY	14.45	17.24	-0.0001	24.15	18.12	15746
NRU0230	F3A50YR1DAY	13.39	15.22	-0.0001	37.08	36.34	23840
NRU0250	F3A50YR1DAY	14.62	17.39	-0.0002	851.12	229.99	53829
NRU0270	F3A50YR1DAY	15.05	17.40	-0.0003	162.14	175.21	12726
NRU0290	F3A50YR1DAY	16.30	18.96	-0.0002	88.15	67.79	95007
NRU0310	F3A50YR1DAY	16.13	17.79	0.0001	92.59	92.37	2502
NRU0330	F3A50YR1DAY	18.25	18.48	0.0001	25.24	24.35	1352
NRU0335	F3A50YR1DAY	0.00	19.44	0.0001	12.79	10.16	17697
NRU0340	F3A50YR1DAY	0.00	18.98	0.0001	88.38	82.22	59616
NRU0343	F3A50YR1DAY	0.00	19.61	0.0001	12.49	9.61	917
NRU0345	F3A50YR1DAY	0.00	19.84	0.0001	75.53	70.27	90886
NRU0350	F3A50YR1DAY	19.50	19.22	0.0001	17.84	15.34	18391
NRU0370	F3A50YR1DAY	19.51	19.22	0.0001	13.59	10.70	14928
NRU0380	F3A50YR1DAY	23.33	19.14	0.0001	7.29	7.61	470
NRU0390	F3A50YR1DAY	27.00	19.13	-0.0002	35.84	22.40	27846
NRU0410	F3A50YR1DAY	19.56	19.28	0.0001	10.19	7.56	1096
NRU0425	F3A50YR1DAY	15.53	16.73	0.0001	8.61	3.82	4982

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0430	F3A50YR1DAY	19.61	19.33	0.0001	7.56	5.09	1072
NRU0450	F3A50YR1DAY	19.66	19.39	0.0001	5.09	3.16	1044
NRU0470	F3A50YR1DAY	19.72	19.64	0.0001	3.43	2.92	786
NRU0490	F3A50YR1DAY	20.36	19.75	-0.0001	4.51	3.43	2732
NRU0495	F3A50YR1DAY	0.00	15.43	0.0003	757.83	757.85	2716
NRU0500	F3A50YR1DAY	0.00	15.81	0.0006	756.16	756.21	5646
NRU0510	F3A50YR1DAY	19.67	20.25	-0.0002	44.02	31.58	79039
NRU0530	F3A50YR1DAY	16.95	18.17	0.0001	59.17	60.28	2251
NRU0550	F3A50YR1DAY	17.92	18.60	-0.0002	145.84	137.75	90895
NRU0570	F3A50YR1DAY	18.16	19.01	-0.0001	105.07	104.08	18474
NRU0590	F3A50YR1DAY	18.51	19.63	0.0001	65.13	64.53	28537
NRU0610	F3A50YR1DAY	18.78	19.82	0.0001	65.97	54.19	79331
NRU0612	F3A50YR1DAY	0.00	19.83	0.0001	45.57	40.04	48390
NRU0615	F3A50YR1DAY	0.00	19.99	0.0001	11.58	6.68	2099
NRU0616	F3A50YR1DAY	0.00	20.26	0.0001	9.54	8.24	19931
NRU0618	F3A50YR1DAY	0.00	20.56	0.0001	20.74	16.68	18399
NRU0620	F3A50YR1DAY	0.00	20.08	0.0001	32.01	28.66	29541
NRU0630	F3A50YR1DAY	18.79	19.69	0.0001	53.19	52.95	27583
NRU0650	F3A50YR1DAY	18.79	19.53	0.0001	81.05	78.47	35428
NRU0670	F3A50YR1DAY	18.78	19.35	-0.0001	63.85	63.84	1429
NRU0690	F3A50YR1DAY	18.84	19.07	0.0001	95.85	94.14	23830
NRU0710	F3A50YR1DAY	18.86	18.99	0.0001	175.62	172.10	39205
NRU0730	F3A50YR1DAY	18.85	18.99	0.0001	61.01	58.48	42674
NRU0740	F3A50YR1DA	0.00	18.94	0.0001	182.67	176.53	32296

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU0745	F3A50YR1DAY	0.00	18.91	0.0001	185.06	176.72	44053
NRU0747	F3A50YR1DAY	18.87	18.91	0.0001	113.82	112.01	1657
NRU0750	F3A50YR1DAY	18.87	18.90	0.0001	233.97	143.84	230548
NRU0770	F3A50YR1DAY	18.88	18.90	-0.0001	37.45	35.47	1011
NRU0785	F3A50YR1DAY	0.00	18.90	0.0001	101.03	84.55	55422
NRU0790	F3A50YR1DAY	18.88	18.90	-0.0003	632.97	592.35	121887
NRU0810	F3A50YR1DAY	18.88	18.90	0.0001	24.60	18.66	11407
NRU0820	F3A50YR1DAY	0.00	18.89	0.0001	6.26	3.11	442
NRU0830	F3A50YR1DAY	18.99	19.02	-0.0005	523.52	524.72	33770
NRU0840	F3A50YR1DAY	9999.00	19.08	0.0006	467.81	468.92	2258
NRU0850	F3A50YR1DAY	19.11	19.11	0.0002	193.10	190.86	2553
NRU0870	F3A50YR1DAY	19.32	19.14	-0.0003	42.57	43.45	560
NRU0890	F3A50YR1DAY	19.35	19.14	0.0000	77.84	67.23	67345
NRU0910	F3A50YR1DAY	19.35	19.16	0.0000	3.30	2.92	581
NRU0930	F3A50YR1DAY	19.35	19.78	0.0000	3.48	3.30	1742
NRU0950	F3A50YR1DAY	19.11	19.13	-0.0003	202.01	183.48	37958
NRU0955	F3A50YR1DAY	0.00	19.13	-0.0001	262.81	237.95	54479
NRU0960	F3A50YR1DAY	0.00	19.15	0.0001	314.64	299.42	38964
NRU0965	F3A50YR1DAY	0.00	19.15	0.0002	318.11	296.37	79095
NRU0970	F3A50YR1DAY	19.34	19.14	0.0001	46.92	38.51	78345
NRU0980	F3A50YR1DAY	0.00	19.14	-0.0003	19.33	20.09	1097
NRU0990	F3A50YR1DAY	19.39	19.14	0.0003	41.50	41.12	440
NRU1010	F3A50YR1DAY	19.70	19.15	-0.0013	42.09	41.50	24821

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1015	F3A50YR1DAY	0.00	20.18	0.0001	25.64	15.33	37326
NRU1020	F3A50YR1DAY	0.00	21.60	-0.0060	24.04	112.28	866
NRU1025	F3A50YR1DAY	0.00	21.04	0.0001	12.56	12.22	724
NRU1030	F3A50YR1DAY	19.70	19.15	-0.0001	163.17	145.01	115119
NRU1035	F3A50YR1DAY	0.00	18.76	0.0000	1.57	1.44	436
NRU1036	F3A50YR1DAY	0.00	19.16	-0.0003	19.09	20.34	437
NRU1037	F3A50YR1DAY	0.00	19.11	0.0001	3.51	3.76	687
NRU1040	F3A50YR1DAY	0.00	19.15	-0.0003	101.50	94.76	59938
NRU1045	F3A50YR1DAY	0.00	21.68	0.0001	23.56	17.03	40417
NRU1046	F3A50YR1DAY	0.00	21.65	0.0060	17.03	15.08	934
NRU1050	F3A50YR1DAY	19.70	19.16	0.0001	164.85	151.42	83787
NRU1070	F3A50YR1DAY	19.83	19.49	0.0001	64.43	62.75	28386
NRU1090	F3A50YR1DAY	18.86	18.90	-0.0002	114.81	112.87	1336
NRU1110	F3A50YR1DAY	18.86	18.90	0.0001	155.34	153.22	68856
NRU1130	F3A50YR1DAY	18.86	18.90	-0.0001	36.26	33.47	776
NRU1150	F3A50YR1DAY	18.86	18.90	0.0003	66.22	63.92	60237
NRU1170	F3A50YR1DAY	18.86	19.11	-0.0001	51.32	44.20	37471
NRU1182	F3A50YR1DAY	0.00	18.36	0.0000	18.13	18.04	1155
NRU1184	F3A50YR1DAY	0.00	18.48	0.0000	13.49	13.19	873
NRU1185	F3A50YR1DAY	0.00	19.28	0.0001	20.81	14.40	41619
NRU1186	F3A50YR1DAY	0.00	18.48	0.0000	5.83	4.85	791
NRU1188	F3A50YR1DAY	0.00	18.49	0.0000	10.62	4.28	32979
NRU1190	F3A50YR1DAY	18.86	18.93	0.0000	9.56	7.67	576
NRU1210	F3A50YR1DA	18.86	18.84	0.0000	7.67	6.73	722

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU1220	F3A50YR1DAY	0.00	18.87	0.0001	35.60	34.81	2046
NRU1225	F3A50YR1DAY	0.00	23.03	0.0000	7.46	7.18	8649
NRU1230	F3A50YR1DAY	18.88	18.37	0.0002	671.49	671.61	4556
NRU1232	F3A50YR1DAY	0.00	18.00	0.0008	696.46	696.59	3681
NRU1234	F3A50YR1DAY	0.00	18.89	-0.0001	17.65	12.77	12046
NRU1240	F3A50YR1DAY	0.00	18.90	-0.0001	18.40	15.66	9192
NRU1250	F3A50YR1DAY	4.07	4.82	-0.0003	296.42	296.41	2104
NRU1270	F3A50YR1DAY	4.78	5.54	-0.0003	290.79	290.80	1667
NRU1290	F3A50YR1DAY	5.41	6.27	0.0001	275.22	275.28	3103
NRU1310	F3A50YR1DAY	6.42	7.40	0.0001	275.18	275.22	5051
NRU1330	F3A50YR1DAY	8.29	9.65	0.0001	347.76	347.59	3357
NRU1350	F3A50YR1DAY	9.32	11.01	0.0001	340.86	339.88	3652
NRU1370	F3A50YR1DAY	11.03	13.39	0.0001	342.61	332.15	15859
NRU1390	F3A50YR1DAY	11.84	13.47	0.0001	95.08	72.15	46599
NRU1410	F3A50YR1DAY	12.56	14.69	0.0002	269.27	269.39	7264
NRU1430	F3A50YR1DAY	15.53	16.73	-0.0001	84.70	39.73	114916
NRU1450	F3A50YR1DAY	15.94	16.36	0.0001	56.53	56.11	12582
NRU1470	F3A50YR1DAY	15.97	16.41	0.0001	6.75	6.80	980
NRU1490	F3A50YR1DAY	16.09	16.62	0.0001	13.78	10.77	22673
NRU1510	F3A50YR1DAY	15.12	17.44	0.0001	224.18	222.26	158360
NRU1530	F3A50YR1DAY	15.71	17.45	-0.0001	101.65	108.25	41204
NRU1550	F3A50YR1DAY	15.40	17.44	0.0000	108.19	111.86	27447
NRU1570	F3A50YR1DAY	16.20	17.93	0.0000	56.95	51.33	27358

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1590	F3A50YR1DAY	16.40	17.93	0.0001	12.19	8.43	15106
NRU1610	F3A50YR1DAY	16.56	18.22	0.0000	51.26	44.28	47662
NRU1630	F3A50YR1DAY	16.69	18.23	0.0001	36.98	37.05	1538
NRU1650	F3A50YR1DAY	16.84	18.23	0.0000	44.33	36.98	46169
NRU1670	F3A50YR1DAY	16.89	18.23	0.0000	116.52	35.51	217360
NRU1690	F3A50YR1DAY	16.89	18.11	0.0000	57.21	56.17	25682
NRU1710	F3A50YR1DAY	16.60	18.11	-0.0001	34.91	34.65	1425
NRU1730	F3A50YR1DAY	16.58	18.18	0.0000	106.34	25.87	188715
NRU1750	F3A50YR1DAY	16.58	18.18	0.0002	15.63	16.88	720
NRU1770	F3A50YR1DAY	16.58	18.18	0.0000	40.20	38.37	12229
NRU1790	F3A50YR1DAY	17.21	18.35	0.0000	21.76	19.02	35458
NRU1810	F3A50YR1DAY	16.58	18.18	0.0000	14.88	8.60	35536
NRU1830	F3A50YR1DAY	17.12	18.53	0.0001	39.00	25.11	56514
NRU1850	F3A50YR1DAY	17.07	18.20	0.0000	24.79	24.61	1052
NRU1870	F3A50YR1DAY	17.20	18.34	0.0000	24.96	24.79	907
NRU1890	F3A50YR1DAY	17.38	18.54	0.0000	65.72	24.96	114455
NRU1910	F3A50YR1DAY	17.71	18.54	0.0000	30.77	21.73	40924
NRU1930	F3A50YR1DAY	15.71	17.45	0.0000	63.49	89.09	138322
NRU1950	F3A50YR1DAY	16.43	17.74	0.0000	57.06	57.24	1646
NRU1970	F3A50YR1DAY	16.86	17.91	0.0000	56.88	57.06	1037
NRU1990	F3A50YR1DAY	17.09	18.00	-0.0001	56.70	56.88	5004
NRU2010	F3A50YR1DAY	18.02	18.67	0.0001	12.74	10.88	7327
NRU2030	F3A50YR1DAY	18.39	18.69	0.0001	17.75	16.59	41349
NRU2050	F3A50YR1DA	18.40	18.74	-0.0001	5.00	3.65	453

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NRU2070	F3A50YR1DAY	18.41	18.75	-0.0001	7.82	5.00	19821
NRU2090	F3A50YR1DAY	17.16	18.04	-0.0001	47.74	47.89	9837
NRU2110	F3A50YR1DAY	17.28	18.11	0.0001	45.47	45.63	14384
NRU2130	F3A50YR1DAY	17.49	18.21	-0.0001	44.80	44.96	8873
NRU2150	F3A50YR1DAY	17.69	18.50	0.0001	11.96	6.24	50872
NRU2170	F3A50YR1DAY	17.07	18.38	0.0001	3.88	3.95	770
NRU2190	F3A50YR1DAY	17.08	18.38	0.0000	16.72	3.88	50895
NRU2210	F3A50YR1DAY	17.33	18.22	0.0001	8.53	8.82	540
NRU2230	F3A50YR1DAY	17.33	18.24	0.0000	62.56	20.05	143029
NRU2250	F3A50YR1DAY	17.31	18.23	0.0001	14.37	10.27	37801
NRU2270	F3A50YR1DAY	17.61	18.26	0.0001	31.21	30.72	10508
NRU2290	F3A50YR1DAY	17.67	18.27	-0.0001	28.53	28.68	4355
NRU2310	F3A50YR1DAY	17.68	18.26	0.0001	25.29	26.67	13872
NRU2330	F3A50YR1DAY	17.68	18.28	0.0004	32.32	10.09	8353
NRU2350	F3A50YR1DAY	17.68	18.28	-0.0002	6.03	30.86	654
NRU2370	F3A50YR1DAY	17.37	18.11	0.0001	5.89	6.03	528
NRU2390	F3A50YR1DAY	17.36	18.12	0.0000	15.61	5.89	36738
NRU2410	F3A50YR1DAY	17.72	18.24	0.0001	23.65	23.58	16969
NRU2430	F3A50YR1DAY	17.83	18.24	0.0001	19.00	18.79	12099
NRU2450	F3A50YR1DAY	18.06	18.24	0.0001	8.56	7.40	14425
NRU2470	F3A50YR1DAY	15.72	17.47	0.0000	11.81	12.10	1459
NRU2490	F3A50YR1DAY	15.75	17.53	0.0000	11.53	11.81	1431
NRU2510	F3A50YR1DAY	15.75	17.56	0.0001	10.52	10.86	958

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2530	F3A50YR1DAY	15.76	17.72	0.0001	10.27	10.52	582
NRU2550	F3A50YR1DAY	16.53	17.56	0.0001	215.42	210.30	81618
NRU2570	F3A50YR1DAY	17.71	18.60	0.0001	207.89	202.76	101170
NRU2590	F3A50YR1DAY	18.30	18.65	0.0001	36.01	31.05	9730
NRU2610	F3A50YR1DAY	18.62	19.20	0.0001	99.54	99.17	31004
NRU2630	F3A50YR1DAY	19.41	19.64	0.0001	87.50	87.00	66081
NRU2650	F3A50YR1DAY	19.54	20.08	0.0001	75.95	74.51	90411
NRU2670	F3A50YR1DAY	16.64	17.14	0.0000	42.18	39.98	18942
NRU2690	F3A50YR1DAY	17.09	18.01	0.0000	264.53	118.03	527235
NSH02	F3A50YR1DAY	0.00	21.30	-0.0004	20.20	97.59	19153
NSH03	F3A50YR1DAY	0.00	19.24	-0.0227	5.26	12.94	767
NSH04	F3A50YR1DAY	0.00	17.47	0.0000	51.73	50.41	4607
NSH05	F3A50YR1DAY	0.00	10.72	-0.0001	789.45	791.90	5036
NSH07	F3A50YR1DAY	0.00	8.48	0.0001	66.70	67.81	10295
NSH08	F3A50YR1DAY	0.00	9.83	0.0000	28.35	26.52	1886
NSH09	F3A50YR1DAY	0.00	10.71	0.0000	73.26	73.08	16312
NSH10	F3A50YR1DAY	0.00	19.15	0.0000	32.59	31.78	33203
NSH11	F3A50YR1DAY	0.00	21.14	0.0000	11.50	11.43	6788
NSH12	F3A50YR1DAY	0.00	10.60	0.0000	794.16	797.76	4118
NSH13	F3A50YR1DAY	0.00	10.48	0.0011	809.52	827.59	4600
NSH14	F3A50YR1DAY	0.00	10.35	-0.0012	1020.62	1009.04	1911
NSH15	F3A50YR1DAY	0.00	18.75	0.0000	8.22	8.16	6222
NSH16	F3A50YR1DAY	0.00	10.63	0.0003	47.19	48.55	637
NSH17	F3A50YR1DA	0.00	10.10	-0.0011	1009.70	1009.25	2161

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH18	F3A50YR1DAY	0.00	9.91	0.0013	1038.21	877.21	3005
NSH19	F3A50YR1DAY	0.00	8.85	0.0006	878.48	866.96	5396
NSH20	F3A50YR1DAY	0.00	20.23	0.0000	5.32	5.15	12618
NSH21	F3A50YR1DAY	0.00	11.20	-0.0001	21.02	20.95	10642
NSH22	F3A50YR1DAY	0.00	14.32	0.0001	42.91	42.00	8329
NSH23	F3A50YR1DAY	0.00	18.42	0.0000	18.11	17.89	4883
NSH24	F3A50YR1DAY	0.00	14.32	0.0001	29.04	28.30	8395
NSH25	F3A50YR1DAY	0.00	14.08	-0.0001	25.39	23.44	12275
NSH26	F3A50YR1DAY	0.00	13.89	-0.0001	100.43	91.10	56838
NSH26A	F3A50YR1DAY	0.00	12.83	0.0001	47.19	47.19	2057
NSH27	F3A50YR1DAY	0.00	12.97	0.0000	20.39	14.57	37471
NSH27A	F3A50YR1DAY	0.00	12.89	0.0000	17.97	16.50	921
NSH27AA	F3A50YR1DAY	0.00	12.93	0.0001	11.69	12.06	561
NSH27B	F3A50YR1DAY	0.00	11.58	-0.0001	16.50	17.93	1033
NSH27C	F3A50YR1DAY	0.00	9.33	-0.0002	17.93	16.64	1036
NSH28	F3A50YR1DAY	0.00	9.85	0.0000	33.11	32.28	10175
NSH29	F3A50YR1DAY	0.00	9.55	-0.0001	16.25	13.42	5448
NSH31	F3A50YR1DAY	0.00	9.82	0.0001	8.24	5.44	480
NSH33	F3A50YR1DAY	0.00	16.62	0.0000	3.49	3.41	4999
NSH34	F3A50YR1DAY	0.00	9.42	0.0001	67.61	67.57	5971
NSH35	F3A50YR1DAY	0.00	8.06	0.0001	70.73	70.70	4431
NSH36	F3A50YR1DAY	0.00	8.02	0.0002	22.84	21.90	805
NSH37	F3A50YR1DAY	0.00	10.45	0.0012	833.07	1019.83	2110

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH41	F3A50YR1DAY	0.00	14.70	0.0000	6.51	6.49	466
NSH42	F3A50YR1DAY	0.00	6.59	0.0002	82.64	82.60	447
NSH43	F3A50YR1DAY	0.00	6.77	-0.0005	48.37	48.36	507
NSH44	F3A50YR1DAY	0.00	9.70	0.0001	48.00	48.00	670
NSH45	F3A50YR1DAY	0.00	16.49	0.0000	47.79	46.82	26973
NSH48	F3A50YR1DAY	0.00	18.42	0.0000	22.35	22.19	5312
NSH49	F3A50YR1DAY	0.00	19.73	0.0000	21.80	21.50	473
NSH50	F3A50YR1DAY	0.00	16.82	-0.0011	722.39	722.48	6021
NSH51	F3A50YR1DAY	0.00	18.57	0.0000	47.24	46.33	1461
NSH52	F3A50YR1DAY	0.00	17.09	-0.0012	718.17	718.31	4205
NSH53	F3A50YR1DAY	0.00	17.44	0.0002	60.94	60.36	1030
NSH53B	F3A50YR1DAY	0.00	17.23	-0.0003	37.17	36.03	448
NSH54	F3A50YR1DAY	0.00	17.46	0.0001	36.25	33.93	1255
NSH55	F3A50YR1DAY	0.00	17.74	0.0005	698.56	698.62	5311
NSH55B	F3A50YR1DAY	0.00	17.77	0.0001	14.26	13.05	447
NSH56	F3A50YR1DAY	0.00	18.42	0.0001	8.46	8.61	2145
NSH57	F3A50YR1DAY	0.00	18.89	-0.0001	14.05	13.05	4330
NSH60	F3A50YR1DAY	0.00	19.50	-0.0001	21.59	21.55	436
NSH61	F3A50YR1DAY	0.00	16.88	0.0000	21.55	21.70	451
NSH65	F3A50YR1DAY	0.00	20.84	0.0000	5.12	4.82	470
NSH71	F3A50YR1DAY	9999.00	17.42	0.0000	23.82	23.75	2456
NSH75	F3A50YR1DAY	0.00	7.17	-0.0022	885.50	885.25	4066
NSH76	F3A50YR1DAY	0.00	5.89	-0.0050	861.67	861.65	2030
NSH80	F3A50YR1DA	0.00	16.31	0.0012	738.47	738.71	6657

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSH81	F3A50YR1DAY	0.00	20.80	0.0000	0.60	0.04	2600
NSH82	F3A50YR1DAY	0.00	20.90	0.0000	3.10	2.37	7050
NSH83	F3A50YR1DAY	0.00	16.49	-0.0001	25.56	25.49	1486
NSH85	F3A50YR1DAY	0.00	16.15	-0.0013	741.37	741.32	4681
NSHSelmonDS	F3A50YR1DAY	9999.00	11.87	0.0002	787.95	788.22	6356
NSHSelmonUS	F3A50YR1DAY	9999.00	14.95	0.0003	757.85	757.85	3189
NSR0000	F3A50YR1DAY	2.00	2.00	0.0000	314.80	0.00	0
NSR0005	F3A50YR1DAY	2.00	2.00	0.0000	10.05	0.00	0
NSR0010	F3A50YR1DAY	2.00	2.00	0.0000	521.74	0.00	0
NSR0030	F3A50YR1DAY	2.92	3.72	0.0000	529.24	521.74	221714
NSR0032	F3A50YR1DAY	4.88	5.37	0.0000	18.91	16.28	25235
NSR0034	F3A50YR1DAY	3.63	4.20	0.0000	103.77	89.11	85156
NSR0050	F3A50YR1DAY	3.44	4.38	0.0000	501.46	500.82	118593
NSR0070	F3A50YR1DAY	3.45	4.24	-0.0001	33.72	19.91	66090
NSR0090	F3A50YR1DAY	3.68	4.21	-0.0001	51.59	40.67	46946
NSR0100	F3A50YR1DAY	2.25	3.62	0.0000	10.20	10.05	524
NSR0102	F3A50YR1DAY	4.24	4.57	0.0000	5.58	5.00	3780
NSR0105	F3A50YR1DAY	1.91	3.01	0.0369	314.83	314.80	484
NSR0110	F3A50YR1DAY	3.93	4.62	0.0000	46.33	46.07	30332
NSR0112	F3A50YR1DAY	2.31	3.46	-0.0480	313.86	313.88	469
NSR0115	F3A50YR1DAY	4.25	4.43	0.0000	5.11	4.83	9736
NSR0120	F3A50YR1DAY	2.62	3.81	0.0697	311.60	311.64	479
NSR0130	F3A50YR1DAY	4.16	5.05	0.0000	44.32	44.07	41207

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0135	F3A50YR1DAY	4.22	5.50	0.0000	37.68	37.57	29702
NSR0140	F3A50YR1DAY	3.28	4.58	-0.0161	309.24	309.28	2025
NSR0150	F3A50YR1DAY	3.64	4.80	0.0003	426.46	427.43	29727
NSR0160	F3A50YR1DAY	3.56	4.88	0.0090	298.65	299.01	20304
NSR0165	F3A50YR1DAY	4.03	5.54	0.0000	84.88	84.69	34109
NSR0170	F3A50YR1DAY	3.70	5.19	0.0000	51.21	51.19	16849
NSR0180	F3A50YR1DAY	3.83	5.33	0.0000	89.91	89.71	38782
NSR0190	F3A50YR1DAY	4.04	5.04	0.0011	57.73	58.18	5113
NSR0210	F3A50YR1DAY	4.26	5.75	-0.0007	58.30	57.46	20922
NSR0230	F3A50YR1DAY	4.26	5.75	-0.0001	75.77	57.72	145646
NSR0250	F3A50YR1DAY	3.93	5.00	0.0050	394.18	394.33	12764
NSR0270	F3A50YR1DAY	3.98	5.07	0.0000	164.91	159.95	87084
NSR0280	F3A50YR1DAY	5.41	6.06	0.0005	320.89	320.51	46091
NSR0281	F3A50YR1DAY	5.97	6.75	0.0004	276.28	275.94	21982
NSR0290	F3A50YR1DAY	6.70	7.16	0.0005	169.90	168.57	43948
NSR0310	F3A50YR1DAY	9.28	9.53	-0.0001	147.43	146.07	74370
NSR0330	F3A50YR1DAY	9.65	10.21	0.0001	9.52	9.53	470
NSR0350	F3A50YR1DAY	10.32	11.51	-0.0001	9.51	9.52	446
NSR0370	F3A50YR1DAY	10.35	11.53	0.0000	16.78	9.51	19601
NSR0390	F3A50YR1DAY	11.96	12.37	-0.0001	106.08	105.38	78781
NSR0410	F3A50YR1DAY	12.27	13.10	0.0001	9.45	10.04	510
NSR0430	F3A50YR1DAY	12.28	13.12	0.0000	13.83	9.45	31949
NSR0450	F3A50YR1DAY	13.04	14.14	-0.0001	65.35	65.03	39404
NSR0470	F3A50YR1DA	13.10	14.59	-0.0002	49.31	49.27	16200

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR0490	F3A50YR1DAY	4.41	5.19	0.0051	215.55	211.59	38321
NSR0510	F3A50YR1DAY	4.48	5.40	0.0009	117.24	116.46	24437
NSR0530	F3A50YR1DAY	4.55	5.54	0.0002	38.74	37.66	68809
NSR0540	F3A50YR1DAY	4.55	5.60	0.0003	144.54	141.98	111984
NSR0550	F3A50YR1DAY	4.56	5.61	-0.0018	384.08	383.69	32815
NSR0560	F3A50YR1DAY	4.66	5.66	0.0002	176.16	174.94	114696
NSR0570	F3A50YR1DAY	5.28	5.84	0.0001	234.50	234.12	62738
NSR0580	F3A50YR1DAY	6.13	6.81	-0.0001	33.15	20.08	117975
NSR0590	F3A50YR1DAY	6.15	6.83	-0.0001	130.36	129.15	77076
NSR0610	F3A50YR1DAY	6.26	6.88	-0.0002	146.12	138.10	81127
NSR0630	F3A50YR1DAY	6.26	6.88	-0.0001	16.77	16.83	475
NSR0650	F3A50YR1DAY	6.25	6.85	-0.0001	134.54	100.42	214634
NSR0660	F3A50YR1DAY	6.13	6.80	-0.0001	87.76	85.32	77797
NSR0670	F3A50YR1DAY	6.24	6.84	-0.0001	6.63	7.21	520
NSR0680	F3A50YR1DAY	6.14	6.74	-0.0001	113.60	111.85	167268
NSR0690	F3A50YR1DAY	6.24	6.84	-0.0001	6.30	6.63	599
NSR0710	F3A50YR1DAY	6.23	6.83	0.0000	6.24	6.30	861
NSR0730	F3A50YR1DAY	6.29	6.91	-0.0001	199.67	170.17	201712
NSR0770	F3A50YR1DAY	6.81	7.78	0.0001	186.24	185.07	29590
NSR0780	F3A50YR1DAY	6.74	7.35	-0.0001	75.78	74.76	30049
NSR0790	F3A50YR1DAY	8.35	10.83	0.0002	442.30	429.42	89287
NSR0791	F3A50YR1DAY	7.13	8.74	0.0001	250.43	250.37	5596
NSR0809	F3A50YR1DAY	12.76	11.90	-0.0004	75.92	93.30	2122

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0810	F3A50YR1DAY	13.45	13.72	0.0000	278.53	278.42	60533
NSR0830	F3A50YR1DAY	15.10	15.57	-0.0001	347.21	344.90	164871
NSR0840	F3A50YR1DAY	16.09	16.35	0.0000	68.18	68.06	53527
NSR0850	F3A50YR1DAY	15.64	16.25	-0.0003	278.33	277.39	82331
NSR0860	F3A50YR1DAY	16.41	16.54	0.0000	13.37	13.40	17242
NSR0869	F3A50YR1DAY	16.03	16.64	0.0001	30.19	29.94	1504
NSR0870	F3A50YR1DAY	16.24	16.85	0.0001	231.24	230.98	50619
NSR0880	F3A50YR1DAY	16.24	16.88	0.0001	99.03	98.71	25174
NSR0881	F3A50YR1DAY	14.14	17.93	0.0005	399.76	397.02	195298
NSR0890	F3A50YR1DAY	4.02	5.03	-0.0874	279.19	332.32	113711
NSR0910	F3A50YR1DAY	4.79	5.76	-0.0038	219.51	220.99	88392
NSR0930	F3A50YR1DAY	5.54	7.10	0.0000	271.93	51.27	335560
NSR0950	F3A50YR1DAY	5.63	7.10	-0.0006	397.89	377.73	182624
NSR0970	F3A50YR1DAY	6.14	7.16	-0.0003	141.51	141.42	3616
NSR0990	F3A50YR1DAY	6.27	7.18	-0.0002	258.07	257.22	4498
NSR1010	F3A50YR1DAY	6.30	7.20	0.0000	62.13	59.68	19641
NSR1030	F3A50YR1DAY	8.54	9.42	0.0002	200.18	199.65	10032
NSR1050	F3A50YR1DAY	8.56	9.50	0.0000	136.16	133.49	30847
NSR1070	F3A50YR1DAY	9.58	9.84	-0.0014	284.99	280.79	74570
NSR1090	F3A50YR1DAY	11.30	11.50	0.0002	168.04	168.06	8672
NSR1110	F3A50YR1DAY	11.57	11.60	0.0000	3.98	3.96	3049
NSR1130	F3A50YR1DAY	11.29	11.43	0.0000	42.96	42.92	16199
NSR1150	F3A50YR1DAY	11.39	11.65	0.0000	9.63	8.45	12839
NSR1170	F3A50YR1DA	11.38	11.63	0.0000	3.84	3.14	450

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR1190	F3A50YR1DAY	12.70	13.40	0.0000	167.34	167.34	14292
NSR1210	F3A50YR1DAY	12.70	13.40	0.0000	33.85	6.60	93580
NSR1230	F3A50YR1DAY	14.76	15.53	0.0000	163.98	163.97	9742
NSR1270	F3A50YR1DAY	14.99	15.72	0.0000	164.00	163.98	6276
NSR1290	F3A50YR1DAY	14.99	15.72	0.0000	12.36	2.32	27237
NSR1310	F3A50YR1DAY	14.99	15.72	0.0000	42.09	13.14	167829
NSR1330	F3A50YR1DAY	15.44	16.48	0.0000	162.25	161.50	23681
NSR1350	F3A50YR1DAY	15.45	16.50	0.0000	52.63	29.69	340090
NSR1370	F3A50YR1DAY	15.56	16.57	0.0001	167.44	159.00	21929
NSR1390	F3A50YR1DAY	15.56	16.57	0.0000	5.59	2.94	8158
NSR1410	F3A50YR1DAY	15.56	16.57	0.0001	36.37	32.13	88922
NSR1430	F3A50YR1DAY	15.76	16.67	0.0000	65.95	61.34	59685
NSR1450	F3A50YR1DAY	15.74	16.66	0.0000	99.94	63.25	160579
NSR1470	F3A50YR1DAY	15.96	16.68	0.0000	66.09	60.81	83042
NSR1490	F3A50YR1DAY	16.21	16.71	0.0000	82.05	59.08	229676
NSR1510	F3A50YR1DAY	16.21	16.71	0.0000	48.00	41.61	61090
NSR1530	F3A50YR1DAY	15.56	16.57	0.0000	8.36	3.97	24419
NSR1550	F3A50YR1DAY	15.68	16.65	0.0001	181.43	174.41	34725
NSR1570	F3A50YR1DAY	15.68	16.65	-0.0001	34.36	25.45	20592
NSR1590	F3A50YR1DAY	15.68	16.65	-0.0001	71.80	78.66	55609
NSR1610	F3A50YR1DAY	15.75	16.70	0.0002	31.07	21.29	57747
NSR1630	F3A50YR1DAY	15.75	16.70	0.0000	111.55	106.98	21008
NSR1650	F3A50YR1DAY	16.39	17.12	0.0000	4.70	4.70	503

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1670	F3A50YR1DAY	15.92	17.30	0.0003	131.02	118.39	89465
NSR1690	F3A50YR1DAY	16.24	17.47	0.0000	93.87	90.38	23665
NSR1710	F3A50YR1DAY	16.25	17.47	0.0000	11.96	10.55	37215
NSR1730	F3A50YR1DAY	16.32	17.51	0.0000	97.47	92.92	20063
NSR1750	F3A50YR1DAY	16.68	17.51	0.0000	4.95	4.95	4151
NSR1770	F3A50YR1DAY	17.23	17.55	0.0000	27.40	14.30	23739
NSR1790	F3A50YR1DAY	17.24	17.55	0.0000	33.67	16.32	41091
NSR1810	F3A50YR1DAY	17.25	17.55	0.0000	11.22	8.62	18499
NSR1830	F3A50YR1DAY	17.25	17.54	0.0000	102.63	99.51	120809
NSR1850	F3A50YR1DAY	16.95	18.24	0.0000	15.71	12.03	14116
NSR1870	F3A50YR1DAY	16.93	18.25	0.0001	100.26	36.38	179361
NSR1890	F3A50YR1DAY	16.05	18.25	0.0001	13.38	13.87	1056
NSR1910	F3A50YR1DAY	15.45	18.25	0.0005	166.78	158.90	171251
NSR1930	F3A50YR1DAY	16.53	17.59	0.0002	71.06	69.48	12956
NSR1950	F3A50YR1DAY	16.70	17.55	0.0000	27.04	27.16	15430
NSR1970	F3A50YR1DAY	16.84	18.00	0.0000	46.43	30.35	101489
NSR1990	F3A50YR1DAY	16.86	17.83	0.0000	9.16	8.89	949
NSR2010	F3A50YR1DAY	16.91	17.68	-0.0001	23.95	12.06	57260
NSR2030	F3A50YR1DAY	16.90	17.52	-0.0001	12.06	12.08	751
NSR2050	F3A50YR1DAY	16.88	17.28	0.0000	24.45	21.96	32865
NSR2070	F3A50YR1DAY	16.81	17.28	-0.0001	6.60	6.51	781
NSR2090	F3A50YR1DAY	16.72	17.27	0.0000	6.51	6.43	673
NSR2110	F3A50YR1DAY	16.54	17.26	0.0000	25.56	23.13	39808
NSR2130	F3A50YR1DA	16.50	16.61	0.0000	24.39	21.57	89433

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
NSR2150	F3A50YR1DAY	17.60	18.08	0.0000	96.70	61.88	276328
NSR2170	F3A50YR1DAY	17.62	18.09	0.0009	29.15	29.28	2087
NSR2190	F3A50YR1DAY	17.62	18.09	-0.0025	29.02	29.15	967
NSR2210	F3A50YR1DAY	17.62	18.10	0.0000	97.92	71.23	237874
NSR2230	F3A50YR1DAY	17.62	18.10	0.0006	19.68	19.31	675
NSR2250	F3A50YR1DAY	17.63	18.10	0.0001	25.61	20.37	15042
NSR2270	F3A50YR1DAY	17.63	18.10	0.0001	32.76	22.30	43316
NSR2290	F3A50YR1DAY	17.63	18.10	0.0002	18.71	18.47	888
NSR2310	F3A50YR1DAY	17.63	18.10	0.0000	25.35	19.33	34885
NSR2330	F3A50YR1DAY	17.65	18.33	0.0000	28.44	11.80	55217
NSR2350	F3A50YR1DAY	17.65	18.33	0.0000	35.91	15.04	99984
NSR2370	F3A50YR1DAY	16.66	17.92	0.0000	56.76	51.51	9676
NSR2390	F3A50YR1DAY	18.07	18.14	0.0000	19.52	14.33	71658
NSR2410	F3A50YR1DAY	16.66	17.92	0.0000	63.00	42.81	22485
NSR2430	F3A50YR1DAY	17.99	18.02	0.0000	4.32	4.30	3774
NSR2450	F3A50YR1DAY	18.06	18.27	0.0000	58.02	56.13	30169
NSR3000	F3A50YR1DAY	17.04	18.25	-0.0727	17.51	49.45	55689
NSR3005	F3A50YR1DAY	17.02	18.25	0.1453	49.45	4.09	566
NSR3020	F3A50YR1DAY	17.61	18.04	-0.0001	166.82	166.31	109391
NSR3040	F3A50YR1DAY	16.25	16.89	0.0000	197.80	194.75	129111
NSR3060	F3A50YR1DAY	16.21	16.71	0.0000	50.29	49.14	67339
NSW0010	F3A50YR1DAY	2.00	2.00	0.0000	32.65	0.00	0
NSW0030	F3A50YR1DAY	2.13	3.39	0.0003	32.65	32.65	587

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSW0050	F3A50YR1DAY	4.04	6.26	-0.0003	51.05	32.65	42930
Outfall	F3A50YR1DAY	2.00	2.00	0.0000	125.15	0.00	0
Outfall_NE	F3A50YR1DAY	21.00	21.03	0.0004	8.78	0.00	0
PondA	F3A50YR1DAY	0.00	19.05	0.0294	34.53	23.82	28987
PondB	F3A50YR1DAY	0.00	17.42	0.0000	191.20	128.60	174626
SH_OUTFALL	F3A50YR1DAY	2.00	2.00	0.0000	1153.26	3.37	0
STORAGE1	F3A50YR1DAY	0.00	20.76	0.0000	6.97	1.34	7405
STORAGE10	F3A50YR1DAY	0.00	20.83	0.0000	4.82	0.34	9148
STORAGE11	F3A50YR1DAY	0.00	21.30	0.0003	97.59	0.01	18648
STORAGE12	F3A50YR1DAY	0.00	21.60	0.0005	107.00	5.91	10262
STORAGE13	F3A50YR1DAY	0.00	18.76	0.0000	1.44	1.25	5323
STORAGE14	F3A50YR1DAY	0.00	23.03	0.0000	7.18	0.03	13395
STORAGE2	F3A50YR1DAY	0.00	19.13	0.0001	22.17	7.28	18426
STORAGE4	F3A50YR1DAY	0.00	19.42	0.0003	89.84	3.29	12088
STORAGE5	F3A50YR1DAY	0.00	21.47	0.0000	14.26	6.47	20042
STORAGE8	F3A50YR1DAY	0.00	18.56	0.0000	3.11	2.33	6098
STORAGE9	F3A50YR1DAY	0.00	19.50	0.0008	8.99	1.76	11761
Sevilla1	F3A50YR1DAY	1.20	2.48	0.0000	0.28	0.10	804
Sevilla2	F3A50YR1DAY	1.23	2.29	0.0000	0.13	0.06	610
Sevilla3	F3A50YR1DAY	1.20	2.48	0.0000	0.73	0.28	1339
Sevilla4	F3A50YR1DAY	1.20	2.48	0.0000	1.21	0.73	1450
Shamrock2	F3A50YR1DAY	1.11	2.29	0.0001	125.15	125.15	5389
Shmrck1.1	F3A50YR1DAY	1.38	2.78	-0.0003	126.16	125.34	6206
Shmrck1.2	F3A50YR1DA	1.20	2.48	-0.0002	125.34	125.21	3971

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	Y						
THEA_JUNCT 1	F3A50YR1DA Y	0.00	14.73	0.0000	36.29	36.28	667
THEA_JUNCT 2	F3A50YR1DA Y	0.00	13.73	0.0000	36.28	36.28	501
THEA_Watrou s	F3A50YR1DA Y	0.00	16.66	0.0002	36.32	36.29	812
V3	F3A50YR1DA Y	6.53	6.60	0.0000	1.04	0.89	36741
BC_N02	F3A5YR1DAY	0.00	18.00	0.0000	0.00	0.00	0
Church1	F3A5YR1DAY	8.77	8.73	0.0000	0.05	0.01	497
Church2	F3A5YR1DAY	8.77	8.74	0.0000	4.57	3.87	4390
Clark1	F3A5YR1DAY	7.21	7.33	0.0000	0.62	0.28	742
Clark2	F3A5YR1DAY	7.21	7.33	0.0000	47.03	47.01	4366
DM1	F3A5YR1DAY	11.42	11.59	0.0000	4.46	4.58	1384
DM2	F3A5YR1DAY	10.30	10.36	0.0000	4.58	4.36	2114
DM3	F3A5YR1DAY	9.16	9.27	0.0000	4.36	4.57	2979
E_Outlet	F3A5YR1DAY	0.00	16.19	0.0005	67.24	33.40	0
E_Outlet2	F3A5YR1DAY	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A5YR1DAY	1.99	2.39	0.0000	0.34	0.27	763
ElP_con.1	F3A5YR1DAY	2.18	2.49	-0.0001	46.86	46.85	4221
ElPrad.1	F3A5YR1DAY	1.99	2.39	0.0000	0.16	0.10	630
G1	F3A5YR1DAY	14.98	15.22	-0.0005	63.84	48.83	35845
G10	F3A5YR1DAY	8.77	8.72	0.0000	47.05	47.03	4573
G2	F3A5YR1DAY	14.99	15.22	-0.0002	15.24	14.16	32915
G3	F3A5YR1DAY	14.86	15.16	-0.0005	62.98	53.32	27825
G4	F3A5YR1DAY	12.82	13.77	-0.0001	53.32	53.31	2076
G5	F3A5YR1DAY	11.69	12.10	0.0001	53.31	53.31	1864
G6	F3A5YR1DAY	11.00	9.24	0.0000	8.10	0.00	0
G7	F3A5YR1DAY	11.00	11.03	0.0000	53.31	53.29	3601
G8	F3A5YR1DAY	10.07	10.16	0.0000	45.19	45.18	2143
G9	F3A5YR1DAY	9.41	9.58	0.0001	45.18	45.18	1353
H1	F3A5YR1DAY	1.99	2.39	0.0000	0.12	0.11	514
H2.1	F3A5YR1DAY	1.99	2.39	0.0001	46.85	46.85	6105
Hubert	F3A5YR1DAY	3.16	3.22	0.0000	47.00	46.95	5965
JUNCT1	F3A5YR1DAY	0.00	13.74	0.0000	0.40	0.34	1016
JUNCT10	F3A5YR1DAY	0.00	21.97	0.0000	40.47	40.34	10021
JUNCT2	F3A5YR1DAY	0.00	13.79	0.0000	3.39	3.35	1393
JUNCT3	F3A5YR1DAY	0.00	19.64	0.0000	0.00	0.00	436
JUNCT4	F3A5YR1DAY	0.00	13.59	0.0000	1.83	1.79	4202
JUNCT6	F3A5YR1DAY	0.00	15.17	0.0000	16.74	16.70	2867
JUNCT7	F3A5YR1DAY	0.00	19.33	0.0000	59.94	59.97	8386
JUNCT7B	F3A5YR1DAY	0.00	18.87	0.0000	60.23	60.01	24060
JUNCT8	F3A5YR1DAY	0.00	19.35	0.0000	102.10	102.15	11632
JUNCT8B	F3A5YR1DAY	0.00	18.87	0.0000	100.44	100.09	38667
JUNCT9	F3A5YR1DAY	0.00	29.44	0.0000	34.75	34.75	9169
L1	F3A5YR1DAY	11.53	11.53	0.0000	0.00	0.00	436

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
L2	F3A5YR1DAY	11.63	11.63	0.0000	0.00	0.00	436
L3	F3A5YR1DAY	10.43	10.43	0.0000	0.00	0.00	436
L4	F3A5YR1DAY	8.43	8.43	0.0000	0.00	0.00	436
L5	F3A5YR1DAY	7.63	7.63	0.0000	0.00	0.00	436
L6	F3A5YR1DAY	6.93	6.93	0.0000	0.00	0.00	436
Lois	F3A5YR1DAY	4.82	4.73	0.0000	47.00	47.00	6808
M1	F3A5YR1DAY	2.58	2.74	0.0000	0.18	0.04	718
M1.1	F3A5YR1DAY	6.33	6.33	0.0000	0.00	0.00	436
M1.2	F3A5YR1DAY	7.03	7.03	0.0000	0.00	0.00	436
M1.3	F3A5YR1DAY	7.13	7.13	0.0000	0.00	0.00	436
M2	F3A5YR1DAY	2.58	2.75	0.0000	0.52	0.23	1056
M3	F3A5YR1DAY	2.58	2.75	0.0000	0.71	0.54	1177
M4	F3A5YR1DAY	2.58	2.75	0.0000	1.08	0.89	908
M5.1	F3A5YR1DAY	2.57	2.75	0.0000	46.95	46.90	6162
M6	F3A5YR1DAY	2.58	2.75	0.0000	0.34	0.22	558
N01	F3A5YR1DAY	0.00	19.25	0.0000	19.84	13.82	19652
N01A	F3A5YR1DAY	0.00	18.80	-0.0001	9.25	9.08	456
N02	F3A5YR1DAY	0.00	14.40	0.0001	16.59	16.57	691
N03	F3A5YR1DAY	0.00	16.36	0.0000	0.86	0.84	586
N04	F3A5YR1DAY	0.00	17.62	0.0000	4.79	4.78	564
N05	F3A5YR1DAY	0.00	14.38	0.0000	55.92	54.94	4411
N06	F3A5YR1DAY	0.00	13.60	0.0002	60.31	61.04	3292
N07A	F3A5YR1DAY	0.00	12.40	-0.0002	68.07	68.40	4248
N08A	F3A5YR1DAY	0.00	11.28	0.0002	92.17	92.31	1954
N09	F3A5YR1DAY	0.00	10.01	0.0000	7.78	7.97	467
N09A	F3A5YR1DAY	0.00	9.93	-0.0001	98.23	98.30	1361
N10	F3A5YR1DAY	2.00	2.00	0.0000	183.65	0.00	0
N11	F3A5YR1DAY	0.00	16.33	-0.0006	55.70	67.24	99248
NBB0010	F3A5YR1DAY	2.00	2.00	0.0000	119.38	0.00	0
NBB0030	F3A5YR1DAY	5.03	6.19	-0.0003	119.38	119.38	557
NBB0050	F3A5YR1DAY	9.15	10.39	-0.0001	131.51	119.38	20713
NBB0070	F3A5YR1DAY	11.30	12.41	0.0001	109.43	108.78	2549
NBB0090	F3A5YR1DAY	12.67	13.49	0.0001	93.27	93.92	1994
NBB0110	F3A5YR1DAY	13.46	14.20	0.0001	90.93	91.29	1981
NBB0130	F3A5YR1DAY	15.26	16.04	-0.0002	32.65	26.78	27495
NBB0150	F3A5YR1DAY	14.01	14.68	0.0001	70.34	70.57	1936
NBB0170	F3A5YR1DAY	14.74	15.31	0.0001	70.11	70.34	1452
NBB0190	F3A5YR1DAY	15.42	15.89	0.0001	69.88	70.11	5800
NBB0210	F3A5YR1DAY	15.70	16.15	0.0001	67.51	67.73	1556
NBB0230	F3A5YR1DAY	16.02	16.45	0.0001	67.30	67.51	1635
NBB0250	F3A5YR1DAY	16.31	16.70	0.0001	66.48	66.67	2036
NBB0270	F3A5YR1DAY	17.05	17.15	0.0001	66.17	66.48	5933
NBB0290	F3A5YR1DAY	17.06	17.16	0.0002	57.04	54.02	1258
NBB0310	F3A5YR1DAY	17.07	17.16	-0.0002	145.55	98.35	275510
NBB0330	F3A5YR1DAY	16.57	16.63	0.0002	34.83	34.48	7804
NBB0350	F3A5YR1DAY	16.45	16.54	0.0002	25.12	26.34	1396
NBB0370	F3A5YR1DAY	16.33	16.45	0.0002	56.39	48.02	45615

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBB0390	F3A5YR1DAY	16.32	16.45	0.0002	19.89	20.90	1838
NBB0410	F3A5YR1DAY	16.30	16.43	-0.0002	53.83	49.83	33345
NBB0430	F3A5YR1DAY	15.45	15.50	-0.0002	67.94	73.55	67343
NBW0010	F3A5YR1DAY	2.00	2.00	0.0000	583.71	0.00	0
NBW0030	F3A5YR1DAY	3.39	3.49	0.0000	583.79	583.71	39746
NBW0050	F3A5YR1DAY	3.92	3.88	0.0000	8.12	5.75	5127
NBW0070	F3A5YR1DAY	3.57	3.69	0.0000	183.35	183.86	27928
NBW0090	F3A5YR1DAY	3.66	3.71	0.0000	5.59	4.31	7430
NBW0130	F3A5YR1DAY	3.73	3.86	0.0000	180.64	180.89	14253
NBW0150	F3A5YR1DAY	3.93	3.91	0.0001	9.25	8.88	442
NBW0170	F3A5YR1DAY	3.98	3.92	0.0001	4.22	3.82	3569
NBW0190	F3A5YR1DAY	3.89	4.01	0.0001	178.15	178.32	5848
NBW0210	F3A5YR1DAY	6.25	6.28	0.0000	7.32	7.17	5421
NBW0230	F3A5YR1DAY	4.01	4.14	0.0001	176.94	177.02	2949
NBW0250	F3A5YR1DAY	4.88	5.03	0.0000	175.82	175.85	5420
NBW0270	F3A5YR1DAY	5.49	5.42	0.0001	32.26	28.82	15998
NBW0290	F3A5YR1DAY	5.91	5.87	0.0000	25.19	24.67	12578
NBW0310	F3A5YR1DAY	6.38	6.26	0.0000	8.49	8.44	743
NBW0330	F3A5YR1DAY	5.50	5.71	0.0000	168.92	169.11	21547
NBW0350	F3A5YR1DAY	4.97	4.95	0.0000	6.85	6.84	2493
NBW0370	F3A5YR1DAY	5.52	5.72	-0.0001	9.65	8.77	2134
NBW0390	F3A5YR1DAY	5.52	5.72	-0.0001	8.41	7.75	11132
NBW0410	F3A5YR1DAY	5.54	5.76	-0.0002	163.67	163.92	3446
NBW0430	F3A5YR1DAY	5.89	6.10	-0.0001	4.86	3.92	2134
NBW0450	F3A5YR1DAY	5.89	6.09	0.0001	164.41	163.67	10790
NBW0470	F3A5YR1DAY	5.89	6.10	-0.0001	3.54	2.62	1270
NBW0490	F3A5YR1DAY	5.92	6.13	-0.0002	162.38	162.73	2741
NBW0510	F3A5YR1DAY	6.72	6.60	0.0000	2.68	2.67	1662
NBW0530	F3A5YR1DAY	6.22	6.46	0.0000	162.09	161.98	4802
NBW0550	F3A5YR1DAY	6.72	6.97	0.0000	106.30	91.16	130862
NBW0570	F3A5YR1DAY	7.09	7.13	0.0000	113.14	112.72	7068
NBW0590	F3A5YR1DAY	10.03	9.95	-0.0003	142.61	141.42	79390
NBW0610	F3A5YR1DAY	6.45	6.67	-0.0001	144.24	144.22	7329
NBW0630	F3A5YR1DAY	6.22	6.46	0.0000	3.47	1.88	11158
NBW0650	F3A5YR1DAY	6.66	6.91	0.0000	145.22	144.20	20460
NBW0670	F3A5YR1DAY	6.66	6.91	0.0000	4.85	2.58	14710
NBW0690	F3A5YR1DAY	6.71	6.96	-0.0001	104.69	105.89	8968
NBW0710	F3A5YR1DAY	6.71	6.96	0.0000	12.02	9.72	20362
NBW0730	F3A5YR1DAY	6.72	6.96	-0.0001	104.40	101.03	132050
NBW0750	F3A5YR1DAY	7.06	7.18	0.0001	96.87	93.63	79937
NBW0770	F3A5YR1DAY	7.06	7.18	-0.0002	20.03	15.37	11867
NBW0790	F3A5YR1DAY	8.11	7.80	0.0000	17.05	16.75	874
NBW0810	F3A5YR1DAY	7.06	7.18	-0.0001	44.69	33.39	22643
NBW0830	F3A5YR1DAY	8.41	7.84	-0.0001	27.34	26.98	1328
NBW0850	F3A5YR1DAY	10.17	8.53	0.0001	25.20	24.81	756
NBW0870	F3A5YR1DAY	7.06	7.20	0.0001	45.38	44.50	85278
NBW0890	F3A5YR1DAY	7.06	7.18	0.0004	16.76	17.37	1027

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0910	F3A5YR1DAY	7.06	7.18	-0.0001	68.64	68.80	89981
NBW0930	F3A5YR1DAY	8.03	7.45	-0.0001	36.98	36.62	1301
NBW0950	F3A5YR1DAY	8.82	7.82	-0.0001	39.86	36.98	23103
NBW0970	F3A5YR1DAY	8.82	7.83	0.0001	31.32	31.26	9326
NBW0990	F3A5YR1DAY	8.82	7.91	-0.0002	21.85	21.95	785
NBW1010	F3A5YR1DAY	8.83	8.45	0.0000	30.93	30.93	1189
NBW1030	F3A5YR1DAY	9.19	9.88	-0.0001	48.75	30.55	41632
NBW1050	F3A5YR1DAY	9.30	9.90	-0.0001	19.00	18.67	900
NBW1070	F3A5YR1DAY	9.34	9.91	-0.0001	85.24	74.79	58876
NBW1090	F3A5YR1DAY	3.78	3.88	0.0000	393.33	391.56	12131
NBW1130	F3A5YR1DAY	4.51	4.55	0.0000	18.02	12.84	15238
NBW1150	F3A5YR1DAY	4.53	4.56	0.0000	14.71	11.98	39590
NBW1169	F3A5YR1DAY	4.09	4.16	0.0000	380.67	379.16	16331
NBW1170	F3A5YR1DAY	4.30	4.39	0.0001	375.98	374.38	5966
NBW1190	F3A5YR1DAY	6.13	6.02	-0.0001	21.29	20.19	49030
NBW1210	F3A5YR1DAY	7.17	7.04	-0.0003	78.04	43.54	88139
NBW1230	F3A5YR1DAY	7.17	7.05	-0.0002	105.39	64.91	142385
NBW1250	F3A5YR1DAY	4.74	4.82	-0.0001	345.20	342.94	7384
NBW1270	F3A5YR1DAY	6.14	6.02	-0.0001	9.05	9.52	13939
NBW1310	F3A5YR1DAY	5.21	5.26	-0.0001	374.12	344.49	8354
NBW1330	F3A5YR1DAY	7.56	8.15	0.0013	305.72	332.17	3136
NBW1350	F3A5YR1DAY	10.95	11.52	0.0002	29.08	27.97	1224
NBW1351	F3A5YR1DAY	8.89	9.66	0.0004	259.15	258.88	8277
NBW1352	F3A5YR1DAY	9.96	10.87	0.0006	250.83	250.50	7956
NBW1353	F3A5YR1DAY	11.01	12.06	0.0005	252.47	243.38	8196
NBW1370	F3A5YR1DAY	10.02	10.43	0.0004	208.05	201.19	6358
NBW1390	F3A5YR1DAY	15.24	15.32	0.0004	231.65	228.97	121930
NBW1410	F3A5YR1DAY	15.58	15.60	0.0003	190.82	186.52	21636
NBW1430	F3A5YR1DAY	15.79	15.76	-0.0002	155.51	163.03	19772
NBW1450	F3A5YR1DAY	16.94	16.91	-0.0005	200.08	199.79	105528
NBW1460	F3A5YR1DAY	16.43	16.42	-0.0002	151.81	152.68	4273
NBW1470	F3A5YR1DAY	17.14	17.17	-0.0002	205.49	200.84	146525
NBW1480	F3A5YR1DAY	18.11	18.14	0.0001	10.10	8.32	15463
NBW1490	F3A5YR1DAY	17.86	17.94	-0.0001	131.54	128.43	56538
NBW1510	F3A5YR1DAY	18.12	18.17	0.0002	120.35	114.01	16753
NBW1530	F3A5YR1DAY	17.92	17.99	0.0001	17.09	12.54	1214
NBW1550	F3A5YR1DAY	17.75	17.82	0.0001	29.97	28.70	12398
NBW1570	F3A5YR1DAY	18.21	18.30	0.0002	119.04	111.07	2604
NBW1590	F3A5YR1DAY	18.12	18.17	0.0001	34.70	31.89	16172
NBW1610	F3A5YR1DAY	18.13	18.18	0.0001	30.17	29.43	6791
NBW1630	F3A5YR1DAY	18.13	18.17	0.0001	15.40	15.29	1757
NBW1650	F3A5YR1DAY	18.81	18.95	0.0001	13.27	11.78	7151
NBW1670	F3A5YR1DAY	18.89	19.01	0.0001	26.28	25.01	7526
NBW1690	F3A5YR1DAY	19.03	19.02	0.0001	16.07	15.33	8044
NBW1710	F3A5YR1DAY	19.26	19.02	0.0001	3.55	1.62	998
NBW1730	F3A5YR1DAY	18.65	18.87	0.0004	143.99	102.98	185871
NBW1750	F3A5YR1DAY	18.82	18.88	0.0001	103.32	102.25	25613

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1770	F3A5YR1DAY	18.82	18.95	0.0001	93.26	83.23	68319
NBW1790	F3A5YR1DAY	18.91	19.00	0.0001	21.41	21.12	2554
NBW1820	F3A5YR1DAY	18.72	18.75	0.0000	45.85	30.26	84902
NBW1830	F3A5YR1DAY	18.74	18.89	0.0001	56.29	57.09	10803
NBW1840	F3A5YR1DAY	18.39	18.43	0.0000	71.30	61.66	83577
NBW1850	F3A5YR1DAY	18.74	18.89	0.0001	73.97	63.98	77599
NBW1860	F3A5YR1DAY	18.39	18.44	-0.0001	10.30	7.07	17107
NBW1870	F3A5YR1DAY	18.72	18.75	-0.0002	27.89	18.68	26762
NBW1890	F3A5YR1DAY	19.06	18.99	0.0001	32.70	33.86	2614
NBW1910	F3A5YR1DAY	19.27	19.06	0.0001	38.01	37.60	2099
NBW1930	F3A5YR1DAY	19.27	19.11	0.0001	33.90	33.23	3846
NBW1950	F3A5YR1DAY	18.97	18.97	0.0001	5.50	2.82	450
NBW1970	F3A5YR1DAY	18.96	18.98	0.0000	8.67	8.57	2710
NBW1990	F3A5YR1DAY	19.27	19.20	0.0001	42.07	39.58	45611
NBW2010	F3A5YR1DAY	19.65	19.39	0.0001	10.37	9.74	4482
NBW2030	F3A5YR1DAY	19.65	19.39	0.0001	9.83	9.10	11686
NBW2050	F3A5YR1DAY	19.26	19.29	0.0001	26.62	22.51	52306
NBW2060	F3A5YR1DAY	0.00	19.52	0.0000	15.26	13.04	26128
NBW2070	F3A5YR1DAY	19.26	19.29	0.0002	68.53	57.98	85507
NBW2090	F3A5YR1DAY	19.10	18.33	0.0002	70.60	61.08	2746
NBW2110	F3A5YR1DAY	18.92	17.11	0.0001	81.94	77.76	3678
NBW2130	F3A5YR1DAY	18.92	16.60	0.0002	82.80	81.19	1731
NBW2140	F3A5YR1DAY	20.00	17.02	0.0000	6.56	5.98	651
NBW2145	F3A5YR1DAY	0.00	18.05	0.0000	12.23	11.71	436
NBW2150	F3A5YR1DAY	19.26	19.55	0.0001	49.29	48.73	14240
NBW2170	F3A5YR1DAY	19.12	19.60	0.0002	12.98	4.14	920
NBW2190	F3A5YR1DAY	19.10	19.62	0.0002	6.90	4.51	4055
NBW2210	F3A5YR1DAY	19.47	19.63	0.0001	42.70	43.17	4865
NBW2230	F3A5YR1DAY	19.47	19.69	-0.0002	32.85	32.00	39966
NBW2250	F3A5YR1DAY	19.51	19.66	0.0001	33.37	33.83	2382
NBW2270	F3A5YR1DAY	19.57	19.69	0.0001	32.55	33.01	6646
NBW2290	F3A5YR1DAY	19.65	19.69	-0.0002	26.61	20.41	74326
NBW2310	F3A5YR1DAY	19.82	19.74	-0.0002	22.96	20.82	83305
NBW2330	F3A5YR1DAY	19.82	19.74	-0.0002	19.48	12.48	44997
NBW2350	F3A5YR1DAY	16.05	16.11	0.0001	62.78	62.34	31100
NBW2370	F3A5YR1DAY	16.11	16.15	-0.0001	13.66	11.45	58742
NBW2380	F3A5YR1DAY	12.29	13.52	0.0004	251.01	246.91	10756
NBW2385	F3A5YR1DAY	18.49	18.49	0.0000	3.26	3.25	6479
NBW2387	F3A5YR1DAY	16.11	15.74	0.0000	0.44	0.42	478
NBW2390	F3A5YR1DAY	16.42	16.73	0.0001	40.00	39.89	2672
NBW2410	F3A5YR1DAY	16.59	17.66	0.0001	38.47	30.16	77269
NBW2430	F3A5YR1DAY	16.23	17.66	0.0001	82.15	79.75	38579
NBW2450	F3A5YR1DAY	16.15	17.60	0.0002	162.71	159.53	4396
NBW2470	F3A5YR1DAY	16.43	17.73	0.0001	120.35	115.59	34395
NBW2490	F3A5YR1DAY	16.90	17.74	-0.0002	78.12	77.71	19324
NBW2510	F3A5YR1DAY	17.74	17.82	0.0001	74.53	73.79	2032
NBW2530	F3A5YR1DAY	17.92	17.99	0.0001	62.78	63.26	2011

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2550	F3A5YR1DAY	17.95	18.00	0.0000	2.51	2.90	450
NBW2570	F3A5YR1DAY	17.96	18.01	0.0000	2.66	2.51	3533
NBW2590	F3A5YR1DAY	18.06	18.11	0.0001	51.16	51.56	1098
NBW2610	F3A5YR1DAY	17.00	17.76	-0.0007	127.17	119.94	48113
NBW2630	F3A5YR1DAY	17.98	18.00	0.0001	120.81	118.83	38723
NBW2650	F3A5YR1DAY	16.97	17.75	-0.0003	28.32	29.20	13007
NBW2670	F3A5YR1DAY	16.42	17.71	0.0001	30.20	31.12	8637
NBW2680	F3A5YR1DAY	17.73	17.81	-0.0001	32.89	32.00	20088
NBW2690	F3A5YR1DAY	15.40	17.07	0.0002	249.12	242.95	39392
NBW2710	F3A5YR1DAY	17.73	17.81	-0.0001	2.48	3.69	533
NBW2730	F3A5YR1DAY	18.29	18.27	0.0000	1.78	0.46	4356
NBW2770	F3A5YR1DAY	18.09	18.11	0.0001	13.27	13.30	1310
NBW2775	F3A5YR1DAY	6.59	6.50	0.0000	9.61	5.35	23699
NBW2780	F3A5YR1DAY	18.38	18.42	-0.0003	45.59	38.73	62644
NBW2790	F3A5YR1DAY	18.38	18.43	0.0000	136.88	137.23	85580
NBW2810	F3A5YR1DAY	18.39	18.43	-0.0001	52.77	52.80	67985
NBW2830	F3A5YR1DAY	18.40	18.44	-0.0001	43.63	34.36	107113
NC01	F3A5YR1DAY	0.00	3.99	0.0000	9.72	9.69	2794
NC01B	F3A5YR1DAY	0.00	5.80	0.0000	11.09	10.95	4300
NC02	F3A5YR1DAY	0.00	7.79	0.0001	104.21	104.22	1890
NC03	F3A5YR1DAY	0.00	4.67	-0.0001	118.78	118.77	1944
NC04	F3A5YR1DAY	0.00	3.30	0.0000	28.38	26.44	21471
NC05	F3A5YR1DAY	0.00	3.29	0.0000	29.09	27.20	35066
NC06	F3A5YR1DAY	0.00	3.23	0.0000	29.44	28.79	15576
NC07	F3A5YR1DAY	0.00	3.21	-0.0001	20.54	20.29	14603
NC08	F3A5YR1DAY	0.00	3.19	0.0000	23.97	23.78	11183
NCL0010	F3A5YR1DAY	2.00	2.00	0.0000	569.48	0.00	0
NCL0030	F3A5YR1DAY	2.36	2.80	0.0001	496.16	496.14	6856
NCL0050	F3A5YR1DAY	2.36	2.80	0.0000	0.46	1.09	439
NCL0070	F3A5YR1DAY	5.20	5.27	0.0000	93.56	92.76	35837
NCL0090	F3A5YR1DAY	6.06	6.02	-0.0001	41.97	29.36	61826
NCL0110	F3A5YR1DAY	3.04	3.38	-0.0005	571.74	571.72	6623
NCL0130	F3A5YR1DAY	4.05	3.48	-0.0003	119.53	119.58	565
NCL0150	F3A5YR1DAY	4.95	4.33	0.0000	119.53	119.53	2802
NCL0170	F3A5YR1DAY	5.08	4.44	-0.0001	62.62	62.93	1380
NCL0190	F3A5YR1DAY	5.08	4.45	0.0000	2.22	1.98	438
NCL0210	F3A5YR1DAY	5.85	4.82	-0.0001	92.10	92.69	1337
NCL0230	F3A5YR1DAY	6.60	6.27	-0.0001	32.68	29.85	13030
NCL0250	F3A5YR1DAY	6.60	6.28	0.0001	3.27	3.39	589
NCL0270	F3A5YR1DAY	6.60	6.29	0.0000	4.01	3.97	1157
NCL0290	F3A5YR1DAY	5.90	4.95	-0.0001	58.90	59.09	924
NCL0310	F3A5YR1DAY	6.10	5.57	0.0011	58.73	58.90	1045
NCL0330	F3A5YR1DAY	5.95	5.56	-0.0001	3.46	5.08	4139
NCL0350	F3A5YR1DAY	6.60	6.28	-0.0003	90.67	75.59	41128
NCL0370	F3A5YR1DAY	7.36	7.34	0.0002	61.95	60.95	13373
NCL0390	F3A5YR1DAY	4.02	4.28	-0.0022	437.72	468.56	4339
NCL0410	F3A5YR1DAY	4.09	4.35	-0.0002	4.99	4.89	819

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0430	F3A5YR1DAY	4.23	4.43	0.0000	5.18	4.99	639
NCL0450	F3A5YR1DAY	4.75	4.94	0.0007	431.44	431.59	3676
NCL0470	F3A5YR1DAY	5.43	5.55	-0.0010	429.01	429.14	3437
NCL0490	F3A5YR1DAY	6.48	6.52	-0.0006	455.04	456.85	28544
NCL0510	F3A5YR1DAY	6.67	6.67	0.0001	31.28	31.03	1146
NCL0530	F3A5YR1DAY	8.10	7.77	0.0004	40.47	19.15	1176
NCL0550	F3A5YR1DAY	8.17	7.82	-0.0001	23.46	40.47	11393
NCL0570	F3A5YR1DAY	8.66	8.00	0.0001	11.85	11.52	841
NCL0590	F3A5YR1DAY	7.00	7.04	0.0007	414.18	414.37	3392
NCL0610	F3A5YR1DAY	7.52	7.59	0.0007	409.68	409.77	3640
NCL0630	F3A5YR1DAY	8.06	8.17	-0.0003	408.20	408.30	4608
NCL0650	F3A5YR1DAY	8.12	8.22	-0.0003	48.40	102.61	1613
NCL0670	F3A5YR1DAY	8.67	8.74	0.0003	130.79	48.40	1694
NCL0690	F3A5YR1DAY	8.76	8.82	0.0002	34.77	35.14	605
NCL0710	F3A5YR1DAY	8.95	8.97	0.0002	34.41	34.26	601
NCL0730	F3A5YR1DAY	9.26	9.24	-0.0001	34.74	34.41	554
NCL0750	F3A5YR1DAY	9.56	9.52	0.0000	74.55	64.87	45552
NCL0770	F3A5YR1DAY	10.12	10.06	0.0000	46.98	46.73	2178
NCL0790	F3A5YR1DAY	8.69	8.76	-0.0003	28.53	101.59	895
NCL0810	F3A5YR1DAY	8.84	8.92	0.0001	28.57	28.53	1378
NCL0830	F3A5YR1DAY	8.93	9.18	-0.0007	360.18	363.23	27459
NCL0850	F3A5YR1DAY	9.01	9.21	0.0001	76.67	72.82	9616
NCL0870	F3A5YR1DAY	9.37	9.33	0.0001	94.12	93.84	2021
NCL0890	F3A5YR1DAY	9.65	9.43	-0.0001	80.39	79.99	1591
NCL0910	F3A5YR1DAY	9.71	9.43	0.0001	5.91	5.40	490
NCL0930	F3A5YR1DAY	9.57	9.63	-0.0001	75.43	74.99	2112
NCL0950	F3A5YR1DAY	9.89	9.90	0.0001	61.00	60.72	3185
NCL0970	F3A5YR1DAY	10.41	10.14	0.0001	37.11	36.69	2268
NCL0990	F3A5YR1DAY	11.00	10.49	0.0000	25.00	24.50	1493
NCL1010	F3A5YR1DAY	11.14	10.57	0.0000	5.57	5.16	638
NCL1030	F3A5YR1DAY	9.67	9.36	-0.0002	21.27	33.52	1468
NCL1050	F3A5YR1DAY	10.46	9.37	0.0001	5.66	5.16	623
NCL1070	F3A5YR1DAY	9.30	10.08	0.0001	3.72	3.79	630
NCL1090	F3A5YR1DAY	9.76	10.23	0.0000	35.84	14.42	18330
NCL1110	F3A5YR1DAY	9.85	9.91	0.0001	16.68	16.81	2095
NCL1130	F3A5YR1DAY	9.76	10.22	0.0001	17.59	16.03	34551
NCL1150	F3A5YR1DAY	9.76	10.23	0.0001	432.22	440.40	187834
NCL1170	F3A5YR1DAY	10.59	11.30	0.0004	383.33	350.54	94102
NCL1190	F3A5YR1DAY	10.72	11.34	0.0001	65.58	65.16	1854
NCL1210	F3A5YR1DAY	10.63	11.32	0.0001	32.11	14.46	50699
NCL1230	F3A5YR1DAY	10.94	11.41	0.0001	66.00	65.58	1432
NCL1250	F3A5YR1DAY	11.11	11.48	0.0001	66.43	66.00	1231
NCL1270	F3A5YR1DAY	11.34	11.59	0.0001	67.78	67.27	1214
NCL1290	F3A5YR1DAY	13.06	12.87	0.0001	37.89	36.79	2307
NCL1310	F3A5YR1DAY	14.77	14.63	0.0001	29.26	26.66	7082
NCL1330	F3A5YR1DAY	10.60	11.30	-0.0002	160.04	164.18	77993
NCL1350	F3A5YR1DAY	10.63	11.32	0.0001	166.79	158.69	55376

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1370	F3A5YR1DAY	10.63	11.32	-0.0002	28.05	27.64	1756
NCL1390	F3A5YR1DAY	10.63	11.32	0.0001	8.94	5.96	1679
NCL1410	F3A5YR1DAY	10.63	11.33	0.0001	4.56	4.30	1494
NCL1430	F3A5YR1DAY	10.70	11.39	0.0004	450.55	388.60	157094
NCL1450	F3A5YR1DAY	10.93	11.97	0.0010	413.69	413.31	3036
NCL1470	F3A5YR1DAY	12.72	13.31	0.0002	332.41	331.95	4424
NCL1490	F3A5YR1DAY	14.45	14.46	0.0000	4.16	4.13	776
NCL1510	F3A5YR1DAY	11.06	12.04	-0.0008	54.72	79.86	863
NCL1530	F3A5YR1DAY	12.54	12.68	0.0002	62.69	62.21	8571
NCL1550	F3A5YR1DAY	13.13	13.15	-0.0001	42.90	41.90	1021
NCL1570	F3A5YR1DAY	13.31	13.25	0.0001	4.21	3.11	504
NCL1590	F3A5YR1DAY	13.70	13.69	0.0000	1.58	1.57	1307
NCL1610	F3A5YR1DAY	13.37	13.29	0.0001	2.48	1.80	469
NCL1630	F3A5YR1DAY	13.57	13.52	-0.0003	58.12	58.10	2663
NCL1650	F3A5YR1DAY	13.68	13.62	0.0002	57.62	57.67	1293
NCL1670	F3A5YR1DAY	14.02	13.95	0.0001	30.51	30.51	1308
NCL1690	F3A5YR1DAY	17.47	17.41	0.0001	40.71	40.71	1397
NCL1710	F3A5YR1DAY	17.89	17.84	0.0001	38.09	38.14	2442
NCL1730	F3A5YR1DAY	18.27	18.28	0.0002	50.94	51.17	6252
NCL1750	F3A5YR1DAY	18.24	18.25	-0.0002	15.69	14.59	513
NCL1770	F3A5YR1DAY	18.07	18.04	0.0001	23.21	23.20	2451
NCL1790	F3A5YR1DAY	15.78	15.17	0.0002	328.90	328.39	5863
NCL1810	F3A5YR1DAY	18.13	18.12	-0.0001	44.28	39.70	20837
NCL1830	F3A5YR1DAY	18.39	16.98	0.0002	305.73	305.24	6250
NCL1850	F3A5YR1DAY	18.50	17.19	-0.0003	78.59	79.05	910
NCL1870	F3A5YR1DAY	19.01	18.21	0.0002	78.16	78.59	1006
NCL1890	F3A5YR1DAY	19.15	18.48	0.0002	77.74	78.16	990
NCL1910	F3A5YR1DAY	19.15	18.48	0.0001	3.76	0.75	534
NCL1930	F3A5YR1DAY	19.91	19.88	0.0000	3.81	3.80	1611
NCL1950	F3A5YR1DAY	19.15	18.47	0.0000	0.44	0.19	501
NCL1970	F3A5YR1DAY	21.67	21.65	0.0000	2.10	2.09	3144
NCL1990	F3A5YR1DAY	19.58	19.32	0.0001	76.89	77.25	881
NCL2010	F3A5YR1DAY	19.74	19.60	0.0001	46.58	45.08	1104
NCL2030	F3A5YR1DAY	19.76	19.61	0.0001	11.40	7.04	23649
NCL2050	F3A5YR1DAY	19.76	19.65	0.0001	42.59	41.82	1411
NCL2070	F3A5YR1DAY	19.76	19.61	0.0001	2.53	2.61	1099
NCL2090	F3A5YR1DAY	19.87	19.86	0.0001	44.59	42.59	1414
NCL2110	F3A5YR1DAY	20.03	19.92	0.0004	23.44	23.09	1494
NCL2130	F3A5YR1DAY	19.87	19.89	0.0001	53.35	57.47	27393
NCL2150	F3A5YR1DAY	20.75	21.06	-0.0004	54.33	50.37	132617
NCL2170	F3A5YR1DAY	19.85	19.87	0.0001	82.82	82.74	18440
NCL2230	F3A5YR1DAY	19.13	18.03	0.0004	234.95	231.44	5806
NCL2250	F3A5YR1DAY	19.55	18.81	0.0002	218.75	218.85	4444
NCL2270	F3A5YR1DAY	20.05	20.18	0.0001	138.03	138.24	10100
NCL2290	F3A5YR1DAY	19.88	19.91	0.0001	9.07	8.93	1301
NCL2310	F3A5YR1DAY	20.45	20.65	0.0001	105.81	105.01	1780
NCL2330	F3A5YR1DAY	20.74	20.97	0.0001	120.62	113.28	77188

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2350	F3A5YR1DAY	20.78	21.00	0.0001	96.44	95.32	4014
NCL2370	F3A5YR1DAY	20.81	21.02	0.0001	92.43	91.27	2298
NCL2390	F3A5YR1DAY	20.84	21.05	0.0000	114.28	100.39	100874
NCL2410	F3A5YR1DAY	21.07	21.12	0.0000	31.19	31.53	1380
NCL2430	F3A5YR1DAY	21.32	21.20	0.0000	31.01	30.51	1472
NCL2450	F3A5YR1DAY	21.25	21.17	0.0001	4.73	4.51	493
NCL2470	F3A5YR1DAY	20.93	21.06	0.0000	18.87	18.22	846
NCL2490	F3A5YR1DAY	21.54	21.24	0.0000	27.94	27.18	1524
NCL2510	F3A5YR1DAY	21.70	21.25	0.0001	83.37	82.48	74499
NCL2530	F3A5YR1DAY	21.70	21.25	0.0001	38.67	36.79	37928
NCL2540	F3A5YR1DAY	0.00	21.95	0.0000	55.88	55.25	38495
NCL2550	F3A5YR1DAY	21.70	21.25	0.0001	41.99	42.43	11588
NCL2570	F3A5YR1DAY	21.51	21.24	0.0001	17.57	17.76	1503
NCL2580	F3A5YR1DAY	0.00	21.23	-0.0002	86.04	84.95	27872
NCL2590	F3A5YR1DAY	21.17	21.23	0.0001	142.90	140.30	113281
NCL2610	F3A5YR1DAY	21.14	21.22	0.0001	98.22	98.06	25614
NCL2630	F3A5YR1DAY	20.86	20.81	0.0001	66.18	65.57	41185
NCL2631	F3A5YR1DAY	0.00	20.52	-0.0001	73.07	61.87	36982
NCL2650	F3A5YR1DAY	21.17	21.37	0.0001	79.04	67.59	96290
NCL2670	F3A5YR1DAY	21.93	22.12	-0.0001	87.88	90.15	52710
NCL2690	F3A5YR1DAY	21.96	22.29	-0.0002	53.89	60.60	47533
NCL2710	F3A5YR1DAY	21.96	22.35	-0.0001	40.26	51.58	61663
NCL2730	F3A5YR1DAY	21.95	22.47	-0.0001	28.50	29.32	6329
NCL2750	F3A5YR1DAY	21.84	22.82	0.0000	71.38	70.75	19927
NCL2770	F3A5YR1DAY	21.71	22.32	0.0000	23.26	23.27	1389
NCL2780	F3A5YR1DAY	0.00	22.10	0.0000	12.55	12.25	21045
NCL2790	F3A5YR1DAY	21.84	22.17	0.0000	109.19	104.27	100725
NCL2810	F3A5YR1DAY	22.11	22.70	0.0000	67.22	66.67	18487
NCL2830	F3A5YR1DAY	23.09	22.73	-0.0001	14.76	14.69	1241
NCL2835	F3A5YR1DAY	0.00	23.73	0.0000	7.84	7.90	1081
NCL2840	F3A5YR1DAY	0.00	23.69	0.0000	67.13	66.88	22170
NCL2845	F3A5YR1DAY	0.00	24.23	-0.0001	36.56	36.37	14160
NCL2850	F3A5YR1DAY	20.82	21.02	0.0000	23.69	24.03	1361
NCL2870	F3A5YR1DAY	20.83	21.02	-0.0001	22.88	23.09	1245
NCL2890	F3A5YR1DAY	20.83	21.02	0.0001	20.27	22.88	18060
NCL2910	F3A5YR1DAY	20.83	21.02	-0.0001	50.69	50.27	41683
NCL2930	F3A5YR1DAY	19.55	18.84	0.0004	137.15	131.59	2980
NCL2950	F3A5YR1DAY	19.53	18.93	0.0002	133.57	125.92	5715
NCL2970	F3A5YR1DAY	20.49	20.46	0.0002	45.52	44.33	9556
NCL2990	F3A5YR1DAY	19.33	18.97	0.0002	100.27	97.10	5899
NCL3010	F3A5YR1DAY	19.35	19.05	0.0002	95.82	77.91	64290
NCL3030	F3A5YR1DAY	19.58	19.09	0.0002	89.05	74.13	10001
NCL3050	F3A5YR1DAY	19.94	19.84	0.0002	62.30	58.29	23451
NCL3070	F3A5YR1DAY	20.14	20.09	0.0000	33.67	32.01	14652
NCL3090	F3A5YR1DAY	19.59	19.09	0.0002	111.20	85.66	42755
NCL3110	F3A5YR1DAY	19.59	19.13	0.0002	56.33	44.98	50385
NCL3130	F3A5YR1DAY	19.59	19.13	0.0002	21.52	18.85	12195

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3150	F3A5YR1DAY	19.54	19.02	0.0002	135.54	134.49	5792
NCL3170	F3A5YR1DAY	19.71	20.08	0.0001	51.06	50.64	18161
NCL3190	F3A5YR1DAY	20.31	20.31	-0.0003	57.00	47.57	100765
NCL3210	F3A5YR1DAY	20.32	20.31	-0.0003	38.63	31.61	47113
NCL3230	F3A5YR1DAY	20.32	20.33	-0.0002	24.94	23.81	15736
NCL3250	F3A5YR1DAY	19.11	17.41	0.0002	196.30	201.09	5874
NCL3250A	F3A5YR1DAY	0.00	18.22	0.0002	134.49	133.81	2677
NCL3270	F3A5YR1DAY	19.11	17.91	0.0000	32.51	32.28	1736
NCL3280	F3A5YR1DAY	0.00	18.08	0.0000	29.46	29.34	999
NCL3290	F3A5YR1DAY	20.16	18.97	0.0000	24.30	24.09	1672
NCL3300	F3A5YR1DAY	0.00	19.04	0.0000	3.74	3.46	752
NCL3310	F3A5YR1DAY	20.19	18.98	0.0000	1.55	2.00	763
NCL3330	F3A5YR1DAY	20.75	19.03	0.0000	3.45	3.35	437
NCL3350	F3A5YR1DAY	20.51	20.41	-0.0001	19.78	15.08	25199
NCL3360	F3A5YR1DAY	0.00	20.41	0.0000	5.47	3.71	12000
NCL3365	F3A5YR1DAY	0.00	20.13	-0.0001	14.05	13.80	17787
NCL3370	F3A5YR1DAY	20.64	20.91	-0.0002	83.09	77.38	85902
NCL3390	F3A5YR1DAY	20.83	21.01	0.0000	78.13	77.67	39965
NCL3410	F3A5YR1DAY	20.83	21.01	0.0000	2.10	2.57	477
NCL3430	F3A5YR1DAY	20.83	21.02	0.0000	4.58	1.41	3989
NCL3450	F3A5YR1DAY	18.92	16.63	0.0001	232.29	230.62	6328
NCL3470	F3A5YR1DAY	19.11	17.04	0.0001	149.46	148.33	4739
NCL3471	F3A5YR1DAY	0.00	16.72	-0.0001	108.31	107.92	5436
NCL3490	F3A5YR1DAY	19.15	17.86	0.0000	95.02	94.74	2752
NCL3510	F3A5YR1DAY	20.64	19.50	0.0000	75.44	72.99	18214
NCL3520	F3A5YR1DAY	0.00	19.36	-0.0001	163.82	163.82	19712
NCL3530	F3A5YR1DAY	20.66	20.52	0.0001	102.83	99.84	57749
NCL3550	F3A5YR1DAY	20.66	20.52	0.0001	4.26	4.96	736
NCL3570	F3A5YR1DAY	20.66	20.52	0.0001	2.50	2.72	630
NCL3590	F3A5YR1DAY	20.66	20.55	0.0000	2.28	1.36	4792
NCL3610	F3A5YR1DAY	20.66	20.52	-0.0001	41.19	41.48	1320
NCL3630	F3A5YR1DAY	20.64	20.51	-0.0001	157.06	152.56	107894
NCL3635	F3A5YR1DAY	0.00	20.52	-0.0001	22.29	24.41	1917
NCL3640	F3A5YR1DAY	0.00	20.52	0.0001	19.64	18.35	27131
NCL3650	F3A5YR1DAY	18.92	17.03	0.0000	4.36	4.01	503
NCL3670	F3A5YR1DAY	18.92	18.01	0.0000	9.01	8.80	436
NCL3690	F3A5YR1DAY	18.92	16.43	0.0001	118.49	114.61	2578
NCL3730	F3A5YR1DAY	18.92	16.17	0.0000	333.42	336.46	96944
NCL3740	F3A5YR1DAY	0.00	16.43	0.0001	229.68	221.69	4692
NCL3750	F3A5YR1DAY	18.93	18.88	-0.0012	183.81	115.62	179271
NCL3770	F3A5YR1DAY	18.93	18.88	-0.0007	66.35	38.68	84200
NCL4000	F3A5YR1DAY	0.00	29.73	0.0000	34.78	34.75	5855
NCL4010	F3A5YR1DAY	0.00	29.43	0.0000	28.09	27.89	13148
NCypEast	F3A5YR1DAY	32.00	29.00	0.0000	7.58	0.00	0
NCypWest	F3A5YR1DAY	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3A5YR1DAY	2.00	2.00	0.0000	414.62	98.32	0
NOC0030	F3A5YR1DAY	1.14	2.25	-0.0310	414.75	414.62	504

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0050	F3A5YR1DAY	1.20	2.40	-0.0366	374.41	374.57	530
NOC0070	F3A5YR1DAY	1.45	2.97	0.0123	364.68	364.43	516
NOC0090	F3A5YR1DAY	2.91	3.19	-0.0067	124.07	124.20	446
NOC0110	F3A5YR1DAY	1.65	3.03	0.0118	228.67	228.94	455
NOC0130	F3A5YR1DAY	3.06	3.57	0.0026	228.65	228.67	528
NOC0150	F3A5YR1DAY	3.08	3.58	0.0000	2.57	2.46	500
NOC0170	F3A5YR1DAY	4.56	4.78	0.0000	12.25	12.24	1311
NOC0190	F3A5YR1DAY	5.09	4.41	0.0011	226.29	226.20	1077
NOC0210	F3A5YR1DAY	5.68	5.38	0.0001	24.23	23.75	781
NOC0230	F3A5YR1DAY	5.12	4.45	0.0001	7.21	7.19	742
NOC0250	F3A5YR1DAY	5.30	4.73	0.0000	7.41	7.21	984
NOC0270	F3A5YR1DAY	5.57	5.14	0.0000	4.40	3.95	676
NOC0290	F3A5YR1DAY	5.11	4.51	-0.0002	251.85	251.95	1836
NOC0310	F3A5YR1DAY	5.27	4.68	-0.0002	48.92	48.85	450
NOC0330	F3A5YR1DAY	5.85	4.82	0.0001	209.06	209.40	9997
NOC0350	F3A5YR1DAY	5.89	4.96	0.0001	144.75	144.96	1837
NOC0370	F3A5YR1DAY	6.47	6.22	0.0001	92.13	93.05	7480
NOC0390	F3A5YR1DAY	6.60	6.29	-0.0001	54.19	52.19	8055
NOC0410	F3A5YR1DAY	6.95	6.62	0.0000	47.76	42.63	14099
NOC0430	F3A5YR1DAY	7.01	6.77	0.0000	30.76	28.45	9047
NOC0450	F3A5YR1DAY	7.62	7.02	0.0000	20.58	20.51	2412
NOC0470	F3A5YR1DAY	8.12	7.60	0.0001	12.54	13.07	6798
NOC0490	F3A5YR1DAY	7.67	7.03	0.0000	5.20	4.91	1051
NRU0010	F3A5YR1DAY	2.00	2.00	0.0000	541.11	0.00	0
NRU0030	F3A5YR1DAY	2.84	2.92	0.0002	274.24	274.22	2468
NRU0050	F3A5YR1DAY	4.36	4.54	-0.0001	274.23	274.24	2036
NRU0070	F3A5YR1DAY	5.61	5.45	0.0006	275.55	274.23	10415
NRU0090	F3A5YR1DAY	5.66	5.55	-0.0001	56.30	51.77	10575
NRU0110	F3A5YR1DAY	6.23	5.95	-0.0002	216.00	214.66	8290
NRU0130	F3A5YR1DAY	7.66	6.83	-0.0031	196.04	195.53	2616
NRU0150	F3A5YR1DAY	7.71	6.86	0.0161	186.73	187.21	1531
NRU0160	F3A5YR1DAY	0.00	13.17	0.0001	151.80	151.79	4959
NRU0165	F3A5YR1DAY	0.00	13.27	0.0000	3.77	3.72	474
NRU0170	F3A5YR1DAY	14.45	14.86	0.0001	156.62	149.34	13687
NRU0172	F3A5YR1DAY	0.00	14.92	0.0000	7.98	7.99	831
NRU0174	F3A5YR1DAY	0.00	15.07	0.0000	7.89	7.98	856
NRU0176	F3A5YR1DAY	0.00	15.50	0.0000	7.83	7.89	761
NRU0178	F3A5YR1DAY	0.00	15.98	0.0000	8.59	7.83	957
NRU0180	F3A5YR1DAY	0.00	16.17	-0.0001	33.03	20.50	77118
NRU0190	F3A5YR1DAY	14.45	15.05	-0.0001	19.19	21.74	516
NRU0210	F3A5YR1DAY	14.45	15.16	-0.0001	17.12	15.87	602
NRU0230	F3A5YR1DAY	13.39	15.07	-0.0001	16.09	14.28	19000
NRU0250	F3A5YR1DAY	14.62	14.88	0.0001	123.71	122.16	6210
NRU0270	F3A5YR1DAY	15.05	15.58	0.0002	109.37	109.33	2611
NRU0290	F3A5YR1DAY	16.30	17.40	-0.0001	21.16	19.78	6227
NRU0310	F3A5YR1DAY	16.13	16.24	0.0001	82.01	83.07	2502
NRU0330	F3A5YR1DAY	18.25	17.51	0.0001	28.59	29.59	1352

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0335	F3A5YR1DAY	0.00	19.08	0.0000	6.66	5.38	6633
NRU0340	F3A5YR1DAY	0.00	18.36	0.0001	32.71	31.75	16394
NRU0343	F3A5YR1DAY	0.00	19.14	-0.0001	12.24	11.35	918
NRU0345	F3A5YR1DAY	0.00	19.41	-0.0001	25.82	20.54	55205
NRU0350	F3A5YR1DAY	19.50	18.40	0.0001	9.75	9.27	977
NRU0370	F3A5YR1DAY	19.51	18.39	0.0001	11.47	9.65	3009
NRU0380	F3A5YR1DAY	23.33	18.33	0.0001	5.46	5.39	470
NRU0390	F3A5YR1DAY	27.00	18.22	-0.0002	16.03	13.95	9923
NRU0410	F3A5YR1DAY	19.56	18.40	0.0001	9.05	6.83	1095
NRU0425	F3A5YR1DAY	15.53	15.81	0.0001	5.74	5.19	4975
NRU0430	F3A5YR1DAY	19.61	18.41	0.0001	6.83	4.67	1070
NRU0450	F3A5YR1DAY	19.66	18.42	0.0001	4.67	3.18	1043
NRU0470	F3A5YR1DAY	19.72	18.48	0.0001	2.58	2.18	783
NRU0490	F3A5YR1DAY	20.36	18.50	-0.0001	2.41	1.67	532
NRU0495	F3A5YR1DAY	0.00	13.11	0.0001	623.26	623.21	2716
NRU0500	F3A5YR1DAY	0.00	13.35	0.0001	622.40	621.10	5646
NRU0510	F3A5YR1DAY	19.67	19.17	0.0001	16.61	15.18	1493
NRU0530	F3A5YR1DAY	16.95	16.93	0.0001	50.66	51.67	2251
NRU0550	F3A5YR1DAY	17.92	17.66	-0.0001	63.79	50.66	35668
NRU0570	F3A5YR1DAY	18.16	17.76	-0.0001	37.58	37.22	1524
NRU0590	F3A5YR1DAY	18.51	17.87	0.0001	33.77	34.24	1745
NRU0610	F3A5YR1DAY	18.78	17.94	0.0001	32.24	32.97	2520
NRU0612	F3A5YR1DAY	0.00	17.93	0.0001	32.82	29.99	1555
NRU0615	F3A5YR1DAY	0.00	18.63	0.0001	11.29	9.33	2192
NRU0616	F3A5YR1DAY	0.00	18.64	0.0000	3.18	3.24	1522
NRU0618	F3A5YR1DAY	0.00	18.45	0.0000	9.37	9.27	917
NRU0620	F3A5YR1DAY	0.00	19.74	-0.0001	13.86	10.92	16301
NRU0630	F3A5YR1DAY	18.79	17.81	0.0001	39.91	37.28	2175
NRU0650	F3A5YR1DAY	18.79	17.72	0.0001	53.76	51.76	1810
NRU0670	F3A5YR1DAY	18.78	17.63	0.0001	51.76	50.76	1429
NRU0690	F3A5YR1DAY	18.84	17.49	0.0001	62.50	61.43	1934
NRU0710	F3A5YR1DAY	18.86	17.31	0.0001	95.87	94.71	2312
NRU0730	F3A5YR1DAY	18.85	18.35	-0.0002	23.15	20.53	19418
NRU0740	F3A5YR1DAY	0.00	16.82	0.0001	101.62	100.26	2801
NRU0745	F3A5YR1DAY	0.00	16.31	0.0001	105.47	104.04	3771
NRU0747	F3A5YR1DAY	18.87	15.90	0.0001	104.04	102.46	1657
NRU0750	F3A5YR1DAY	18.87	15.65	0.0001	126.51	125.23	2224
NRU0770	F3A5YR1DAY	18.88	15.63	0.0001	27.34	26.71	1019
NRU0785	F3A5YR1DAY	0.00	15.61	0.0001	32.67	31.71	845
NRU0790	F3A5YR1DAY	18.88	15.60	0.0003	513.13	513.51	8788
NRU0810	F3A5YR1DAY	18.88	15.60	0.0001	4.30	1.15	750
NRU0820	F3A5YR1DAY	0.00	15.74	0.0000	0.00	0.00	436
NRU0830	F3A5YR1DAY	18.99	15.96	-0.0004	505.35	505.69	4681
NRU0840	F3A5YR1DAY	9999.00	16.13	-0.0001	451.64	451.95	2258
NRU0850	F3A5YR1DAY	19.11	16.52	0.0002	153.35	152.89	2553
NRU0870	F3A5YR1DAY	19.32	16.68	0.0000	18.72	19.10	560
NRU0890	F3A5YR1DAY	19.35	16.77	0.0000	25.40	20.74	56120

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0910	F3A5YR1DAY	19.35	17.12	0.0000	1.38	1.36	581
NRU0930	F3A5YR1DAY	19.35	19.50	0.0000	1.51	1.38	1742
NRU0950	F3A5YR1DAY	19.11	16.80	-0.0001	139.65	139.25	1381
NRU0955	F3A5YR1DAY	0.00	16.91	-0.0001	129.59	129.28	2070
NRU0960	F3A5YR1DAY	0.00	17.10	0.0001	127.21	126.90	3512
NRU0965	F3A5YR1DAY	0.00	17.22	-0.0002	126.31	126.00	13750
NRU0970	F3A5YR1DAY	19.34	16.88	0.0000	11.81	13.02	1456
NRU0980	F3A5YR1DAY	0.00	16.88	0.0000	8.78	8.40	1097
NRU0990	F3A5YR1DAY	19.39	16.92	0.0001	27.00	26.84	440
NRU1010	F3A5YR1DAY	19.70	17.08	0.0001	27.18	27.00	463
NRU1015	F3A5YR1DAY	0.00	18.16	0.0001	14.06	13.79	696
NRU1020	F3A5YR1DAY	0.00	19.92	-0.0060	16.01	58.87	866
NRU1025	F3A5YR1DAY	0.00	18.85	-0.0001	10.30	10.02	724
NRU1030	F3A5YR1DAY	19.70	17.35	0.0001	71.05	69.61	2370
NRU1035	F3A5YR1DAY	0.00	17.06	0.0000	0.72	0.67	436
NRU1036	F3A5YR1DAY	0.00	17.25	-0.0001	10.64	10.61	437
NRU1037	F3A5YR1DAY	0.00	17.55	0.0000	1.12	0.72	640
NRU1040	F3A5YR1DAY	0.00	17.20	-0.0001	13.89	13.81	454
NRU1045	F3A5YR1DAY	0.00	20.00	0.0000	12.67	11.85	2232
NRU1046	F3A5YR1DAY	0.00	19.97	0.0060	11.85	11.03	931
NRU1050	F3A5YR1DAY	19.70	17.57	0.0001	51.58	45.12	1693
NRU1070	F3A5YR1DAY	19.83	17.83	0.0000	19.68	21.02	1938
NRU1090	F3A5YR1DAY	18.86	15.50	0.0001	105.61	104.17	1336
NRU1110	F3A5YR1DAY	18.86	15.36	0.0001	128.53	127.16	1808
NRU1130	F3A5YR1DAY	18.86	15.50	-0.0001	22.54	28.23	776
NRU1150	F3A5YR1DAY	18.86	15.65	0.0003	22.92	22.54	962
NRU1170	F3A5YR1DAY	18.86	18.53	-0.0001	22.33	19.60	8219
NRU1182	F3A5YR1DAY	0.00	15.86	0.0000	15.64	15.93	1155
NRU1184	F3A5YR1DAY	0.00	16.43	0.0000	13.83	14.11	872
NRU1185	F3A5YR1DAY	0.00	18.41	0.0000	9.69	8.60	1471
NRU1186	F3A5YR1DAY	0.00	16.64	0.0000	5.70	5.81	791
NRU1188	F3A5YR1DAY	0.00	18.03	0.0000	4.30	0.16	26513
NRU1190	F3A5YR1DAY	18.86	17.83	0.0000	8.80	7.26	576
NRU1210	F3A5YR1DAY	18.86	17.46	0.0000	7.26	6.73	718
NRU1220	F3A5YR1DAY	0.00	15.21	0.0000	21.54	21.40	2046
NRU1225	F3A5YR1DAY	0.00	20.79	0.0000	3.23	3.12	436
NRU1230	F3A5YR1DAY	18.88	15.14	-0.0002	572.22	572.59	4559
NRU1232	F3A5YR1DAY	0.00	14.85	0.0008	584.14	598.02	3681
NRU1234	F3A5YR1DAY	0.00	14.85	0.0000	0.79	1.84	450
NRU1240	F3A5YR1DAY	0.00	15.77	0.0000	4.06	4.04	452
NRU1250	F3A5YR1DAY	4.07	4.39	-0.0001	268.26	268.24	2104
NRU1270	F3A5YR1DAY	4.78	5.02	0.0001	265.29	265.29	1667
NRU1290	F3A5YR1DAY	5.41	5.62	0.0001	255.79	255.88	3103
NRU1310	F3A5YR1DAY	6.42	6.60	0.0000	256.68	255.79	5053
NRU1330	F3A5YR1DAY	8.29	8.35	0.0000	290.75	290.77	3357
NRU1350	F3A5YR1DAY	9.32	9.37	0.0000	287.57	287.57	2409
NRU1370	F3A5YR1DAY	11.03	11.12	0.0001	283.71	283.72	5323

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1390	F3A5YR1DAY	11.84	12.17	-0.0001	49.57	46.12	9593
NRU1410	F3A5YR1DAY	12.56	12.53	0.0001	233.56	234.09	7506
NRU1430	F3A5YR1DAY	15.53	15.81	-0.0001	49.09	32.29	45457
NRU1450	F3A5YR1DAY	15.94	16.01	-0.0001	31.69	31.17	4319
NRU1470	F3A5YR1DAY	15.97	16.06	-0.0001	6.51	6.52	981
NRU1490	F3A5YR1DAY	16.09	16.26	-0.0001	7.43	6.51	5848
NRU1510	F3A5YR1DAY	15.12	14.87	0.0001	172.37	173.75	10570
NRU1530	F3A5YR1DAY	15.71	15.48	-0.0001	73.83	74.18	3560
NRU1550	F3A5YR1DAY	15.40	15.37	0.0000	65.48	65.47	1677
NRU1570	F3A5YR1DAY	16.20	16.39	0.0000	50.30	49.74	1398
NRU1590	F3A5YR1DAY	16.40	16.55	0.0000	6.27	5.79	1284
NRU1610	F3A5YR1DAY	16.56	16.88	0.0001	42.79	41.10	1573
NRU1630	F3A5YR1DAY	16.69	17.07	0.0001	31.73	31.91	1538
NRU1650	F3A5YR1DAY	16.84	17.24	0.0001	31.56	31.73	11699
NRU1670	F3A5YR1DAY	16.89	17.30	0.0001	62.44	31.49	117864
NRU1690	F3A5YR1DAY	16.89	17.29	0.0001	38.06	37.66	2551
NRU1710	F3A5YR1DAY	16.60	16.87	0.0001	32.33	32.15	1314
NRU1730	F3A5YR1DAY	16.58	16.70	0.0000	76.83	22.68	121076
NRU1750	F3A5YR1DAY	16.58	16.71	-0.0002	17.96	17.59	720
NRU1770	F3A5YR1DAY	16.58	16.71	0.0000	25.33	25.19	1725
NRU1790	F3A5YR1DAY	17.21	17.04	0.0000	6.96	6.61	1120
NRU1810	F3A5YR1DAY	16.58	16.71	0.0000	6.90	5.48	17268
NRU1830	F3A5YR1DAY	17.12	17.05	0.0000	16.95	16.43	1513
NRU1850	F3A5YR1DAY	17.07	17.49	0.0001	24.38	24.18	1047
NRU1870	F3A5YR1DAY	17.20	17.62	0.0001	24.60	24.38	908
NRU1890	F3A5YR1DAY	17.38	17.80	0.0001	38.96	24.60	24620
NRU1910	F3A5YR1DAY	17.71	17.85	0.0001	16.02	14.90	4338
NRU1930	F3A5YR1DAY	15.71	15.49	-0.0001	51.19	56.73	19240
NRU1950	F3A5YR1DAY	16.43	16.06	0.0000	49.47	49.67	1646
NRU1970	F3A5YR1DAY	16.86	16.41	0.0000	49.28	49.47	1037
NRU1990	F3A5YR1DAY	17.09	16.60	0.0000	49.09	49.28	1719
NRU2010	F3A5YR1DAY	18.02	17.63	0.0000	12.27	12.01	1368
NRU2030	F3A5YR1DAY	18.39	18.07	0.0001	9.89	9.03	9057
NRU2050	F3A5YR1DAY	18.40	18.09	0.0001	3.43	3.02	453
NRU2070	F3A5YR1DAY	18.41	18.12	0.0000	3.44	3.43	6464
NRU2090	F3A5YR1DAY	17.16	16.66	-0.0001	34.36	34.41	983
NRU2110	F3A5YR1DAY	17.28	16.77	0.0000	33.35	33.19	1563
NRU2130	F3A5YR1DAY	17.49	16.99	0.0000	34.22	34.20	1851
NRU2150	F3A5YR1DAY	17.69	17.20	0.0000	5.51	5.10	2649
NRU2170	F3A5YR1DAY	17.07	16.86	0.0000	2.98	3.16	772
NRU2190	F3A5YR1DAY	17.08	16.87	0.0000	7.42	2.98	26572
NRU2210	F3A5YR1DAY	17.33	16.97	0.0001	5.04	2.16	538
NRU2230	F3A5YR1DAY	17.33	16.51	0.0000	13.57	0.06	78409
NRU2250	F3A5YR1DAY	17.31	16.51	0.0001	2.17	1.74	11388
NRU2270	F3A5YR1DAY	17.61	17.09	0.0000	28.71	28.68	1283
NRU2290	F3A5YR1DAY	17.67	17.13	0.0000	20.46	20.52	1150
NRU2310	F3A5YR1DAY	17.68	17.15	0.0001	13.91	14.27	1716

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2330	F3A5YR1DAY	17.68	17.15	-0.0001	33.17	7.48	757
NRU2350	F3A5YR1DAY	17.68	17.15	-0.0001	3.82	30.51	654
NRU2370	F3A5YR1DAY	17.37	16.80	0.0000	3.56	3.82	528
NRU2390	F3A5YR1DAY	17.36	16.75	0.0000	5.84	3.56	32234
NRU2410	F3A5YR1DAY	17.72	17.18	0.0001	7.98	6.97	1098
NRU2430	F3A5YR1DAY	17.83	17.20	0.0001	5.80	5.98	925
NRU2450	F3A5YR1DAY	18.06	17.21	0.0001	2.90	1.17	588
NRU2470	F3A5YR1DAY	15.72	15.48	0.0000	7.77	4.58	1457
NRU2490	F3A5YR1DAY	15.75	15.48	0.0000	5.84	5.49	1418
NRU2510	F3A5YR1DAY	15.75	15.48	0.0001	5.49	3.59	946
NRU2530	F3A5YR1DAY	15.76	15.48	0.0001	3.59	0.26	582
NRU2550	F3A5YR1DAY	16.53	15.69	0.0001	55.26	53.90	2428
NRU2570	F3A5YR1DAY	17.71	17.07	0.0001	47.23	44.87	2070
NRU2590	F3A5YR1DAY	18.30	17.94	0.0001	35.23	35.15	1704
NRU2610	F3A5YR1DAY	18.62	18.51	0.0001	37.27	33.79	9251
NRU2630	F3A5YR1DAY	19.41	19.18	-0.0002	27.61	29.24	35537
NRU2650	F3A5YR1DAY	19.54	19.60	-0.0002	18.09	17.72	25245
NRU2670	F3A5YR1DAY	16.64	16.72	0.0000	23.28	22.88	2724
NRU2690	F3A5YR1DAY	17.09	17.19	0.0000	137.04	83.67	228465
NSH02	F3A5YR1DAY	0.00	20.72	-0.0002	10.29	10.01	2586
NSH03	F3A5YR1DAY	0.00	18.02	-0.0227	0.32	12.94	767
NSH04	F3A5YR1DAY	0.00	14.39	0.0000	37.76	35.49	4612
NSH05	F3A5YR1DAY	0.00	8.07	-0.0001	646.84	646.82	5036
NSH07	F3A5YR1DAY	0.00	8.08	-0.0001	19.73	19.44	3362
NSH08	F3A5YR1DAY	0.00	7.43	0.0000	14.55	14.37	1688
NSH09	F3A5YR1DAY	0.00	9.34	0.0001	33.52	25.70	8325
NSH10	F3A5YR1DAY	0.00	19.02	0.0000	13.93	13.54	28866
NSH11	F3A5YR1DAY	0.00	21.06	0.0000	5.83	5.73	6377
NSH12	F3A5YR1DAY	0.00	7.64	0.0000	649.90	650.40	4109
NSH13	F3A5YR1DAY	0.00	7.47	0.0011	658.75	659.52	4604
NSH14	F3A5YR1DAY	0.00	7.41	0.0013	663.81	663.27	1911
NSH15	F3A5YR1DAY	0.00	18.68	0.0000	4.15	4.10	6222
NSH16	F3A5YR1DAY	0.00	8.23	0.0004	38.86	38.86	648
NSH17	F3A5YR1DAY	0.00	7.36	-0.0011	664.07	664.67	2161
NSH18	F3A5YR1DAY	0.00	7.32	-0.0007	697.87	695.82	3006
NSH19	F3A5YR1DAY	0.00	6.53	-0.0009	698.11	698.13	5396
NSH20	F3A5YR1DAY	0.00	20.18	0.0000	2.56	2.38	11087
NSH21	F3A5YR1DAY	0.00	10.92	-0.0001	9.85	9.37	5898
NSH22	F3A5YR1DAY	0.00	13.79	0.0000	30.36	24.61	3750
NSH23	F3A5YR1DAY	0.00	18.19	0.0000	8.68	8.64	2423
NSH24	F3A5YR1DAY	0.00	13.79	0.0000	14.48	11.98	3257
NSH25	F3A5YR1DAY	0.00	13.28	-0.0001	12.93	12.05	671
NSH26	F3A5YR1DAY	0.00	12.71	0.0001	34.56	31.51	6691
NSH26A	F3A5YR1DAY	0.00	12.17	0.0000	38.88	38.86	2061
NSH27	F3A5YR1DAY	0.00	11.76	0.0000	5.85	5.06	3920
NSH27A	F3A5YR1DAY	0.00	11.69	0.0000	17.05	15.80	921
NSH27AA	F3A5YR1DAY	0.00	11.71	0.0000	5.06	5.44	560

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH27B	F3A5YR1DAY	0.00	10.63	-0.0001	15.80	18.22	1033
NSH27C	F3A5YR1DAY	0.00	8.80	-0.0001	18.22	14.85	1035
NSH28	F3A5YR1DAY	0.00	9.44	0.0000	11.48	7.64	8459
NSH29	F3A5YR1DAY	0.00	7.43	-0.0001	8.46	11.85	648
NSH31	F3A5YR1DAY	0.00	9.42	0.0001	7.64	5.75	480
NSH33	F3A5YR1DAY	0.00	16.56	0.0000	1.88	1.83	3909
NSH34	F3A5YR1DAY	0.00	9.06	0.0000	23.66	23.60	1940
NSH35	F3A5YR1DAY	0.00	7.78	-0.0001	9.63	9.42	2430
NSH36	F3A5YR1DAY	0.00	7.74	-0.0001	21.73	21.37	805
NSH37	F3A5YR1DAY	0.00	7.44	0.0012	662.77	663.37	2109
NSH41	F3A5YR1DAY	0.00	14.32	0.0000	3.30	3.29	465
NSH42	F3A5YR1DAY	0.00	3.24	0.0002	43.01	43.01	447
NSH43	F3A5YR1DAY	0.00	3.87	0.0004	41.50	41.55	507
NSH44	F3A5YR1DAY	0.00	6.90	-0.0001	10.34	16.18	670
NSH45	F3A5YR1DAY	0.00	16.22	0.0000	20.43	20.15	19125
NSH48	F3A5YR1DAY	0.00	18.20	0.0000	11.05	11.03	2423
NSH49	F3A5YR1DAY	0.00	17.27	0.0000	10.83	10.75	473
NSH50	F3A5YR1DAY	0.00	13.98	-0.0002	646.85	635.06	6021
NSH51	F3A5YR1DAY	0.00	16.45	0.0000	23.38	23.27	1331
NSH52	F3A5YR1DAY	0.00	14.17	0.0021	599.70	641.68	4427
NSH53	F3A5YR1DAY	0.00	14.77	0.0000	30.51	30.29	1030
NSH53B	F3A5YR1DAY	0.00	14.17	-0.0002	6.85	7.38	448
NSH54	F3A5YR1DAY	0.00	14.40	0.0000	28.72	28.06	1255
NSH55	F3A5YR1DAY	0.00	14.65	-0.0005	599.42	597.88	5311
NSH55B	F3A5YR1DAY	0.00	14.68	0.0000	6.73	6.71	447
NSH56	F3A5YR1DAY	0.00	14.86	0.0001	3.66	3.77	465
NSH57	F3A5YR1DAY	0.00	14.86	0.0000	3.68	3.66	455
NSH60	F3A5YR1DAY	0.00	18.43	0.0000	10.99	10.65	436
NSH61	F3A5YR1DAY	0.00	14.97	0.0000	8.20	8.20	451
NSH65	F3A5YR1DAY	0.00	20.06	0.0000	2.23	2.17	436
NSH71	F3A5YR1DAY	9999.00	15.01	0.0000	10.49	10.54	2457
NSH75	F3A5YR1DAY	0.00	5.42	-0.0038	709.15	709.12	4064
NSH76	F3A5YR1DAY	0.00	4.34	0.0154	668.03	668.01	2030
NSH80	F3A5YR1DAY	0.00	13.65	0.0002	646.96	616.34	6657
NSH81	F3A5YR1DAY	0.00	20.33	0.0000	0.26	0.00	1880
NSH82	F3A5YR1DAY	0.00	20.78	0.0000	1.46	0.06	5181
NSH83	F3A5YR1DAY	0.00	13.69	-0.0001	11.33	12.31	1461
NSH85	F3A5YR1DAY	0.00	13.55	0.0001	618.69	612.86	4681
NSHSelmonDS	F3A5YR1DAY	9999.00	10.38	0.0002	645.31	645.30	6356
NSHSelmonUS	F3A5YR1DAY	9999.00	12.61	0.0002	623.21	623.22	3189
NSR0000	F3A5YR1DAY	2.00	2.00	0.0000	264.61	26.06	0
NSR0005	F3A5YR1DAY	2.00	2.00	0.0000	4.99	0.00	0
NSR0010	F3A5YR1DAY	2.00	2.00	0.0000	344.31	0.00	0
NSR0030	F3A5YR1DAY	2.92	3.06	0.0000	360.70	344.31	216509
NSR0032	F3A5YR1DAY	4.88	5.04	0.0000	9.09	4.42	18964

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0034	F3A5YR1DAY	3.63	3.72	0.0000	48.12	44.76	24190
NSR0050	F3A5YR1DAY	3.44	3.55	0.0000	331.27	320.83	86141
NSR0070	F3A5YR1DAY	3.45	3.56	-0.0001	25.27	22.20	26440
NSR0090	F3A5YR1DAY	3.68	3.73	-0.0001	26.85	24.66	10095
NSR0100	F3A5YR1DAY	2.25	2.38	0.0000	5.01	4.99	524
NSR0102	F3A5YR1DAY	4.24	4.32	0.0000	3.01	2.68	2355
NSR0105	F3A5YR1DAY	1.91	2.71	-0.0211	264.65	264.61	484
NSR0110	F3A5YR1DAY	3.93	4.03	0.0000	12.90	12.42	2230
NSR0112	F3A5YR1DAY	2.31	3.03	0.0254	263.43	263.42	457
NSR0115	F3A5YR1DAY	4.25	4.32	0.0000	1.91	1.58	7794
NSR0120	F3A5YR1DAY	2.62	3.28	0.0152	260.85	260.89	479
NSR0130	F3A5YR1DAY	4.16	4.30	0.0000	8.08	6.57	5235
NSR0135	F3A5YR1DAY	4.22	4.38	0.0000	3.03	2.70	438
NSR0140	F3A5YR1DAY	3.28	3.81	0.0055	258.08	258.08	477
NSR0150	F3A5YR1DAY	3.64	3.77	0.0003	309.98	308.69	28856
NSR0160	F3A5YR1DAY	3.56	4.03	-0.0033	255.93	256.01	1813
NSR0165	F3A5YR1DAY	4.03	4.00	0.0000	2.62	2.17	440
NSR0170	F3A5YR1DAY	3.70	3.80	0.0000	4.60	3.24	1752
NSR0180	F3A5YR1DAY	3.83	3.95	0.0000	5.52	4.65	2813
NSR0190	F3A5YR1DAY	4.04	3.82	-0.0001	17.76	17.11	2181
NSR0210	F3A5YR1DAY	4.26	3.85	-0.0001	16.12	15.19	2854
NSR0230	F3A5YR1DAY	4.26	3.86	0.0000	16.76	12.70	8393
NSR0250	F3A5YR1DAY	3.93	4.02	0.0046	296.11	295.30	12764
NSR0270	F3A5YR1DAY	3.98	4.10	0.0000	57.55	57.14	14170
NSR0280	F3A5YR1DAY	5.41	5.71	0.0006	216.66	215.39	20991
NSR0281	F3A5YR1DAY	5.97	6.30	0.0004	212.31	211.53	11115
NSR0290	F3A5YR1DAY	6.70	6.70	-0.0008	75.47	73.41	18410
NSR0310	F3A5YR1DAY	9.28	9.26	-0.0001	64.10	62.48	63499
NSR0330	F3A5YR1DAY	9.65	9.63	0.0001	6.86	6.86	470
NSR0350	F3A5YR1DAY	10.32	10.30	0.0001	7.85	6.86	446
NSR0370	F3A5YR1DAY	10.35	10.35	0.0000	8.50	7.85	6555
NSR0390	F3A5YR1DAY	11.96	12.10	0.0001	29.09	27.47	41322
NSR0410	F3A5YR1DAY	12.27	12.36	0.0001	7.76	8.27	510
NSR0430	F3A5YR1DAY	12.28	12.38	0.0000	7.03	7.76	17647
NSR0450	F3A5YR1DAY	13.04	13.87	-0.0001	23.17	21.19	20988
NSR0470	F3A5YR1DAY	13.10	14.07	0.0001	15.52	15.46	1160
NSR0490	F3A5YR1DAY	4.41	4.51	0.0058	128.12	127.96	16438
NSR0510	F3A5YR1DAY	4.48	4.66	0.0020	61.22	61.45	12097
NSR0530	F3A5YR1DAY	4.55	4.69	-0.0003	8.22	7.82	4210
NSR0540	F3A5YR1DAY	4.55	4.82	0.0003	58.34	55.44	63311
NSR0550	F3A5YR1DAY	4.56	4.85	0.0009	305.98	305.60	10204
NSR0560	F3A5YR1DAY	4.66	4.88	0.0003	93.63	98.88	51112
NSR0570	F3A5YR1DAY	5.28	5.36	0.0001	85.03	86.34	38209
NSR0580	F3A5YR1DAY	6.13	6.09	-0.0001	16.06	10.90	57785
NSR0590	F3A5YR1DAY	6.15	6.21	-0.0001	83.67	81.78	33321
NSR0610	F3A5YR1DAY	6.26	6.28	-0.0001	35.21	32.00	47964
NSR0630	F3A5YR1DAY	6.26	6.28	0.0001	16.76	16.82	475

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0650	F3A5YR1DAY	6.25	6.27	0.0000	35.56	18.51	147398
NSR0660	F3A5YR1DAY	6.13	5.98	-0.0001	16.67	7.37	50680
NSR0670	F3A5YR1DAY	6.24	6.26	0.0001	7.00	7.73	520
NSR0680	F3A5YR1DAY	6.14	6.08	-0.0001	14.20	6.48	77235
NSR0690	F3A5YR1DAY	6.24	6.25	0.0001	6.56	7.00	599
NSR0710	F3A5YR1DAY	6.23	6.24	0.0000	6.48	6.56	861
NSR0730	F3A5YR1DAY	6.29	6.32	0.0000	120.33	97.67	138417
NSR0770	F3A5YR1DAY	6.81	6.97	0.0001	94.73	93.63	8835
NSR0780	F3A5YR1DAY	6.74	6.75	-0.0001	8.55	8.12	14016
NSR0790	F3A5YR1DAY	8.35	9.06	-0.0003	308.52	296.15	26606
NSR0791	F3A5YR1DAY	7.13	7.64	-0.0002	204.60	204.57	5596
NSR0809	F3A5YR1DAY	12.76	10.11	0.0004	71.20	93.72	2126
NSR0810	F3A5YR1DAY	13.45	13.43	-0.0002	141.03	140.22	60183
NSR0830	F3A5YR1DAY	15.10	15.18	-0.0001	146.87	140.35	123428
NSR0840	F3A5YR1DAY	16.09	16.07	0.0001	21.04	21.21	32798
NSR0850	F3A5YR1DAY	15.64	15.72	-0.0003	104.96	100.06	78392
NSR0860	F3A5YR1DAY	16.41	16.42	0.0000	6.94	6.84	11812
NSR0869	F3A5YR1DAY	16.03	16.12	0.0001	30.30	30.08	1505
NSR0870	F3A5YR1DAY	16.24	16.37	0.0001	73.35	73.89	31345
NSR0880	F3A5YR1DAY	16.24	16.38	0.0000	27.08	26.11	10853
NSR0881	F3A5YR1DAY	14.14	15.64	0.0004	250.99	235.41	13396
NSR0890	F3A5YR1DAY	4.02	4.10	0.0766	260.58	294.09	38132
NSR0910	F3A5YR1DAY	4.79	4.81	-0.0028	172.24	172.66	16758
NSR0930	F3A5YR1DAY	5.54	5.48	0.0000	68.18	25.76	193969
NSR0950	F3A5YR1DAY	5.63	5.61	0.0004	199.74	198.89	23247
NSR0970	F3A5YR1DAY	6.14	6.12	-0.0002	137.29	137.48	3616
NSR0990	F3A5YR1DAY	6.27	6.24	-0.0001	166.94	167.01	4130
NSR1010	F3A5YR1DAY	6.30	6.28	0.0000	30.19	29.92	9406
NSR1030	F3A5YR1DAY	8.54	8.49	0.0001	137.16	137.10	9310
NSR1050	F3A5YR1DAY	8.56	8.51	0.0000	31.33	30.71	20981
NSR1070	F3A5YR1DAY	9.58	9.56	0.0004	166.69	166.14	22568
NSR1090	F3A5YR1DAY	11.30	11.35	-0.0004	136.30	136.32	7971
NSR1110	F3A5YR1DAY	11.57	11.57	0.0000	2.07	2.06	2903
NSR1130	F3A5YR1DAY	11.29	11.31	0.0000	17.39	16.14	14177
NSR1150	F3A5YR1DAY	11.39	11.40	0.0000	5.16	4.73	6865
NSR1170	F3A5YR1DAY	11.38	11.39	0.0000	4.73	3.81	451
NSR1190	F3A5YR1DAY	12.70	12.96	0.0000	135.51	135.49	13034
NSR1210	F3A5YR1DAY	12.70	12.97	-0.0001	17.72	10.08	64815
NSR1230	F3A5YR1DAY	14.76	14.97	0.0000	134.28	134.21	9552
NSR1270	F3A5YR1DAY	14.99	15.19	0.0000	134.37	134.28	6261
NSR1290	F3A5YR1DAY	14.99	15.19	0.0000	7.98	2.58	18598
NSR1310	F3A5YR1DAY	14.99	15.19	0.0000	22.05	15.67	55071
NSR1330	F3A5YR1DAY	15.44	15.71	0.0000	135.08	132.84	22440
NSR1350	F3A5YR1DAY	15.45	15.72	0.0000	24.94	22.69	57022
NSR1370	F3A5YR1DAY	15.56	15.82	0.0000	128.47	121.18	21929
NSR1390	F3A5YR1DAY	15.56	15.83	0.0000	2.91	2.91	3920
NSR1410	F3A5YR1DAY	15.56	15.83	-0.0001	25.62	24.01	7788

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1430	F3A5YR1DAY	15.76	15.96	0.0000	38.65	36.00	22922
NSR1450	F3A5YR1DAY	15.74	15.95	0.0000	47.36	35.87	80143
NSR1470	F3A5YR1DAY	15.96	16.03	0.0000	37.29	35.36	28538
NSR1490	F3A5YR1DAY	16.21	16.21	0.0000	45.69	31.98	118678
NSR1510	F3A5YR1DAY	16.21	16.22	0.0000	25.01	23.40	27161
NSR1530	F3A5YR1DAY	15.56	15.82	-0.0001	4.35	2.82	6289
NSR1550	F3A5YR1DAY	15.68	15.93	0.0000	131.06	115.52	33565
NSR1570	F3A5YR1DAY	15.68	15.93	0.0000	3.05	1.49	3097
NSR1590	F3A5YR1DAY	15.68	15.93	-0.0001	43.56	40.74	20223
NSR1610	F3A5YR1DAY	15.75	16.00	-0.0001	16.17	14.90	11248
NSR1630	F3A5YR1DAY	15.75	16.00	0.0000	97.69	82.82	19419
NSR1650	F3A5YR1DAY	16.39	17.07	0.0000	2.45	2.45	436
NSR1670	F3A5YR1DAY	15.92	16.31	-0.0003	36.11	30.63	29120
NSR1690	F3A5YR1DAY	16.24	16.49	0.0000	88.17	71.39	20486
NSR1710	F3A5YR1DAY	16.25	16.49	0.0000	6.26	5.84	2592
NSR1730	F3A5YR1DAY	16.32	16.56	0.0001	87.93	81.50	9663
NSR1750	F3A5YR1DAY	16.68	16.68	0.0000	2.58	2.58	436
NSR1770	F3A5YR1DAY	17.23	17.37	0.0000	25.24	15.55	19293
NSR1790	F3A5YR1DAY	17.24	17.38	0.0000	29.06	17.41	33036
NSR1810	F3A5YR1DAY	17.25	17.38	0.0000	9.60	7.83	12904
NSR1830	F3A5YR1DAY	17.25	17.38	0.0000	43.34	32.92	84956
NSR1850	F3A5YR1DAY	16.95	17.14	0.0000	7.41	7.68	13175
NSR1870	F3A5YR1DAY	16.93	17.14	0.0001	29.31	23.92	53392
NSR1890	F3A5YR1DAY	16.05	17.11	0.0000	13.14	13.57	1056
NSR1910	F3A5YR1DAY	15.45	17.09	0.0005	53.32	49.10	33502
NSR1930	F3A5YR1DAY	16.53	16.74	-0.0002	65.91	65.51	1836
NSR1950	F3A5YR1DAY	16.70	16.90	-0.0001	20.96	20.41	5128
NSR1970	F3A5YR1DAY	16.84	17.14	-0.0001	23.18	19.80	36028
NSR1990	F3A5YR1DAY	16.86	17.10	0.0000	10.28	9.31	949
NSR2010	F3A5YR1DAY	16.91	17.06	-0.0001	12.46	10.28	29467
NSR2030	F3A5YR1DAY	16.90	16.99	-0.0001	7.91	7.93	751
NSR2050	F3A5YR1DAY	16.88	16.89	0.0000	11.48	10.97	15670
NSR2070	F3A5YR1DAY	16.81	16.82	-0.0001	6.16	6.17	781
NSR2090	F3A5YR1DAY	16.72	16.72	0.0000	6.17	6.17	673
NSR2110	F3A5YR1DAY	16.54	16.54	0.0000	14.95	14.26	15181
NSR2130	F3A5YR1DAY	16.50	16.50	0.0000	14.48	9.71	89428
NSR2150	F3A5YR1DAY	17.60	16.99	0.0000	48.52	42.02	123948
NSR2170	F3A5YR1DAY	17.62	17.12	0.0000	30.16	30.04	2087
NSR2190	F3A5YR1DAY	17.62	17.17	-0.0001	30.27	30.16	967
NSR2210	F3A5YR1DAY	17.62	17.26	0.0000	37.48	26.12	81508
NSR2230	F3A5YR1DAY	17.62	17.21	0.0001	21.09	20.56	675
NSR2250	F3A5YR1DAY	17.63	17.26	-0.0001	22.52	21.09	10560
NSR2270	F3A5YR1DAY	17.63	17.27	0.0001	25.02	20.68	20887
NSR2290	F3A5YR1DAY	17.63	17.28	-0.0001	18.01	17.73	888
NSR2310	F3A5YR1DAY	17.63	17.30	0.0000	19.36	18.01	14530
NSR2330	F3A5YR1DAY	17.65	17.78	0.0000	18.83	12.89	29725
NSR2350	F3A5YR1DAY	17.65	17.79	0.0001	19.29	11.83	34770

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR2370	F3A5YR1DAY	16.66	16.76	0.0000	21.68	16.87	9676
NSR2390	F3A5YR1DAY	18.07	17.99	0.0000	10.04	3.24	58979
NSR2410	F3A5YR1DAY	16.66	16.76	0.0000	32.95	21.68	17707
NSR2430	F3A5YR1DAY	17.99	17.98	0.0000	2.25	2.24	2699
NSR2450	F3A5YR1DAY	18.06	18.07	0.0000	29.86	29.35	15280
NSR3000	F3A5YR1DAY	17.04	17.14	-0.0727	6.65	49.45	1053
NSR3005	F3A5YR1DAY	17.02	17.14	0.1453	49.45	4.01	566
NSR3020	F3A5YR1DAY	17.61	17.71	-0.0001	32.32	29.93	67988
NSR3040	F3A5YR1DAY	16.25	16.38	0.0000	59.81	55.31	36198
NSR3060	F3A5YR1DAY	16.21	16.21	-0.0001	18.27	16.53	41770
NSW0010	F3A5YR1DAY	2.00	2.00	0.0000	22.74	0.00	0
NSW0030	F3A5YR1DAY	2.13	2.67	-0.0004	22.77	22.74	587
NSW0050	F3A5YR1DAY	4.04	4.07	-0.0001	22.99	22.77	959
Outfall	F3A5YR1DAY	2.00	2.00	0.0000	46.89	0.00	0
Outfall_NE	F3A5YR1DAY	21.00	19.86	0.0002	8.45	0.00	0
PondA	F3A5YR1DAY	0.00	18.02	0.0294	17.66	10.50	25360
PondB	F3A5YR1DAY	0.00	14.36	0.0000	91.84	60.26	71010
SH_OUTFALL	F3A5YR1DAY	2.00	2.00	0.0000	807.69	51.52	0
STORAGE1	F3A5YR1DAY	0.00	19.02	0.0000	3.35	1.13	7405
STORAGE10	F3A5YR1DAY	0.00	20.06	0.0000	2.17	0.00	9148
STORAGE11	F3A5YR1DAY	0.00	20.72	0.0000	10.01	0.01	18648
STORAGE12	F3A5YR1DAY	0.00	19.92	0.0002	52.20	5.91	10262
STORAGE13	F3A5YR1DAY	0.00	17.06	0.0000	0.67	0.05	5323
STORAGE14	F3A5YR1DAY	0.00	20.79	0.0000	3.12	0.00	13395
STORAGE2	F3A5YR1DAY	0.00	18.01	0.0000	6.74	1.55	18426
STORAGE4	F3A5YR1DAY	0.00	18.05	0.0000	8.47	2.19	12088
STORAGE5	F3A5YR1DAY	0.00	21.06	0.0000	18.22	4.69	19955
STORAGE8	F3A5YR1DAY	0.00	14.94	0.0000	0.00	0.00	100
STORAGE9	F3A5YR1DAY	0.00	18.43	0.0000	6.06	1.49	11761
Sevilla1	F3A5YR1DAY	1.20	2.07	0.0000	0.03	0.03	804
Sevilla2	F3A5YR1DAY	1.23	2.04	0.0000	0.01	0.01	609
Sevilla3	F3A5YR1DAY	1.20	2.07	0.0000	0.08	0.08	1339
Sevilla4	F3A5YR1DAY	1.20	2.07	0.0000	0.14	0.14	1450
Shamrock2	F3A5YR1DAY	1.11	2.04	0.0001	46.90	46.89	5389
Shmrck1.1	F3A5YR1DAY	1.38	2.13	0.0001	46.84	46.87	6206
Shmrck1.2	F3A5YR1DAY	1.20	2.07	-0.0001	46.87	46.91	3971
THEA_JUNCT 1	F3A5YR1DAY	0.00	13.88	0.0000	28.49	28.48	667
THEA_JUNCT 2	F3A5YR1DAY	0.00	13.26	0.0000	28.48	28.47	501
THEA_Watrou s	F3A5YR1DAY	0.00	15.07	0.0002	28.58	28.49	814
V3	F3A5YR1DAY	6.53	6.53	0.0000	0.00	0.00	436
BC_N02	F3A5YR8HR	0.00	18.00	0.0000	0.00	0.00	0
Church1	F3A5YR8HR	8.77	8.91	0.0000	0.16	0.05	518
Church2	F3A5YR8HR	8.77	8.91	0.0000	4.03	3.69	4390
Clark1	F3A5YR8HR	7.21	7.51	0.0000	0.49	0.29	742

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Clark2	F3A5YR8HR	7.21	7.51	0.0000	51.96	51.95	4366
DM1	F3A5YR8HR	11.42	11.51	0.0000	4.10	4.11	1371
DM2	F3A5YR8HR	10.30	10.33	0.0000	4.11	4.04	2100
DM3	F3A5YR8HR	9.16	9.21	0.0000	4.04	4.03	2968
E_Outlet	F3A5YR8HR	0.00	16.05	0.0003	67.56	18.81	0
E_Outlet2	F3A5YR8HR	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3A5YR8HR	1.99	2.46	0.0000	0.26	0.27	763
ElP_con.1	F3A5YR8HR	2.18	2.57	-0.0001	51.86	51.86	4221
ElPrad.1	F3A5YR8HR	1.99	2.46	0.0000	0.12	0.11	632
G1	F3A5YR8HR	14.98	15.39	-0.0005	60.25	47.81	37890
G10	F3A5YR8HR	8.77	8.90	0.0000	51.97	51.96	4602
G2	F3A5YR8HR	14.99	15.38	0.0001	14.95	14.54	32943
G3	F3A5YR8HR	14.86	15.34	-0.0005	61.70	61.60	27826
G4	F3A5YR8HR	12.82	14.34	-0.0007	61.60	60.02	57230
G5	F3A5YR8HR	11.69	12.41	0.0000	58.60	58.59	1864
G6	F3A5YR8HR	11.00	9.24	0.0000	9.12	0.00	0
G7	F3A5YR8HR	11.00	11.23	0.0000	58.59	58.59	3601
G8	F3A5YR8HR	10.07	10.32	0.0000	49.47	49.47	2143
G9	F3A5YR8HR	9.41	9.70	0.0000	49.47	49.47	1353
H1	F3A5YR8HR	1.99	2.46	0.0000	0.10	0.11	514
H2.1	F3A5YR8HR	1.99	2.46	-0.0001	51.86	51.85	6105
Hubert	F3A5YR8HR	3.16	3.33	0.0000	51.94	51.92	5965
JUNCT1	F3A5YR8HR	0.00	13.71	0.0000	0.26	0.25	913
JUNCT10	F3A5YR8HR	0.00	21.91	0.0000	34.18	34.13	9130
JUNCT2	F3A5YR8HR	0.00	13.52	0.0000	0.06	0.01	473
JUNCT3	F3A5YR8HR	0.00	19.64	0.0000	0.00	0.00	436
JUNCT4	F3A5YR8HR	0.00	13.57	0.0000	1.28	1.28	3653
JUNCT6	F3A5YR8HR	0.00	15.02	0.0000	6.50	6.48	2648
JUNCT7	F3A5YR8HR	0.00	19.31	0.0000	55.72	55.70	8386
JUNCT7B	F3A5YR8HR	0.00	18.85	0.0000	55.95	55.67	23358
JUNCT8	F3A5YR8HR	0.00	19.34	0.0000	95.78	95.84	11626
JUNCT8B	F3A5YR8HR	0.00	18.85	0.0000	94.30	94.06	38297
JUNCT9	F3A5YR8HR	0.00	29.39	0.0000	27.86	27.89	9025
L1	F3A5YR8HR	11.53	11.59	0.0000	1.42	0.70	51695
L2	F3A5YR8HR	11.63	11.63	0.0000	0.00	0.00	436
L3	F3A5YR8HR	10.43	10.43	0.0000	0.00	0.00	436
L4	F3A5YR8HR	8.43	8.43	0.0000	0.00	0.00	436
L5	F3A5YR8HR	7.63	7.63	0.0000	0.00	0.00	436
L6	F3A5YR8HR	6.93	6.93	0.0000	0.00	0.00	436
Lois	F3A5YR8HR	4.82	4.81	0.0000	51.95	51.94	6808
M1	F3A5YR8HR	2.58	2.84	0.0000	0.29	0.31	743
M1.1	F3A5YR8HR	6.33	6.36	0.0000	0.47	0.29	18578
M1.2	F3A5YR8HR	7.03	7.06	0.0000	0.42	0.47	17036
M1.3	F3A5YR8HR	7.13	7.18	0.0000	0.70	0.42	28487
M2	F3A5YR8HR	2.58	2.84	0.0000	0.42	0.43	1064
M3	F3A5YR8HR	2.58	2.84	0.0000	0.55	0.72	1165
M4	F3A5YR8HR	2.58	2.85	0.0000	0.87	1.06	908

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
M5.1	F3A5YR8HR	2.57	2.85	0.0000	51.92	51.89	6162
M6	F3A5YR8HR	2.58	2.85	0.0000	0.29	0.22	558
N01	F3A5YR8HR	0.00	19.13	0.0000	14.25	11.98	16756
N01A	F3A5YR8HR	0.00	18.70	0.0001	8.17	8.08	456
N02	F3A5YR8HR	0.00	14.68	-0.0001	13.68	13.67	690
N03	F3A5YR8HR	0.00	16.34	0.0000	0.78	0.77	583
N04	F3A5YR8HR	0.00	17.49	0.0000	3.84	3.83	564
N05	F3A5YR8HR	0.00	14.64	0.0000	44.92	43.18	4410
N06	F3A5YR8HR	0.00	13.87	-0.0002	62.09	62.64	3292
N07A	F3A5YR8HR	0.00	12.32	-0.0001	68.79	69.09	4248
N08A	F3A5YR8HR	0.00	11.12	0.0002	91.74	91.84	1955
N09	F3A5YR8HR	0.00	9.85	0.0000	6.64	6.91	468
N09A	F3A5YR8HR	0.00	9.78	-0.0001	97.33	97.38	1361
N10	F3A5YR8HR	2.00	2.00	0.0000	177.36	0.00	0
N11	F3A5YR8HR	0.00	16.30	-0.0003	46.33	67.56	94464
NBB0010	F3A5YR8HR	2.00	2.00	0.0000	115.76	0.00	0
NBB0030	F3A5YR8HR	5.03	5.94	0.0003	115.77	115.76	557
NBB0050	F3A5YR8HR	9.15	9.89	0.0001	117.85	115.77	9627
NBB0070	F3A5YR8HR	11.30	11.97	0.0000	104.55	104.41	2549
NBB0090	F3A5YR8HR	12.67	13.20	0.0001	93.32	93.57	1994
NBB0110	F3A5YR8HR	13.46	13.94	0.0001	90.37	90.56	1982
NBB0130	F3A5YR8HR	15.26	15.78	-0.0001	27.14	24.55	23647
NBB0150	F3A5YR8HR	14.01	14.44	0.0001	70.31	70.49	1935
NBB0170	F3A5YR8HR	14.74	15.11	0.0001	70.14	70.31	1452
NBB0190	F3A5YR8HR	15.42	15.73	0.0001	69.97	70.14	1782
NBB0210	F3A5YR8HR	15.70	16.03	0.0001	67.19	67.36	1555
NBB0230	F3A5YR8HR	16.02	16.38	0.0001	67.02	67.19	1635
NBB0250	F3A5YR8HR	16.31	16.65	0.0001	66.08	66.25	2036
NBB0270	F3A5YR8HR	17.05	17.16	0.0001	65.69	66.08	6168
NBB0290	F3A5YR8HR	17.06	17.17	0.0001	53.26	53.47	1258
NBB0310	F3A5YR8HR	17.07	17.18	-0.0001	117.81	96.83	277789
NBB0330	F3A5YR8HR	16.57	16.64	0.0001	34.61	34.39	8439
NBB0350	F3A5YR8HR	16.45	16.57	0.0001	24.71	25.66	1396
NBB0370	F3A5YR8HR	16.33	16.50	0.0001	55.50	48.10	48204
NBB0390	F3A5YR8HR	16.32	16.50	0.0001	18.57	19.36	1833
NBB0410	F3A5YR8HR	16.30	16.49	-0.0002	53.52	49.79	33792
NBB0430	F3A5YR8HR	15.45	15.56	-0.0002	68.69	69.45	65325
NBW0010	F3A5YR8HR	2.00	2.00	0.0000	591.97	0.00	0
NBW0030	F3A5YR8HR	3.39	3.52	0.0000	592.07	591.97	40076
NBW0050	F3A5YR8HR	3.92	3.83	0.0000	6.29	5.38	4931
NBW0070	F3A5YR8HR	3.57	3.74	0.0000	196.75	197.73	28459
NBW0090	F3A5YR8HR	3.66	3.69	0.0000	4.27	3.86	6827
NBW0130	F3A5YR8HR	3.73	3.93	0.0000	194.50	194.71	14292
NBW0150	F3A5YR8HR	3.93	3.95	0.0001	6.46	6.36	442
NBW0170	F3A5YR8HR	3.98	3.96	0.0000	2.92	2.58	3730
NBW0190	F3A5YR8HR	3.89	4.09	-0.0001	191.98	192.03	5874
NBW0210	F3A5YR8HR	6.25	6.22	0.0000	5.07	5.05	4655

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0230	F3A5YR8HR	4.01	4.23	-0.0001	190.37	190.44	3099
NBW0250	F3A5YR8HR	4.88	5.18	0.0000	188.97	189.02	5467
NBW0270	F3A5YR8HR	5.49	5.38	0.0000	25.82	24.55	14107
NBW0290	F3A5YR8HR	5.91	5.83	0.0000	19.94	19.85	9888
NBW0310	F3A5YR8HR	6.38	6.08	0.0000	6.72	6.71	743
NBW0330	F3A5YR8HR	5.50	5.89	0.0000	181.27	181.39	21954
NBW0350	F3A5YR8HR	4.97	4.92	0.0000	4.84	4.83	2454
NBW0370	F3A5YR8HR	5.52	5.90	0.0001	6.31	5.84	2956
NBW0390	F3A5YR8HR	5.52	5.90	0.0001	5.94	5.09	14674
NBW0410	F3A5YR8HR	5.54	5.93	-0.0001	176.01	176.28	3446
NBW0430	F3A5YR8HR	5.89	6.28	-0.0001	3.55	3.19	3357
NBW0450	F3A5YR8HR	5.89	6.28	0.0001	176.80	176.01	11118
NBW0470	F3A5YR8HR	5.89	6.28	-0.0001	2.59	2.24	2368
NBW0490	F3A5YR8HR	5.92	6.32	-0.0001	174.49	174.84	2764
NBW0510	F3A5YR8HR	6.72	6.58	0.0000	2.05	2.05	1649
NBW0530	F3A5YR8HR	6.22	6.65	0.0000	174.11	174.00	4799
NBW0550	F3A5YR8HR	6.72	7.19	0.0000	113.11	103.18	147754
NBW0570	F3A5YR8HR	7.09	7.20	0.0000	105.94	105.52	8336
NBW0590	F3A5YR8HR	10.03	9.93	-0.0004	130.23	129.28	77741
NBW0610	F3A5YR8HR	6.45	6.87	0.0000	155.49	155.46	7780
NBW0630	F3A5YR8HR	6.22	6.65	0.0000	2.71	2.07	12822
NBW0650	F3A5YR8HR	6.66	7.14	0.0000	156.36	155.43	20748
NBW0670	F3A5YR8HR	6.66	7.14	0.0000	4.34	3.33	18897
NBW0690	F3A5YR8HR	6.71	7.18	0.0001	113.78	114.79	9223
NBW0710	F3A5YR8HR	6.71	7.18	0.0000	8.34	6.71	25912
NBW0730	F3A5YR8HR	6.72	7.19	-0.0001	105.90	109.75	149765
NBW0750	F3A5YR8HR	7.06	7.30	0.0001	112.74	107.95	83023
NBW0770	F3A5YR8HR	7.06	7.30	-0.0001	14.44	11.93	13889
NBW0790	F3A5YR8HR	8.11	7.68	0.0000	12.31	12.16	761
NBW0810	F3A5YR8HR	7.06	7.30	0.0000	30.43	24.20	24389
NBW0830	F3A5YR8HR	8.41	7.69	0.0000	20.02	19.89	1326
NBW0850	F3A5YR8HR	10.17	8.06	0.0000	18.38	18.26	755
NBW0870	F3A5YR8HR	7.06	7.33	0.0000	55.59	51.57	100476
NBW0890	F3A5YR8HR	7.06	7.31	0.0002	17.98	18.80	1027
NBW0910	F3A5YR8HR	7.06	7.31	0.0000	79.98	78.02	98176
NBW0930	F3A5YR8HR	8.03	7.61	0.0000	37.56	37.54	1301
NBW0950	F3A5YR8HR	8.82	8.05	0.0000	40.30	37.56	35327
NBW0970	F3A5YR8HR	8.82	8.05	0.0001	32.32	32.03	11644
NBW0990	F3A5YR8HR	8.82	8.11	-0.0001	20.89	21.01	785
NBW1010	F3A5YR8HR	8.83	8.51	0.0000	31.47	31.46	1189
NBW1030	F3A5YR8HR	9.19	9.95	-0.0001	46.70	30.68	42890
NBW1050	F3A5YR8HR	9.30	9.97	-0.0001	18.75	18.44	900
NBW1070	F3A5YR8HR	9.34	9.97	-0.0001	83.97	79.40	59449
NBW1090	F3A5YR8HR	3.78	3.90	0.0000	391.45	391.30	12166
NBW1130	F3A5YR8HR	4.51	4.50	0.0000	13.66	11.27	14252
NBW1150	F3A5YR8HR	4.53	4.51	0.0000	11.28	9.23	37879
NBW1169	F3A5YR8HR	4.09	4.18	0.0000	379.58	379.41	16376

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1170	F3A5YR8HR	4.30	4.40	0.0001	372.98	372.92	5977
NBW1190	F3A5YR8HR	6.13	6.21	-0.0001	27.99	26.70	50404
NBW1210	F3A5YR8HR	7.17	7.07	-0.0003	75.86	45.11	91535
NBW1230	F3A5YR8HR	7.17	7.08	-0.0002	95.77	63.77	143207
NBW1250	F3A5YR8HR	4.74	4.84	-0.0001	341.32	339.65	7384
NBW1270	F3A5YR8HR	6.14	6.21	-0.0001	6.91	6.99	14007
NBW1310	F3A5YR8HR	5.21	5.26	-0.0001	365.81	340.68	8354
NBW1330	F3A5YR8HR	7.56	8.01	0.0011	302.08	324.33	2993
NBW1350	F3A5YR8HR	10.95	9.77	0.0001	20.13	21.04	490
NBW1351	F3A5YR8HR	8.89	9.55	0.0002	255.70	255.34	8277
NBW1352	F3A5YR8HR	9.96	10.79	0.0004	249.23	249.26	7956
NBW1353	F3A5YR8HR	11.01	12.00	-0.0004	246.01	246.20	5636
NBW1370	F3A5YR8HR	10.02	10.32	0.0002	199.31	199.18	6358
NBW1390	F3A5YR8HR	15.24	15.31	-0.0004	229.01	225.76	121922
NBW1410	F3A5YR8HR	15.58	15.60	0.0002	180.86	176.04	21438
NBW1430	F3A5YR8HR	15.79	15.75	0.0002	153.30	160.74	19525
NBW1450	F3A5YR8HR	16.94	16.89	-0.0004	192.57	192.40	104439
NBW1460	F3A5YR8HR	16.43	16.40	-0.0002	148.94	149.87	3519
NBW1470	F3A5YR8HR	17.14	17.15	-0.0002	195.23	192.14	138895
NBW1480	F3A5YR8HR	18.11	18.13	0.0000	7.72	7.39	15274
NBW1490	F3A5YR8HR	17.86	17.91	-0.0001	127.55	123.87	50617
NBW1510	F3A5YR8HR	18.12	18.14	0.0002	112.61	111.54	15855
NBW1530	F3A5YR8HR	17.92	17.99	0.0001	13.98	12.10	1239
NBW1550	F3A5YR8HR	17.75	17.84	0.0001	22.62	21.23	11716
NBW1570	F3A5YR8HR	18.21	18.27	0.0001	108.88	106.33	2604
NBW1590	F3A5YR8HR	18.12	18.15	-0.0001	32.87	30.51	15461
NBW1610	F3A5YR8HR	18.13	18.15	0.0000	23.23	22.94	6218
NBW1630	F3A5YR8HR	18.13	18.15	0.0000	12.65	12.57	1671
NBW1650	F3A5YR8HR	18.81	18.85	0.0000	11.35	10.19	4205
NBW1670	F3A5YR8HR	18.89	18.90	0.0000	18.56	18.29	5552
NBW1690	F3A5YR8HR	19.03	18.96	0.0000	11.05	11.02	7978
NBW1710	F3A5YR8HR	19.26	18.96	0.0001	2.94	1.46	998
NBW1730	F3A5YR8HR	18.65	18.79	0.0003	131.27	97.80	172287
NBW1750	F3A5YR8HR	18.82	18.80	0.0001	77.31	74.80	22485
NBW1770	F3A5YR8HR	18.82	18.85	0.0001	64.45	60.99	53209
NBW1790	F3A5YR8HR	18.91	18.91	0.0001	14.78	14.73	1890
NBW1820	F3A5YR8HR	18.72	18.72	0.0000	35.02	28.55	81793
NBW1830	F3A5YR8HR	18.74	18.82	0.0001	56.44	56.79	7981
NBW1840	F3A5YR8HR	18.39	18.44	-0.0001	65.52	60.95	84056
NBW1850	F3A5YR8HR	18.74	18.82	0.0001	65.50	56.47	72544
NBW1860	F3A5YR8HR	18.39	18.44	-0.0001	7.87	7.28	17195
NBW1870	F3A5YR8HR	18.72	18.73	-0.0002	21.16	18.38	25864
NBW1890	F3A5YR8HR	19.06	18.90	0.0001	32.33	32.71	2614
NBW1910	F3A5YR8HR	19.27	18.96	0.0001	39.22	38.92	1873
NBW1930	F3A5YR8HR	19.27	19.03	0.0001	35.68	35.18	3087
NBW1950	F3A5YR8HR	18.97	18.95	0.0000	4.39	2.65	450
NBW1970	F3A5YR8HR	18.96	18.95	0.0000	5.96	5.91	2200

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1990	F3A5YR8HR	19.27	19.15	0.0001	41.31	39.91	41480
NBW2010	F3A5YR8HR	19.65	19.32	0.0001	9.88	9.18	3321
NBW2030	F3A5YR8HR	19.65	19.32	0.0001	8.74	8.65	9077
NBW2050	F3A5YR8HR	19.26	19.25	0.0001	25.31	21.90	49438
NBW2060	F3A5YR8HR	0.00	19.48	0.0000	10.70	10.34	24058
NBW2070	F3A5YR8HR	19.26	19.25	0.0001	61.70	57.62	80952
NBW2090	F3A5YR8HR	19.10	18.33	0.0001	66.27	60.37	2745
NBW2110	F3A5YR8HR	18.92	17.13	0.0001	74.63	71.59	3797
NBW2130	F3A5YR8HR	18.92	16.61	-0.0001	74.64	73.19	1726
NBW2140	F3A5YR8HR	20.00	16.98	0.0000	5.83	5.36	651
NBW2145	F3A5YR8HR	0.00	17.92	0.0000	8.38	8.18	436
NBW2150	F3A5YR8HR	19.26	19.52	0.0001	47.87	47.22	13539
NBW2170	F3A5YR8HR	19.12	19.57	0.0002	12.10	4.06	921
NBW2190	F3A5YR8HR	19.10	19.59	0.0001	6.30	3.26	3349
NBW2210	F3A5YR8HR	19.47	19.61	0.0001	42.78	43.15	4355
NBW2230	F3A5YR8HR	19.47	19.68	-0.0002	31.28	30.51	39494
NBW2250	F3A5YR8HR	19.51	19.65	0.0001	32.99	33.43	2380
NBW2270	F3A5YR8HR	19.57	19.68	0.0001	32.12	32.55	4912
NBW2290	F3A5YR8HR	19.65	19.68	-0.0002	20.34	19.53	72933
NBW2310	F3A5YR8HR	19.82	19.74	-0.0002	20.26	20.53	83042
NBW2330	F3A5YR8HR	19.82	19.74	-0.0002	13.90	12.15	45047
NBW2350	F3A5YR8HR	16.05	16.10	0.0001	62.55	62.00	30749
NBW2370	F3A5YR8HR	16.11	16.15	-0.0001	11.64	11.15	58926
NBW2380	F3A5YR8HR	12.29	13.50	-0.0003	243.73	243.95	10756
NBW2385	F3A5YR8HR	18.49	18.48	0.0000	2.27	2.27	6442
NBW2387	F3A5YR8HR	16.11	15.70	0.0000	0.35	0.34	476
NBW2390	F3A5YR8HR	16.42	16.74	0.0001	39.93	39.89	2672
NBW2410	F3A5YR8HR	16.59	17.70	-0.0001	39.55	32.55	80736
NBW2430	F3A5YR8HR	16.23	17.70	-0.0001	85.60	83.79	38106
NBW2450	F3A5YR8HR	16.15	17.65	-0.0001	151.06	156.31	4396
NBW2470	F3A5YR8HR	16.43	17.77	-0.0001	123.98	118.07	34558
NBW2490	F3A5YR8HR	16.90	17.77	-0.0001	72.37	72.21	19460
NBW2510	F3A5YR8HR	17.74	17.85	-0.0001	70.05	69.79	2032
NBW2530	F3A5YR8HR	17.92	17.99	0.0001	62.09	62.58	2011
NBW2550	F3A5YR8HR	17.95	18.00	0.0000	1.74	2.90	450
NBW2570	F3A5YR8HR	17.96	18.01	0.0000	1.82	1.74	3529
NBW2590	F3A5YR8HR	18.06	18.09	-0.0001	50.36	50.81	1098
NBW2610	F3A5YR8HR	17.00	17.80	-0.0007	129.40	121.81	49699
NBW2630	F3A5YR8HR	17.98	18.02	0.0001	122.71	120.60	39015
NBW2650	F3A5YR8HR	16.97	17.79	-0.0003	28.00	28.86	12801
NBW2670	F3A5YR8HR	16.42	17.76	-0.0001	29.99	30.90	9566
NBW2680	F3A5YR8HR	17.73	17.82	-0.0001	31.37	32.40	20595
NBW2690	F3A5YR8HR	15.40	17.14	0.0002	231.39	232.92	41830
NBW2710	F3A5YR8HR	17.73	17.82	-0.0001	2.19	3.63	533
NBW2730	F3A5YR8HR	18.29	18.28	0.0000	1.22	0.49	4356
NBW2770	F3A5YR8HR	18.09	18.12	0.0000	13.31	13.36	1310
NBW2775	F3A5YR8HR	6.59	6.50	0.0000	7.66	4.90	23575

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2780	F3A5YR8HR	18.38	18.42	-0.0003	47.60	39.41	63890
NBW2790	F3A5YR8HR	18.38	18.43	-0.0001	138.34	138.86	85970
NBW2810	F3A5YR8HR	18.39	18.44	-0.0002	54.04	54.41	68050
NBW2830	F3A5YR8HR	18.40	18.45	-0.0001	37.10	35.34	107679
NC01	F3A5YR8HR	0.00	3.75	0.0000	6.91	6.90	699
NC01B	F3A5YR8HR	0.00	5.78	0.0000	8.96	8.86	4045
NC02	F3A5YR8HR	0.00	7.68	0.0000	102.81	102.83	1891
NC03	F3A5YR8HR	0.00	4.65	-0.0001	116.45	116.44	1747
NC04	F3A5YR8HR	0.00	3.27	0.0000	24.79	23.31	20155
NC05	F3A5YR8HR	0.00	3.26	-0.0001	25.17	23.70	33604
NC06	F3A5YR8HR	0.00	3.17	0.0000	25.29	24.79	14076
NC07	F3A5YR8HR	0.00	3.15	0.0000	16.61	16.41	12794
NC08	F3A5YR8HR	0.00	3.13	0.0000	19.54	19.39	9581
NCL0010	F3A5YR8HR	2.00	2.00	0.0000	532.59	0.00	0
NCL0030	F3A5YR8HR	2.36	2.71	0.0002	468.53	468.48	6856
NCL0050	F3A5YR8HR	2.36	2.71	0.0000	0.53	0.55	439
NCL0070	F3A5YR8HR	5.20	5.21	0.0000	82.64	81.58	30526
NCL0090	F3A5YR8HR	6.06	5.98	-0.0001	30.10	25.94	57519
NCL0110	F3A5YR8HR	3.04	3.23	-0.0009	550.91	550.90	6623
NCL0130	F3A5YR8HR	4.05	3.30	-0.0002	99.33	99.42	565
NCL0150	F3A5YR8HR	4.95	3.83	0.0000	99.37	99.33	2802
NCL0170	F3A5YR8HR	5.08	3.92	-0.0001	57.32	57.68	1380
NCL0190	F3A5YR8HR	5.08	3.93	0.0000	1.52	1.51	438
NCL0210	F3A5YR8HR	5.85	4.26	-0.0001	74.77	74.93	1234
NCL0230	F3A5YR8HR	6.60	4.90	0.0000	18.17	18.01	564
NCL0250	F3A5YR8HR	6.60	4.90	0.0000	0.63	0.77	538
NCL0270	F3A5YR8HR	6.60	5.79	0.0000	2.74	2.74	1001
NCL0290	F3A5YR8HR	5.90	4.41	-0.0001	52.64	52.77	924
NCL0310	F3A5YR8HR	6.10	5.07	0.0006	52.55	52.64	1045
NCL0330	F3A5YR8HR	5.95	5.07	0.0000	0.77	1.94	513
NCL0350	F3A5YR8HR	6.60	5.68	-0.0002	61.49	59.21	14672
NCL0370	F3A5YR8HR	7.36	7.16	-0.0001	44.51	44.16	9352
NCL0390	F3A5YR8HR	4.02	4.14	-0.0021	441.38	463.38	4339
NCL0410	F3A5YR8HR	4.09	4.18	-0.0002	3.52	3.56	819
NCL0430	F3A5YR8HR	4.23	4.22	0.0000	3.56	3.52	639
NCL0450	F3A5YR8HR	4.75	4.83	-0.0016	435.16	435.21	3676
NCL0470	F3A5YR8HR	5.43	5.47	-0.0010	431.56	431.61	3437
NCL0490	F3A5YR8HR	6.48	6.47	-0.0005	453.25	454.26	26418
NCL0510	F3A5YR8HR	6.67	6.58	0.0002	24.76	24.70	1151
NCL0530	F3A5YR8HR	8.10	7.36	0.0004	40.47	16.15	1179
NCL0550	F3A5YR8HR	8.17	7.39	-0.0002	16.30	40.47	878
NCL0570	F3A5YR8HR	8.66	7.51	0.0000	8.18	8.10	839
NCL0590	F3A5YR8HR	7.00	7.00	0.0011	417.04	417.02	3392
NCL0610	F3A5YR8HR	7.52	7.56	0.0007	410.99	410.99	3640
NCL0630	F3A5YR8HR	8.06	8.14	-0.0004	408.65	408.75	4608
NCL0650	F3A5YR8HR	8.12	8.19	-0.0003	46.31	102.61	1613
NCL0670	F3A5YR8HR	8.67	8.70	0.0002	128.33	46.31	1693

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0690	F3A5YR8HR	8.76	8.77	0.0002	28.64	35.14	605
NCL0710	F3A5YR8HR	8.95	8.92	-0.0001	29.61	28.27	600
NCL0730	F3A5YR8HR	9.26	9.17	-0.0002	31.31	29.61	554
NCL0750	F3A5YR8HR	9.56	9.42	0.0000	51.31	49.28	39723
NCL0770	F3A5YR8HR	10.12	9.94	0.0000	33.35	33.28	2178
NCL0790	F3A5YR8HR	8.69	8.72	-0.0003	27.98	101.59	895
NCL0810	F3A5YR8HR	8.84	8.87	0.0001	27.99	27.98	1379
NCL0830	F3A5YR8HR	8.93	9.14	0.0006	358.82	361.48	26710
NCL0850	F3A5YR8HR	9.01	9.17	-0.0001	58.92	56.36	9144
NCL0870	F3A5YR8HR	9.37	9.26	0.0002	78.96	78.82	2022
NCL0890	F3A5YR8HR	9.65	9.32	-0.0001	60.36	60.21	1589
NCL0910	F3A5YR8HR	9.71	9.33	-0.0001	4.05	3.90	486
NCL0930	F3A5YR8HR	9.57	9.45	-0.0001	56.62	56.47	2107
NCL0950	F3A5YR8HR	9.89	9.61	0.0000	46.20	46.03	3222
NCL0970	F3A5YR8HR	10.41	9.81	0.0000	27.87	27.69	2252
NCL0990	F3A5YR8HR	11.00	9.99	0.0000	18.92	18.68	1483
NCL1010	F3A5YR8HR	11.14	10.04	0.0000	4.07	3.98	638
NCL1030	F3A5YR8HR	9.67	9.29	-0.0002	21.01	33.52	1478
NCL1050	F3A5YR8HR	10.46	9.30	0.0001	3.88	3.72	600
NCL1070	F3A5YR8HR	9.30	10.07	0.0001	3.57	3.66	628
NCL1090	F3A5YR8HR	9.76	10.21	0.0000	21.74	13.34	18278
NCL1110	F3A5YR8HR	9.85	9.90	0.0000	16.61	16.68	2088
NCL1130	F3A5YR8HR	9.76	10.21	-0.0001	16.55	15.80	33977
NCL1150	F3A5YR8HR	9.76	10.22	0.0001	420.12	422.06	186937
NCL1170	F3A5YR8HR	10.59	11.24	0.0004	366.77	336.98	91508
NCL1190	F3A5YR8HR	10.72	11.30	0.0001	54.35	54.15	1850
NCL1210	F3A5YR8HR	10.63	11.26	0.0001	19.64	12.60	49826
NCL1230	F3A5YR8HR	10.94	11.38	0.0001	54.55	54.35	1432
NCL1250	F3A5YR8HR	11.11	11.46	-0.0001	54.75	54.55	1231
NCL1270	F3A5YR8HR	11.34	11.56	0.0001	57.49	57.31	1226
NCL1290	F3A5YR8HR	13.06	12.66	0.0000	29.00	28.63	1126
NCL1310	F3A5YR8HR	14.77	14.39	0.0000	21.26	20.37	3692
NCL1330	F3A5YR8HR	10.60	11.24	-0.0002	148.68	154.33	77286
NCL1350	F3A5YR8HR	10.63	11.26	0.0001	151.21	147.04	53784
NCL1370	F3A5YR8HR	10.63	11.26	-0.0002	16.26	21.23	1667
NCL1390	F3A5YR8HR	10.63	11.27	0.0001	5.70	5.52	1426
NCL1410	F3A5YR8HR	10.63	11.27	-0.0001	4.11	3.90	1114
NCL1430	F3A5YR8HR	10.70	11.33	0.0004	421.57	379.18	151962
NCL1450	F3A5YR8HR	10.93	11.89	0.0007	388.23	388.05	3036
NCL1470	F3A5YR8HR	12.72	13.20	0.0002	323.61	323.45	4433
NCL1490	F3A5YR8HR	14.45	14.31	0.0000	2.90	2.89	762
NCL1510	F3A5YR8HR	11.06	11.95	-0.0008	47.89	79.88	862
NCL1530	F3A5YR8HR	12.54	12.60	-0.0002	54.68	54.08	7301
NCL1550	F3A5YR8HR	13.13	13.08	-0.0001	39.62	39.28	1021
NCL1570	F3A5YR8HR	13.31	13.16	0.0000	2.55	2.50	504
NCL1590	F3A5YR8HR	13.70	13.67	0.0000	1.12	1.12	1307
NCL1610	F3A5YR8HR	13.37	13.19	0.0000	1.53	1.44	469

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1630	F3A5YR8HR	13.57	13.45	-0.0002	52.90	49.95	2658
NCL1650	F3A5YR8HR	13.68	13.52	0.0002	49.12	52.03	1293
NCL1670	F3A5YR8HR	14.02	13.67	0.0000	14.90	14.89	901
NCL1690	F3A5YR8HR	17.47	17.17	0.0000	36.14	36.10	1258
NCL1710	F3A5YR8HR	17.89	17.52	0.0000	33.63	33.16	614
NCL1730	F3A5YR8HR	18.27	17.79	-0.0001	32.50	31.76	1690
NCL1750	F3A5YR8HR	18.24	17.79	0.0002	11.84	11.05	513
NCL1770	F3A5YR8HR	18.07	17.80	0.0000	12.91	12.37	1683
NCL1790	F3A5YR8HR	15.78	15.02	0.0001	320.95	320.77	5863
NCL1810	F3A5YR8HR	18.13	17.94	-0.0001	30.68	29.64	13821
NCL1830	F3A5YR8HR	18.39	16.78	0.0001	298.89	298.71	6249
NCL1850	F3A5YR8HR	18.50	16.98	-0.0003	85.42	85.65	911
NCL1870	F3A5YR8HR	19.01	17.96	0.0001	85.18	85.42	1007
NCL1890	F3A5YR8HR	19.15	18.21	0.0001	84.95	85.18	983
NCL1910	F3A5YR8HR	19.15	18.21	0.0000	1.50	0.42	527
NCL1930	F3A5YR8HR	19.91	19.85	0.0000	2.62	2.61	1503
NCL1950	F3A5YR8HR	19.15	18.21	0.0000	0.34	0.16	499
NCL1970	F3A5YR8HR	21.67	21.63	0.0000	1.44	1.44	3025
NCL1990	F3A5YR8HR	19.58	19.03	0.0000	84.48	84.69	884
NCL2010	F3A5YR8HR	19.74	19.38	0.0000	45.39	46.00	1104
NCL2030	F3A5YR8HR	19.76	19.43	0.0000	7.25	6.76	15161
NCL2050	F3A5YR8HR	19.76	19.42	0.0000	43.89	44.09	1412
NCL2070	F3A5YR8HR	19.76	19.43	0.0000	2.10	2.12	984
NCL2090	F3A5YR8HR	19.87	19.66	0.0001	43.37	43.56	1414
NCL2110	F3A5YR8HR	20.03	19.68	-0.0001	16.05	16.40	873
NCL2130	F3A5YR8HR	19.87	19.74	0.0000	62.39	63.66	18324
NCL2150	F3A5YR8HR	20.75	21.12	-0.0004	71.35	59.45	144247
NCL2170	F3A5YR8HR	19.85	19.70	0.0000	78.13	78.12	13151
NCL2230	F3A5YR8HR	19.13	17.83	0.0002	230.54	230.66	5806
NCL2250	F3A5YR8HR	19.55	18.59	0.0001	220.27	220.27	4444
NCL2270	F3A5YR8HR	20.05	20.01	0.0001	119.80	119.81	5711
NCL2290	F3A5YR8HR	19.88	19.80	0.0001	8.99	8.99	1155
NCL2310	F3A5YR8HR	20.45	20.57	0.0001	101.94	101.43	1780
NCL2330	F3A5YR8HR	20.74	20.94	0.0000	118.35	112.92	74224
NCL2350	F3A5YR8HR	20.78	20.98	0.0000	94.18	93.31	3765
NCL2370	F3A5YR8HR	20.81	20.99	-0.0001	90.90	89.98	2298
NCL2390	F3A5YR8HR	20.84	21.03	0.0000	108.66	99.58	96274
NCL2410	F3A5YR8HR	21.07	21.09	0.0000	30.09	30.74	1380
NCL2430	F3A5YR8HR	21.32	21.16	0.0000	29.21	29.38	1474
NCL2450	F3A5YR8HR	21.25	21.14	0.0000	4.11	3.97	493
NCL2470	F3A5YR8HR	20.93	21.04	0.0000	13.68	13.23	846
NCL2490	F3A5YR8HR	21.54	21.19	0.0001	26.78	26.25	1524
NCL2510	F3A5YR8HR	21.70	21.20	0.0000	68.81	67.66	68125
NCL2530	F3A5YR8HR	21.70	21.20	0.0000	33.45	33.12	34852
NCL2540	F3A5YR8HR	0.00	21.89	0.0000	46.20	45.76	35052
NCL2550	F3A5YR8HR	21.70	21.20	0.0000	28.97	28.77	10443
NCL2570	F3A5YR8HR	21.51	21.19	0.0000	17.44	17.58	1503

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2580	F3A5YR8HR	0.00	21.19	0.0000	72.66	72.34	26172
NCL2590	F3A5YR8HR	21.17	21.18	0.0000	123.55	121.36	106021
NCL2610	F3A5YR8HR	21.14	21.18	0.0000	85.52	85.25	24163
NCL2630	F3A5YR8HR	20.86	20.79	0.0000	60.40	58.74	40005
NCL2631	F3A5YR8HR	0.00	20.48	-0.0001	66.04	56.59	36145
NCL2650	F3A5YR8HR	21.17	21.37	0.0000	72.01	66.35	94994
NCL2670	F3A5YR8HR	21.93	22.14	-0.0002	74.75	92.27	54890
NCL2690	F3A5YR8HR	21.96	22.22	-0.0001	38.83	41.94	43005
NCL2710	F3A5YR8HR	21.96	22.24	-0.0001	32.18	34.66	53096
NCL2730	F3A5YR8HR	21.95	22.26	0.0000	26.19	26.58	2601
NCL2750	F3A5YR8HR	21.84	22.24	0.0000	23.61	23.70	1469
NCL2770	F3A5YR8HR	21.71	22.14	0.0000	22.57	22.65	1389
NCL2780	F3A5YR8HR	0.00	22.04	0.0000	8.81	8.58	17898
NCL2790	F3A5YR8HR	21.84	22.12	0.0000	86.65	85.17	89019
NCL2810	F3A5YR8HR	22.11	22.63	-0.0001	50.16	49.62	15632
NCL2830	F3A5YR8HR	23.09	22.66	-0.0001	11.95	11.97	1242
NCL2835	F3A5YR8HR	0.00	23.68	0.0000	7.97	7.99	1113
NCL2840	F3A5YR8HR	0.00	23.64	0.0000	50.21	50.14	20300
NCL2845	F3A5YR8HR	0.00	24.18	0.0000	27.16	27.10	12903
NCL2850	F3A5YR8HR	20.82	21.00	0.0000	21.72	22.02	1361
NCL2870	F3A5YR8HR	20.83	20.99	0.0000	20.79	21.08	1251
NCL2890	F3A5YR8HR	20.83	20.99	0.0000	19.63	20.79	17192
NCL2910	F3A5YR8HR	20.83	20.99	-0.0001	44.59	44.44	41228
NCL2930	F3A5YR8HR	19.55	18.62	0.0002	120.95	119.83	2980
NCL2950	F3A5YR8HR	19.53	18.73	0.0001	114.09	112.72	5716
NCL2970	F3A5YR8HR	20.49	20.32	0.0001	31.42	31.23	5384
NCL2990	F3A5YR8HR	19.33	18.79	0.0001	92.95	93.07	5885
NCL3010	F3A5YR8HR	19.35	18.89	0.0001	84.29	78.74	41518
NCL3030	F3A5YR8HR	19.58	18.93	0.0001	75.58	63.56	7110
NCL3050	F3A5YR8HR	19.94	19.74	0.0001	49.72	47.79	17954
NCL3070	F3A5YR8HR	20.14	20.00	0.0000	23.24	23.01	10471
NCL3090	F3A5YR8HR	19.59	18.92	0.0001	91.10	87.27	35325
NCL3110	F3A5YR8HR	19.59	19.00	0.0003	43.00	38.22	41828
NCL3130	F3A5YR8HR	19.59	19.01	0.0002	14.89	17.23	8249
NCL3150	F3A5YR8HR	19.54	18.84	0.0001	132.28	131.81	5793
NCL3170	F3A5YR8HR	19.71	20.04	-0.0001	47.88	47.56	15445
NCL3190	F3A5YR8HR	20.31	20.28	-0.0003	57.17	43.88	95554
NCL3210	F3A5YR8HR	20.32	20.28	-0.0003	37.64	29.41	45061
NCL3230	F3A5YR8HR	20.32	20.30	-0.0002	21.97	20.53	14295
NCL3250	F3A5YR8HR	19.11	17.36	0.0003	179.53	184.74	5874
NCL3250A	F3A5YR8HR	0.00	18.11	0.0001	131.81	131.48	2677
NCL3270	F3A5YR8HR	19.11	17.85	0.0000	28.20	28.27	1736
NCL3280	F3A5YR8HR	0.00	18.01	0.0000	26.16	26.04	999
NCL3290	F3A5YR8HR	20.16	18.85	0.0000	22.09	21.97	1672
NCL3300	F3A5YR8HR	0.00	18.91	0.0000	2.59	2.42	747
NCL3310	F3A5YR8HR	20.19	18.85	0.0000	1.53	1.91	762
NCL3330	F3A5YR8HR	20.75	18.93	0.0000	2.26	2.12	437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3350	F3A5YR8HR	20.51	20.34	0.0000	18.74	14.58	19445
NCL3360	F3A5YR8HR	0.00	20.37	0.0000	3.78	3.18	10481
NCL3365	F3A5YR8HR	0.00	20.12	0.0000	12.88	12.63	17032
NCL3370	F3A5YR8HR	20.64	20.87	-0.0002	71.81	67.19	83397
NCL3390	F3A5YR8HR	20.83	20.98	-0.0001	65.87	65.47	39130
NCL3410	F3A5YR8HR	20.83	20.99	0.0000	1.85	2.64	477
NCL3430	F3A5YR8HR	20.83	20.99	0.0000	2.69	1.40	3862
NCL3450	F3A5YR8HR	18.92	16.60	0.0001	213.04	213.05	6328
NCL3470	F3A5YR8HR	19.11	16.98	0.0001	146.58	146.02	4630
NCL3471	F3A5YR8HR	0.00	16.67	0.0001	107.25	106.65	5436
NCL3490	F3A5YR8HR	19.15	17.72	0.0000	92.37	92.03	2750
NCL3510	F3A5YR8HR	20.64	19.44	0.0000	73.84	72.79	15786
NCL3520	F3A5YR8HR	0.00	19.35	-0.0001	152.80	152.78	18921
NCL3530	F3A5YR8HR	20.66	20.49	0.0000	93.49	90.50	56404
NCL3550	F3A5YR8HR	20.66	20.49	-0.0001	2.67	4.09	736
NCL3570	F3A5YR8HR	20.66	20.50	0.0000	1.70	2.30	627
NCL3590	F3A5YR8HR	20.66	20.55	0.0000	2.10	1.27	4792
NCL3610	F3A5YR8HR	20.66	20.48	-0.0001	40.42	40.71	1320
NCL3630	F3A5YR8HR	20.64	20.48	-0.0001	145.33	140.98	106299
NCL3635	F3A5YR8HR	0.00	20.48	-0.0001	23.37	25.01	1917
NCL3640	F3A5YR8HR	0.00	20.49	0.0000	17.42	14.82	24824
NCL3650	F3A5YR8HR	18.92	17.00	0.0000	4.09	3.77	503
NCL3670	F3A5YR8HR	18.92	17.99	0.0000	6.17	6.07	436
NCL3690	F3A5YR8HR	18.92	16.40	0.0001	115.94	113.01	2124
NCL3730	F3A5YR8HR	18.92	16.15	0.0000	321.13	320.96	96807
NCL3740	F3A5YR8HR	0.00	16.40	0.0001	203.02	202.13	4692
NCL3750	F3A5YR8HR	18.93	18.79	-0.0009	107.76	101.22	167558
NCL3770	F3A5YR8HR	18.93	18.80	-0.0005	35.90	33.76	80715
NCL4000	F3A5YR8HR	0.00	29.69	0.0000	27.87	27.86	5149
NCL4010	F3A5YR8HR	0.00	29.39	0.0000	21.42	21.35	12670
NCypEast	F3A5YR8HR	32.00	29.00	0.0000	5.98	0.00	0
NCypWest	F3A5YR8HR	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3A5YR8HR	2.00	2.00	0.0000	368.87	0.00	0
NOC0030	F3A5YR8HR	1.14	2.19	0.0764	697.37	368.87	504
NOC0050	F3A5YR8HR	1.20	2.32	-0.0715	370.98	548.53	530
NOC0070	F3A5YR8HR	1.45	2.80	0.0150	332.69	332.34	516
NOC0090	F3A5YR8HR	2.91	3.03	0.0074	125.50	125.62	446
NOC0110	F3A5YR8HR	1.65	2.84	0.0133	196.67	197.06	455
NOC0130	F3A5YR8HR	3.06	3.24	0.0061	196.66	196.67	528
NOC0150	F3A5YR8HR	3.08	3.25	0.0000	1.94	1.94	499
NOC0170	F3A5YR8HR	4.56	4.69	0.0000	8.39	8.39	1219
NOC0190	F3A5YR8HR	5.09	3.86	-0.0020	194.86	194.74	1077
NOC0210	F3A5YR8HR	5.68	4.35	-0.0001	16.62	16.53	781
NOC0230	F3A5YR8HR	5.12	3.89	-0.0001	5.38	5.57	742
NOC0250	F3A5YR8HR	5.30	4.04	0.0000	5.43	5.38	984
NOC0270	F3A5YR8HR	5.57	4.27	0.0000	3.03	2.94	675
NOC0290	F3A5YR8HR	5.11	3.94	-0.0009	213.46	213.55	1836

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NOC0310	F3A5YR8HR	5.27	4.05	-0.0003	38.94	38.92	450
NOC0330	F3A5YR8HR	5.85	4.18	-0.0002	174.54	174.54	2431
NOC0350	F3A5YR8HR	5.89	4.36	0.0001	123.22	123.07	1837
NOC0370	F3A5YR8HR	6.47	5.59	0.0001	81.86	81.94	2022
NOC0390	F3A5YR8HR	6.60	5.71	-0.0001	49.44	49.50	2171
NOC0410	F3A5YR8HR	6.95	6.11	0.0000	41.97	41.75	2497
NOC0430	F3A5YR8HR	7.01	6.30	0.0000	28.67	29.48	1757
NOC0450	F3A5YR8HR	7.62	6.53	0.0000	21.43	23.33	2423
NOC0470	F3A5YR8HR	8.12	7.07	0.0001	11.49	12.51	726
NOC0490	F3A5YR8HR	7.67	6.53	0.0000	3.05	5.27	1052
NRU0010	F3A5YR8HR	2.00	2.00	0.0000	504.88	0.00	0
NRU0030	F3A5YR8HR	2.84	2.64	-0.0004	241.51	240.98	2468
NRU0050	F3A5YR8HR	4.36	4.24	-0.0002	241.06	241.51	2036
NRU0070	F3A5YR8HR	5.61	4.95	0.0006	241.43	241.06	3297
NRU0090	F3A5YR8HR	5.66	5.23	-0.0001	40.39	39.10	5799
NRU0110	F3A5YR8HR	6.23	5.41	-0.0001	195.01	194.50	5430
NRU0130	F3A5YR8HR	7.66	6.14	-0.0002	178.93	178.36	2616
NRU0150	F3A5YR8HR	7.71	6.17	-0.0005	171.02	171.42	1501
NRU0160	F3A5YR8HR	0.00	12.82	0.0000	144.58	144.56	4959
NRU0165	F3A5YR8HR	0.00	12.90	0.0000	2.62	2.58	474
NRU0170	F3A5YR8HR	14.45	14.36	-0.0001	145.16	142.41	8474
NRU0172	F3A5YR8HR	0.00	14.48	0.0000	7.98	8.07	863
NRU0174	F3A5YR8HR	0.00	14.72	0.0000	7.89	7.98	1396
NRU0176	F3A5YR8HR	0.00	15.36	0.0000	7.82	7.89	762
NRU0178	F3A5YR8HR	0.00	15.99	-0.0001	7.76	7.82	959
NRU0180	F3A5YR8HR	0.00	16.20	-0.0001	29.38	22.77	79626
NRU0190	F3A5YR8HR	14.45	14.69	-0.0002	16.62	17.78	516
NRU0210	F3A5YR8HR	14.45	14.94	0.0000	14.44	14.01	602
NRU0230	F3A5YR8HR	13.39	15.01	-0.0001	10.34	9.69	16760
NRU0250	F3A5YR8HR	14.62	14.64	0.0000	113.78	113.20	4159
NRU0270	F3A5YR8HR	15.05	15.38	0.0001	101.38	101.35	2616
NRU0290	F3A5YR8HR	16.30	16.47	-0.0001	15.35	15.24	623
NRU0310	F3A5YR8HR	16.13	15.99	0.0000	79.42	80.08	2502
NRU0330	F3A5YR8HR	18.25	17.33	0.0000	28.61	29.09	1352
NRU0335	F3A5YR8HR	0.00	18.77	0.0000	4.61	4.42	861
NRU0340	F3A5YR8HR	0.00	18.27	0.0000	29.11	27.85	13167
NRU0343	F3A5YR8HR	0.00	19.08	-0.0001	11.58	11.25	918
NRU0345	F3A5YR8HR	0.00	19.36	-0.0001	19.35	16.68	50374
NRU0350	F3A5YR8HR	19.50	18.29	0.0000	7.37	8.04	977
NRU0370	F3A5YR8HR	19.51	18.28	0.0000	5.98	5.67	2472
NRU0380	F3A5YR8HR	23.33	18.22	0.0000	5.22	5.18	470
NRU0390	F3A5YR8HR	27.00	18.10	-0.0002	14.90	13.10	8355
NRU0410	F3A5YR8HR	19.56	18.29	0.0000	3.98	3.93	1094
NRU0425	F3A5YR8HR	15.53	15.69	0.0000	4.25	3.11	4944
NRU0430	F3A5YR8HR	19.61	18.30	0.0000	3.06	3.43	1070
NRU0450	F3A5YR8HR	19.66	18.31	0.0000	2.18	2.65	1043
NRU0470	F3A5YR8HR	19.72	18.36	0.0001	1.30	1.72	783

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0490	F3A5YR8HR	20.36	18.37	-0.0001	1.47	1.28	532
NRU0495	F3A5YR8HR	0.00	13.11	0.0000	623.91	623.87	2716
NRU0500	F3A5YR8HR	0.00	13.35	0.0000	623.64	621.30	5646
NRU0510	F3A5YR8HR	19.67	17.63	0.0000	13.39	12.88	567
NRU0530	F3A5YR8HR	16.95	16.60	0.0000	48.02	48.44	2251
NRU0550	F3A5YR8HR	17.92	17.25	0.0000	53.52	48.02	19190
NRU0570	F3A5YR8HR	18.16	17.34	0.0000	34.05	34.51	1524
NRU0590	F3A5YR8HR	18.51	17.44	0.0000	31.55	31.99	1745
NRU0610	F3A5YR8HR	18.78	17.51	0.0000	29.75	30.66	2500
NRU0612	F3A5YR8HR	0.00	17.50	0.0000	28.77	27.92	1555
NRU0615	F3A5YR8HR	0.00	18.24	0.0000	8.78	8.59	2141
NRU0616	F3A5YR8HR	0.00	18.20	0.0000	2.47	2.92	1112
NRU0618	F3A5YR8HR	0.00	17.96	0.0000	8.29	8.14	918
NRU0620	F3A5YR8HR	0.00	19.63	-0.0001	10.13	8.56	11552
NRU0630	F3A5YR8HR	18.79	17.40	0.0000	34.81	33.94	2175
NRU0650	F3A5YR8HR	18.79	17.33	0.0000	46.40	45.56	1810
NRU0670	F3A5YR8HR	18.78	17.25	0.0000	45.56	44.73	1429
NRU0690	F3A5YR8HR	18.84	17.14	0.0000	53.14	52.29	1934
NRU0710	F3A5YR8HR	18.86	17.00	0.0001	79.86	79.11	2310
NRU0730	F3A5YR8HR	18.85	18.12	-0.0002	19.01	17.76	12320
NRU0740	F3A5YR8HR	0.00	16.62	0.0000	84.12	83.27	2801
NRU0745	F3A5YR8HR	0.00	16.19	0.0000	87.06	86.17	3774
NRU0747	F3A5YR8HR	18.87	15.84	0.0000	86.17	85.55	1655
NRU0750	F3A5YR8HR	18.87	15.62	0.0000	105.99	105.34	1946
NRU0770	F3A5YR8HR	18.88	15.61	0.0000	22.61	21.93	982
NRU0785	F3A5YR8HR	0.00	15.60	0.0000	27.44	26.63	844
NRU0790	F3A5YR8HR	18.88	15.59	-0.0003	494.67	494.91	8788
NRU0810	F3A5YR8HR	18.88	15.59	0.0000	2.44	0.94	739
NRU0820	F3A5YR8HR	0.00	15.74	0.0000	0.00	0.00	436
NRU0830	F3A5YR8HR	18.99	15.94	-0.0004	484.99	485.16	4681
NRU0840	F3A5YR8HR	9999.00	16.10	-0.0001	429.26	429.41	2258
NRU0850	F3A5YR8HR	19.11	16.49	0.0001	153.94	153.42	2553
NRU0870	F3A5YR8HR	19.32	16.68	0.0000	19.01	19.24	560
NRU0890	F3A5YR8HR	19.35	16.78	0.0000	24.85	19.01	56165
NRU0910	F3A5YR8HR	19.35	17.07	0.0000	1.07	1.07	580
NRU0930	F3A5YR8HR	19.35	19.44	0.0000	1.10	1.07	1742
NRU0950	F3A5YR8HR	19.11	16.75	-0.0001	139.48	139.01	1381
NRU0955	F3A5YR8HR	0.00	16.86	-0.0001	127.46	127.04	2070
NRU0960	F3A5YR8HR	0.00	17.04	0.0001	124.82	124.44	3512
NRU0965	F3A5YR8HR	0.00	17.15	0.0001	124.00	123.50	3727
NRU0970	F3A5YR8HR	19.34	16.86	0.0000	11.42	10.81	1447
NRU0980	F3A5YR8HR	0.00	16.87	0.0000	8.56	8.39	1097
NRU0990	F3A5YR8HR	19.39	16.92	-0.0001	26.65	26.51	440
NRU1010	F3A5YR8HR	19.70	17.06	-0.0001	26.80	26.65	463
NRU1015	F3A5YR8HR	0.00	18.00	-0.0001	12.62	12.40	696
NRU1020	F3A5YR8HR	0.00	19.79	-0.0060	11.38	49.49	866
NRU1025	F3A5YR8HR	0.00	18.55	0.0000	9.29	9.02	724

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1030	F3A5YR8HR	19.70	17.29	0.0000	51.24	49.81	2307
NRU1035	F3A5YR8HR	0.00	17.08	0.0000	0.61	0.57	436
NRU1036	F3A5YR8HR	0.00	17.21	-0.0001	10.01	9.96	437
NRU1037	F3A5YR8HR	0.00	17.49	0.0000	1.46	0.61	640
NRU1040	F3A5YR8HR	0.00	17.17	-0.0001	13.56	13.47	454
NRU1045	F3A5YR8HR	0.00	19.85	0.0000	8.68	8.21	1567
NRU1046	F3A5YR8HR	0.00	19.82	0.0060	8.21	7.75	958
NRU1050	F3A5YR8HR	19.70	17.50	0.0000	34.98	34.24	1693
NRU1070	F3A5YR8HR	19.83	17.75	0.0000	13.54	14.50	1938
NRU1090	F3A5YR8HR	18.86	15.48	0.0001	83.33	82.75	1336
NRU1110	F3A5YR8HR	18.86	15.35	0.0001	102.63	102.00	1798
NRU1130	F3A5YR8HR	18.86	15.50	-0.0001	16.85	19.53	777
NRU1150	F3A5YR8HR	18.86	15.63	0.0000	17.50	16.85	964
NRU1170	F3A5YR8HR	18.86	18.24	0.0000	16.31	15.59	1790
NRU1182	F3A5YR8HR	0.00	15.65	0.0000	14.35	14.28	1155
NRU1184	F3A5YR8HR	0.00	16.04	0.0000	12.94	12.83	872
NRU1185	F3A5YR8HR	0.00	17.37	0.0000	7.44	7.20	661
NRU1186	F3A5YR8HR	0.00	16.27	0.0000	5.89	5.75	790
NRU1188	F3A5YR8HR	0.00	18.04	0.0000	3.21	0.28	26685
NRU1190	F3A5YR8HR	18.86	17.54	0.0000	6.98	6.54	576
NRU1210	F3A5YR8HR	18.86	17.19	0.0000	6.54	6.34	710
NRU1220	F3A5YR8HR	0.00	14.17	0.0000	17.78	17.99	2046
NRU1225	F3A5YR8HR	0.00	20.70	0.0000	2.36	2.28	436
NRU1230	F3A5YR8HR	18.88	15.13	-0.0002	569.02	569.43	4560
NRU1232	F3A5YR8HR	0.00	14.85	0.0007	581.80	592.53	3681
NRU1234	F3A5YR8HR	0.00	14.85	-0.0001	0.76	1.81	450
NRU1240	F3A5YR8HR	0.00	15.61	0.0000	2.83	2.82	452
NRU1250	F3A5YR8HR	4.07	4.32	-0.0018	264.13	264.12	2104
NRU1270	F3A5YR8HR	4.78	4.94	0.0009	261.98	261.97	1667
NRU1290	F3A5YR8HR	5.41	5.52	-0.0004	254.09	254.12	3103
NRU1310	F3A5YR8HR	6.42	6.45	0.0000	254.07	254.09	5052
NRU1330	F3A5YR8HR	8.29	8.18	0.0000	281.04	280.96	3357
NRU1350	F3A5YR8HR	9.32	9.21	0.0000	278.19	278.17	2409
NRU1370	F3A5YR8HR	11.03	10.85	0.0000	274.76	274.72	5323
NRU1390	F3A5YR8HR	11.84	11.55	0.0000	34.29	34.04	1238
NRU1410	F3A5YR8HR	12.56	12.25	0.0000	231.49	231.89	7476
NRU1430	F3A5YR8HR	15.53	15.69	-0.0001	37.37	30.34	38674
NRU1450	F3A5YR8HR	15.94	15.94	0.0000	22.59	22.41	3700
NRU1470	F3A5YR8HR	15.97	15.97	0.0000	4.98	5.10	981
NRU1490	F3A5YR8HR	16.09	16.09	0.0000	5.08	4.98	2106
NRU1510	F3A5YR8HR	15.12	14.60	0.0000	170.94	171.67	10593
NRU1530	F3A5YR8HR	15.71	15.38	0.0000	73.91	74.23	3045
NRU1550	F3A5YR8HR	15.40	15.33	0.0000	59.28	59.27	1678
NRU1570	F3A5YR8HR	16.20	16.28	0.0000	45.89	45.73	1398
NRU1590	F3A5YR8HR	16.40	16.41	0.0000	4.36	4.20	1257
NRU1610	F3A5YR8HR	16.56	16.77	0.0000	39.69	38.82	1573
NRU1630	F3A5YR8HR	16.69	16.96	0.0000	33.46	33.58	1538

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1650	F3A5YR8HR	16.84	17.14	0.0000	33.36	33.46	7977
NRU1670	F3A5YR8HR	16.89	17.21	0.0000	34.17	31.50	107919
NRU1690	F3A5YR8HR	16.89	17.20	0.0000	32.01	31.84	2563
NRU1710	F3A5YR8HR	16.60	17.06	0.0000	28.74	28.56	1426
NRU1730	F3A5YR8HR	16.58	17.04	0.0000	60.49	26.12	136868
NRU1750	F3A5YR8HR	16.58	17.04	0.0002	14.53	16.90	720
NRU1770	F3A5YR8HR	16.58	17.04	0.0000	18.46	18.37	3241
NRU1790	F3A5YR8HR	17.21	17.06	0.0000	4.98	4.91	1122
NRU1810	F3A5YR8HR	16.58	17.04	0.0000	7.54	3.51	18763
NRU1830	F3A5YR8HR	17.12	17.06	0.0000	11.95	11.89	1556
NRU1850	F3A5YR8HR	17.07	17.36	0.0000	21.68	21.56	1087
NRU1870	F3A5YR8HR	17.20	17.48	0.0000	21.81	21.68	908
NRU1890	F3A5YR8HR	17.38	17.62	0.0000	27.43	21.81	18018
NRU1910	F3A5YR8HR	17.71	17.73	0.0001	11.09	10.71	2764
NRU1930	F3A5YR8HR	15.71	15.39	0.0000	50.69	53.34	15549
NRU1950	F3A5YR8HR	16.43	15.95	0.0000	48.74	48.84	1645
NRU1970	F3A5YR8HR	16.86	16.30	0.0000	48.65	48.74	1037
NRU1990	F3A5YR8HR	17.09	16.48	0.0000	48.56	48.65	1719
NRU2010	F3A5YR8HR	18.02	17.49	0.0000	11.46	11.55	1363
NRU2030	F3A5YR8HR	18.39	17.94	0.0001	8.94	8.29	5494
NRU2050	F3A5YR8HR	18.40	17.97	0.0000	2.42	2.98	453
NRU2070	F3A5YR8HR	18.41	18.00	0.0000	2.44	2.42	436
NRU2090	F3A5YR8HR	17.16	16.54	0.0000	34.18	34.30	983
NRU2110	F3A5YR8HR	17.28	16.65	0.0000	32.85	32.85	1563
NRU2130	F3A5YR8HR	17.49	16.86	0.0000	33.00	32.99	1850
NRU2150	F3A5YR8HR	17.69	17.07	0.0000	5.17	4.81	1631
NRU2170	F3A5YR8HR	17.07	16.94	0.0000	3.08	3.23	773
NRU2190	F3A5YR8HR	17.08	16.98	0.0000	5.90	3.08	26900
NRU2210	F3A5YR8HR	17.33	16.85	-0.0001	2.27	1.84	538
NRU2230	F3A5YR8HR	17.33	16.45	0.0000	9.56	0.30	77978
NRU2250	F3A5YR8HR	17.31	16.45	0.0000	1.74	1.12	11112
NRU2270	F3A5YR8HR	17.61	16.95	0.0000	27.63	27.61	1283
NRU2290	F3A5YR8HR	17.67	16.99	-0.0001	20.03	20.15	1150
NRU2310	F3A5YR8HR	17.68	17.01	0.0000	14.45	14.56	1271
NRU2330	F3A5YR8HR	17.68	17.01	0.0001	32.71	7.44	756
NRU2350	F3A5YR8HR	17.68	17.01	-0.0001	3.79	30.03	654
NRU2370	F3A5YR8HR	17.37	16.75	0.0000	3.56	3.79	528
NRU2390	F3A5YR8HR	17.36	16.76	0.0000	5.32	3.56	32234
NRU2410	F3A5YR8HR	17.72	17.04	0.0000	6.70	6.81	1098
NRU2430	F3A5YR8HR	17.83	17.06	0.0000	5.72	5.83	925
NRU2450	F3A5YR8HR	18.06	17.07	0.0000	2.12	1.16	588
NRU2470	F3A5YR8HR	15.72	15.38	0.0000	4.66	3.49	1614
NRU2490	F3A5YR8HR	15.75	15.39	0.0000	4.65	4.30	1418
NRU2510	F3A5YR8HR	15.75	15.38	0.0000	4.30	2.71	945
NRU2530	F3A5YR8HR	15.76	15.38	0.0000	2.71	0.19	582
NRU2550	F3A5YR8HR	16.53	15.30	0.0000	49.20	48.53	2426
NRU2570	F3A5YR8HR	17.71	16.50	0.0000	42.18	41.52	1979

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU2590	F3A5YR8HR	18.30	17.47	0.0000	32.39	32.67	1455
NRU2610	F3A5YR8HR	18.62	18.08	0.0000	31.49	31.75	1170
NRU2630	F3A5YR8HR	19.41	19.05	-0.0001	25.08	26.84	25146
NRU2650	F3A5YR8HR	19.54	19.58	-0.0001	18.39	17.25	23354
NRU2670	F3A5YR8HR	16.64	16.60	0.0000	21.78	21.73	2044
NRU2690	F3A5YR8HR	17.09	17.19	-0.0001	113.99	76.03	230904
NSH02	F3A5YR8HR	0.00	20.68	-0.0002	7.17	6.96	2123
NSH03	F3A5YR8HR	0.00	18.02	-0.0227	0.19	12.94	767
NSH04	F3A5YR8HR	0.00	14.66	0.0000	29.06	27.70	4608
NSH05	F3A5YR8HR	0.00	8.07	-0.0001	646.67	646.66	5036
NSH07	F3A5YR8HR	0.00	7.40	-0.0001	16.64	16.40	623
NSH08	F3A5YR8HR	0.00	7.20	0.0000	11.20	11.17	1559
NSH09	F3A5YR8HR	0.00	8.98	0.0001	28.68	24.04	8322
NSH10	F3A5YR8HR	0.00	19.01	0.0000	11.90	11.75	28266
NSH11	F3A5YR8HR	0.00	21.03	0.0000	4.07	4.05	6072
NSH12	F3A5YR8HR	0.00	7.60	0.0000	650.10	650.39	4106
NSH13	F3A5YR8HR	0.00	7.43	0.0010	658.65	659.49	4604
NSH14	F3A5YR8HR	0.00	7.38	-0.0017	663.72	663.14	1911
NSH15	F3A5YR8HR	0.00	18.67	0.0000	3.06	3.06	6194
NSH16	F3A5YR8HR	0.00	7.92	0.0004	33.36	33.52	652
NSH17	F3A5YR8HR	0.00	7.32	-0.0015	664.00	664.61	2161
NSH18	F3A5YR8HR	0.00	7.29	-0.0007	694.40	692.45	3006
NSH19	F3A5YR8HR	0.00	6.50	-0.0002	694.74	694.77	5396
NSH20	F3A5YR8HR	0.00	20.16	0.0000	1.81	1.78	10642
NSH21	F3A5YR8HR	0.00	9.73	0.0000	6.83	6.80	587
NSH22	F3A5YR8HR	0.00	13.38	0.0001	23.22	21.49	2534
NSH23	F3A5YR8HR	0.00	18.11	0.0000	5.51	5.50	2402
NSH24	F3A5YR8HR	0.00	13.60	0.0000	9.57	8.61	2836
NSH25	F3A5YR8HR	0.00	12.30	-0.0001	10.04	10.39	671
NSH26	F3A5YR8HR	0.00	11.84	0.0001	23.60	23.47	1186
NSH26A	F3A5YR8HR	0.00	11.61	0.0000	33.39	33.36	2060
NSH27	F3A5YR8HR	0.00	11.16	0.0000	4.05	3.71	3049
NSH27A	F3A5YR8HR	0.00	11.02	0.0000	14.78	14.54	921
NSH27AA	F3A5YR8HR	0.00	11.05	0.0000	3.71	3.74	560
NSH27B	F3A5YR8HR	0.00	10.07	-0.0001	14.54	17.78	1033
NSH27C	F3A5YR8HR	0.00	8.44	-0.0001	17.78	14.00	1036
NSH28	F3A5YR8HR	0.00	9.35	0.0000	7.95	6.27	8050
NSH29	F3A5YR8HR	0.00	7.43	-0.0001	5.86	11.85	648
NSH31	F3A5YR8HR	0.00	9.32	0.0000	6.27	5.42	480
NSH33	F3A5YR8HR	0.00	16.54	0.0000	1.29	1.28	3410
NSH34	F3A5YR8HR	0.00	8.74	0.0000	19.68	19.64	773
NSH35	F3A5YR8HR	0.00	7.54	-0.0001	7.35	7.85	768
NSH36	F3A5YR8HR	0.00	7.49	-0.0002	20.93	20.91	805
NSH37	F3A5YR8HR	0.00	7.41	-0.0013	662.67	663.25	1881
NSH41	F3A5YR8HR	0.00	14.18	0.0000	2.31	2.30	464
NSH42	F3A5YR8HR	0.00	3.18	0.0001	41.83	41.83	447
NSH43	F3A5YR8HR	0.00	3.83	-0.0002	41.50	41.49	507

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH44	F3A5YR8HR	0.00	6.76	0.0000	7.16	7.15	670
NSH45	F3A5YR8HR	0.00	16.19	0.0000	17.56	17.42	19123
NSH48	F3A5YR8HR	0.00	18.15	0.0000	7.81	7.81	2404
NSH49	F3A5YR8HR	0.00	16.79	0.0000	7.60	7.59	473
NSH50	F3A5YR8HR	0.00	13.98	-0.0003	642.03	635.09	6021
NSH51	F3A5YR8HR	0.00	16.02	0.0000	16.41	16.37	1331
NSH52	F3A5YR8HR	0.00	14.17	-0.0023	598.97	641.32	4151
NSH53	F3A5YR8HR	0.00	14.68	0.0000	21.45	21.35	1028
NSH53B	F3A5YR8HR	0.00	14.17	-0.0006	7.00	7.93	448
NSH54	F3A5YR8HR	0.00	14.67	0.0000	22.31	22.01	1255
NSH55	F3A5YR8HR	0.00	14.65	0.0009	594.61	595.01	5311
NSH55B	F3A5YR8HR	0.00	14.69	0.0001	4.80	5.74	447
NSH56	F3A5YR8HR	0.00	14.86	0.0001	2.68	3.15	465
NSH57	F3A5YR8HR	0.00	14.87	0.0000	2.62	2.68	457
NSH60	F3A5YR8HR	0.00	18.32	0.0000	7.66	7.60	436
NSH61	F3A5YR8HR	0.00	14.85	0.0000	7.07	7.06	451
NSH65	F3A5YR8HR	0.00	19.96	0.0000	1.63	1.55	436
NSH71	F3A5YR8HR	9999.00	15.01	0.0000	10.50	10.55	2465
NSH75	F3A5YR8HR	0.00	5.40	-0.0015	705.65	705.63	4065
NSH76	F3A5YR8HR	0.00	4.31	0.0060	664.46	664.45	2030
NSH80	F3A5YR8HR	0.00	13.65	0.0004	647.35	616.12	6657
NSH81	F3A5YR8HR	0.00	20.29	0.0000	0.19	0.00	1742
NSH82	F3A5YR8HR	0.00	20.80	0.0000	1.04	0.14	5297
NSH83	F3A5YR8HR	0.00	13.69	-0.0001	11.44	12.46	1461
NSH85	F3A5YR8HR	0.00	13.56	0.0001	619.44	613.14	4681
NSHSelmonDS	F3A5YR8HR	9999.00	10.38	0.0001	644.90	644.88	6356
NSHSelmonUS	F3A5YR8HR	9999.00	12.61	-0.0002	623.87	623.87	3189
NSR0000	F3A5YR8HR	2.00	2.00	0.0000	264.90	22.95	0
NSR0005	F3A5YR8HR	2.00	2.00	0.0000	3.87	0.00	0
NSR0010	F3A5YR8HR	2.00	2.00	0.0000	352.12	0.00	0
NSR0030	F3A5YR8HR	2.92	3.09	0.0000	362.48	352.12	216784
NSR0032	F3A5YR8HR	4.88	5.00	0.0000	6.44	4.21	18434
NSR0034	F3A5YR8HR	3.63	3.59	0.0000	37.07	36.46	13653
NSR0050	F3A5YR8HR	3.44	3.58	0.0000	330.86	323.10	86809
NSR0070	F3A5YR8HR	3.45	3.58	0.0001	18.97	18.41	27390
NSR0090	F3A5YR8HR	3.68	3.63	0.0000	18.59	18.07	7473
NSR0100	F3A5YR8HR	2.25	2.23	0.0000	3.87	3.87	524
NSR0102	F3A5YR8HR	4.24	4.28	0.0000	2.59	2.54	2188
NSR0105	F3A5YR8HR	1.91	2.71	0.0058	264.95	264.90	484
NSR0110	F3A5YR8HR	3.93	4.01	0.0000	10.59	10.39	2006
NSR0112	F3A5YR8HR	2.31	3.03	0.0435	263.62	263.61	457
NSR0115	F3A5YR8HR	4.25	4.30	0.0000	1.32	1.30	7177
NSR0120	F3A5YR8HR	2.62	3.28	-0.0548	261.03	261.08	479
NSR0130	F3A5YR8HR	4.16	4.21	0.0000	6.12	5.59	4009
NSR0135	F3A5YR8HR	4.22	4.26	0.0000	2.10	2.01	438

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0140	F3A5YR8HR	3.28	3.81	0.0182	258.19	258.18	477
NSR0150	F3A5YR8HR	3.64	3.80	0.0002	311.96	311.41	28856
NSR0160	F3A5YR8HR	3.56	4.03	0.0162	255.89	255.95	1813
NSR0165	F3A5YR8HR	4.03	4.04	0.0000	1.81	1.67	440
NSR0170	F3A5YR8HR	3.70	3.83	0.0000	3.37	2.87	1898
NSR0180	F3A5YR8HR	3.83	3.94	0.0000	3.82	3.34	2773
NSR0190	F3A5YR8HR	4.04	3.87	-0.0001	14.05	13.76	2181
NSR0210	F3A5YR8HR	4.26	3.90	-0.0001	13.02	12.37	2860
NSR0230	F3A5YR8HR	4.26	3.91	0.0000	12.64	11.15	9053
NSR0250	F3A5YR8HR	3.93	4.05	0.0039	296.18	295.93	12764
NSR0270	F3A5YR8HR	3.98	4.12	0.0000	58.73	58.48	14978
NSR0280	F3A5YR8HR	5.41	5.70	-0.0016	212.92	211.63	20346
NSR0281	F3A5YR8HR	5.97	6.28	-0.0004	208.59	207.94	10528
NSR0290	F3A5YR8HR	6.70	6.64	-0.0003	70.46	69.04	17702
NSR0310	F3A5YR8HR	9.28	9.24	0.0000	59.57	59.00	63300
NSR0330	F3A5YR8HR	9.65	9.56	0.0001	6.43	6.44	470
NSR0350	F3A5YR8HR	10.32	10.16	0.0001	6.47	6.43	446
NSR0370	F3A5YR8HR	10.35	10.23	0.0000	7.09	6.47	5787
NSR0390	F3A5YR8HR	11.96	12.07	0.0000	27.23	25.79	20154
NSR0410	F3A5YR8HR	12.27	12.30	0.0000	6.89	7.11	510
NSR0430	F3A5YR8HR	12.28	12.32	0.0000	5.86	6.89	17195
NSR0450	F3A5YR8HR	13.04	13.73	-0.0001	20.10	19.59	2380
NSR0470	F3A5YR8HR	13.10	13.88	0.0000	13.52	13.38	1159
NSR0490	F3A5YR8HR	4.41	4.51	0.0046	127.42	127.26	16538
NSR0510	F3A5YR8HR	4.48	4.66	-0.0010	61.38	61.55	12150
NSR0530	F3A5YR8HR	4.55	4.70	0.0000	6.28	5.77	4292
NSR0540	F3A5YR8HR	4.55	4.83	-0.0006	57.40	55.31	63516
NSR0550	F3A5YR8HR	4.56	4.85	-0.0035	305.85	305.52	10217
NSR0560	F3A5YR8HR	4.66	4.89	-0.0010	95.56	99.74	51284
NSR0570	F3A5YR8HR	5.28	5.36	0.0001	87.58	88.72	47971
NSR0580	F3A5YR8HR	6.13	6.22	-0.0001	12.36	10.24	70813
NSR0590	F3A5YR8HR	6.15	6.26	-0.0001	84.03	83.71	34927
NSR0610	F3A5YR8HR	6.26	6.33	-0.0001	36.02	32.22	49663
NSR0630	F3A5YR8HR	6.26	6.33	-0.0001	16.62	16.69	475
NSR0650	F3A5YR8HR	6.25	6.32	0.0000	37.25	23.03	154477
NSR0660	F3A5YR8HR	6.13	6.21	-0.0001	28.14	10.55	62177
NSR0670	F3A5YR8HR	6.24	6.31	-0.0001	7.50	8.40	520
NSR0680	F3A5YR8HR	6.14	6.21	-0.0001	11.07	6.93	108831
NSR0690	F3A5YR8HR	6.24	6.30	-0.0001	6.94	7.50	599
NSR0710	F3A5YR8HR	6.23	6.29	0.0000	6.85	6.94	861
NSR0730	F3A5YR8HR	6.29	6.35	0.0000	110.54	97.49	143220
NSR0770	F3A5YR8HR	6.81	6.96	0.0001	92.06	91.38	8700
NSR0780	F3A5YR8HR	6.74	6.74	-0.0001	7.70	7.18	14079
NSR0790	F3A5YR8HR	8.35	8.94	-0.0003	300.01	290.24	25896
NSR0791	F3A5YR8HR	7.13	7.58	0.0002	201.17	201.14	5596
NSR0809	F3A5YR8HR	12.76	10.01	0.0004	70.82	94.20	2125
NSR0810	F3A5YR8HR	13.45	13.40	-0.0002	133.34	132.77	59873

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0830	F3A5YR8HR	15.10	15.15	-0.0001	135.04	130.88	118415
NSR0840	F3A5YR8HR	16.09	16.07	0.0000	21.20	21.37	33510
NSR0850	F3A5YR8HR	15.64	15.69	-0.0003	94.74	91.40	71651
NSR0860	F3A5YR8HR	16.41	16.39	0.0000	5.30	5.35	6102
NSR0869	F3A5YR8HR	16.03	16.07	-0.0001	30.00	29.87	1505
NSR0870	F3A5YR8HR	16.24	16.27	0.0001	60.53	60.36	27426
NSR0880	F3A5YR8HR	16.24	16.28	0.0000	19.78	19.70	9172
NSR0881	F3A5YR8HR	14.14	15.70	0.0004	235.54	235.73	13396
NSR0890	F3A5YR8HR	4.02	4.12	-0.0768	251.08	293.65	39000
NSR0910	F3A5YR8HR	4.79	4.86	0.0023	184.24	184.89	19598
NSR0930	F3A5YR8HR	5.54	5.75	0.0000	73.71	30.49	235905
NSR0950	F3A5YR8HR	5.63	5.75	0.0004	204.47	203.83	28401
NSR0970	F3A5YR8HR	6.14	6.20	0.0002	139.22	139.39	3616
NSR0990	F3A5YR8HR	6.27	6.32	-0.0001	175.15	175.20	4244
NSR1010	F3A5YR8HR	6.30	6.35	0.0000	33.22	32.67	10232
NSR1030	F3A5YR8HR	8.54	8.58	-0.0001	142.69	142.54	9336
NSR1050	F3A5YR8HR	8.56	8.60	0.0000	40.46	39.07	21780
NSR1070	F3A5YR8HR	9.58	9.59	-0.0002	176.78	176.00	23383
NSR1090	F3A5YR8HR	11.30	11.39	0.0002	144.57	144.62	8165
NSR1110	F3A5YR8HR	11.57	11.55	0.0000	1.43	1.43	2841
NSR1130	F3A5YR8HR	11.29	11.33	0.0000	17.43	17.42	14456
NSR1150	F3A5YR8HR	11.39	11.44	0.0000	3.54	3.19	7475
NSR1170	F3A5YR8HR	11.38	11.43	0.0000	3.19	2.70	451
NSR1190	F3A5YR8HR	12.70	13.07	0.0000	143.33	143.33	13251
NSR1210	F3A5YR8HR	12.70	13.08	0.0000	15.63	8.05	72494
NSR1230	F3A5YR8HR	14.76	15.10	0.0000	140.57	140.53	9597
NSR1270	F3A5YR8HR	14.99	15.31	0.0000	140.63	140.57	6276
NSR1290	F3A5YR8HR	14.99	15.31	0.0000	5.55	2.67	21910
NSR1310	F3A5YR8HR	14.99	15.31	0.0000	15.24	10.35	74063
NSR1330	F3A5YR8HR	15.44	15.86	0.0000	137.45	136.52	22440
NSR1350	F3A5YR8HR	15.45	15.87	0.0000	22.76	18.11	90049
NSR1370	F3A5YR8HR	15.56	15.97	0.0000	127.39	125.06	21929
NSR1390	F3A5YR8HR	15.56	15.97	0.0000	2.01	1.82	4230
NSR1410	F3A5YR8HR	15.56	15.97	-0.0001	18.43	17.71	16905
NSR1430	F3A5YR8HR	15.76	16.08	0.0000	37.93	34.96	29576
NSR1450	F3A5YR8HR	15.74	16.08	0.0000	48.68	33.59	88799
NSR1470	F3A5YR8HR	15.96	16.11	0.0000	36.91	34.67	32152
NSR1490	F3A5YR8HR	16.21	16.22	0.0000	38.66	31.37	119487
NSR1510	F3A5YR8HR	16.21	16.22	0.0000	23.39	22.30	27106
NSR1530	F3A5YR8HR	15.56	15.97	0.0000	3.01	2.12	8185
NSR1550	F3A5YR8HR	15.68	16.06	0.0001	123.30	117.90	33612
NSR1570	F3A5YR8HR	15.68	16.06	0.0000	2.11	1.62	34037
NSR1590	F3A5YR8HR	15.68	16.07	0.0001	36.74	41.38	27027
NSR1610	F3A5YR8HR	15.75	16.13	0.0000	13.25	12.02	15317
NSR1630	F3A5YR8HR	15.75	16.13	0.0000	88.89	82.24	19963
NSR1650	F3A5YR8HR	16.39	17.06	0.0000	1.70	1.70	436
NSR1670	F3A5YR8HR	15.92	16.32	0.0001	33.80	28.97	29381

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1690	F3A5YR8HR	16.24	16.65	0.0000	79.99	72.97	21422
NSR1710	F3A5YR8HR	16.25	16.65	0.0000	4.33	4.22	6037
NSR1730	F3A5YR8HR	16.32	16.71	0.0000	79.52	75.66	10085
NSR1750	F3A5YR8HR	16.68	16.72	0.0000	1.78	1.78	508
NSR1770	F3A5YR8HR	17.23	17.37	0.0000	20.38	14.97	19144
NSR1790	F3A5YR8HR	17.24	17.37	0.0000	21.24	15.02	32732
NSR1810	F3A5YR8HR	17.25	17.37	0.0000	8.30	7.39	12718
NSR1830	F3A5YR8HR	17.25	17.37	0.0000	34.75	31.04	83528
NSR1850	F3A5YR8HR	16.95	17.19	0.0000	7.21	7.81	13456
NSR1870	F3A5YR8HR	16.93	17.19	0.0001	24.13	22.20	57435
NSR1890	F3A5YR8HR	16.05	17.17	0.0000	13.22	13.49	1056
NSR1910	F3A5YR8HR	15.45	17.16	0.0002	47.49	40.16	38014
NSR1930	F3A5YR8HR	16.53	16.90	0.0000	60.52	60.28	2798
NSR1950	F3A5YR8HR	16.70	16.97	0.0000	18.58	18.24	6291
NSR1970	F3A5YR8HR	16.84	17.16	0.0000	22.01	18.90	37340
NSR1990	F3A5YR8HR	16.86	17.11	0.0000	9.81	9.20	949
NSR2010	F3A5YR8HR	16.91	17.08	0.0000	10.65	9.81	30333
NSR2030	F3A5YR8HR	16.90	17.01	0.0000	8.05	8.05	751
NSR2050	F3A5YR8HR	16.88	16.89	0.0000	11.45	10.96	15489
NSR2070	F3A5YR8HR	16.81	16.82	0.0000	6.17	6.17	782
NSR2090	F3A5YR8HR	16.72	16.72	0.0000	6.17	6.17	697
NSR2110	F3A5YR8HR	16.54	16.53	0.0000	12.53	12.45	14548
NSR2130	F3A5YR8HR	16.50	16.49	0.0000	9.82	9.53	88744
NSR2150	F3A5YR8HR	17.60	17.15	0.0000	45.61	44.13	154252
NSR2170	F3A5YR8HR	17.62	17.24	0.0001	29.61	29.47	2088
NSR2190	F3A5YR8HR	17.62	17.27	0.0000	29.74	29.61	967
NSR2210	F3A5YR8HR	17.62	17.33	0.0000	34.39	27.32	89306
NSR2230	F3A5YR8HR	17.62	17.30	0.0000	18.98	18.60	675
NSR2250	F3A5YR8HR	17.63	17.34	0.0000	19.48	18.98	11154
NSR2270	F3A5YR8HR	17.63	17.34	0.0000	20.19	18.46	21939
NSR2290	F3A5YR8HR	17.63	17.35	0.0001	16.01	15.74	888
NSR2310	F3A5YR8HR	17.63	17.36	0.0000	16.33	16.01	16723
NSR2330	F3A5YR8HR	17.65	17.74	0.0000	14.33	12.08	26629
NSR2350	F3A5YR8HR	17.65	17.75	0.0000	13.22	9.84	31856
NSR2370	F3A5YR8HR	16.66	16.92	0.0000	18.38	15.80	9676
NSR2390	F3A5YR8HR	18.07	17.99	0.0000	6.98	3.25	58993
NSR2410	F3A5YR8HR	16.66	16.92	0.0000	23.21	17.57	18388
NSR2430	F3A5YR8HR	17.99	17.96	0.0000	1.56	1.55	2318
NSR2450	F3A5YR8HR	18.06	17.99	0.0000	20.74	20.69	12032
NSR3000	F3A5YR8HR	17.04	17.19	-0.0727	4.55	49.45	1260
NSR3005	F3A5YR8HR	17.02	17.19	0.1453	49.45	3.50	566
NSR3020	F3A5YR8HR	17.61	17.68	-0.0001	22.15	22.04	61473
NSR3040	F3A5YR8HR	16.25	16.29	0.0000	45.76	45.55	31495
NSR3060	F3A5YR8HR	16.21	16.22	-0.0001	17.91	16.78	41931
NSW0010	F3A5YR8HR	2.00	2.00	0.0000	16.53	0.00	0
NSW0030	F3A5YR8HR	2.13	2.36	0.0003	16.53	16.53	587
NSW0050	F3A5YR8HR	4.04	3.09	-0.0001	16.56	16.53	959

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
Outfall	F3A5YR8HR	2.00	2.00	0.0000	51.86	0.00	0
Outfall_NE	F3A5YR8HR	21.00	20.99	0.0018	8.26	0.00	0
PondA	F3A5YR8HR	0.00	18.02	0.0294	14.59	10.50	25364
PondB	F3A5YR8HR	0.00	14.62	0.0000	85.61	62.04	71572
SH_OUTFALL	F3A5YR8HR	2.00	2.00	0.0000	799.36	32.38	0
STORAGE1	F3A5YR8HR	0.00	18.93	0.0000	2.12	0.97	7405
STORAGE10	F3A5YR8HR	0.00	19.96	0.0000	1.55	0.00	9148
STORAGE11	F3A5YR8HR	0.00	20.68	0.0000	6.96	0.01	18648
STORAGE12	F3A5YR8HR	0.00	19.79	0.0001	42.72	5.91	10262
STORAGE13	F3A5YR8HR	0.00	17.08	0.0000	0.57	0.06	5323
STORAGE14	F3A5YR8HR	0.00	20.70	0.0000	2.28	0.00	13395
STORAGE2	F3A5YR8HR	0.00	17.99	0.0000	4.01	1.29	18426
STORAGE4	F3A5YR8HR	0.00	17.92	0.0000	6.11	1.68	12088
STORAGE5	F3A5YR8HR	0.00	21.04	0.0000	13.23	3.42	19934
STORAGE8	F3A5YR8HR	0.00	14.94	0.0000	0.00	0.00	100
STORAGE9	F3A5YR8HR	0.00	18.32	0.0000	5.32	1.11	11761
Sevilla1	F3A5YR8HR	1.20	2.09	0.0000	0.02	0.03	804
Sevilla2	F3A5YR8HR	1.23	2.05	0.0000	0.01	0.01	609
Sevilla3	F3A5YR8HR	1.20	2.09	0.0000	0.06	0.09	1339
Sevilla4	F3A5YR8HR	1.20	2.09	0.0000	0.11	0.14	1450
Shamrock2	F3A5YR8HR	1.11	2.05	0.0001	51.91	51.86	5389
Shmrck1.1	F3A5YR8HR	1.38	2.16	-0.0001	51.84	51.87	6206
Shmrck1.2	F3A5YR8HR	1.20	2.09	-0.0002	51.87	51.91	3971
THEA_JUNCT 1	F3A5YR8HR	0.00	13.60	0.0000	25.82	25.78	667
THEA_JUNCT 2	F3A5YR8HR	0.00	13.10	0.0000	25.78	25.77	501
THEA_Watrou s	F3A5YR8HR	0.00	14.58	0.0002	25.93	25.82	814
V3	F3A5YR8HR	6.53	6.53	0.0000	0.00	0.00	436
BC_N02	F3AMilton	0.00	18.00	0.0000	5.24	0.00	0
Church1	F3AMilton	8.77	10.64	-0.0001	0.68	0.41	533
Church2	F3AMilton	8.77	10.64	0.0001	9.93	9.87	4390
Clark1	F3AMilton	7.21	8.26	-0.0003	0.54	0.56	743
Clark2	F3AMilton	7.21	8.26	-0.0005	67.32	68.29	22766
DM1	F3AMilton	11.42	12.11	-0.0001	10.12	10.13	1417
DM2	F3AMilton	10.30	10.99	0.0001	10.13	10.03	2201
DM3	F3AMilton	9.16	10.69	-0.0001	10.03	9.93	2968
E_Outlet	F3AMilton	0.00	16.23	-0.0056	164.24	26.75	0
E_Outlet2	F3AMilton	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3AMilton	1.99	4.16	0.0006	1.47	1.30	763
ElP_con.1	F3AMilton	2.18	4.45	0.0030	99.48	106.74	4221
ElPrad.1	F3AMilton	1.99	4.16	0.0001	0.67	0.44	632
G1	F3AMilton	14.98	16.47	0.3099	342.28	483.15	38289
G10	F3AMilton	8.77	10.60	0.0005	67.34	67.32	4600
G2	F3AMilton	14.99	16.18	-0.0229	121.34	128.34	32965
G3	F3AMilton	14.86	16.25	-0.1924	384.57	319.83	27815

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
G4	F3AMilton	12.82	15.14	-0.0041	169.81	153.30	57231
G5	F3AMilton	11.69	14.02	-0.0054	99.11	98.60	46198
G6	F3AMilton	11.00	9.24	0.0000	14.82	0.00	0
G7	F3AMilton	11.00	12.44	-0.0001	72.33	72.33	3601
G8	F3AMilton	10.07	11.40	-0.0001	59.41	59.00	2143
G9	F3AMilton	9.41	10.88	-0.0001	59.00	58.58	1353
H1	F3AMilton	1.99	5.35	-0.0015	43.90	43.88	16513
H2.1	F3AMilton	1.99	4.16	0.0010	143.32	143.31	6108
Hubert	F3AMilton	3.16	5.26	-0.0004	68.97	74.03	5965
JUNCT1	F3AMilton	0.00	13.82	-0.0001	0.58	0.57	1129
JUNCT10	F3AMilton	0.00	22.07	-0.0001	51.31	51.24	10612
JUNCT2	F3AMilton	0.00	13.99	-0.0007	13.23	9.23	1611
JUNCT3	F3AMilton	0.00	19.85	0.0001	2.64	2.55	7587
JUNCT4	F3AMilton	0.00	13.59	0.0000	1.87	1.87	4257
JUNCT6	F3AMilton	0.00	17.55	-0.0313	973.74	1143.43	10285
JUNCT7	F3AMilton	0.00	19.56	-0.0001	108.15	108.23	8387
JUNCT7B	F3AMilton	0.00	19.31	-0.0001	111.07	109.46	22834
JUNCT8	F3AMilton	0.00	19.56	-0.0007	193.90	177.60	11633
JUNCT8B	F3AMilton	0.00	19.31	-0.0001	177.11	174.44	34995
JUNCT9	F3AMilton	0.00	29.51	-0.0002	48.49	50.87	9415
L1	F3AMilton	11.53	12.07	-0.0001	54.19	54.11	51697
L2	F3AMilton	11.63	11.78	0.0001	12.74	12.72	41892
L3	F3AMilton	10.43	10.71	-0.0001	32.93	32.90	43562
L4	F3AMilton	8.43	8.66	-0.0001	16.27	16.13	50837
L5	F3AMilton	7.63	7.78	-0.0001	7.01	7.01	43662
L6	F3AMilton	6.93	7.03	0.0000	3.15	3.12	43812
Lois	F3AMilton	4.82	5.82	-0.0007	68.29	68.97	6808
M1	F3AMilton	2.58	6.66	-0.0020	63.89	63.87	24862
M1.1	F3AMilton	6.33	7.04	-0.0001	63.95	63.89	35214
M1.2	F3AMilton	7.03	7.42	-0.0001	47.40	47.34	28571
M1.3	F3AMilton	7.13	7.72	0.0001	41.38	41.34	28488
M2	F3AMilton	2.58	6.19	-0.0053	76.84	76.57	60681
M3	F3AMilton	2.58	5.85	-0.0041	78.29	76.71	39410
M4	F3AMilton	2.58	5.68	-0.0053	77.28	76.31	53041
M5.1	F3AMilton	2.57	4.96	0.0034	99.58	99.48	6163
M6	F3AMilton	2.58	4.96	0.0013	1.77	0.95	558
N01	F3AMilton	0.00	20.05	0.0001	26.06	19.66	45472
N01A	F3AMilton	0.00	19.87	0.0002	7.83	7.86	456
N02	F3AMilton	0.00	18.43	-0.0011	34.64	27.75	56748
N03	F3AMilton	0.00	18.51	-0.0004	4.67	4.44	3984
N04	F3AMilton	0.00	19.96	0.0002	11.92	11.92	564
N05	F3AMilton	0.00	17.93	0.0030	51.64	51.49	4382
N06	F3AMilton	0.00	17.68	-0.0356	74.43	74.89	3293
N07A	F3AMilton	0.00	17.29	-0.0017	78.31	78.71	4247
N08A	F3AMilton	0.00	16.05	0.0014	138.22	138.20	4724
N09	F3AMilton	0.00	13.99	0.0001	24.80	24.79	1669
N09A	F3AMilton	0.00	13.46	0.0024	142.82	142.83	1361

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N10	F3AMilton	2.00	1.90	0.0004	353.64	1.23	0
N11	F3AMilton	0.00	17.79	-0.0013	197.10	164.24	505705
NBB0010	F3AMilton	2.00	1.90	0.0037	140.60	1.98	0
NBB0030	F3AMilton	5.03	7.24	-0.0658	140.51	140.60	6478
NBB0050	F3AMilton	9.15	13.04	-0.0005	181.14	140.51	107621
NBB0070	F3AMilton	11.30	13.93	-0.0002	110.10	109.62	2588
NBB0090	F3AMilton	12.67	14.10	-0.0001	114.88	114.75	2996
NBB0110	F3AMilton	13.46	15.31	-0.0001	106.95	106.93	1986
NBB0130	F3AMilton	15.26	16.76	-0.0004	42.22	39.53	49216
NBB0150	F3AMilton	14.01	15.78	-0.0001	76.56	76.69	1934
NBB0170	F3AMilton	14.74	16.47	-0.0001	76.44	76.56	1452
NBB0190	F3AMilton	15.42	17.14	-0.0002	76.33	76.44	78173
NBB0210	F3AMilton	15.70	17.16	0.0003	75.69	75.78	1556
NBB0230	F3AMilton	16.02	17.18	-0.0001	75.61	75.69	11130
NBB0250	F3AMilton	16.31	17.57	-0.0001	75.36	75.45	2036
NBB0270	F3AMilton	17.05	18.13	0.0003	73.45	75.36	44153
NBB0290	F3AMilton	17.06	18.13	-0.0009	55.12	56.01	1258
NBB0310	F3AMilton	17.07	18.13	-0.0002	160.42	118.12	623963
NBB0330	F3AMilton	16.57	17.40	-0.0002	43.28	40.54	49592
NBB0350	F3AMilton	16.45	17.40	0.0008	28.36	29.06	1397
NBB0370	F3AMilton	16.33	17.39	0.0001	66.95	63.26	81428
NBB0390	F3AMilton	16.32	17.39	-0.0007	21.16	21.73	1834
NBB0410	F3AMilton	16.30	17.39	-0.0002	60.39	57.29	69209
NBB0430	F3AMilton	15.45	16.23	0.0024	330.79	263.13	64101
NBW0010	F3AMilton	2.00	1.82	-0.0011	949.07	15.06	0
NBW0030	F3AMilton	3.39	4.95	-0.0124	949.43	949.07	68523
NBW0050	F3AMilton	3.92	5.29	-0.0002	82.05	80.51	54978
NBW0070	F3AMilton	3.57	5.39	-0.0015	346.29	519.20	71915
NBW0090	F3AMilton	3.66	5.21	-0.0002	51.52	53.16	52912
NBW0130	F3AMilton	3.73	5.50	0.0001	355.42	356.87	14687
NBW0150	F3AMilton	3.93	5.28	0.0006	48.01	48.06	22991
NBW0170	F3AMilton	3.98	5.25	0.0003	49.29	49.78	51111
NBW0190	F3AMilton	3.89	5.64	-0.0004	354.94	355.42	5985
NBW0210	F3AMilton	6.25	6.26	0.0001	6.41	6.36	5138
NBW0230	F3AMilton	4.01	6.00	0.0006	354.11	354.66	8702
NBW0250	F3AMilton	4.88	6.90	-0.0001	352.38	352.57	5687
NBW0270	F3AMilton	5.49	7.04	0.0001	81.33	81.27	69712
NBW0290	F3AMilton	5.91	7.04	-0.0003	32.59	29.82	91697
NBW0310	F3AMilton	6.38	7.14	-0.0002	12.11	10.39	23393
NBW0330	F3AMilton	5.50	7.42	0.0002	341.75	341.86	24909
NBW0350	F3AMilton	4.97	6.01	0.0001	7.16	6.98	18743
NBW0370	F3AMilton	5.52	7.42	0.0006	5.29	6.56	23336
NBW0390	F3AMilton	5.52	7.43	0.0005	8.84	5.26	77467
NBW0410	F3AMilton	5.54	7.58	-0.0006	340.24	340.40	3446
NBW0430	F3AMilton	5.89	8.03	0.0007	6.33	6.78	64319
NBW0450	F3AMilton	5.89	8.03	0.0005	341.90	340.24	12762
NBW0470	F3AMilton	5.89	8.03	0.0005	4.60	5.45	51379

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0490	F3AMilton	5.92	8.19	0.0010	339.61	339.27	3167
NBW0510	F3AMilton	6.72	8.19	-0.0001	5.37	4.85	37185
NBW0530	F3AMilton	6.22	8.59	-0.0004	339.50	340.16	4801
NBW0550	F3AMilton	6.72	9.97	-0.0002	324.57	353.40	418536
NBW0570	F3AMilton	7.09	9.94	-0.0001	179.10	162.70	190491
NBW0590	F3AMilton	10.03	10.16	-0.0009	278.91	278.26	85910
NBW0610	F3AMilton	6.45	8.83	-0.0002	310.77	310.71	11358
NBW0630	F3AMilton	6.22	8.59	-0.0001	15.72	11.98	93273
NBW0650	F3AMilton	6.66	9.94	0.0017	429.32	494.41	23868
NBW0670	F3AMilton	6.66	9.94	-0.0003	186.17	51.95	43638
NBW0690	F3AMilton	6.71	9.96	-0.0014	448.56	367.22	12333
NBW0710	F3AMilton	6.71	9.96	-0.0002	124.30	164.89	127916
NBW0730	F3AMilton	6.72	9.97	0.0004	323.05	285.55	327700
NBW0750	F3AMilton	7.06	9.97	-0.0032	347.06	333.94	159777
NBW0770	F3AMilton	7.06	9.97	-0.0013	23.57	16.34	38612
NBW0790	F3AMilton	8.11	9.98	0.0001	20.61	20.48	31577
NBW0810	F3AMilton	7.06	9.97	-0.0022	47.51	35.36	80367
NBW0830	F3AMilton	8.41	9.98	-0.0006	31.48	31.28	17586
NBW0850	F3AMilton	10.17	9.98	-0.0002	29.80	29.28	17106
NBW0870	F3AMilton	7.06	9.99	-0.0005	383.40	339.50	333051
NBW0890	F3AMilton	7.06	10.02	0.0557	33.44	37.88	1027
NBW0910	F3AMilton	7.06	9.98	0.0143	340.29	323.59	188632
NBW0930	F3AMilton	8.03	9.83	0.0056	41.91	41.83	1301
NBW0950	F3AMilton	8.82	9.63	-0.0043	76.11	67.04	214660
NBW0970	F3AMilton	8.82	9.63	0.0067	43.36	43.86	41509
NBW0990	F3AMilton	8.82	9.63	-0.0057	19.79	19.75	785
NBW1010	F3AMilton	8.83	9.64	0.0013	39.44	39.63	3175
NBW1030	F3AMilton	9.19	11.68	-0.0001	52.31	43.77	81116
NBW1050	F3AMilton	9.30	11.68	-0.0005	17.97	17.73	900
NBW1070	F3AMilton	9.34	11.68	-0.0002	415.49	418.82	76254
NBW1090	F3AMilton	3.78	5.36	-0.0002	444.59	439.62	20278
NBW1130	F3AMilton	4.51	5.47	-0.0003	175.04	174.93	32951
NBW1150	F3AMilton	4.53	5.54	0.0002	188.86	188.59	70483
NBW1169	F3AMilton	4.09	5.48	0.0001	423.80	420.01	21865
NBW1170	F3AMilton	4.30	5.61	-0.0005	418.05	416.12	8581
NBW1190	F3AMilton	6.13	6.77	0.0002	62.23	56.65	74260
NBW1210	F3AMilton	7.17	7.67	-0.0003	239.68	239.06	161422
NBW1230	F3AMilton	7.17	7.71	-0.0002	226.34	225.97	231843
NBW1250	F3AMilton	4.74	6.14	0.0006	377.60	375.42	7825
NBW1270	F3AMilton	6.14	6.77	-0.0008	23.04	24.66	52166
NBW1310	F3AMilton	5.21	6.33	-0.0007	399.45	359.04	8702
NBW1330	F3AMilton	7.56	8.74	0.0104	316.04	356.67	3040
NBW1350	F3AMilton	10.95	11.60	-0.0013	27.19	26.85	8533
NBW1351	F3AMilton	8.89	11.00	-0.0009	296.92	296.71	26447
NBW1352	F3AMilton	9.96	12.75	0.0018	292.04	292.04	7956
NBW1353	F3AMilton	11.01	14.50	0.0033	287.77	287.78	8196
NBW1370	F3AMilton	10.02	10.85	-0.0034	199.28	210.26	30341

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1390	F3AMilton	15.24	15.46	-0.0017	306.62	306.15	153202
NBW1410	F3AMilton	15.58	15.75	-0.0005	181.66	181.60	28336
NBW1430	F3AMilton	15.79	15.85	-0.0009	162.69	162.53	20943
NBW1450	F3AMilton	16.94	17.06	-0.0006	270.21	270.01	115933
NBW1460	F3AMilton	16.43	16.55	0.0014	149.99	150.71	4273
NBW1470	F3AMilton	17.14	17.36	0.0021	301.82	301.39	210180
NBW1480	F3AMilton	18.11	18.15	-0.0001	10.19	10.15	15811
NBW1490	F3AMilton	17.86	18.26	0.0026	204.25	203.61	114978
NBW1510	F3AMilton	18.12	18.61	-0.0012	151.52	152.42	35138
NBW1530	F3AMilton	17.92	18.65	0.0009	12.92	12.23	1220
NBW1550	F3AMilton	17.75	18.69	-0.0001	38.14	33.91	35484
NBW1570	F3AMilton	18.21	18.79	0.0006	150.29	151.17	2604
NBW1590	F3AMilton	18.12	18.59	0.0002	62.77	63.58	22659
NBW1610	F3AMilton	18.13	18.59	-0.0001	19.94	19.80	24202
NBW1630	F3AMilton	18.13	18.35	0.0001	29.35	29.34	1769
NBW1650	F3AMilton	18.81	19.62	0.0001	14.89	9.97	46564
NBW1670	F3AMilton	18.89	19.63	-0.0001	20.76	18.53	39897
NBW1690	F3AMilton	19.03	19.63	0.0002	13.46	11.80	24846
NBW1710	F3AMilton	19.26	19.63	-0.0001	2.29	1.78	999
NBW1730	F3AMilton	18.65	19.55	-0.0005	352.67	348.40	321384
NBW1750	F3AMilton	18.82	19.60	-0.0002	145.57	142.80	74078
NBW1770	F3AMilton	18.82	19.62	-0.0001	96.71	87.26	176730
NBW1790	F3AMilton	18.91	19.63	-0.0001	19.95	18.80	38943
NBW1820	F3AMilton	18.72	19.31	0.0001	100.73	97.87	168873
NBW1830	F3AMilton	18.74	19.56	0.0002	63.18	65.28	85457
NBW1840	F3AMilton	18.39	18.83	-0.0001	126.01	119.97	133934
NBW1850	F3AMilton	18.74	19.58	-0.0002	180.65	176.18	147040
NBW1860	F3AMilton	18.39	18.82	-0.0009	11.06	9.54	22428
NBW1870	F3AMilton	18.72	19.31	-0.0012	40.79	42.20	39590
NBW1890	F3AMilton	19.06	19.90	0.0002	43.29	45.21	2614
NBW1910	F3AMilton	19.27	20.11	-0.0002	74.36	73.93	6411
NBW1930	F3AMilton	19.27	20.10	-0.0001	40.03	41.30	41359
NBW1950	F3AMilton	18.97	19.59	0.0002	3.08	2.31	450
NBW1970	F3AMilton	18.96	19.59	-0.0001	9.81	8.93	13412
NBW1990	F3AMilton	19.27	19.95	0.0001	109.88	107.70	140381
NBW2010	F3AMilton	19.65	19.94	-0.0003	11.96	14.71	12018
NBW2030	F3AMilton	19.65	19.93	-0.0001	28.06	24.93	89420
NBW2050	F3AMilton	19.26	20.14	0.0001	83.83	81.00	125255
NBW2060	F3AMilton	0.00	20.14	0.0001	20.50	19.30	62818
NBW2070	F3AMilton	19.26	20.14	-0.0001	112.23	78.48	196099
NBW2090	F3AMilton	19.10	19.19	0.0003	61.33	57.05	17984
NBW2110	F3AMilton	18.92	19.19	-0.0005	278.51	231.72	163612
NBW2130	F3AMilton	18.92	19.19	0.0252	130.75	143.48	33896
NBW2140	F3AMilton	20.00	19.25	-0.0002	5.95	5.69	652
NBW2145	F3AMilton	0.00	19.35	-0.0011	11.54	60.60	30914
NBW2150	F3AMilton	19.26	20.14	-0.0001	90.84	87.50	30555
NBW2170	F3AMilton	19.12	20.16	-0.0001	4.61	4.55	978

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2190	F3AMilton	19.10	20.18	-0.0001	6.16	4.61	24929
NBW2210	F3AMilton	19.47	20.14	-0.0001	37.87	39.63	40469
NBW2230	F3AMilton	19.47	20.14	-0.0002	68.21	65.41	81550
NBW2250	F3AMilton	19.51	20.14	-0.0001	32.67	33.65	7346
NBW2270	F3AMilton	19.57	20.13	-0.0001	31.60	32.55	32219
NBW2290	F3AMilton	19.65	20.14	-0.0003	67.75	65.14	179482
NBW2310	F3AMilton	19.82	20.05	-0.0002	81.98	80.29	143065
NBW2330	F3AMilton	19.82	20.06	-0.0003	23.64	21.41	77959
NBW2350	F3AMilton	16.05	16.45	-0.0004	146.16	145.39	75572
NBW2370	F3AMilton	16.11	16.45	-0.0001	27.89	26.99	59967
NBW2380	F3AMilton	12.29	16.45	0.0013	306.41	284.83	85862
NBW2385	F3AMilton	18.49	18.49	0.0000	3.15	3.14	6475
NBW2387	F3AMilton	16.11	16.45	0.0002	0.43	0.74	478
NBW2390	F3AMilton	16.42	17.93	-0.0007	124.92	125.17	58088
NBW2410	F3AMilton	16.59	18.37	-0.0003	226.53	225.52	175764
NBW2430	F3AMilton	16.23	18.42	0.0002	331.04	330.63	103476
NBW2450	F3AMilton	16.15	18.47	0.0005	164.00	164.95	4396
NBW2470	F3AMilton	16.43	18.69	0.0005	356.55	345.27	44877
NBW2490	F3AMilton	16.90	18.69	-0.0012	67.26	299.95	22210
NBW2510	F3AMilton	17.74	18.69	-0.0005	65.89	65.70	6374
NBW2530	F3AMilton	17.92	18.65	-0.0084	62.65	63.46	2010
NBW2550	F3AMilton	17.95	18.65	0.0002	1.33	3.17	450
NBW2570	F3AMilton	17.96	18.66	0.0001	2.36	1.33	11225
NBW2590	F3AMilton	18.06	18.62	0.0111	51.15	51.75	1098
NBW2610	F3AMilton	17.00	18.78	-0.0021	390.83	389.33	124113
NBW2630	F3AMilton	17.98	18.80	-0.0002	165.91	156.80	41703
NBW2650	F3AMilton	16.97	18.78	-0.0010	27.79	29.05	37588
NBW2670	F3AMilton	16.42	18.78	-0.0008	35.77	30.71	42917
NBW2680	F3AMilton	17.73	18.41	-0.0012	122.25	122.02	27508
NBW2690	F3AMilton	15.40	18.25	0.0006	329.24	327.34	102875
NBW2710	F3AMilton	17.73	18.44	-0.0001	1.56	2.72	540
NBW2730	F3AMilton	18.29	18.67	0.0001	1.70	1.56	5839
NBW2770	F3AMilton	18.09	18.80	0.0001	13.29	13.33	1310
NBW2775	F3AMilton	6.59	7.37	0.0001	74.06	74.13	75255
NBW2780	F3AMilton	18.38	18.79	-0.0001	129.95	127.59	156644
NBW2790	F3AMilton	18.38	18.82	-0.0005	209.64	201.45	140588
NBW2810	F3AMilton	18.39	18.82	-0.0009	74.54	69.41	77525
NBW2830	F3AMilton	18.40	18.83	-0.0004	53.13	43.86	165334
NC01	F3AMilton	0.00	6.16	-0.0003	28.68	28.66	4175
NC01B	F3AMilton	0.00	5.90	0.0001	21.23	21.22	6025
NC02	F3AMilton	0.00	8.93	0.0052	165.23	165.23	10938
NC03	F3AMilton	0.00	4.94	-0.0671	192.03	192.00	14727
NC04	F3AMilton	0.00	3.89	-0.0357	107.57	105.89	45784
NC05	F3AMilton	0.00	3.87	-0.0352	112.83	111.72	58330
NC06	F3AMilton	0.00	3.81	-0.0371	120.01	119.77	25201
NC07	F3AMilton	0.00	3.81	-0.0351	105.29	105.25	23693
NC08	F3AMilton	0.00	3.77	-0.0346	118.02	117.96	17480

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0010	F3AMilton	2.00	1.82	-0.0006	574.82	45.04	0
NCL0030	F3AMilton	2.36	2.38	-0.0861	488.98	461.16	7619
NCL0050	F3AMilton	2.36	2.38	0.0013	1.37	8.55	590
NCL0070	F3AMilton	5.20	5.43	0.0005	129.31	129.23	48013
NCL0090	F3AMilton	6.06	6.17	-0.0001	47.66	43.74	75644
NCL0110	F3AMilton	3.04	2.84	-0.0185	670.06	657.17	7710
NCL0130	F3AMilton	4.05	2.96	-0.0323	124.40	131.35	3277
NCL0150	F3AMilton	4.95	3.78	-0.0027	124.40	124.40	3131
NCL0170	F3AMilton	5.08	3.92	-0.0018	87.22	87.26	1705
NCL0190	F3AMilton	5.08	3.93	-0.0004	1.55	2.96	571
NCL0210	F3AMilton	5.85	4.54	0.0010	103.95	104.16	1485
NCL0230	F3AMilton	6.60	6.79	0.0005	40.90	34.71	34785
NCL0250	F3AMilton	6.60	6.80	0.0002	3.00	1.82	564
NCL0270	F3AMilton	6.60	6.80	-0.0006	3.15	3.83	2028
NCL0290	F3AMilton	5.90	4.75	-0.0007	66.76	66.83	1049
NCL0310	F3AMilton	6.10	5.69	0.0016	69.98	70.02	1207
NCL0330	F3AMilton	5.95	5.68	0.0010	6.28	6.25	5302
NCL0350	F3AMilton	6.60	6.80	0.0008	115.13	94.32	69970
NCL0370	F3AMilton	7.36	7.52	-0.0002	87.37	86.85	19160
NCL0390	F3AMilton	4.02	3.93	-0.0109	512.43	559.65	4340
NCL0410	F3AMilton	4.09	3.96	-0.0008	4.68	6.05	897
NCL0430	F3AMilton	4.23	4.00	-0.0005	3.83	3.83	639
NCL0450	F3AMilton	4.75	4.75	-0.0203	497.44	511.82	3676
NCL0470	F3AMilton	5.43	5.51	-0.0254	492.64	492.94	3437
NCL0490	F3AMilton	6.48	6.74	0.0040	543.15	554.96	40320
NCL0510	F3AMilton	6.67	6.84	-0.0012	27.99	27.91	1167
NCL0530	F3AMilton	8.10	7.76	0.0045	40.47	17.71	1220
NCL0550	F3AMilton	8.17	7.80	-0.0028	19.67	40.47	10672
NCL0570	F3AMilton	8.66	7.95	0.0010	10.04	9.88	839
NCL0590	F3AMilton	7.00	7.44	0.0081	510.03	510.12	6179
NCL0610	F3AMilton	7.52	8.14	0.0091	502.18	502.26	3640
NCL0630	F3AMilton	8.06	9.01	-0.0029	499.32	499.22	6104
NCL0650	F3AMilton	8.12	9.06	-0.0010	49.43	102.61	1614
NCL0670	F3AMilton	8.67	9.61	-0.0204	122.73	77.36	1692
NCL0690	F3AMilton	8.76	9.61	0.0079	27.49	35.31	605
NCL0710	F3AMilton	8.95	9.63	0.0013	27.82	27.19	601
NCL0730	F3AMilton	9.26	9.66	-0.0008	28.62	27.82	554
NCL0750	F3AMilton	9.56	9.70	0.0001	89.80	85.61	53620
NCL0770	F3AMilton	10.12	10.17	0.0001	53.80	53.78	2178
NCL0790	F3AMilton	8.69	9.65	0.0299	64.80	105.90	895
NCL0810	F3AMilton	8.84	9.99	0.0016	44.38	42.38	30052
NCL0830	F3AMilton	8.93	10.35	0.0082	402.78	400.48	57814
NCL0850	F3AMilton	9.01	10.35	0.0058	79.01	72.25	39234
NCL0870	F3AMilton	9.37	10.41	0.0668	146.72	131.20	2022
NCL0890	F3AMilton	9.65	10.46	-0.0647	116.39	108.68	1587
NCL0910	F3AMilton	9.71	10.42	0.0052	17.39	17.35	18340
NCL0930	F3AMilton	9.57	10.63	0.0108	86.80	86.48	3602

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0950	F3AMilton	9.89	10.79	0.0066	84.27	84.09	3171
NCL0970	F3AMilton	10.41	11.03	0.0010	36.50	36.45	2263
NCL0990	F3AMilton	11.00	11.39	-0.0002	30.83	30.73	3493
NCL1010	F3AMilton	11.14	11.52	-0.0002	6.56	6.53	638
NCL1030	F3AMilton	9.67	10.46	-0.0051	27.68	36.99	1585
NCL1050	F3AMilton	10.46	10.47	-0.0010	4.61	4.43	4789
NCL1070	F3AMilton	9.30	11.76	-0.0002	4.27	4.26	636
NCL1090	F3AMilton	9.76	11.78	-0.0001	12.68	23.15	35105
NCL1110	F3AMilton	9.85	11.59	-0.0001	23.05	19.98	48438
NCL1130	F3AMilton	9.76	11.78	0.0002	37.14	27.64	129582
NCL1150	F3AMilton	9.76	11.79	0.0009	819.11	804.55	307953
NCL1170	F3AMilton	10.59	12.86	-0.0011	404.74	397.40	169254
NCL1190	F3AMilton	10.72	13.23	-0.0049	86.99	87.01	1851
NCL1210	F3AMilton	10.63	12.88	0.0003	20.74	25.12	59164
NCL1230	F3AMilton	10.94	13.69	-0.0058	86.99	86.99	1432
NCL1250	F3AMilton	11.11	13.96	0.0054	86.97	86.99	1231
NCL1270	F3AMilton	11.34	14.28	-0.0050	190.85	207.70	197565
NCL1290	F3AMilton	13.06	14.32	0.0006	158.11	152.99	38450
NCL1310	F3AMilton	14.77	15.60	0.0002	149.66	148.75	47570
NCL1330	F3AMilton	10.60	12.86	-0.0007	474.03	461.25	95438
NCL1350	F3AMilton	10.63	12.88	0.0017	438.09	431.21	72627
NCL1370	F3AMilton	10.63	12.91	0.0022	287.08	284.64	22907
NCL1390	F3AMilton	10.63	14.27	0.0008	153.27	54.51	35752
NCL1410	F3AMilton	10.63	14.27	0.0021	121.19	151.96	10467
NCL1430	F3AMilton	10.70	12.89	-0.0008	499.15	454.55	276269
NCL1450	F3AMilton	10.93	13.35	-0.0008	410.23	410.07	3036
NCL1470	F3AMilton	12.72	14.75	0.0001	334.17	334.02	4415
NCL1490	F3AMilton	14.45	14.77	-0.0001	3.68	3.59	748
NCL1510	F3AMilton	11.06	13.32	-0.0013	46.28	79.86	20258
NCL1530	F3AMilton	12.54	13.30	-0.0005	120.27	120.20	24031
NCL1550	F3AMilton	13.13	13.57	-0.0003	37.14	36.98	1023
NCL1570	F3AMilton	13.31	13.64	0.0001	3.40	3.37	505
NCL1590	F3AMilton	13.70	13.69	0.0001	1.52	1.52	1307
NCL1610	F3AMilton	13.37	13.66	0.0001	1.94	1.89	468
NCL1630	F3AMilton	13.57	13.77	-0.0036	91.02	91.00	2776
NCL1650	F3AMilton	13.68	14.01	-0.0019	97.76	97.75	1942
NCL1670	F3AMilton	14.02	15.26	-0.0003	251.30	251.25	18657
NCL1690	F3AMilton	17.47	17.95	-0.0001	68.12	68.10	6990
NCL1710	F3AMilton	17.89	18.23	0.0002	64.75	64.75	3520
NCL1730	F3AMilton	18.27	19.59	0.0063	293.43	293.17	54090
NCL1750	F3AMilton	18.24	19.43	-0.0062	33.86	33.87	513
NCL1770	F3AMilton	18.07	18.24	-0.0006	46.12	46.12	3136
NCL1790	F3AMilton	15.78	16.68	-0.0002	331.22	331.13	5863
NCL1810	F3AMilton	18.13	18.15	-0.0001	38.41	36.76	22989
NCL1830	F3AMilton	18.39	18.64	0.0003	315.11	315.05	6250
NCL1850	F3AMilton	18.50	18.80	-0.0013	77.70	79.05	910
NCL1870	F3AMilton	19.01	19.59	-0.0004	77.68	77.70	1000

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1890	F3AMilton	19.15	19.80	0.0013	77.67	77.68	981
NCL1910	F3AMilton	19.15	19.80	-0.0001	1.12	1.62	539
NCL1930	F3AMilton	19.91	19.98	0.0001	3.09	3.00	1369
NCL1950	F3AMilton	19.15	19.80	0.0001	0.28	0.28	507
NCL1970	F3AMilton	21.67	21.64	0.0001	1.70	1.70	3104
NCL1990	F3AMilton	19.58	20.45	0.0023	77.67	77.67	917
NCL2010	F3AMilton	19.74	20.49	-0.0003	34.17	34.02	1104
NCL2030	F3AMilton	19.76	19.98	-0.0001	23.97	23.32	42612
NCL2050	F3AMilton	19.76	20.54	-0.0001	30.80	30.42	1411
NCL2070	F3AMilton	19.76	19.98	0.0001	7.68	8.18	1202
NCL2090	F3AMilton	19.87	20.97	0.0008	31.08	30.56	1414
NCL2110	F3AMilton	20.03	21.04	0.0015	21.13	16.40	64011
NCL2130	F3AMilton	19.87	21.03	-0.0001	79.87	70.99	161971
NCL2150	F3AMilton	20.75	20.16	0.0002	83.23	285.18	20311
NCL2170	F3AMilton	19.85	21.03	-0.0041	378.60	376.95	130094
NCL2230	F3AMilton	19.13	19.69	0.0005	266.91	264.69	43045
NCL2250	F3AMilton	19.55	20.20	0.0012	216.99	217.49	4444
NCL2270	F3AMilton	20.05	20.86	0.0002	284.73	283.92	52591
NCL2290	F3AMilton	19.88	21.03	0.0001	10.22	10.75	31690
NCL2310	F3AMilton	20.45	20.97	-0.0001	101.86	101.51	1780
NCL2330	F3AMilton	20.74	21.04	0.0002	102.98	101.86	87780
NCL2350	F3AMilton	20.78	21.07	0.0001	96.14	96.29	5370
NCL2370	F3AMilton	20.81	21.07	0.0003	94.41	94.67	2298
NCL2390	F3AMilton	20.84	21.07	-0.0001	83.96	79.64	107137
NCL2410	F3AMilton	21.07	21.20	0.0001	32.16	32.11	1380
NCL2430	F3AMilton	21.32	21.33	0.0003	30.89	30.88	1473
NCL2450	F3AMilton	21.25	21.28	-0.0007	5.03	4.98	493
NCL2470	F3AMilton	20.93	21.10	0.0006	16.04	15.90	846
NCL2490	F3AMilton	21.54	21.39	0.0003	27.61	27.64	1524
NCL2510	F3AMilton	21.70	21.40	0.0001	127.44	127.64	94465
NCL2530	F3AMilton	21.70	21.40	-0.0001	55.33	55.45	46497
NCL2540	F3AMilton	0.00	22.08	-0.0004	80.18	79.54	46363
NCL2550	F3AMilton	21.70	21.39	-0.0001	66.05	66.13	15930
NCL2570	F3AMilton	21.51	21.36	0.0009	14.62	15.00	1503
NCL2580	F3AMilton	0.00	21.35	-0.0014	120.30	197.31	33943
NCL2590	F3AMilton	21.17	21.35	0.0003	270.48	205.58	137154
NCL2610	F3AMilton	21.14	21.34	-0.0002	144.65	138.99	29782
NCL2630	F3AMilton	20.86	20.97	-0.0002	84.60	83.31	51078
NCL2631	F3AMilton	0.00	20.76	0.0005	76.36	86.63	44771
NCL2650	F3AMilton	21.17	21.12	-0.0001	46.02	42.47	47215
NCL2670	F3AMilton	21.93	21.88	-0.0001	126.98	151.21	29083
NCL2690	F3AMilton	21.96	22.02	-0.0001	71.54	75.59	26645
NCL2710	F3AMilton	21.96	22.26	0.0001	60.05	58.28	54550
NCL2730	F3AMilton	21.95	22.53	-0.0001	40.36	39.85	8389
NCL2750	F3AMilton	21.84	22.98	-0.0005	106.96	106.29	33590
NCL2770	F3AMilton	21.71	22.41	-0.0009	29.48	29.49	1389
NCL2780	F3AMilton	0.00	22.25	0.0002	23.99	22.72	26933

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2790	F3AMilton	21.84	22.26	0.0001	139.93	136.86	118024
NCL2810	F3AMilton	22.11	22.76	-0.0005	86.52	86.29	21880
NCL2830	F3AMilton	23.09	22.85	0.0005	16.82	16.79	2155
NCL2835	F3AMilton	0.00	23.78	0.0002	7.67	7.89	1091
NCL2840	F3AMilton	0.00	23.73	0.0001	86.74	86.65	24050
NCL2845	F3AMilton	0.00	24.27	-0.0001	48.06	47.99	15573
NCL2850	F3AMilton	20.82	21.11	-0.0001	18.11	18.34	1361
NCL2870	F3AMilton	20.83	21.11	-0.0003	17.04	17.24	1246
NCL2890	F3AMilton	20.83	21.11	-0.0002	16.85	17.04	21510
NCL2910	F3AMilton	20.83	21.11	-0.0002	72.83	72.74	43437
NCL2930	F3AMilton	19.55	20.23	0.0013	225.18	225.38	22129
NCL2950	F3AMilton	19.53	20.23	0.0065	159.23	159.73	28292
NCL2970	F3AMilton	20.49	20.52	0.0003	44.35	43.88	11180
NCL2990	F3AMilton	19.33	20.12	-0.0481	153.15	153.64	9595
NCL3010	F3AMilton	19.35	20.13	0.0851	178.18	156.23	297406
NCL3030	F3AMilton	19.58	20.16	0.0625	151.37	159.91	106578
NCL3050	F3AMilton	19.94	20.22	0.0010	65.45	62.36	52259
NCL3070	F3AMilton	20.14	20.24	-0.0001	32.76	31.60	24479
NCL3090	F3AMilton	19.59	20.15	-0.0684	113.54	106.21	112353
NCL3110	F3AMilton	19.59	20.16	0.0003	64.84	57.58	140105
NCL3130	F3AMilton	19.59	20.16	0.0002	21.19	17.23	65790
NCL3150	F3AMilton	19.54	20.14	-0.0031	124.09	119.04	77389
NCL3170	F3AMilton	19.71	20.34	0.0001	95.86	95.49	41175
NCL3190	F3AMilton	20.31	20.56	-0.0001	98.65	96.84	134497
NCL3210	F3AMilton	20.32	20.56	-0.0001	68.34	67.23	65082
NCL3230	F3AMilton	20.32	20.57	-0.0001	52.48	52.01	25596
NCL3250	F3AMilton	19.11	19.28	0.0019	154.74	154.17	138729
NCL3250A	F3AMilton	0.00	19.70	0.0005	115.87	115.79	2678
NCL3270	F3AMilton	19.11	19.63	0.0001	27.31	26.27	13997
NCL3280	F3AMilton	0.00	19.79	-0.0001	31.39	30.92	16889
NCL3290	F3AMilton	20.16	20.41	-0.0001	31.63	31.10	29153
NCL3300	F3AMilton	0.00	19.76	0.0001	9.85	9.85	2100
NCL3310	F3AMilton	20.19	20.52	-0.0001	2.22	2.22	768
NCL3330	F3AMilton	20.75	20.73	-0.0001	4.44	4.13	437
NCL3350	F3AMilton	20.51	20.69	0.0001	35.71	35.11	47837
NCL3360	F3AMilton	0.00	20.69	-0.0001	12.94	11.89	20895
NCL3365	F3AMilton	0.00	20.29	-0.0001	32.25	32.19	26891
NCL3370	F3AMilton	20.64	21.06	-0.0002	130.83	130.44	97033
NCL3390	F3AMilton	20.83	21.11	0.0001	123.68	123.66	42031
NCL3410	F3AMilton	20.83	21.11	0.0001	1.34	2.59	477
NCL3430	F3AMilton	20.83	21.11	0.0001	1.54	0.99	4470
NCL3450	F3AMilton	18.92	19.27	-0.0010	307.81	372.81	200131
NCL3470	F3AMilton	19.11	19.28	0.0003	316.99	273.28	257732
NCL3471	F3AMilton	0.00	19.31	0.0408	98.34	97.72	5436
NCL3490	F3AMilton	19.15	19.29	0.0003	140.28	134.05	48398
NCL3510	F3AMilton	20.64	19.89	-0.0001	118.80	118.37	28274
NCL3520	F3AMilton	0.00	19.57	0.0002	292.94	311.90	39884

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3530	F3AMilton	20.66	20.77	-0.0001	161.82	161.92	68134
NCL3550	F3AMilton	20.66	20.77	-0.0013	3.56	6.92	736
NCL3570	F3AMilton	20.66	20.89	-0.0010	1.46	3.56	629
NCL3590	F3AMilton	20.66	20.90	0.0001	1.82	1.46	6550
NCL3610	F3AMilton	20.66	20.77	-0.0057	36.80	37.71	1320
NCL3630	F3AMilton	20.64	20.76	-0.0001	270.79	260.08	120852
NCL3635	F3AMilton	0.00	20.76	-0.0005	23.14	23.05	1918
NCL3640	F3AMilton	0.00	20.77	-0.0002	32.70	32.60	47248
NCL3650	F3AMilton	18.92	19.21	-0.0003	9.78	10.54	503
NCL3670	F3AMilton	18.92	19.20	-0.0001	8.48	19.27	57530
NCL3690	F3AMilton	18.92	19.27	-0.0137	101.99	100.56	2563
NCL3730	F3AMilton	18.92	19.27	0.0245	13043.30	7954.13	140204
NCL3740	F3AMilton	0.00	19.27	0.0011	186.41	192.88	39918
NCL3750	F3AMilton	18.93	19.59	-0.0013	195.94	188.36	288947
NCL3770	F3AMilton	18.93	19.59	-0.0007	34.09	43.51	111610
NCL4000	F3AMilton	0.00	29.79	0.0001	48.51	48.49	7129
NCL4010	F3AMilton	0.00	29.51	-0.0001	42.76	40.55	13968
NCypEast	F3AMilton	32.00	29.00	0.0000	10.62	0.00	0
NCypWest	F3AMilton	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3AMilton	2.00	1.82	-0.0020	718.98	620.31	0
NOC0030	F3AMilton	1.14	2.34	-3.4727	1793.78	1751.70	3873
NOC0050	F3AMilton	1.20	2.36	-0.8752	1477.08	1503.97	5161
NOC0070	F3AMilton	1.45	2.15	-0.5030	58678.51	1305.20	4369
NOC0090	F3AMilton	2.91	2.28	-0.2285	243.38	303.19	968
NOC0110	F3AMilton	1.65	2.28	0.7471	1030.19	58473.52	1412
NOC0130	F3AMilton	3.06	2.51	-0.2243	395.59	381.49	2699
NOC0150	F3AMilton	3.08	2.52	-0.0001	1.97	2.09	540
NOC0170	F3AMilton	4.56	4.69	-0.0001	8.58	8.58	1221
NOC0190	F3AMilton	5.09	3.78	0.0586	317.12	317.06	2579
NOC0210	F3AMilton	5.68	4.19	0.0038	17.08	16.72	1226
NOC0230	F3AMilton	5.12	3.80	0.0054	6.16	10.34	815
NOC0250	F3AMilton	5.30	3.93	0.0005	5.36	5.10	998
NOC0270	F3AMilton	5.57	4.12	0.0001	3.13	2.80	680
NOC0290	F3AMilton	5.11	3.95	-0.0463	310.71	311.02	2223
NOC0310	F3AMilton	5.27	4.06	-0.0587	39.24	39.01	520
NOC0330	F3AMilton	5.85	4.53	-0.0232	277.49	277.16	3670
NOC0350	F3AMilton	5.89	4.93	-0.0123	214.27	214.29	3332
NOC0370	F3AMilton	6.47	6.72	0.0071	171.50	171.61	25115
NOC0390	F3AMilton	6.60	6.80	-0.0079	48.30	46.41	22442
NOC0410	F3AMilton	6.95	6.95	-0.0003	44.23	40.00	28260
NOC0430	F3AMilton	7.01	7.02	0.0001	34.41	33.71	13917
NOC0450	F3AMilton	7.62	7.42	-0.0002	29.09	29.00	10440
NOC0470	F3AMilton	8.12	8.04	0.0006	20.40	19.99	20845
NOC0490	F3AMilton	7.67	7.43	0.0002	3.67	3.64	1051
NRU0010	F3AMilton	2.00	1.90	-0.0023	630.01	4.89	0
NRU0030	F3AMilton	2.84	3.40	-0.0875	335.49	335.48	2468
NRU0050	F3AMilton	4.36	4.93	0.0018	335.48	335.49	2036

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0070	F3AMilton	5.61	6.31	-0.0053	336.07	335.48	19961
NRU0090	F3AMilton	5.66	6.32	0.0008	68.13	63.48	21554
NRU0110	F3AMilton	6.23	6.60	0.0007	261.87	261.48	18308
NRU0130	F3AMilton	7.66	7.92	-0.0324	337.06	240.98	2616
NRU0150	F3AMilton	7.71	7.97	0.0220	232.80	332.70	1505
NRU0160	F3AMilton	0.00	14.93	0.0002	189.38	189.33	4959
NRU0165	F3AMilton	0.00	15.21	-0.0001	5.63	5.46	474
NRU0170	F3AMilton	14.45	17.53	0.0018	749.53	214.85	110657
NRU0172	F3AMilton	0.00	17.55	0.0001	10.92	12.10	832
NRU0174	F3AMilton	0.00	17.58	0.0003	14.99	10.92	10643
NRU0176	F3AMilton	0.00	16.32	-0.0001	10.53	10.53	762
NRU0178	F3AMilton	0.00	17.30	-0.0001	7.79	7.85	958
NRU0180	F3AMilton	0.00	17.58	0.0001	198.74	178.82	217664
NRU0190	F3AMilton	14.45	17.53	-0.0008	17.91	14.23	24184
NRU0210	F3AMilton	14.45	17.41	0.0008	15.27	11.72	18412
NRU0230	F3AMilton	13.39	15.13	-0.0007	22.18	22.14	21021
NRU0250	F3AMilton	14.62	17.53	-0.0027	865.72	738.21	61345
NRU0270	F3AMilton	15.05	17.55	0.0154	696.40	774.67	15259
NRU0290	F3AMilton	16.30	18.80	-0.0003	55.53	50.33	79971
NRU0310	F3AMilton	16.13	17.83	-0.0008	87.83	87.68	3455
NRU0330	F3AMilton	18.25	18.41	-0.0001	25.72	26.07	1352
NRU0335	F3AMilton	0.00	19.30	-0.0001	6.63	5.79	14066
NRU0340	F3AMilton	0.00	18.81	0.0001	62.40	58.82	43106
NRU0343	F3AMilton	0.00	19.48	-0.0001	10.94	10.69	918
NRU0345	F3AMilton	0.00	19.71	-0.0001	53.89	51.96	76246
NRU0350	F3AMilton	19.50	18.92	0.0001	9.27	10.04	4188
NRU0370	F3AMilton	19.51	18.92	-0.0001	7.73	8.11	9107
NRU0380	F3AMilton	23.33	18.86	-0.0008	6.71	7.91	470
NRU0390	F3AMilton	27.00	18.84	-0.0003	24.17	19.81	22832
NRU0410	F3AMilton	19.56	18.97	0.0001	5.05	6.24	1098
NRU0425	F3AMilton	15.53	16.39	0.0001	3.04	4.31	4982
NRU0430	F3AMilton	19.61	19.01	0.0001	3.41	5.05	1073
NRU0450	F3AMilton	19.66	19.06	0.0001	2.59	3.41	1044
NRU0470	F3AMilton	19.72	19.27	0.0002	2.64	2.59	784
NRU0490	F3AMilton	20.36	19.36	0.0002	2.79	2.64	1025
NRU0495	F3AMilton	0.00	15.79	-0.0466	859.70	778.71	2716
NRU0500	F3AMilton	0.00	16.24	0.1088	1263.51	1224.19	5646
NRU0510	F3AMilton	19.67	20.19	0.0004	30.33	28.30	69133
NRU0530	F3AMilton	16.95	18.13	-0.0003	54.12	55.16	2251
NRU0550	F3AMilton	17.92	18.48	-0.0002	109.39	106.53	83779
NRU0570	F3AMilton	18.16	18.83	-0.0002	82.66	82.56	8472
NRU0590	F3AMilton	18.51	19.46	-0.0002	54.56	54.57	23146
NRU0610	F3AMilton	18.78	19.67	-0.0022	47.70	48.64	59580
NRU0612	F3AMilton	0.00	19.67	0.0014	41.70	42.66	33553
NRU0615	F3AMilton	0.00	19.90	-0.0001	8.76	8.52	2092
NRU0616	F3AMilton	0.00	20.23	-0.0002	6.43	6.28	16641
NRU0618	F3AMilton	0.00	20.45	-0.0001	13.03	12.16	15514

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0620	F3AMilton	0.00	19.98	0.0001	22.42	21.82	24899
NRU0630	F3AMilton	18.79	19.57	-0.0037	47.21	46.50	25805
NRU0650	F3AMilton	18.79	19.43	0.0071	68.34	66.07	30714
NRU0670	F3AMilton	18.78	19.32	0.0077	60.24	60.19	1429
NRU0690	F3AMilton	18.84	19.18	-0.0041	80.01	77.79	27682
NRU0710	F3AMilton	18.86	19.17	-0.0036	138.89	133.42	45569
NRU0730	F3AMilton	18.85	19.17	-0.0009	48.67	44.30	47836
NRU0740	F3AMilton	0.00	19.15	-0.0007	142.04	136.54	33681
NRU0745	F3AMilton	0.00	19.13	0.0002	143.49	130.12	47709
NRU0747	F3AMilton	18.87	19.13	0.0057	78.69	78.27	1650
NRU0750	F3AMilton	18.87	19.12	0.0025	172.69	192.39	243450
NRU0770	F3AMilton	18.88	19.12	0.0073	26.21	27.55	968
NRU0785	F3AMilton	0.00	19.12	-0.0203	63.26	54.86	59628
NRU0790	F3AMilton	18.88	19.12	-0.2119	725.52	837.14	135298
NRU0810	F3AMilton	18.88	19.12	-0.0083	23.30	18.61	11338
NRU0820	F3AMilton	0.00	19.11	0.0007	5.77	3.08	442
NRU0830	F3AMilton	18.99	19.20	-0.5222	2192.81	2549.82	37350
NRU0840	F3AMilton	9999.00	22.97	7.2121	9636.26	15025.63	2258
NRU0850	F3AMilton	19.11	20.11	-1.1174	1663.82	2932.26	2553
NRU0870	F3AMilton	19.32	19.30	0.0312	57.17	72.39	560
NRU0890	F3AMilton	19.35	19.27	0.0003	59.37	72.33	69678
NRU0910	F3AMilton	19.35	19.33	0.0001	2.14	1.86	580
NRU0930	F3AMilton	19.35	19.62	0.0001	2.18	2.14	1742
NRU0950	F3AMilton	19.11	19.27	0.0523	1120.18	1342.98	37060
NRU0955	F3AMilton	0.00	19.27	0.0235	1289.77	1091.28	56858
NRU0960	F3AMilton	0.00	19.28	0.0041	222.18	212.00	40582
NRU0965	F3AMilton	0.00	19.28	0.0016	227.66	213.91	92632
NRU0970	F3AMilton	19.34	19.27	0.0016	47.24	46.23	83397
NRU0980	F3AMilton	0.00	19.27	0.0036	21.31	22.19	1097
NRU0990	F3AMilton	19.39	19.27	-0.0060	32.45	36.93	440
NRU1010	F3AMilton	19.70	19.28	0.0073	32.82	32.45	28703
NRU1015	F3AMilton	0.00	20.37	-0.0010	19.27	14.57	45487
NRU1020	F3AMilton	0.00	21.60	-0.0060	11.78	52.20	866
NRU1025	F3AMilton	0.00	21.11	-0.0003	11.58	11.45	724
NRU1030	F3AMilton	19.70	19.28	0.0004	88.92	76.43	122294
NRU1035	F3AMilton	0.00	19.13	-0.0001	1.39	1.44	436
NRU1036	F3AMilton	0.00	19.28	0.0052	20.01	22.95	437
NRU1037	F3AMilton	0.00	19.26	-0.0001	1.56	4.43	689
NRU1040	F3AMilton	0.00	19.28	-0.0036	54.54	48.38	67646
NRU1045	F3AMilton	0.00	21.66	0.0002	12.58	7.65	40065
NRU1046	F3AMilton	0.00	21.63	0.0060	7.65	7.68	936
NRU1050	F3AMilton	19.70	19.28	-0.0004	84.73	77.42	95039
NRU1070	F3AMilton	19.83	19.38	-0.0003	34.00	33.65	24271
NRU1090	F3AMilton	18.86	19.20	0.1425	101.00	112.08	1336
NRU1110	F3AMilton	18.86	19.12	-0.0131	196.55	175.35	76551
NRU1130	F3AMilton	18.86	19.12	0.0014	24.53	23.80	779
NRU1150	F3AMilton	18.86	19.12	-0.0019	43.45	42.34	73855

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1170	F3AMilton	18.86	19.13	0.0002	31.77	30.37	38419
NRU1182	F3AMilton	0.00	18.75	-0.0001	15.94	15.34	4175
NRU1184	F3AMilton	0.00	18.87	0.0003	13.84	13.36	873
NRU1185	F3AMilton	0.00	19.27	-0.0003	13.49	12.80	41267
NRU1186	F3AMilton	0.00	18.87	0.0002	5.28	5.06	790
NRU1188	F3AMilton	0.00	18.88	0.0001	7.21	5.78	42147
NRU1190	F3AMilton	18.86	18.93	0.0001	6.78	6.26	576
NRU1210	F3AMilton	18.86	18.89	0.0001	6.26	5.88	709
NRU1220	F3AMilton	0.00	18.90	-0.0003	30.85	30.51	2046
NRU1225	F3AMilton	0.00	23.20	0.0001	4.75	4.58	13422
NRU1230	F3AMilton	18.88	18.64	-0.0641	671.92	672.22	4558
NRU1232	F3AMilton	0.00	18.28	-0.0297	697.81	701.56	3681
NRU1234	F3AMilton	0.00	19.11	-0.0024	228.27	279.26	13260
NRU1240	F3AMilton	0.00	19.12	0.0013	45.46	85.36	11096
NRU1250	F3AMilton	4.07	3.09	-0.0685	295.57	295.57	2102
NRU1270	F3AMilton	4.78	4.66	0.0006	292.35	292.34	1665
NRU1290	F3AMilton	5.41	5.41	0.0002	280.82	280.84	3103
NRU1310	F3AMilton	6.42	6.53	-0.0005	280.80	280.82	5052
NRU1330	F3AMilton	8.29	8.73	0.0002	331.68	331.67	3507
NRU1350	F3AMilton	9.32	9.94	-0.0001	327.33	327.29	2409
NRU1370	F3AMilton	11.03	12.20	-0.0001	322.79	322.67	5323
NRU1390	F3AMilton	11.84	12.82	-0.0001	51.60	50.29	21732
NRU1410	F3AMilton	12.56	13.95	-0.0002	270.61	270.71	7425
NRU1430	F3AMilton	15.53	16.39	-0.0002	47.52	32.82	84384
NRU1450	F3AMilton	15.94	16.23	0.0001	38.83	38.82	8960
NRU1470	F3AMilton	15.97	16.28	-0.0001	6.38	6.33	981
NRU1490	F3AMilton	16.09	16.45	0.0001	7.83	6.94	13796
NRU1510	F3AMilton	15.12	17.58	-0.0002	227.59	231.40	167141
NRU1530	F3AMilton	15.71	17.60	-0.0023	104.83	110.96	46201
NRU1550	F3AMilton	15.40	17.59	-0.0001	140.05	144.12	33743
NRU1570	F3AMilton	16.20	18.12	0.0001	50.19	54.30	38756
NRU1590	F3AMilton	16.40	18.12	0.0001	6.38	4.14	18239
NRU1610	F3AMilton	16.56	18.42	0.0001	47.21	48.78	56959
NRU1630	F3AMilton	16.69	18.43	0.0021	40.61	40.70	1538
NRU1650	F3AMilton	16.84	18.43	-0.0001	40.51	40.61	56500
NRU1670	F3AMilton	16.89	18.48	0.0001	49.61	40.51	245553
NRU1690	F3AMilton	16.89	18.50	-0.0004	52.90	50.41	60962
NRU1710	F3AMilton	16.60	18.58	0.0003	32.96	33.09	1426
NRU1730	F3AMilton	16.58	18.72	0.0001	40.82	32.96	208114
NRU1750	F3AMilton	16.58	18.72	-0.0010	10.54	16.87	720
NRU1770	F3AMilton	16.58	18.72	0.0003	28.18	26.04	24191
NRU1790	F3AMilton	17.21	18.72	0.0001	19.60	16.67	61240
NRU1810	F3AMilton	16.58	18.72	0.0001	6.12	3.92	46949
NRU1830	F3AMilton	17.12	18.77	-0.0001	19.44	14.71	86051
NRU1850	F3AMilton	17.07	18.60	0.0018	20.24	20.20	1063
NRU1870	F3AMilton	17.20	18.67	-0.0020	20.27	20.24	907
NRU1890	F3AMilton	17.38	18.76	0.0002	35.53	20.27	152978

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1910	F3AMilton	17.71	18.77	-0.0001	15.95	11.61	69800
NRU1930	F3AMilton	15.71	17.60	0.0045	64.58	91.78	149501
NRU1950	F3AMilton	16.43	17.94	0.0004	59.83	60.05	1646
NRU1970	F3AMilton	16.86	18.14	-0.0013	59.63	59.83	1037
NRU1990	F3AMilton	17.09	18.25	0.0022	72.02	71.97	10678
NRU2010	F3AMilton	18.02	18.66	0.0003	10.38	10.50	7090
NRU2030	F3AMilton	18.39	18.73	-0.0004	15.03	14.75	44082
NRU2050	F3AMilton	18.40	18.76	0.0001	4.80	5.22	453
NRU2070	F3AMilton	18.41	18.77	-0.0001	4.42	4.80	19902
NRU2090	F3AMilton	17.16	18.42	0.0020	57.34	57.47	23097
NRU2110	F3AMilton	17.28	18.67	0.0008	50.68	50.76	28528
NRU2130	F3AMilton	17.49	18.73	0.0002	43.79	43.91	17650
NRU2150	F3AMilton	17.69	18.79	-0.0001	9.31	8.49	75398
NRU2170	F3AMilton	17.07	18.77	0.0001	4.23	4.31	778
NRU2190	F3AMilton	17.08	18.77	0.0001	12.60	5.42	82905
NRU2210	F3AMilton	17.33	18.72	0.0001	8.76	9.25	540
NRU2230	F3AMilton	17.33	18.71	0.0001	43.21	31.19	180872
NRU2250	F3AMilton	17.31	18.71	0.0002	19.04	14.14	58811
NRU2270	F3AMilton	17.61	18.76	-0.0002	30.01	30.00	39665
NRU2290	F3AMilton	17.67	18.77	0.0003	27.68	27.81	22099
NRU2310	F3AMilton	17.68	18.77	0.0012	25.30	26.96	21987
NRU2330	F3AMilton	17.68	18.81	-0.0057	32.16	14.30	21114
NRU2350	F3AMilton	17.68	18.81	-0.0051	11.62	31.18	653
NRU2370	F3AMilton	17.37	18.94	-0.0004	6.93	7.19	528
NRU2390	F3AMilton	17.36	18.94	-0.0004	9.16	6.93	48450
NRU2410	F3AMilton	17.72	18.71	-0.0001	17.94	19.38	41257
NRU2430	F3AMilton	17.83	18.71	0.0002	18.27	17.29	29088
NRU2450	F3AMilton	18.06	18.71	0.0001	9.76	9.14	34774
NRU2470	F3AMilton	15.72	17.62	-0.0012	17.97	17.85	1459
NRU2490	F3AMilton	15.75	17.72	0.0007	18.29	18.23	1433
NRU2510	F3AMilton	15.75	17.83	0.0002	14.15	14.17	959
NRU2530	F3AMilton	15.76	18.32	-0.0002	14.14	14.15	582
NRU2550	F3AMilton	16.53	17.62	0.0001	184.82	179.60	88471
NRU2570	F3AMilton	17.71	18.46	-0.0001	169.55	168.67	89591
NRU2590	F3AMilton	18.30	18.57	0.0001	33.28	33.82	9301
NRU2610	F3AMilton	18.62	19.13	-0.0001	86.23	86.08	29729
NRU2630	F3AMilton	19.41	19.59	-0.0001	82.09	81.68	58138
NRU2650	F3AMilton	19.54	20.05	-0.0001	70.17	69.17	86003
NRU2670	F3AMilton	16.64	16.93	0.0001	27.01	26.90	8683
NRU2690	F3AMilton	17.09	18.14	0.0001	168.69	92.68	599864
NSH02	F3AMilton	0.00	21.29	-0.0007	11.31	35.72	18720
NSH03	F3AMilton	0.00	19.44	-0.0227	5.13	12.94	767
NSH04	F3AMilton	0.00	17.96	0.0068	21.58	20.53	4594
NSH05	F3AMilton	0.00	10.66	0.0409	805.59	868.54	5036
NSH07	F3AMilton	0.00	8.38	0.0002	48.76	48.75	10285
NSH08	F3AMilton	0.00	7.59	-0.0001	16.90	16.88	1701
NSH09	F3AMilton	0.00	10.61	-0.0012	55.64	55.59	12477

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH10	F3AMilton	0.00	19.11	0.0001	25.58	25.51	31633
NSH11	F3AMilton	0.00	21.07	0.0001	6.47	6.45	6483
NSH12	F3AMilton	0.00	10.54	0.0624	998.49	1110.52	4113
NSH13	F3AMilton	0.00	10.53	-0.1851	1839.42	1655.86	4603
NSH14	F3AMilton	0.00	10.74	0.7359	3135.49	3479.24	1911
NSH15	F3AMilton	0.00	18.70	0.0001	4.84	4.82	6222
NSH16	F3AMilton	0.00	10.49	-0.0984	45.96	73.26	654
NSH17	F3AMilton	0.00	10.60	-1.3523	2039.60	5146.53	2161
NSH18	F3AMilton	0.00	9.86	-0.7760	3197.99	1653.46	3006
NSH19	F3AMilton	0.00	8.69	-0.1482	1018.63	881.56	5396
NSH20	F3AMilton	0.00	20.19	0.0001	3.15	3.10	11547
NSH21	F3AMilton	0.00	11.12	0.0002	10.56	10.20	9448
NSH22	F3AMilton	0.00	13.99	0.0002	31.63	28.34	4483
NSH23	F3AMilton	0.00	18.21	-0.0001	9.61	9.60	2617
NSH24	F3AMilton	0.00	13.99	-0.0003	15.82	22.92	4853
NSH25	F3AMilton	0.00	13.94	-0.0007	14.47	14.14	7858
NSH26	F3AMilton	0.00	13.66	0.0004	51.93	50.51	42099
NSH26A	F3AMilton	0.00	12.62	-0.0008	45.37	45.96	2058
NSH27	F3AMilton	0.00	12.83	-0.0001	8.33	10.47	31761
NSH27A	F3AMilton	0.00	12.70	0.0002	16.38	16.37	921
NSH27AA	F3AMilton	0.00	12.75	0.0004	10.47	10.72	558
NSH27B	F3AMilton	0.00	11.41	-0.0006	16.37	16.38	1033
NSH27C	F3AMilton	0.00	9.19	-0.0025	16.38	16.40	1035
NSH28	F3AMilton	0.00	9.64	0.0001	14.95	14.92	8900
NSH29	F3AMilton	0.00	8.88	-0.0001	8.42	8.32	648
NSH31	F3AMilton	0.00	9.62	0.0001	5.00	5.28	480
NSH33	F3AMilton	0.00	16.56	0.0001	1.89	1.87	3948
NSH34	F3AMilton	0.00	9.18	-0.0001	29.75	29.74	2955
NSH35	F3AMilton	0.00	7.93	-0.0004	28.57	28.59	3298
NSH36	F3AMilton	0.00	7.92	0.0017	18.63	18.60	805
NSH37	F3AMilton	0.00	10.42	-0.3317	2611.21	2834.46	2109
NSH41	F3AMilton	0.00	14.37	0.0001	3.66	3.65	465
NSH42	F3AMilton	0.00	4.62	-0.1409	70.01	70.02	803
NSH43	F3AMilton	0.00	5.33	0.0019	57.57	59.97	581
NSH44	F3AMilton	0.00	9.33	-0.0001	19.22	19.22	670
NSH45	F3AMilton	0.00	16.41	0.0001	37.27	37.13	23175
NSH48	F3AMilton	0.00	18.23	0.0001	12.49	12.48	2601
NSH49	F3AMilton	0.00	17.95	0.0040	14.66	14.63	473
NSH50	F3AMilton	0.00	17.20	-0.0667	766.72	951.35	6021
NSH51	F3AMilton	0.00	18.37	0.0001	27.20	26.94	1330
NSH52	F3AMilton	0.00	17.45	0.0255	722.39	755.21	4427
NSH53	F3AMilton	0.00	17.95	0.0008	42.94	42.59	1017
NSH53B	F3AMilton	0.00	17.65	-0.0012	42.59	42.27	448
NSH54	F3AMilton	0.00	17.96	-0.0032	16.51	16.64	1255
NSH55	F3AMilton	0.00	18.06	0.0202	723.69	700.53	5311
NSH55B	F3AMilton	0.00	18.18	-0.0008	8.52	8.20	447
NSH56	F3AMilton	0.00	18.67	0.0006	8.46	8.70	4388

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH57	F3AMilton	0.00	19.11	0.0040	259.27	261.00	5299
NSH60	F3AMilton	0.00	18.83	-0.0012	12.68	15.41	436
NSH61	F3AMilton	0.00	17.29	0.0012	12.67	12.38	451
NSH65	F3AMilton	0.00	21.63	-0.0009	3.26	5.75	470
NSH71	F3AMilton	9999.00	18.26	0.0001	30.71	30.56	2506
NSH75	F3AMilton	0.00	6.93	-0.0316	899.53	898.63	4068
NSH76	F3AMilton	0.00	5.67	-0.1973	851.73	851.71	2031
NSH80	F3AMilton	0.00	16.90	0.2405	974.82	1532.81	6657
NSH81	F3AMilton	0.00	20.88	0.0001	0.38	0.37	2614
NSH82	F3AMilton	0.00	20.89	0.0001	1.86	1.84	6523
NSH83	F3AMilton	0.00	16.96	0.0241	33.52	42.70	1484
NSH85	F3AMilton	0.00	16.57	-0.2715	1914.88	1239.08	4681
NSHSelmonDS	F3AMilton	9999.00	11.97	0.0016	801.17	802.72	6356
NSHSelmonUS	F3AMilton	9999.00	15.28	-0.0086	778.71	770.93	3189
NSR0000	F3AMilton	2.00	1.82	-0.0011	360.54	166.05	0
NSR0005	F3AMilton	2.00	1.82	0.0009	5.23	0.14	0
NSR0010	F3AMilton	2.00	1.82	-0.0013	506.96	31.64	0
NSR0030	F3AMilton	2.92	3.54	-0.0013	510.59	506.96	217989
NSR0032	F3AMilton	4.88	5.25	-0.0001	9.22	8.30	22668
NSR0034	F3AMilton	3.63	3.78	0.0001	50.15	48.89	30097
NSR0050	F3AMilton	3.44	4.22	0.0001	483.25	481.05	111991
NSR0070	F3AMilton	3.45	4.11	0.0006	18.74	18.39	57138
NSR0090	F3AMilton	3.68	3.80	-0.0004	23.51	22.96	12174
NSR0100	F3AMilton	2.25	2.34	-0.0081	5.25	5.23	577
NSR0102	F3AMilton	4.24	4.33	0.0001	2.79	2.70	2404
NSR0105	F3AMilton	1.91	2.14	-1.0231	511.16	547.98	2851
NSR0110	F3AMilton	3.93	4.40	-0.0002	21.77	21.29	20393
NSR0112	F3AMilton	2.31	2.24	0.5792	759.14	849.51	1491
NSR0115	F3AMilton	4.25	4.33	0.0001	1.67	1.60	7882
NSR0120	F3AMilton	2.62	2.71	-0.3902	674.84	665.86	2596
NSR0130	F3AMilton	4.16	4.91	-0.0002	19.58	19.19	32909
NSR0135	F3AMilton	4.22	5.31	-0.0001	15.69	15.81	22591
NSR0140	F3AMilton	3.28	3.71	0.4771	557.01	725.33	2501
NSR0150	F3AMilton	3.64	4.67	0.0007	441.60	441.13	29727
NSR0160	F3AMilton	3.56	4.12	0.3453	528.61	537.62	14154
NSR0165	F3AMilton	4.03	5.42	0.0001	42.22	42.18	30588
NSR0170	F3AMilton	3.70	5.13	0.0001	27.11	27.08	16078
NSR0180	F3AMilton	3.83	5.32	-0.0003	78.60	77.83	38592
NSR0190	F3AMilton	4.04	4.96	0.0126	59.39	59.86	4955
NSR0210	F3AMilton	4.26	5.74	-0.0109	63.11	59.24	20887
NSR0230	F3AMilton	4.26	5.74	-0.0042	72.10	62.43	144917
NSR0250	F3AMilton	3.93	4.91	0.0250	406.92	406.57	12764
NSR0270	F3AMilton	3.98	4.99	0.0001	160.22	157.40	75989
NSR0280	F3AMilton	5.41	6.02	-0.0333	301.78	301.57	42672
NSR0281	F3AMilton	5.97	6.71	-0.0127	267.28	267.15	20835

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0290	F3AMilton	6.70	7.19	-0.0008	113.32	109.67	44166
NSR0310	F3AMilton	9.28	9.42	-0.0004	103.48	103.08	64932
NSR0330	F3AMilton	9.65	9.92	-0.0010	8.10	8.09	470
NSR0350	F3AMilton	10.32	10.85	-0.0011	8.11	8.10	446
NSR0370	F3AMilton	10.35	10.89	-0.0001	9.73	8.11	10324
NSR0390	F3AMilton	11.96	12.33	0.0002	87.19	87.05	76764
NSR0410	F3AMilton	12.27	12.92	0.0002	9.01	9.80	510
NSR0430	F3AMilton	12.28	12.94	-0.0001	8.00	9.01	26225
NSR0450	F3AMilton	13.04	14.11	-0.0005	56.89	56.82	37820
NSR0470	F3AMilton	13.10	14.54	-0.0026	42.35	42.32	15691
NSR0490	F3AMilton	4.41	5.12	0.0097	208.56	207.24	35931
NSR0510	F3AMilton	4.48	5.29	0.0155	99.04	98.07	21952
NSR0530	F3AMilton	4.55	5.38	-0.0023	20.31	19.61	54657
NSR0540	F3AMilton	4.55	5.46	-0.0192	107.62	104.95	104360
NSR0550	F3AMilton	4.56	5.46	-0.0929	393.06	392.61	41048
NSR0560	F3AMilton	4.66	5.51	-0.0091	176.42	175.23	98789
NSR0570	F3AMilton	5.28	5.76	0.0022	215.38	215.12	60911
NSR0580	F3AMilton	6.13	6.77	-0.0001	18.37	10.96	114980
NSR0590	F3AMilton	6.15	6.76	-0.0007	119.49	118.84	73438
NSR0610	F3AMilton	6.26	6.83	-0.0004	99.67	98.62	79086
NSR0630	F3AMilton	6.26	6.82	-0.0009	21.08	21.19	786
NSR0650	F3AMilton	6.25	6.80	-0.0002	79.26	75.66	210488
NSR0660	F3AMilton	6.13	6.76	-0.0001	76.76	75.96	76908
NSR0670	F3AMilton	6.24	6.80	-0.0006	8.66	9.60	545
NSR0680	F3AMilton	6.14	6.71	-0.0002	99.36	99.05	164480
NSR0690	F3AMilton	6.24	6.79	-0.0003	8.04	8.66	622
NSR0710	F3AMilton	6.23	6.79	-0.0003	7.77	8.04	921
NSR0730	F3AMilton	6.29	6.84	0.0002	144.97	141.22	196205
NSR0770	F3AMilton	6.81	7.68	0.0008	148.76	148.57	28751
NSR0780	F3AMilton	6.74	7.26	-0.0006	60.50	60.09	30047
NSR0790	F3AMilton	8.35	10.71	-0.0013	394.13	392.72	85740
NSR0791	F3AMilton	7.13	8.66	-0.0036	246.64	246.64	5596
NSR0809	F3AMilton	12.76	11.82	-0.0034	74.32	96.46	2124
NSR0810	F3AMilton	13.45	13.67	-0.0003	253.69	253.59	59817
NSR0830	F3AMilton	15.10	15.51	-0.0001	311.57	310.50	158002
NSR0840	F3AMilton	16.09	16.33	-0.0001	63.70	63.64	52167
NSR0850	F3AMilton	15.64	16.20	-0.0029	257.66	257.35	82329
NSR0860	F3AMilton	16.41	16.47	-0.0002	7.00	6.88	14626
NSR0869	F3AMilton	16.03	16.60	-0.0004	28.27	28.17	1504
NSR0870	F3AMilton	16.24	16.81	-0.0002	212.29	212.18	49223
NSR0880	F3AMilton	16.24	16.84	-0.0001	90.27	90.09	24386
NSR0881	F3AMilton	14.14	17.88	-0.0008	374.33	372.56	196395
NSR0890	F3AMilton	4.02	4.95	-0.2748	422.10	480.25	101659
NSR0910	F3AMilton	4.79	5.76	-0.0068	236.31	231.65	87924
NSR0930	F3AMilton	5.54	7.19	-0.0001	124.03	61.63	336364
NSR0950	F3AMilton	5.63	7.19	0.0036	310.67	280.54	193388
NSR0970	F3AMilton	6.14	7.25	-0.0037	149.12	149.57	3616

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0990	F3AMilton	6.27	7.27	-0.0006	235.93	235.39	4530
NSR1010	F3AMilton	6.30	7.30	0.0001	53.67	51.79	20457
NSR1030	F3AMilton	8.54	9.24	0.0013	184.60	184.28	10004
NSR1050	F3AMilton	8.56	9.30	0.0001	109.64	108.77	27490
NSR1070	F3AMilton	9.58	9.78	-0.0054	243.40	242.94	66489
NSR1090	F3AMilton	11.30	11.52	-0.0016	176.16	176.19	8772
NSR1110	F3AMilton	11.57	11.56	0.0001	1.94	1.93	2891
NSR1130	F3AMilton	11.29	11.41	0.0001	36.59	36.58	15762
NSR1150	F3AMilton	11.39	11.58	0.0001	4.61	4.39	10607
NSR1170	F3AMilton	11.38	11.57	0.0002	1.96	2.33	450
NSR1190	F3AMilton	12.70	13.48	-0.0001	173.85	173.84	14719
NSR1210	F3AMilton	12.70	13.49	0.0003	16.42	9.25	101815
NSR1230	F3AMilton	14.76	15.60	0.0001	167.33	167.31	9768
NSR1270	F3AMilton	14.99	15.78	-0.0001	167.33	167.33	6276
NSR1290	F3AMilton	14.99	15.78	-0.0001	3.30	2.03	28076
NSR1310	F3AMilton	14.99	15.78	-0.0001	20.41	9.13	183054
NSR1330	F3AMilton	15.44	16.54	0.0002	160.01	159.63	23747
NSR1350	F3AMilton	15.45	16.55	0.0001	31.09	29.61	360898
NSR1370	F3AMilton	15.56	16.61	0.0041	462.98	386.53	21929
NSR1390	F3AMilton	15.56	16.62	0.0008	2.72	3.58	9195
NSR1410	F3AMilton	15.56	16.61	0.0828	226.81	358.15	96230
NSR1430	F3AMilton	15.76	16.69	-0.0002	42.33	43.53	60647
NSR1450	F3AMilton	15.74	16.69	-0.0001	51.34	48.58	164692
NSR1470	F3AMilton	15.96	16.70	-0.0001	40.48	39.03	85018
NSR1490	F3AMilton	16.21	16.71	-0.0001	41.64	34.60	229756
NSR1510	F3AMilton	16.21	16.71	-0.0002	42.70	43.02	60935
NSR1530	F3AMilton	15.56	16.61	-0.0228	115.95	84.73	26072
NSR1550	F3AMilton	15.68	16.68	0.0017	283.13	224.20	34884
NSR1570	F3AMilton	15.68	16.68	0.0021	97.62	48.81	20473
NSR1590	F3AMilton	15.68	16.69	-0.0235	133.37	161.00	57817
NSR1610	F3AMilton	15.75	16.75	-0.1315	568.19	583.59	61082
NSR1630	F3AMilton	15.75	16.75	0.0151	657.87	628.46	21008
NSR1650	F3AMilton	16.39	17.07	-0.0001	2.29	2.29	436
NSR1670	F3AMilton	15.92	16.96	-0.0030	79.56	78.91	48076
NSR1690	F3AMilton	16.24	17.66	0.0002	97.59	97.44	24231
NSR1710	F3AMilton	16.25	17.66	0.0003	5.80	3.49	49028
NSR1730	F3AMilton	16.32	17.70	-0.0002	102.81	101.59	24040
NSR1750	F3AMilton	16.68	17.70	0.0001	2.41	2.05	6980
NSR1770	F3AMilton	17.23	17.48	0.0001	15.26	12.76	22022
NSR1790	F3AMilton	17.24	17.48	0.0001	15.33	15.23	37827
NSR1810	F3AMilton	17.25	17.48	-0.0001	7.35	7.05	16081
NSR1830	F3AMilton	17.25	17.47	0.0001	64.01	63.39	105658
NSR1850	F3AMilton	16.95	18.21	-0.0003	16.51	11.80	14440
NSR1870	F3AMilton	16.93	18.21	0.0001	59.25	37.87	175266
NSR1890	F3AMilton	16.05	18.21	0.0001	13.42	13.89	1056
NSR1910	F3AMilton	15.45	18.22	-0.0008	145.08	142.81	166033
NSR1930	F3AMilton	16.53	17.76	0.0007	81.09	80.36	16312

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1950	F3AMilton	16.70	17.72	-0.0003	26.79	27.48	17365
NSR1970	F3AMilton	16.84	18.13	-0.0002	35.46	28.38	116915
NSR1990	F3AMilton	16.86	17.98	0.0005	8.85	8.71	949
NSR2010	F3AMilton	16.91	17.84	0.0005	18.18	12.45	66482
NSR2030	F3AMilton	16.90	17.68	0.0012	12.45	12.47	751
NSR2050	F3AMilton	16.88	17.41	0.0002	20.27	18.24	37994
NSR2070	F3AMilton	16.81	17.40	0.0004	6.23	6.18	781
NSR2090	F3AMilton	16.72	17.40	-0.0003	6.18	6.12	679
NSR2110	F3AMilton	16.54	17.39	-0.0001	16.18	13.41	44920
NSR2130	F3AMilton	16.50	16.61	-0.0005	19.04	18.00	88579
NSR2150	F3AMilton	17.60	18.48	0.0001	94.81	79.52	297405
NSR2170	F3AMilton	17.62	18.51	0.0350	38.32	38.78	2087
NSR2190	F3AMilton	17.62	18.51	0.0294	41.34	41.02	967
NSR2210	F3AMilton	17.62	18.49	-0.0001	105.09	71.18	421681
NSR2230	F3AMilton	17.62	18.50	-0.0202	17.69	17.96	675
NSR2250	F3AMilton	17.63	18.49	-0.0058	19.06	18.79	16003
NSR2270	F3AMilton	17.63	18.49	-0.0053	17.65	20.30	64002
NSR2290	F3AMilton	17.63	18.50	-0.0069	12.92	12.80	888
NSR2310	F3AMilton	17.63	18.50	0.0017	14.90	17.06	49831
NSR2330	F3AMilton	17.65	18.55	0.0001	15.00	10.07	58056
NSR2350	F3AMilton	17.65	18.55	0.0001	17.46	8.48	120883
NSR2370	F3AMilton	16.66	17.90	-0.0003	37.29	35.63	9676
NSR2390	F3AMilton	18.07	18.07	0.0001	9.61	8.78	65883
NSR2410	F3AMilton	16.66	17.90	-0.0002	33.63	28.89	22218
NSR2430	F3AMilton	17.99	17.98	0.0001	2.15	2.15	2661
NSR2450	F3AMilton	18.06	18.08	0.0001	30.30	30.14	15569
NSR3000	F3AMilton	17.04	18.22	-0.0727	9.84	49.45	54598
NSR3005	F3AMilton	17.02	18.22	0.1453	49.45	3.39	566
NSR3020	F3AMilton	17.61	18.01	-0.0001	151.55	151.30	104900
NSR3040	F3AMilton	16.25	16.84	-0.0001	173.01	171.56	121845
NSR3060	F3AMilton	16.21	16.71	0.0002	53.66	49.13	70244
NSW0010	F3AMilton	2.00	1.82	0.0014	27.97	0.35	0
NSW0030	F3AMilton	2.13	2.61	-0.0349	27.99	27.97	1389
NSW0050	F3AMilton	4.04	4.72	-0.0003	28.45	27.99	1533
Outfall	F3AMilton	2.00	1.82	-0.0020	148.70	4.66	0
Outfall_NE	F3AMilton	21.00	20.03	-0.0038	8.36	0.00	0
PondA	F3AMilton	0.00	19.23	0.0294	32.19	30.71	29871
PondB	F3AMilton	0.00	17.79	0.0002	318.65	291.05	211332
SH_OUTFALL	F3AMilton	2.00	1.90	-0.0004	1070.42	47.62	0
STORAGE1	F3AMilton	0.00	20.73	-0.0001	4.13	1.50	7405
STORAGE10	F3AMilton	0.00	21.63	0.0004	3.65	0.46	9148
STORAGE11	F3AMilton	0.00	21.29	0.0005	7.44	0.01	18648
STORAGE12	F3AMilton	0.00	21.60	0.0007	45.61	5.77	10262
STORAGE13	F3AMilton	0.00	19.13	-0.0001	1.28	1.31	5323
STORAGE14	F3AMilton	0.00	23.20	0.0001	2.17	0.16	13395
STORAGE2	F3AMilton	0.00	19.20	0.0003	17.14	8.23	18426
STORAGE4	F3AMilton	0.00	19.35	0.0010	55.13	3.96	12088

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
STORAGE5	F3AMilton	0.00	21.10	0.0001	4.00	2.44	20000
STORAGE8	F3AMilton	0.00	19.02	-0.0001	2.69	2.53	6098
STORAGE9	F3AMilton	0.00	18.83	0.0024	4.65	1.32	11761
Sevilla1	F3AMilton	1.20	2.26	-0.0001	0.47	1.93	804
Sevilla2	F3AMilton	1.23	2.00	-0.0001	0.44	2.48	660
Sevilla3	F3AMilton	1.20	2.26	-0.0001	1.93	5.67	1341
Sevilla4	F3AMilton	1.20	2.26	-0.0002	5.67	12.20	1493
Shamrock2	F3AMilton	1.11	2.00	-0.0360	143.05	151.54	5390
Shmrck1.1	F3AMilton	1.38	2.74	0.0011	143.30	143.23	6206
Shmrck1.2	F3AMilton	1.20	2.26	0.0005	143.23	143.12	4023
THEA_JUNCT 1	F3AMilton	0.00	14.51	-0.0001	34.38	34.38	667
THEA_JUNCT 2	F3AMilton	0.00	13.61	-0.0002	34.38	34.48	501
THEA_Watrou s	F3AMilton	0.00	16.24	0.0005	34.38	34.38	812
V3	F3AMilton	6.53	6.62	0.0001	1.33	1.27	36754
BC_N02	F3AVerificatio n	0.00	18.00	0.0000	0.00	0.00	0
Church1	F3AVerificatio n	8.77	8.63	0.0000	0.00	0.00	436
Church2	F3AVerificatio n	8.77	8.21	0.0000	1.90	1.54	4390
Clark1	F3AVerificatio n	7.21	6.61	0.0000	0.14	0.05	709
Clark2	F3AVerificatio n	7.21	6.63	0.0000	29.58	29.53	4366
DM1	F3AVerificatio n	11.42	11.27	0.0000	1.86	1.97	1274
DM2	F3AVerificatio n	10.30	10.01	0.0000	1.97	1.77	1909
DM3	F3AVerificatio n	9.16	9.06	0.0000	1.77	1.90	2968
E_Outlet	F3AVerificatio n	0.00	15.62	0.0001	36.09	21.06	0
E_Outlet2	F3AVerificatio n	0.00	17.00	0.0000	0.00	0.00	0
ElP_Hes.1	F3AVerificatio n	1.99	2.17	0.0000	0.23	0.15	763
ElP_con.1	F3AVerificatio n	2.18	2.22	-0.0001	28.81	28.77	4221
ElPrad.1	F3AVerificatio n	1.99	2.17	0.0000	0.11	0.06	613
G1	F3AVerificatio n	14.98	14.05	-0.0005	30.14	29.48	24938
G10	F3AVerificatio n	8.77	8.10	0.0000	29.61	29.58	4602

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
G2	F3AVerification	14.99	14.77	-0.0001	5.35	3.78	32676
G3	F3AVerification	14.86	13.06	0.0000	31.86	31.85	2179
G4	F3AVerification	12.82	11.75	0.0000	31.85	31.84	2076
G5	F3AVerification	11.69	10.93	0.0000	31.84	31.83	1865
G6	F3AVerification	11.00	9.24	0.0000	3.70	0.00	0
G7	F3AVerification	11.00	10.25	0.0000	31.83	31.82	3599
G8	F3AVerification	10.07	9.47	0.0000	28.12	28.11	2144
G9	F3AVerification	9.41	8.99	0.0000	28.11	28.10	1352
H1	F3AVerification	1.99	2.17	0.0000	0.09	0.06	510
H2.1	F3AVerification	1.99	2.17	0.0001	28.77	28.76	6105
Hubert	F3AVerification	3.16	2.79	0.0000	29.38	29.25	5965
JUNCT1	F3AVerification	0.00	13.59	0.0000	0.09	0.05	718
JUNCT10	F3AVerification	0.00	21.84	0.0000	27.83	27.70	8317
JUNCT2	F3AVerification	0.00	13.50	0.0000	0.00	0.00	436
JUNCT3	F3AVerification	0.00	19.64	0.0000	0.00	0.00	436
JUNCT4	F3AVerification	0.00	13.56	0.0000	1.10	1.07	3413
JUNCT6	F3AVerification	0.00	14.77	0.0000	0.00	0.00	436
JUNCT7	F3AVerification	0.00	18.68	0.0000	7.72	7.85	3638
JUNCT7B	F3AVerification	0.00	18.34	0.0000	7.91	7.54	11254
JUNCT8	F3AVerification	0.00	18.91	0.0000	16.41	17.03	6995
JUNCT8B	F3AVerification	0.00	18.37	0.0000	17.03	15.43	22748
JUNCT9	F3AVerification	0.00	29.38	0.0000	25.30	25.27	8976
L1	F3AVerification	11.53	11.53	0.0000	0.00	0.00	436
L2	F3AVerificatio	11.63	11.63	0.0000	0.00	0.00	436

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
L3	F3AVerification	10.43	10.43	0.0000	0.00	0.00	436
L4	F3AVerification	8.43	8.43	0.0000	0.00	0.00	436
L5	F3AVerification	7.63	7.63	0.0000	0.00	0.00	436
L6	F3AVerification	6.93	6.93	0.0000	0.00	0.00	436
Lois	F3AVerification	4.82	4.40	0.0000	29.39	29.38	6808
M1	F3AVerification	2.58	2.46	0.0000	0.00	0.00	436
M1.1	F3AVerification	6.33	6.33	0.0000	0.00	0.00	436
M1.2	F3AVerification	7.03	7.03	0.0000	0.00	0.00	436
M1.3	F3AVerification	7.13	7.13	0.0000	0.00	0.00	436
M2	F3AVerification	2.58	2.38	0.0000	0.26	0.09	888
M3	F3AVerification	2.58	2.39	0.0000	0.48	0.30	1154
M4	F3AVerification	2.58	2.39	0.0000	0.78	0.52	900
M5.1	F3AVerification	2.57	2.39	0.0000	29.25	29.11	6162
M6	F3AVerification	2.58	2.39	0.0000	0.26	0.15	558
N01	F3AVerification	0.00	18.66	0.0000	10.26	8.19	7591
N01A	F3AVerification	0.00	17.74	0.0001	6.48	6.33	456
N02	F3AVerification	0.00	13.79	0.0000	7.52	7.48	690
N03	F3AVerification	0.00	16.19	0.0000	0.29	0.25	565
N04	F3AVerification	0.00	17.18	0.0000	1.72	1.70	554
N05	F3AVerification	0.00	12.70	0.0000	29.27	28.46	4409
N06	F3AVerification	0.00	11.23	0.0001	23.53	28.85	3260
N07A	F3AVerification	0.00	7.45	0.0000	33.94	28.21	4219
N08A	F3AVerification	0.00	5.04	-0.0001	39.00	41.32	1953

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
N09	F3AVerification	0.00	8.27	0.0000	3.50	3.48	465
N09A	F3AVerification	0.00	3.79	0.0001	43.07	40.69	1359
N10	F3AVerification	2.00	2.00	0.0000	73.86	0.00	0
N11	F3AVerification	0.00	15.51	-0.0002	26.44	36.09	25171
NBB0010	F3AVerification	2.00	2.00	0.0000	89.29	0.00	0
NBB0030	F3AVerification	5.03	4.35	0.0004	89.30	89.29	557
NBB0050	F3AVerification	9.15	6.69	-0.0001	89.36	89.30	2226
NBB0070	F3AVerification	11.30	8.04	0.0001	83.71	83.77	2549
NBB0090	F3AVerification	12.67	9.07	0.0001	80.96	81.09	1996
NBB0110	F3AVerification	13.46	9.72	0.0001	78.68	78.85	1984
NBB0130	F3AVerification	15.26	12.04	0.0000	12.73	12.65	833
NBB0150	F3AVerification	14.01	10.38	0.0001	64.08	64.06	1936
NBB0170	F3AVerification	14.74	11.26	0.0001	65.52	64.08	1452
NBB0190	F3AVerification	15.42	12.09	0.0001	67.08	65.52	1476
NBB0210	F3AVerification	15.70	12.76	0.0001	58.98	58.53	1556
NBB0230	F3AVerification	16.02	13.54	0.0001	60.60	58.98	1635
NBB0250	F3AVerification	16.31	14.29	0.0001	59.48	57.60	2036
NBB0270	F3AVerification	17.05	15.27	0.0001	62.50	59.48	1836
NBB0290	F3AVerification	17.06	15.80	0.0001	61.39	57.21	1258
NBB0310	F3AVerification	17.07	16.30	0.0001	86.98	71.08	86071
NBB0330	F3AVerification	16.57	16.14	0.0001	23.26	24.44	1624
NBB0350	F3AVerification	16.45	15.99	0.0001	21.75	22.77	1396
NBB0370	F3AVerification	16.33	15.85	0.0001	29.61	28.93	10447
NBB0390	F3AVerificatio	16.32	15.82	0.0001	18.65	19.42	1837

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBB0410	F3AVerification	16.30	15.74	-0.0002	33.36	31.60	16541
NBB0430	F3AVerification	15.45	15.35	-0.0002	35.10	33.87	64553
NBW0010	F3AVerification	2.00	2.00	0.0000	525.60	0.00	0
NBW0030	F3AVerification	3.39	3.32	0.0000	525.98	525.60	37987
NBW0050	F3AVerification	3.92	3.55	0.0000	5.58	4.39	3701
NBW0070	F3AVerification	3.57	3.45	0.0000	149.37	149.95	25419
NBW0090	F3AVerification	3.66	3.53	0.0000	3.78	3.27	2531
NBW0130	F3AVerification	3.73	3.59	0.0000	145.98	146.03	14020
NBW0150	F3AVerification	3.93	3.64	0.0000	6.25	6.04	442
NBW0170	F3AVerification	3.98	3.65	0.0000	2.75	2.51	1312
NBW0190	F3AVerification	3.89	3.72	-0.0001	142.14	142.12	5755
NBW0210	F3AVerification	6.25	6.21	0.0000	4.76	4.73	4529
NBW0230	F3AVerification	4.01	3.81	-0.0001	139.60	139.67	2783
NBW0250	F3AVerification	4.88	4.57	0.0000	137.73	137.80	5270
NBW0270	F3AVerification	5.49	5.26	0.0000	24.19	22.43	11372
NBW0290	F3AVerification	5.91	5.81	0.0000	19.03	18.68	11198
NBW0310	F3AVerification	6.38	6.03	0.0000	6.43	6.38	743
NBW0330	F3AVerification	5.50	5.12	0.0000	125.12	125.43	19352
NBW0350	F3AVerification	4.97	4.92	0.0000	4.68	4.68	2451
NBW0370	F3AVerification	5.52	5.14	-0.0001	6.70	6.22	1014
NBW0390	F3AVerification	5.52	5.14	0.0000	5.75	5.30	3298
NBW0410	F3AVerification	5.54	5.15	-0.0001	118.19	118.49	3446
NBW0430	F3AVerification	5.89	5.44	0.0001	3.58	3.11	847

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW0450	F3AVerification	5.89	5.44	0.0001	118.88	118.19	10099
NBW0470	F3AVerification	5.89	5.44	-0.0001	2.61	2.16	834
NBW0490	F3AVerification	5.92	5.47	-0.0001	116.29	116.67	2656
NBW0510	F3AVerification	6.72	6.59	0.0000	2.13	2.13	1653
NBW0530	F3AVerification	6.22	5.74	0.0000	115.66	115.60	4801
NBW0550	F3AVerification	6.72	6.14	0.0000	67.83	52.75	75104
NBW0570	F3AVerification	7.09	6.70	0.0000	68.13	68.00	3482
NBW0590	F3AVerification	10.03	9.74	-0.0004	65.56	62.76	53372
NBW0610	F3AVerification	6.45	5.92	0.0000	99.77	99.54	6401
NBW0630	F3AVerification	6.22	5.74	0.0000	2.02	1.73	5267
NBW0650	F3AVerification	6.66	6.04	0.0000	102.30	99.69	18931
NBW0670	F3AVerification	6.66	6.04	0.0000	2.72	1.95	6488
NBW0690	F3AVerification	6.71	6.12	0.0000	86.41	81.32	8017
NBW0710	F3AVerification	6.71	6.12	0.0000	7.95	7.93	8686
NBW0730	F3AVerification	6.72	6.12	0.0000	89.98	80.50	47118
NBW0750	F3AVerification	7.06	6.77	0.0001	70.57	42.62	68680
NBW0770	F3AVerification	7.06	6.77	-0.0001	14.15	12.09	7916
NBW0790	F3AVerification	8.11	7.21	0.0000	12.23	11.98	770
NBW0810	F3AVerification	7.06	6.77	0.0000	33.37	26.54	17131
NBW0830	F3AVerification	8.41	7.06	0.0000	17.51	17.27	1329
NBW0850	F3AVerification	10.17	7.34	0.0000	16.29	16.02	755
NBW0870	F3AVerification	7.06	6.78	0.0001	16.89	11.64	41381
NBW0890	F3AVerification	7.06	6.77	0.0001	17.17	17.92	1027
NBW0910	F3AVerificatio	7.06	6.78	0.0000	34.93	21.12	61518

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBW0930	F3AVerification	8.03	6.85	0.0000	25.61	25.39	1301
NBW0950	F3AVerification	8.82	6.97	0.0000	25.83	25.61	866
NBW0970	F3AVerification	8.82	6.99	0.0001	13.23	13.28	827
NBW0990	F3AVerification	8.82	7.02	-0.0001	12.67	12.71	785
NBW1010	F3AVerification	8.83	7.22	0.0000	12.64	12.67	1121
NBW1030	F3AVerification	9.19	7.44	0.0000	12.12	12.15	1103
NBW1050	F3AVerification	9.30	7.59	0.0000	11.27	11.30	900
NBW1070	F3AVerification	9.34	7.65	0.0000	11.25	11.27	767
NBW1090	F3AVerification	3.78	3.66	-0.0001	369.94	368.36	11784
NBW1130	F3AVerification	4.51	4.23	0.0000	12.78	11.81	8895
NBW1150	F3AVerification	4.53	4.30	0.0000	10.35	8.68	13918
NBW1169	F3AVerification	4.09	3.94	0.0000	357.83	355.38	15827
NBW1170	F3AVerification	4.30	4.17	0.0001	353.75	352.84	5807
NBW1190	F3AVerification	6.13	5.42	-0.0001	11.12	6.71	28171
NBW1210	F3AVerification	7.17	5.66	-0.0002	32.74	29.57	30767
NBW1230	F3AVerification	7.17	6.18	-0.0001	31.23	23.32	77409
NBW1250	F3AVerification	4.74	4.58	-0.0001	322.73	321.12	7383
NBW1270	F3AVerification	6.14	5.68	0.0000	6.35	6.41	7975
NBW1310	F3AVerification	5.21	5.08	0.0000	323.83	322.21	7844
NBW1330	F3AVerification	7.56	7.37	-0.0002	285.36	285.35	3112
NBW1350	F3AVerification	10.95	9.08	0.0002	19.18	21.04	496
NBW1351	F3AVerification	8.89	8.55	-0.0002	247.20	246.84	8277
NBW1352	F3AVerification	9.96	9.70	0.0005	241.40	241.02	7956

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW1353	F3AVerification	11.01	10.86	0.0005	236.07	235.64	5636
NBW1370	F3AVerification	10.02	9.72	0.0003	205.66	196.57	6358
NBW1390	F3AVerification	15.24	15.07	-0.0005	202.57	188.32	64062
NBW1410	F3AVerification	15.58	15.46	0.0003	186.05	182.63	17716
NBW1430	F3AVerification	15.79	15.69	-0.0003	150.54	149.92	18594
NBW1450	F3AVerification	16.94	16.78	-0.0004	154.91	150.99	92710
NBW1460	F3AVerification	16.43	16.29	-0.0002	138.90	139.96	3527
NBW1470	F3AVerification	17.14	17.00	-0.0002	154.94	146.92	87417
NBW1480	F3AVerification	18.11	17.99	-0.0001	7.08	4.98	11486
NBW1490	F3AVerification	17.86	17.53	0.0001	104.31	98.27	7422
NBW1510	F3AVerification	18.12	17.70	0.0003	131.49	121.79	5169
NBW1530	F3AVerification	17.92	17.51	0.0001	17.33	12.15	1253
NBW1550	F3AVerification	17.75	17.44	0.0001	17.53	17.16	7630
NBW1570	F3AVerification	18.21	17.80	0.0002	132.24	122.96	2604
NBW1590	F3AVerification	18.12	17.86	0.0001	27.49	25.43	8268
NBW1610	F3AVerification	18.13	17.93	0.0001	24.35	23.98	2566
NBW1630	F3AVerification	18.13	18.01	0.0001	12.46	12.35	1507
NBW1650	F3AVerification	18.81	18.74	0.0001	11.42	9.88	2502
NBW1670	F3AVerification	18.89	18.81	0.0001	16.38	16.22	1927
NBW1690	F3AVerification	19.03	18.94	0.0001	10.05	9.69	7944
NBW1710	F3AVerification	19.26	18.94	0.0001	4.33	1.59	998
NBW1730	F3AVerification	18.65	18.01	0.0004	121.86	113.86	53456
NBW1750	F3AVerification	18.82	18.18	0.0001	68.98	68.71	3883
NBW1770	F3AVerificatio	18.82	18.72	0.0001	60.29	53.86	37720

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBW1790	F3AVerification	18.91	18.84	0.0001	14.61	14.53	1894
NBW1820	F3AVerification	18.72	18.52	-0.0001	33.10	24.50	60488
NBW1830	F3AVerification	18.74	18.36	0.0001	57.34	54.57	1977
NBW1840	F3AVerification	18.39	18.29	0.0001	46.71	38.19	68137
NBW1850	F3AVerification	18.74	18.39	0.0001	55.60	52.27	35696
NBW1860	F3AVerification	18.39	18.29	-0.0001	7.44	4.72	15084
NBW1870	F3AVerification	18.72	18.51	-0.0003	26.29	19.06	20476
NBW1890	F3AVerification	19.06	18.50	0.0001	30.70	31.47	2613
NBW1910	F3AVerification	19.27	18.57	0.0001	30.78	30.79	1873
NBW1930	F3AVerification	19.27	18.64	0.0001	28.95	29.75	1927
NBW1950	F3AVerification	18.97	18.90	0.0001	5.08	2.97	451
NBW1970	F3AVerification	18.96	18.91	0.0000	6.09	6.00	1791
NBW1990	F3AVerification	19.27	18.71	0.0001	26.06	27.36	18559
NBW2010	F3AVerification	19.65	18.85	0.0001	8.57	8.39	1166
NBW2030	F3AVerification	19.65	18.88	0.0001	7.14	7.02	1169
NBW2050	F3AVerification	19.26	18.72	0.0001	22.81	20.23	17790
NBW2060	F3AVerification	0.00	19.45	0.0000	10.98	9.23	22567
NBW2070	F3AVerification	19.26	18.72	0.0001	64.93	58.13	30677
NBW2090	F3AVerification	19.10	16.86	0.0001	68.17	65.18	2747
NBW2110	F3AVerification	18.92	14.55	0.0001	80.35	79.64	2262
NBW2130	F3AVerification	18.92	13.68	0.0001	81.67	83.35	1726
NBW2140	F3AVerification	20.00	14.68	0.0000	2.13	2.12	650
NBW2145	F3AVerification	0.00	16.89	0.0000	8.58	8.20	436

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NBW2150	F3AVerification	19.26	19.04	0.0001	43.56	44.47	2389
NBW2170	F3AVerification	19.12	19.07	0.0003	15.80	4.77	834
NBW2190	F3AVerification	19.10	19.09	0.0002	8.02	4.21	508
NBW2210	F3AVerification	19.47	19.22	0.0001	40.79	41.55	1887
NBW2230	F3AVerification	19.47	19.49	-0.0002	19.58	12.93	31692
NBW2250	F3AVerification	19.51	19.31	0.0001	34.38	34.86	2384
NBW2270	F3AVerification	19.57	19.42	0.0002	33.78	34.26	2580
NBW2290	F3AVerification	19.65	19.55	-0.0002	18.92	18.36	51575
NBW2310	F3AVerification	19.82	19.59	-0.0002	18.77	20.81	57198
NBW2330	F3AVerification	19.82	19.59	-0.0003	14.30	12.95	32442
NBW2350	F3AVerification	16.05	15.86	0.0001	43.92	43.18	3973
NBW2370	F3AVerification	16.11	16.06	-0.0001	9.61	7.57	57551
NBW2380	F3AVerification	12.29	12.27	0.0004	236.49	231.90	10756
NBW2385	F3AVerification	18.49	18.48	0.0000	2.17	2.17	6438
NBW2387	F3AVerification	16.11	15.70	0.0000	0.34	0.33	476
NBW2390	F3AVerification	16.42	16.25	0.0001	31.25	31.10	2672
NBW2410	F3AVerification	16.59	16.56	0.0001	26.92	26.14	2374
NBW2430	F3AVerification	16.23	16.42	0.0001	40.26	39.81	3214
NBW2450	F3AVerification	16.15	16.37	-0.0002	155.10	152.76	4396
NBW2470	F3AVerification	16.43	16.46	0.0001	77.29	75.60	20548
NBW2490	F3AVerification	16.90	16.80	0.0001	74.02	73.99	5569
NBW2510	F3AVerification	17.74	17.24	0.0001	71.27	71.06	2033
NBW2530	F3AVerification	17.92	17.49	0.0001	58.15	57.51	2010
NBW2550	F3AVerificatio	17.95	17.52	-0.0001	1.74	2.90	450

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NBW2570	F3AVerification	17.96	17.65	0.0000	1.75	1.74	3049
NBW2590	F3AVerification	18.06	17.63	0.0001	47.17	46.46	1098
NBW2610	F3AVerification	17.00	16.95	-0.0004	83.32	88.81	21972
NBW2630	F3AVerification	17.98	17.85	-0.0001	77.51	77.14	40597
NBW2650	F3AVerification	16.97	16.92	-0.0002	26.26	26.78	1932
NBW2670	F3AVerification	16.42	16.33	-0.0001	28.34	29.12	1830
NBW2680	F3AVerification	17.73	17.22	-0.0001	27.61	28.36	2112
NBW2690	F3AVerification	15.40	15.62	0.0002	232.15	228.45	7486
NBW2710	F3AVerification	17.73	17.22	-0.0001	1.41	2.49	508
NBW2730	F3AVerification	18.29	17.83	0.0000	1.25	0.05	3920
NBW2770	F3AVerification	18.09	17.97	0.0001	14.31	13.37	1310
NBW2775	F3AVerification	6.59	6.22	0.0000	7.40	5.32	12658
NBW2780	F3AVerification	18.38	18.01	-0.0002	26.54	23.99	16655
NBW2790	F3AVerification	18.38	18.29	-0.0001	88.76	87.97	75601
NBW2810	F3AVerification	18.39	18.29	-0.0002	36.20	36.14	66120
NBW2830	F3AVerification	18.40	18.30	-0.0001	31.71	24.04	92248
NC01	F3AVerification	0.00	3.60	0.0000	5.24	5.19	699
NC01B	F3AVerification	0.00	5.60	0.0000	5.25	5.03	1876
NC02	F3AVerification	0.00	2.99	0.0000	42.35	42.34	1891
NC03	F3AVerification	0.00	2.45	-0.0001	46.08	46.07	1239
NC04	F3AVerification	0.00	2.88	0.0000	9.73	9.03	5538
NC05	F3AVerification	0.00	2.51	0.0000	6.76	6.74	437
NC06	F3AVerification	0.00	2.44	0.0000	6.57	6.55	437

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NC07	F3AVerification	0.00	2.11	0.0000	3.09	3.08	437
NC08	F3AVerification	0.00	2.61	0.0000	7.28	7.24	568
NCL0010	F3AVerification	2.00	2.00	0.0000	461.66	0.00	0
NCL0030	F3AVerification	2.36	2.62	-0.0001	436.46	436.43	6856
NCL0050	F3AVerification	2.36	2.62	-0.0001	0.39	1.11	439
NCL0070	F3AVerification	5.20	4.82	-0.0001	47.45	46.98	8640
NCL0090	F3AVerification	6.06	5.86	-0.0002	28.51	20.92	46871
NCL0110	F3AVerification	3.04	3.07	-0.0008	519.16	519.16	6623
NCL0130	F3AVerification	4.05	3.11	-0.0002	78.54	78.64	565
NCL0150	F3AVerification	4.95	3.43	0.0000	78.58	78.54	2802
NCL0170	F3AVerification	5.08	3.51	0.0000	50.63	50.74	1380
NCL0190	F3AVerification	5.08	3.52	0.0000	1.41	1.46	438
NCL0210	F3AVerification	5.85	3.81	0.0000	46.47	46.52	1234
NCL0230	F3AVerification	6.60	3.97	0.0000	10.32	9.84	530
NCL0250	F3AVerification	6.60	4.13	0.0000	0.00	0.00	436
NCL0270	F3AVerification	6.60	5.77	0.0000	2.45	2.44	977
NCL0290	F3AVerification	5.90	3.87	-0.0001	33.43	33.54	924
NCL0310	F3AVerification	6.10	4.13	0.0003	38.28	33.43	1045
NCL0330	F3AVerification	5.95	4.14	0.0000	0.85	1.21	513
NCL0350	F3AVerification	6.60	4.38	-0.0002	32.68	38.18	1373
NCL0370	F3AVerification	7.36	6.39	-0.0001	25.22	24.87	1195
NCL0390	F3AVerification	4.02	3.94	-0.0015	432.69	458.06	4339
NCL0410	F3AVerification	4.09	3.97	0.0000	3.13	3.57	819
NCL0430	F3AVerificatio	4.23	4.00	0.0000	3.21	3.13	639

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL0450	F3AVerification	4.75	4.60	-0.0016	424.56	432.09	3676
NCL0470	F3AVerification	5.43	5.22	-0.0011	416.81	424.39	3437
NCL0490	F3AVerification	6.48	6.19	-0.0006	418.75	419.93	15564
NCL0510	F3AVerification	6.67	6.26	0.0002	20.50	20.34	1152
NCL0530	F3AVerification	8.10	6.77	0.0004	40.47	13.29	1191
NCL0550	F3AVerification	8.17	6.80	-0.0002	13.79	40.47	880
NCL0570	F3AVerification	8.66	6.87	0.0000	7.43	6.72	840
NCL0590	F3AVerification	7.00	6.67	0.0007	395.46	395.68	3392
NCL0610	F3AVerification	7.52	7.16	0.0007	393.65	393.95	3640
NCL0630	F3AVerification	8.06	7.68	-0.0004	394.71	393.30	4608
NCL0650	F3AVerification	8.12	7.73	-0.0003	45.93	102.61	1613
NCL0670	F3AVerification	8.67	8.23	0.0003	131.83	45.93	1693
NCL0690	F3AVerification	8.76	8.33	0.0001	33.02	35.14	605
NCL0710	F3AVerification	8.95	8.54	0.0001	33.02	32.56	600
NCL0730	F3AVerification	9.26	8.89	-0.0001	34.24	33.02	554
NCL0750	F3AVerification	9.56	9.26	0.0000	41.54	35.88	31048
NCL0770	F3AVerification	10.12	9.81	0.0000	29.80	29.53	2177
NCL0790	F3AVerification	8.69	8.25	-0.0003	28.80	101.59	895
NCL0810	F3AVerification	8.84	8.36	0.0001	28.55	28.80	1379
NCL0830	F3AVerification	8.93	8.57	0.0004	358.19	360.41	14857
NCL0850	F3AVerification	9.01	8.62	0.0001	50.28	48.18	4398
NCL0870	F3AVerification	9.37	8.68	-0.0001	68.48	68.23	2022
NCL0890	F3AVerification	9.65	8.73	0.0001	53.82	53.55	1590

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL0910	F3AVerification	9.71	8.73	0.0001	3.89	3.17	489
NCL0930	F3AVerification	9.57	8.83	0.0001	51.02	50.73	2110
NCL0950	F3AVerification	9.89	8.96	0.0001	43.13	42.23	3146
NCL0970	F3AVerification	10.41	9.08	0.0000	25.11	22.85	2266
NCL0990	F3AVerification	11.00	9.30	0.0000	16.74	17.04	1495
NCL1010	F3AVerification	11.14	9.35	0.0000	3.56	3.65	632
NCL1030	F3AVerification	9.67	8.70	-0.0002	17.40	33.51	1473
NCL1050	F3AVerification	10.46	8.71	0.0001	4.56	2.96	616
NCL1070	F3AVerification	9.30	8.70	0.0001	3.27	1.24	632
NCL1090	F3AVerification	9.76	9.58	0.0000	27.65	15.86	15437
NCL1110	F3AVerification	9.85	9.25	0.0001	16.49	16.71	2041
NCL1130	F3AVerification	9.76	9.58	-0.0001	14.25	16.23	11557
NCL1150	F3AVerification	9.76	9.58	0.0001	354.49	371.78	139563
NCL1170	F3AVerification	10.59	10.58	0.0004	365.28	355.09	60407
NCL1190	F3AVerification	10.72	10.63	0.0001	46.03	45.73	1850
NCL1210	F3AVerification	10.63	10.62	0.0001	15.74	13.85	37883
NCL1230	F3AVerification	10.94	10.67	0.0001	46.33	46.03	1432
NCL1250	F3AVerification	11.11	10.70	0.0001	46.63	46.33	1231
NCL1270	F3AVerification	11.34	10.75	0.0001	46.94	46.63	1217
NCL1290	F3AVerification	13.06	11.53	0.0001	26.48	25.66	1408
NCL1310	F3AVerification	14.77	12.99	0.0000	18.65	18.88	788
NCL1330	F3AVerification	10.60	10.59	0.0001	94.74	101.36	66116
NCL1350	F3AVerification	10.63	10.62	-0.0001	97.98	93.74	32853
NCL1370	F3AVerificatio	10.63	10.62	-0.0002	11.32	22.23	778

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL1390	F3AVerification	10.63	10.63	0.0001	8.65	3.99	563
NCL1410	F3AVerification	10.63	10.63	0.0001	4.37	1.52	485
NCL1430	F3AVerification	10.70	10.76	0.0005	379.88	343.57	97648
NCL1450	F3AVerification	10.93	11.23	0.0014	364.18	363.91	3036
NCL1470	F3AVerification	12.72	12.40	0.0003	316.98	314.46	4375
NCL1490	F3AVerification	14.45	14.27	0.0000	2.58	2.56	756
NCL1510	F3AVerification	11.06	11.31	-0.0007	43.76	79.71	862
NCL1530	F3AVerification	12.54	12.05	-0.0003	38.78	37.94	2740
NCL1550	F3AVerification	13.13	12.56	-0.0001	37.13	36.90	1021
NCL1570	F3AVerification	13.31	12.58	0.0001	3.56	2.27	504
NCL1590	F3AVerification	13.70	13.66	0.0000	0.99	0.97	1307
NCL1610	F3AVerification	13.37	12.59	0.0000	1.56	1.49	469
NCL1630	F3AVerification	13.57	12.98	-0.0002	52.99	35.63	719
NCL1650	F3AVerification	13.68	13.02	-0.0002	35.44	52.03	1293
NCL1670	F3AVerification	14.02	13.03	0.0000	6.06	5.63	592
NCL1690	F3AVerification	17.47	15.75	0.0000	30.30	30.16	1258
NCL1710	F3AVerification	17.89	16.02	0.0000	28.92	28.66	614
NCL1730	F3AVerification	18.27	16.27	0.0001	25.94	25.64	567
NCL1750	F3AVerification	18.24	16.28	-0.0002	11.34	11.19	513
NCL1770	F3AVerification	18.07	16.31	0.0000	11.52	11.34	487
NCL1790	F3AVerification	15.78	14.08	0.0002	317.97	314.67	5864
NCL1810	F3AVerification	18.13	17.65	-0.0001	27.55	26.15	5435
NCL1830	F3AVerification	18.39	15.68	0.0001	297.85	294.09	6250

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL1850	F3AVerification	18.50	15.94	-0.0003	79.30	79.83	911
NCL1870	F3AVerification	19.01	17.25	0.0001	78.80	79.30	1006
NCL1890	F3AVerification	19.15	17.60	0.0001	78.35	78.80	983
NCL1910	F3AVerification	19.15	17.60	0.0000	1.95	0.85	489
NCL1930	F3AVerification	19.91	19.84	0.0000	2.33	2.32	1488
NCL1950	F3AVerification	19.15	17.77	0.0000	0.00	0.00	436
NCL1970	F3AVerification	21.67	21.63	0.0000	1.31	1.28	2975
NCL1990	F3AVerification	19.58	18.77	0.0001	77.72	77.98	915
NCL2010	F3AVerification	19.74	19.18	-0.0001	42.74	42.34	1109
NCL2030	F3AVerification	19.76	19.23	-0.0001	6.11	7.62	6933
NCL2050	F3AVerification	19.76	19.24	-0.0001	39.21	38.10	1416
NCL2070	F3AVerification	19.76	19.23	-0.0001	1.75	3.09	865
NCL2090	F3AVerification	19.87	19.46	0.0001	40.59	39.21	1415
NCL2110	F3AVerification	20.03	19.48	-0.0005	16.17	17.58	873
NCL2130	F3AVerification	19.87	19.52	-0.0001	33.29	30.41	8036
NCL2150	F3AVerification	20.75	19.94	0.0007	37.88	111.40	5698
NCL2170	F3AVerification	19.85	19.56	-0.0001	95.85	94.93	9277
NCL2230	F3AVerification	19.13	16.56	0.0003	248.33	244.44	5806
NCL2250	F3AVerification	19.55	17.22	0.0001	233.36	229.62	4443
NCL2270	F3AVerification	20.05	18.43	0.0001	116.32	113.44	2534
NCL2290	F3AVerification	19.88	18.47	0.0001	4.81	3.81	782
NCL2310	F3AVerification	20.45	19.49	0.0001	104.88	104.03	1780
NCL2330	F3AVerification	20.74	20.22	0.0001	106.03	104.88	14161
NCL2350	F3AVerificatio	20.78	20.38	0.0000	95.68	95.47	1888

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL2370	F3AVerification	20.81	20.47	0.0000	93.40	94.35	2300
NCL2390	F3AVerification	20.84	20.66	0.0001	83.42	80.74	33481
NCL2410	F3AVerification	21.07	20.76	0.0000	31.72	32.35	1380
NCL2430	F3AVerification	21.32	20.89	0.0000	31.20	31.63	1474
NCL2450	F3AVerification	21.25	20.85	0.0001	4.44	4.35	493
NCL2470	F3AVerification	20.93	20.71	0.0000	14.00	13.57	783
NCL2490	F3AVerification	21.54	21.01	-0.0001	28.90	29.27	1524
NCL2510	F3AVerification	21.70	21.08	-0.0001	54.23	51.08	58718
NCL2530	F3AVerification	21.70	21.09	0.0001	25.77	24.63	29395
NCL2540	F3AVerification	0.00	21.82	0.0000	36.29	35.26	31951
NCL2550	F3AVerification	21.70	21.08	0.0001	20.86	21.25	9027
NCL2570	F3AVerification	21.51	21.08	0.0001	20.42	20.79	1503
NCL2580	F3AVerification	0.00	21.08	0.0001	55.97	53.02	22768
NCL2590	F3AVerification	21.17	21.07	0.0001	90.04	83.16	89841
NCL2610	F3AVerification	21.14	21.07	0.0001	59.33	58.90	20575
NCL2630	F3AVerification	20.86	20.67	0.0001	44.12	43.08	30674
NCL2631	F3AVerification	0.00	20.07	-0.0004	45.09	43.34	26587
NCL2650	F3AVerification	21.17	21.18	-0.0001	56.33	47.30	57724
NCL2670	F3AVerification	21.93	21.97	-0.0001	35.64	34.99	36439
NCL2690	F3AVerification	21.96	22.07	0.0001	26.43	24.57	30551
NCL2710	F3AVerification	21.96	22.09	0.0001	25.33	23.67	40748
NCL2730	F3AVerification	21.95	22.12	0.0001	22.54	22.91	2003
NCL2750	F3AVerification	21.84	22.12	0.0001	22.01	22.33	1469

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL2770	F3AVerification	21.71	22.07	0.0001	21.59	21.90	1389
NCL2780	F3AVerification	0.00	21.99	0.0000	7.47	6.53	15528
NCL2790	F3AVerification	21.84	22.06	0.0000	71.98	66.92	78767
NCL2810	F3AVerification	22.11	22.58	-0.0001	42.68	41.08	13079
NCL2830	F3AVerification	23.09	22.59	0.0000	11.37	11.11	1239
NCL2835	F3AVerification	0.00	23.66	0.0000	7.21	7.48	1153
NCL2840	F3AVerification	0.00	23.63	0.0000	45.16	44.65	19623
NCL2845	F3AVerification	0.00	24.17	0.0000	25.48	24.28	12430
NCL2850	F3AVerification	20.82	20.54	0.0000	25.18	25.69	1361
NCL2870	F3AVerification	20.83	20.68	0.0000	24.68	25.09	1253
NCL2890	F3AVerification	20.83	20.83	0.0000	21.98	24.68	13325
NCL2910	F3AVerification	20.83	20.83	-0.0001	28.86	21.91	39143
NCL2930	F3AVerification	19.55	17.24	0.0003	147.57	143.90	2980
NCL2950	F3AVerification	19.53	17.38	0.0001	142.31	137.70	5715
NCL2970	F3AVerification	20.49	20.22	0.0001	32.63	31.59	3116
NCL2990	F3AVerification	19.33	17.45	0.0001	108.29	102.28	5906
NCL3010	F3AVerification	19.35	17.47	0.0001	97.47	81.04	5986
NCL3030	F3AVerification	19.58	17.47	0.0001	88.42	70.54	6659
NCL3050	F3AVerification	19.94	18.83	0.0001	43.37	42.92	1667
NCL3070	F3AVerification	20.14	19.87	0.0000	24.15	23.07	5977
NCL3090	F3AVerification	19.59	17.44	0.0001	83.89	84.01	6314
NCL3110	F3AVerification	19.59	18.68	0.0002	41.29	35.54	22512
NCL3130	F3AVerification	19.59	18.72	-0.0001	15.42	17.23	2464
NCL3150	F3AVerificatio	19.54	17.11	0.0002	127.44	127.47	5789

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NCL3170	F3AVerification	19.71	18.55	0.0001	45.86	44.31	2318
NCL3190	F3AVerification	20.31	19.68	-0.0001	40.47	38.07	25525
NCL3210	F3AVerification	20.32	19.88	-0.0001	26.77	26.39	19218
NCL3230	F3AVerification	20.32	19.95	-0.0001	8.59	10.51	3732
NCL3250	F3AVerification	19.11	14.73	0.0001	169.91	169.78	5874
NCL3250A	F3AVerification	0.00	15.94	0.0001	127.47	127.53	2677
NCL3270	F3AVerification	19.11	16.53	0.0000	27.53	27.46	1736
NCL3280	F3AVerification	0.00	16.84	0.0000	25.42	25.38	999
NCL3290	F3AVerification	20.16	18.03	0.0000	21.40	21.41	1666
NCL3300	F3AVerification	0.00	18.19	0.0000	2.68	2.38	737
NCL3310	F3AVerification	20.19	18.05	0.0000	1.18	1.46	750
NCL3330	F3AVerification	20.75	18.34	0.0000	2.12	2.08	437
NCL3350	F3AVerification	20.51	19.64	-0.0001	16.11	13.72	3710
NCL3360	F3AVerification	0.00	20.20	0.0000	3.92	3.14	4372
NCL3365	F3AVerification	0.00	19.98	-0.0001	6.79	5.88	9650
NCL3370	F3AVerification	20.64	20.55	-0.0003	22.29	13.68	62302
NCL3390	F3AVerification	20.83	20.83	-0.0001	23.09	20.24	33603
NCL3410	F3AVerification	20.83	20.83	-0.0001	2.90	3.29	477
NCL3430	F3AVerification	20.83	20.83	0.0000	3.32	1.65	3170
NCL3450	F3AVerification	18.92	13.51	0.0000	186.50	185.40	6343
NCL3470	F3AVerification	19.11	13.54	0.0000	93.73	92.40	4769
NCL3471	F3AVerification	0.00	13.37	0.0000	86.41	85.32	5436
NCL3490	F3AVerification	19.15	13.96	0.0000	71.29	70.91	2745

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NCL3510	F3AVerification	20.64	17.00	0.0000	64.57	64.56	2861
NCL3520	F3AVerification	0.00	19.15	-0.0001	34.51	34.50	10985
NCL3530	F3AVerification	20.66	20.04	-0.0001	61.04	52.98	30752
NCL3550	F3AVerification	20.66	20.05	-0.0001	3.39	5.82	736
NCL3570	F3AVerification	20.66	20.04	-0.0001	2.09	3.12	628
NCL3590	F3AVerification	20.66	20.03	0.0000	1.40	1.07	3920
NCL3610	F3AVerification	20.66	20.05	-0.0001	41.85	42.19	1320
NCL3630	F3AVerification	20.64	20.07	-0.0001	78.20	57.17	81550
NCL3635	F3AVerification	0.00	20.07	-0.0001	22.24	24.70	1917
NCL3640	F3AVerification	0.00	20.08	-0.0001	6.85	6.22	4628
NCL3650	F3AVerification	18.92	15.16	0.0000	1.76	1.76	501
NCL3670	F3AVerification	18.92	17.56	0.0000	6.31	6.17	436
NCL3690	F3AVerification	18.92	13.19	0.0000	76.53	76.20	3204
NCL3730	F3AVerification	18.92	12.91	0.0000	277.25	251.66	84834
NCL3740	F3AVerification	0.00	13.25	0.0000	196.14	195.13	4692
NCL3750	F3AVerification	18.93	17.99	-0.0012	94.29	88.96	89352
NCL3770	F3AVerification	18.93	18.00	-0.0006	24.70	32.03	46294
NCL4000	F3AVerification	0.00	29.68	0.0000	25.33	25.30	4960
NCL4010	F3AVerification	0.00	29.37	0.0000	19.53	19.33	12512
NCypEast	F3AVerification	32.00	29.00	0.0000	5.47	0.00	0
NCypWest	F3AVerification	32.00	29.93	0.0000	0.00	0.00	0
NOC0010	F3AVerification	2.00	2.00	0.0000	334.23	0.00	0
NOC0030	F3AVerification	1.14	2.16	0.0045	334.41	334.23	504
NOC0050	F3AVerificatio	1.20	2.26	0.0038	307.43	307.58	530

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NOC0070	F3AVerification	1.45	2.65	0.0011	300.99	300.55	516
NOC0090	F3AVerification	2.91	2.88	0.0002	121.93	122.01	446
NOC0110	F3AVerification	1.65	2.69	0.0011	168.33	168.79	455
NOC0130	F3AVerification	3.06	2.98	0.0004	168.34	168.33	528
NOC0150	F3AVerification	3.08	2.98	0.0000	1.83	1.85	497
NOC0170	F3AVerification	4.56	4.67	0.0000	7.75	7.75	1211
NOC0190	F3AVerification	5.09	3.43	-0.0001	166.69	166.51	1077
NOC0210	F3AVerification	5.68	3.85	0.0000	15.36	15.24	781
NOC0230	F3AVerification	5.12	3.45	0.0000	5.07	5.29	742
NOC0250	F3AVerification	5.30	3.59	0.0000	5.05	5.07	984
NOC0270	F3AVerification	5.57	3.79	0.0000	2.84	2.75	676
NOC0290	F3AVerification	5.11	3.49	-0.0001	169.98	170.09	1836
NOC0310	F3AVerification	5.27	3.57	-0.0001	33.78	33.88	450
NOC0330	F3AVerification	5.85	3.63	0.0001	136.38	136.34	2431
NOC0350	F3AVerification	5.89	3.81	-0.0001	111.07	110.98	1837
NOC0370	F3AVerification	6.47	4.81	0.0001	62.18	62.08	2022
NOC0390	F3AVerification	6.60	4.91	-0.0001	39.18	39.56	2171
NOC0410	F3AVerification	6.95	5.16	0.0000	33.07	33.66	2496
NOC0430	F3AVerification	7.01	5.27	0.0000	22.77	23.94	1762
NOC0450	F3AVerification	7.62	5.37	0.0000	15.58	17.85	2439
NOC0470	F3AVerification	8.12	5.63	0.0001	8.65	9.53	726
NOC0490	F3AVerification	7.67	5.42	0.0000	2.28	2.84	1038
NRU0010	F3AVerification	2.00	2.00	0.0000	444.36	0.00	0

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0030	F3AVerification	2.84	2.29	-0.0002	185.17	200.61	2468
NRU0050	F3AVerification	4.36	3.35	0.0002	196.41	185.17	2036
NRU0070	F3AVerification	5.61	3.77	0.0002	212.34	196.41	2549
NRU0090	F3AVerification	5.66	4.12	0.0000	33.99	33.61	700
NRU0110	F3AVerification	6.23	4.05	-0.0001	176.47	183.23	5430
NRU0130	F3AVerification	7.66	4.36	-0.0002	137.51	164.99	2616
NRU0150	F3AVerification	7.71	4.37	0.0001	130.40	131.07	496
NRU0160	F3AVerification	0.00	12.20	0.0000	130.65	130.40	4960
NRU0165	F3AVerification	0.00	12.71	0.0000	2.66	2.64	474
NRU0170	F3AVerification	14.45	13.44	-0.0001	128.46	128.32	1442
NRU0172	F3AVerification	0.00	13.56	0.0000	8.34	8.49	863
NRU0174	F3AVerification	0.00	13.81	0.0000	8.13	8.34	806
NRU0176	F3AVerification	0.00	14.57	0.0000	8.06	8.13	764
NRU0178	F3AVerification	0.00	15.50	-0.0001	8.47	8.06	966
NRU0180	F3AVerification	0.00	15.96	-0.0001	24.04	9.97	63642
NRU0190	F3AVerification	14.45	13.90	-0.0003	17.82	20.82	516
NRU0210	F3AVerification	14.45	14.27	0.0000	15.58	14.90	602
NRU0230	F3AVerification	13.39	14.81	-0.0001	10.51	9.12	10388
NRU0250	F3AVerification	14.62	13.94	0.0001	96.93	96.75	1516
NRU0270	F3AVerification	15.05	14.54	0.0001	85.65	85.66	2624
NRU0290	F3AVerification	16.30	14.98	-0.0002	12.01	15.20	623
NRU0310	F3AVerification	16.13	15.01	0.0001	69.08	69.36	2502
NRU0330	F3AVerification	18.25	16.05	0.0000	27.64	29.15	1352
NRU0335	F3AVerificatio	0.00	17.35	0.0000	4.70	4.76	861

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU0340	F3AVerification	0.00	16.96	0.0000	25.08	26.04	1263
NRU0343	F3AVerification	0.00	18.62	-0.0001	11.98	11.45	920
NRU0345	F3AVerification	0.00	19.19	-0.0001	17.75	11.98	32110
NRU0350	F3AVerification	19.50	17.01	0.0000	7.92	8.78	977
NRU0370	F3AVerification	19.51	17.02	0.0000	8.37	7.22	896
NRU0380	F3AVerification	23.33	17.02	0.0000	1.23	0.82	470
NRU0390	F3AVerification	27.00	17.37	-0.0002	7.98	7.90	1101
NRU0410	F3AVerification	19.56	17.02	0.0000	6.37	5.22	1095
NRU0425	F3AVerification	15.53	14.56	0.0000	2.16	1.60	1472
NRU0430	F3AVerification	19.61	17.02	0.0000	5.22	3.70	1070
NRU0450	F3AVerification	19.66	17.02	0.0000	3.70	2.72	1043
NRU0470	F3AVerification	19.72	17.03	0.0001	2.27	1.86	783
NRU0490	F3AVerification	20.36	17.03	-0.0001	1.48	1.25	532
NRU0495	F3AVerification	0.00	10.41	0.0000	434.29	434.75	2716
NRU0500	F3AVerification	0.00	10.69	0.0000	433.50	433.12	5646
NRU0510	F3AVerification	19.67	14.39	0.0000	8.89	9.27	567
NRU0530	F3AVerification	16.95	15.48	0.0001	40.97	40.89	2250
NRU0550	F3AVerification	17.92	15.97	0.0001	41.31	40.97	1777
NRU0570	F3AVerification	18.16	16.02	0.0001	28.03	28.72	1524
NRU0590	F3AVerification	18.51	16.07	0.0001	25.89	26.43	1745
NRU0610	F3AVerification	18.78	16.09	0.0001	24.26	25.17	2526
NRU0612	F3AVerification	0.00	16.07	0.0001	27.70	28.22	1555
NRU0615	F3AVerification	0.00	17.22	0.0001	10.29	9.01	2210

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU0616	F3AVerification	0.00	17.27	0.0000	1.93	1.73	493
NRU0618	F3AVerification	0.00	16.98	0.0000	6.50	5.78	923
NRU0620	F3AVerification	0.00	19.20	0.0000	10.51	10.29	1516
NRU0630	F3AVerification	18.79	15.91	0.0001	33.79	34.32	2175
NRU0650	F3AVerification	18.79	15.81	0.0001	45.52	45.57	1810
NRU0670	F3AVerification	18.78	15.72	0.0001	45.57	46.08	1429
NRU0690	F3AVerification	18.84	15.57	0.0001	52.92	53.41	1934
NRU0710	F3AVerification	18.86	15.39	0.0001	79.46	79.40	2312
NRU0730	F3AVerification	18.85	16.67	-0.0001	17.67	20.28	612
NRU0740	F3AVerification	0.00	14.90	0.0001	83.79	83.73	2800
NRU0745	F3AVerification	0.00	14.28	0.0001	87.04	87.55	3772
NRU0747	F3AVerification	18.87	13.14	0.0001	87.55	86.21	1657
NRU0750	F3AVerification	18.87	12.83	0.0000	105.12	104.39	1288
NRU0770	F3AVerification	18.88	12.80	0.0000	7.89	7.85	1009
NRU0785	F3AVerification	0.00	12.70	0.0000	11.03	10.95	830
NRU0790	F3AVerification	18.88	12.56	0.0001	340.17	342.27	8788
NRU0810	F3AVerification	18.88	12.55	0.0000	1.56	0.43	744
NRU0820	F3AVerification	0.00	15.74	0.0000	0.00	0.00	436
NRU0830	F3AVerification	18.99	12.76	0.0001	332.70	333.73	4681
NRU0840	F3AVerification	9999.00	12.84	0.0001	271.33	271.65	2258
NRU0850	F3AVerification	19.11	12.86	0.0001	46.49	41.17	2553
NRU0870	F3AVerification	19.32	12.89	0.0000	3.81	3.92	560
NRU0890	F3AVerification	19.35	16.22	0.0000	16.09	3.81	54693
NRU0910	F3AVerificatio	19.35	17.05	0.0000	0.73	0.70	579

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU0930	F3AVerification	19.35	19.37	0.0000	0.86	0.73	1742
NRU0950	F3AVerification	19.11	12.88	-0.0001	50.14	46.49	1381
NRU0955	F3AVerification	0.00	12.88	0.0001	47.62	43.08	2070
NRU0960	F3AVerification	0.00	12.89	0.0001	45.09	43.05	3512
NRU0965	F3AVerification	0.00	12.89	0.0001	43.62	43.09	4631
NRU0970	F3AVerification	19.34	13.34	0.0000	4.52	5.29	1402
NRU0980	F3AVerification	0.00	13.34	0.0000	1.29	1.50	1083
NRU0990	F3AVerification	19.39	16.23	-0.0001	9.90	9.77	440
NRU1010	F3AVerification	19.70	16.23	0.0000	10.04	9.90	463
NRU1015	F3AVerification	0.00	16.32	0.0001	3.85	3.73	696
NRU1020	F3AVerification	0.00	16.75	-0.0060	7.52	6.90	866
NRU1025	F3AVerification	0.00	16.36	0.0000	2.40	2.41	724
NRU1030	F3AVerification	19.70	12.94	0.0000	32.48	32.59	2310
NRU1035	F3AVerification	0.00	16.91	0.0000	0.00	0.00	436
NRU1036	F3AVerification	0.00	16.23	0.0000	1.99	1.80	437
NRU1037	F3AVerification	0.00	16.52	0.0000	0.00	0.00	436
NRU1040	F3AVerification	0.00	16.23	0.0001	5.02	4.87	454
NRU1045	F3AVerification	0.00	16.97	0.0000	5.72	5.70	662
NRU1046	F3AVerification	0.00	16.75	0.0060	5.70	5.02	972
NRU1050	F3AVerification	19.70	13.01	0.0000	24.26	24.14	1688
NRU1070	F3AVerification	19.83	16.15	0.0000	8.94	8.88	1787
NRU1090	F3AVerification	18.86	12.63	0.0000	104.30	103.42	1336
NRU1110	F3AVerification	18.86	12.46	0.0001	127.61	119.16	1816

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1130	F3AVerification	18.86	12.59	-0.0002	16.53	21.73	776
NRU1150	F3AVerification	18.86	12.77	0.0000	16.62	16.53	964
NRU1170	F3AVerification	18.86	15.95	0.0000	13.49	13.14	1318
NRU1182	F3AVerification	0.00	14.47	0.0000	8.99	8.72	1156
NRU1184	F3AVerification	0.00	14.72	0.0000	8.58	8.23	873
NRU1185	F3AVerification	0.00	15.75	0.0000	5.00	5.90	661
NRU1186	F3AVerification	0.00	14.83	0.0000	4.31	3.85	791
NRU1188	F3AVerification	0.00	17.36	0.0000	2.04	0.00	16284
NRU1190	F3AVerification	18.86	15.60	0.0000	4.94	4.65	576
NRU1210	F3AVerification	18.86	15.44	0.0000	4.65	4.31	720
NRU1220	F3AVerification	0.00	13.49	0.0000	11.71	11.16	2046
NRU1225	F3AVerification	0.00	19.71	0.0000	1.61	1.57	436
NRU1230	F3AVerification	18.88	12.28	0.0001	420.25	413.10	4567
NRU1232	F3AVerification	0.00	12.05	0.0001	418.65	418.30	3681
NRU1234	F3AVerification	0.00	14.19	0.0000	0.21	0.19	445
NRU1240	F3AVerification	0.00	15.50	0.0000	2.28	2.26	452
NRU1250	F3AVerification	4.07	3.98	-0.0002	243.79	243.77	2104
NRU1270	F3AVerification	4.78	4.57	0.0001	242.43	242.39	1667
NRU1290	F3AVerification	5.41	5.10	0.0000	237.48	237.41	3103
NRU1310	F3AVerification	6.42	5.85	0.0000	237.94	237.48	5053
NRU1330	F3AVerification	8.29	7.40	0.0000	238.52	238.05	3357
NRU1350	F3AVerification	9.32	8.48	0.0000	236.28	236.23	2409
NRU1370	F3AVerification	11.03	9.64	0.0000	233.56	233.54	5323
NRU1390	F3AVerificatio	11.84	10.13	0.0000	34.96	34.19	1333

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU1410	F3AVerificatio n	12.56	10.69	0.0000	199.40	199.97	7523
NRU1430	F3AVerificatio n	15.53	14.56	0.0000	24.93	23.82	3371
NRU1450	F3AVerificatio n	15.94	14.81	0.0000	12.68	12.51	1021
NRU1470	F3AVerificatio n	15.97	14.82	0.0000	3.03	4.26	981
NRU1490	F3AVerificatio n	16.09	14.86	0.0000	3.03	3.03	770
NRU1510	F3AVerificatio n	15.12	12.55	0.0000	140.76	140.79	10565
NRU1530	F3AVerificatio n	15.71	14.61	0.0000	74.73	75.28	2444
NRU1550	F3AVerificatio n	15.40	14.91	0.0000	52.73	51.43	1677
NRU1570	F3AVerificatio n	16.20	15.71	0.0000	47.47	45.39	1398
NRU1590	F3AVerificatio n	16.40	15.78	0.0000	4.43	3.92	1284
NRU1610	F3AVerificatio n	16.56	16.16	0.0000	41.48	40.19	1573
NRU1630	F3AVerificatio n	16.69	16.41	0.0000	28.80	26.72	1538
NRU1650	F3AVerificatio n	16.84	16.60	0.0001	31.03	28.80	1066
NRU1670	F3AVerificatio n	16.89	16.65	0.0001	33.84	28.06	56196
NRU1690	F3AVerificatio n	16.89	16.64	0.0001	30.11	29.69	2559
NRU1710	F3AVerificatio n	16.60	16.22	0.0000	28.84	28.70	1425
NRU1730	F3AVerificatio n	16.58	15.74	0.0000	60.43	19.89	91988
NRU1750	F3AVerificatio n	16.58	15.75	-0.0002	17.36	17.09	720
NRU1770	F3AVerificatio n	16.58	15.95	0.0000	18.55	18.62	1090
NRU1790	F3AVerificatio n	17.21	16.44	0.0000	4.99	4.83	753
NRU1810	F3AVerificatio n	16.58	15.75	0.0000	3.67	3.66	5786
NRU1830	F3AVerificatio n	17.12	16.39	0.0000	12.06	11.91	602
NRU1850	F3AVerificatio n	17.07	16.78	0.0001	20.18	20.00	972

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NRU1870	F3AVerification	17.20	16.87	0.0001	20.44	20.18	908
NRU1890	F3AVerification	17.38	16.99	0.0001	27.73	20.44	9102
NRU1910	F3AVerification	17.71	17.36	0.0001	11.31	10.71	1683
NRU1930	F3AVerification	15.71	14.64	0.0000	44.92	45.29	1637
NRU1950	F3AVerification	16.43	15.06	0.0000	43.27	43.46	1646
NRU1970	F3AVerification	16.86	15.33	0.0000	43.14	43.27	1037
NRU1990	F3AVerification	17.09	15.47	0.0000	43.03	43.14	1720
NRU2010	F3AVerification	18.02	16.14	0.0000	9.47	9.31	1505
NRU2030	F3AVerification	18.39	16.45	0.0001	7.64	6.42	681
NRU2050	F3AVerification	18.40	16.46	0.0000	2.44	2.98	453
NRU2070	F3AVerification	18.41	17.71	0.0000	2.45	2.44	436
NRU2090	F3AVerification	17.16	15.52	0.0000	31.56	31.73	983
NRU2110	F3AVerification	17.28	15.61	0.0000	30.54	30.63	1563
NRU2130	F3AVerification	17.49	15.80	0.0000	29.78	29.87	1852
NRU2150	F3AVerification	17.69	16.12	0.0000	4.73	4.64	1045
NRU2170	F3AVerification	17.07	16.33	0.0000	1.74	2.15	772
NRU2190	F3AVerification	17.08	16.40	0.0000	5.27	1.74	25700
NRU2210	F3AVerification	17.33	15.80	0.0001	3.18	2.61	538
NRU2230	F3AVerification	17.33	15.91	0.0000	10.60	0.68	73694
NRU2250	F3AVerification	17.31	15.91	0.0000	1.86	1.79	4620
NRU2270	F3AVerification	17.61	15.86	0.0000	24.10	24.14	1283
NRU2290	F3AVerification	17.67	15.90	0.0000	18.44	18.65	1150
NRU2310	F3AVerification	17.68	15.91	0.0000	13.16	13.53	1271
NRU2330	F3AVerificatio	17.68	15.93	0.0001	13.58	6.67	757

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NRU2350	F3AVerification	17.68	15.93	-0.0001	2.74	10.91	654
NRU2370	F3AVerification	17.37	16.16	0.0000	2.77	2.74	528
NRU2390	F3AVerification	17.36	16.39	0.0000	3.98	2.77	28662
NRU2410	F3AVerification	17.72	15.94	0.0000	5.52	5.79	1099
NRU2430	F3AVerification	17.83	15.95	0.0000	4.67	4.94	925
NRU2450	F3AVerification	18.06	15.96	0.0000	1.92	1.03	588
NRU2470	F3AVerification	15.72	14.61	0.0000	6.40	3.14	1458
NRU2490	F3AVerification	15.75	14.61	0.0000	3.80	1.56	1419
NRU2510	F3AVerification	15.75	14.44	0.0000	1.11	0.57	923
NRU2530	F3AVerification	15.76	14.44	0.0000	0.57	0.13	568
NRU2550	F3AVerification	16.53	13.19	0.0000	49.99	49.05	2428
NRU2570	F3AVerification	17.71	14.38	0.0000	43.41	42.19	1979
NRU2590	F3AVerification	18.30	15.46	0.0000	32.23	30.98	1450
NRU2610	F3AVerification	18.62	16.16	0.0000	32.14	30.81	1170
NRU2630	F3AVerification	19.41	17.22	-0.0001	23.24	21.75	1128
NRU2650	F3AVerification	19.54	18.06	-0.0001	11.78	10.11	932
NRU2670	F3AVerification	16.64	15.78	0.0000	21.34	21.58	2044
NRU2690	F3AVerification	17.09	16.59	-0.0002	78.95	72.35	105739
NSH02	F3AVerification	0.00	17.96	0.0000	5.78	5.64	436
NSH03	F3AVerification	0.00	18.00	-0.0227	0.51	12.94	767
NSH04	F3AVerification	0.00	13.34	0.0000	21.94	20.18	4582
NSH05	F3AVerification	0.00	6.93	-0.0001	442.65	442.63	5036
NSH07	F3AVerification	0.00	3.72	-0.0001	9.66	9.49	623

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH08	F3AVerification	0.00	6.96	0.0000	8.20	8.04	1490
NSH09	F3AVerification	0.00	7.05	0.0001	15.12	13.37	8322
NSH10	F3AVerification	0.00	18.95	0.0000	6.27	5.48	23179
NSH11	F3AVerification	0.00	20.99	0.0000	3.26	2.96	5750
NSH12	F3AVerification	0.00	5.92	0.0000	444.30	444.26	4094
NSH13	F3AVerification	0.00	5.06	0.0010	448.05	503.52	4602
NSH14	F3AVerification	0.00	5.04	-0.0011	557.29	519.52	1911
NSH15	F3AVerification	0.00	18.64	0.0000	1.95	1.77	5837
NSH16	F3AVerification	0.00	7.25	0.0000	20.84	20.84	100
NSH17	F3AVerification	0.00	5.03	-0.0011	519.71	532.81	2161
NSH18	F3AVerification	0.00	5.01	-0.0007	553.00	463.52	3004
NSH19	F3AVerification	0.00	4.40	-0.0001	464.51	464.36	5396
NSH20	F3AVerification	0.00	20.13	0.0000	1.39	0.95	9795
NSH21	F3AVerification	0.00	8.95	0.0000	5.63	6.16	587
NSH22	F3AVerification	0.00	11.04	0.0000	16.10	14.12	2537
NSH23	F3AVerification	0.00	18.07	0.0000	4.38	4.35	2401
NSH24	F3AVerification	0.00	11.21	0.0000	7.72	5.39	2413
NSH25	F3AVerification	0.00	11.21	-0.0001	8.43	11.87	672
NSH26	F3AVerification	0.00	10.40	0.0001	22.26	19.35	1296
NSH26A	F3AVerification	0.00	10.30	0.0000	21.57	20.84	2061
NSH27	F3AVerification	0.00	10.68	0.0000	3.37	2.63	2614
NSH27A	F3AVerification	0.00	9.59	0.0000	13.99	14.16	921
NSH27AA	F3AVerification	0.00	10.53	0.0000	2.63	2.61	558
NSH27B	F3AVerificatio	0.00	8.57	-0.0001	14.16	18.44	1032

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSH27C	F3AVerification	0.00	7.18	0.0001	18.44	13.35	1037
NSH28	F3AVerification	0.00	8.38	0.0000	6.62	6.05	6021
NSH29	F3AVerification	0.00	7.43	-0.0001	5.97	11.85	648
NSH31	F3AVerification	0.00	8.06	0.0000	6.05	4.94	480
NSH33	F3AVerification	0.00	16.52	0.0000	1.14	1.10	3210
NSH34	F3AVerification	0.00	7.80	0.0000	15.63	15.61	773
NSH35	F3AVerification	0.00	6.34	0.0001	7.07	7.67	548
NSH36	F3AVerification	0.00	6.32	-0.0001	18.65	18.54	805
NSH37	F3AVerification	0.00	5.05	-0.0014	505.13	557.07	1881
NSH41	F3AVerification	0.00	14.10	0.0000	1.85	1.83	464
NSH42	F3AVerification	0.00	2.63	-0.0001	30.55	30.55	447
NSH43	F3AVerification	0.00	2.98	0.0001	30.41	30.41	507
NSH44	F3AVerification	0.00	6.64	0.0000	6.14	6.09	670
NSH45	F3AVerification	0.00	16.08	0.0000	8.85	8.58	19106
NSH48	F3AVerification	0.00	18.10	0.0000	5.65	5.61	2402
NSH49	F3AVerification	0.00	16.53	0.0000	5.98	5.91	473
NSH50	F3AVerification	0.00	11.34	0.0000	420.70	420.04	6021
NSH51	F3AVerification	0.00	15.74	0.0000	12.16	12.06	1329
NSH52	F3AVerification	0.00	11.50	0.0000	420.09	419.54	4410
NSH53	F3AVerification	0.00	14.10	0.0000	16.04	15.92	1022
NSH53B	F3AVerification	0.00	11.50	0.0001	3.12	0.79	448
NSH54	F3AVerification	0.00	13.59	0.0000	17.44	17.14	1245
NSH55	F3AVerification	0.00	11.92	0.0001	419.72	419.20	5311

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSH55B	F3AVerification	0.00	13.55	0.0000	3.60	3.57	447
NSH56	F3AVerification	0.00	13.62	0.0000	1.94	1.91	464
NSH57	F3AVerification	0.00	13.92	0.0000	1.98	1.94	462
NSH60	F3AVerification	0.00	17.43	0.0000	6.17	6.15	436
NSH61	F3AVerification	0.00	13.76	0.0000	0.49	0.48	448
NSH65	F3AVerification	0.00	18.86	0.0000	1.12	1.10	436
NSH71	F3AVerification	9999.00	14.51	0.0000	4.98	4.95	2322
NSH75	F3AVerification	0.00	3.80	-0.0006	469.06	469.01	4064
NSH76	F3AVerification	0.00	3.01	-0.0028	438.73	438.74	2030
NSH80	F3AVerification	0.00	11.03	0.0000	425.77	425.32	6657
NSH81	F3AVerification	0.00	19.61	0.0000	0.13	0.00	926
NSH82	F3AVerification	0.00	19.79	0.0000	0.78	0.00	3940
NSH83	F3AVerification	0.00	11.32	-0.0001	5.27	6.80	449
NSH85	F3AVerification	0.00	10.93	0.0000	427.18	427.00	4681
NSHSelmonDS	F3AVerification	9999.00	8.80	-0.0001	451.00	441.78	6356
NSHSelmonUS	F3AVerification	9999.00	9.84	0.0003	434.76	443.48	3189
NSR0000	F3AVerification	2.00	2.00	0.0000	247.93	0.00	0
NSR0005	F3AVerification	2.00	2.00	0.0000	3.42	0.00	0
NSR0010	F3AVerification	2.00	2.00	0.0000	279.37	0.00	0
NSR0030	F3AVerification	2.92	2.80	0.0000	294.96	279.37	214591
NSR0032	F3AVerification	4.88	4.74	0.0000	6.06	1.94	14997
NSR0034	F3AVerification	3.63	3.45	0.0000	29.46	29.01	7520
NSR0050	F3AVerification	3.44	3.24	0.0000	279.27	269.91	80984
NSR0070	F3AVerificatio	3.45	3.29	0.0000	20.68	20.02	12675

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR0090	F3AVerification	3.68	3.48	0.0000	17.48	16.79	5161
NSR0100	F3AVerification	2.25	2.18	0.0000	3.43	3.42	524
NSR0102	F3AVerification	4.24	4.21	0.0000	2.51	2.32	2188
NSR0105	F3AVerification	1.91	2.62	-0.0029	247.99	247.93	484
NSR0110	F3AVerification	3.93	3.55	0.0000	9.60	9.41	448
NSR0112	F3AVerification	2.31	2.90	0.0031	246.43	246.43	457
NSR0115	F3AVerification	4.25	4.24	0.0000	1.24	1.06	5989
NSR0120	F3AVerification	2.62	3.12	-0.0014	243.76	243.81	479
NSR0130	F3AVerification	4.16	3.71	0.0000	5.34	5.13	445
NSR0135	F3AVerification	4.22	3.76	0.0000	1.97	1.70	438
NSR0140	F3AVerification	3.28	3.58	-0.0003	240.72	240.72	477
NSR0150	F3AVerification	3.64	3.39	-0.0001	259.45	255.99	27929
NSR0160	F3AVerification	3.56	3.77	0.0002	238.40	238.48	1378
NSR0165	F3AVerification	4.03	3.49	0.0000	1.70	1.46	440
NSR0170	F3AVerification	3.70	3.41	0.0000	3.06	2.22	1748
NSR0180	F3AVerification	3.83	3.71	0.0000	3.59	3.15	1772
NSR0190	F3AVerification	4.04	3.40	0.0000	12.24	12.03	1297
NSR0210	F3AVerification	4.26	3.40	0.0000	11.00	10.57	1312
NSR0230	F3AVerification	4.26	3.41	0.0000	10.97	8.76	5290
NSR0250	F3AVerification	3.93	3.64	-0.0025	251.11	249.83	12764
NSR0270	F3AVerification	3.98	3.68	0.0000	21.75	21.27	5010
NSR0280	F3AVerification	5.41	5.24	0.0001	196.95	196.41	923
NSR0281	F3AVerification	5.97	5.74	0.0004	197.18	190.75	4724

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0290	F3AVerification	6.70	5.67	-0.0002	51.61	51.49	2469
NSR0310	F3AVerification	9.28	8.92	0.0000	44.74	43.00	6806
NSR0330	F3AVerification	9.65	9.14	0.0001	5.73	6.15	470
NSR0350	F3AVerification	10.32	9.58	0.0001	6.22	5.73	446
NSR0370	F3AVerification	10.35	10.09	0.0000	6.25	6.22	4744
NSR0390	F3AVerification	11.96	10.27	0.0000	17.25	17.28	2145
NSR0410	F3AVerification	12.27	10.56	0.0001	3.53	4.42	510
NSR0430	F3AVerification	12.28	12.00	0.0000	5.17	3.53	14808
NSR0450	F3AVerification	13.04	10.73	0.0000	11.35	10.62	1269
NSR0470	F3AVerification	13.10	10.75	0.0000	6.37	5.81	1156
NSR0490	F3AVerification	4.41	4.22	-0.0035	103.28	101.74	12929
NSR0510	F3AVerification	4.48	4.35	-0.0004	45.63	45.40	7389
NSR0530	F3AVerification	4.55	4.38	0.0000	5.75	5.50	437
NSR0540	F3AVerification	4.55	4.46	-0.0001	46.84	40.46	34027
NSR0550	F3AVerification	4.56	4.48	0.0001	272.76	272.74	4785
NSR0560	F3AVerification	4.66	4.57	0.0001	83.31	87.90	36968
NSR0570	F3AVerification	5.28	5.16	0.0001	77.84	80.45	28454
NSR0580	F3AVerification	6.13	5.95	-0.0001	11.46	7.23	43150
NSR0590	F3AVerification	6.15	5.89	-0.0001	76.62	74.87	24037
NSR0610	F3AVerification	6.26	5.94	0.0000	17.73	18.35	32206
NSR0630	F3AVerification	6.26	5.94	0.0000	17.44	17.55	475
NSR0650	F3AVerification	6.25	5.93	-0.0001	19.49	17.44	98599
NSR0660	F3AVerification	6.13	4.61	0.0000	4.10	3.87	519
NSR0670	F3AVerificatio	6.24	5.93	0.0000	7.68	8.79	520

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR0680	F3AVerification	6.14	5.93	-0.0001	9.84	6.82	62560
NSR0690	F3AVerification	6.24	5.93	0.0000	6.95	7.68	599
NSR0710	F3AVerification	6.23	5.92	0.0000	6.82	6.95	861
NSR0730	F3AVerification	6.29	6.13	-0.0001	101.03	76.50	115148
NSR0770	F3AVerification	6.81	6.58	0.0002	81.95	80.79	3234
NSR0780	F3AVerification	6.74	6.67	-0.0001	6.00	4.96	9208
NSR0790	F3AVerification	8.35	7.92	-0.0003	280.26	260.82	23186
NSR0791	F3AVerification	7.13	6.80	-0.0002	187.42	189.86	5596
NSR0809	F3AVerification	12.76	9.85	-0.0004	68.88	94.17	2127
NSR0810	F3AVerification	13.45	13.30	-0.0003	103.76	102.73	59879
NSR0830	F3AVerification	15.10	15.02	-0.0002	103.56	97.11	96395
NSR0840	F3AVerification	16.09	16.00	0.0000	9.47	10.03	28704
NSR0850	F3AVerification	15.64	15.55	-0.0002	70.88	65.81	61517
NSR0860	F3AVerification	16.41	16.38	0.0000	4.87	4.85	5486
NSR0869	F3AVerification	16.03	16.00	0.0001	30.07	29.92	1505
NSR0870	F3AVerification	16.24	16.25	0.0001	54.23	54.21	25594
NSR0880	F3AVerification	16.24	16.26	0.0000	17.18	16.84	8757
NSR0881	F3AVerification	14.14	14.28	0.0004	234.66	221.32	13396
NSR0890	F3AVerification	4.02	3.74	-0.0394	234.89	229.86	27331
NSR0910	F3AVerification	4.79	4.33	0.0013	145.48	145.16	5937
NSR0930	F3AVerification	5.54	4.35	0.0000	26.52	12.97	59755
NSR0950	F3AVerification	5.63	5.11	0.0004	141.77	141.32	7636
NSR0970	F3AVerification	6.14	5.55	-0.0002	123.33	123.45	3616

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR0990	F3AVerification	6.27	5.66	-0.0001	126.90	126.88	3717
NSR1010	F3AVerification	6.30	5.71	0.0000	11.16	11.12	3946
NSR1030	F3AVerification	8.54	8.06	0.0000	117.75	116.07	8717
NSR1050	F3AVerification	8.56	8.06	0.0000	15.39	5.84	16221
NSR1070	F3AVerification	9.58	9.33	-0.0002	127.58	126.35	16425
NSR1090	F3AVerification	11.30	11.08	0.0002	112.42	112.76	6825
NSR1110	F3AVerification	11.57	11.55	0.0000	1.37	1.36	2834
NSR1130	F3AVerification	11.29	11.10	0.0000	12.38	12.08	10833
NSR1150	F3AVerification	11.39	11.09	0.0000	3.40	3.35	4792
NSR1170	F3AVerification	11.38	11.08	0.0000	3.35	3.26	451
NSR1190	F3AVerification	12.70	12.54	0.0000	109.73	109.48	11792
NSR1210	F3AVerification	12.70	12.54	0.0000	11.68	11.26	40271
NSR1230	F3AVerification	14.76	14.45	0.0000	109.85	109.63	9161
NSR1270	F3AVerification	14.99	14.70	0.0000	110.52	110.08	5906
NSR1290	F3AVerification	14.99	14.70	0.0000	5.83	2.68	12584
NSR1310	F3AVerification	14.99	14.70	0.0000	14.54	14.54	24763
NSR1330	F3AVerification	15.44	15.04	0.0000	113.81	109.46	19519
NSR1350	F3AVerification	15.45	15.06	0.0000	18.62	18.36	7515
NSR1370	F3AVerification	15.56	15.17	0.0000	105.47	98.82	19990
NSR1390	F3AVerification	15.56	15.17	0.0000	1.92	1.92	1606
NSR1410	F3AVerification	15.56	15.17	0.0002	22.73	20.67	2087
NSR1430	F3AVerification	15.76	15.45	0.0000	19.19	19.17	4085
NSR1450	F3AVerification	15.74	15.38	0.0000	21.06	17.44	45545
NSR1470	F3AVerificatio	15.96	15.75	0.0000	18.50	18.41	16457

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR1490	F3AVerification	16.21	16.05	0.0000	43.89	17.13	94550
NSR1510	F3AVerification	16.21	16.05	0.0000	27.46	17.99	26645
NSR1530	F3AVerification	15.56	15.17	0.0000	2.87	2.47	2340
NSR1550	F3AVerification	15.68	15.29	0.0000	108.77	93.52	31188
NSR1570	F3AVerification	15.68	15.29	-0.0001	2.01	1.69	1228
NSR1590	F3AVerification	15.68	15.29	0.0002	21.06	23.30	3342
NSR1610	F3AVerification	15.75	15.40	-0.0001	15.73	14.47	2498
NSR1630	F3AVerification	15.75	15.40	0.0000	90.10	79.56	18189
NSR1650	F3AVerification	16.39	17.06	0.0000	1.61	1.61	436
NSR1670	F3AVerification	15.92	15.62	-0.0001	15.63	14.79	2789
NSR1690	F3AVerification	16.24	15.82	0.0000	87.46	75.51	17196
NSR1710	F3AVerification	16.25	15.86	0.0000	4.14	3.73	471
NSR1730	F3AVerification	16.32	15.95	0.0000	86.43	83.01	8269
NSR1750	F3AVerification	16.68	16.66	0.0000	1.70	1.70	436
NSR1770	F3AVerification	17.23	17.24	0.0000	21.24	15.86	16021
NSR1790	F3AVerification	17.24	17.25	0.0000	22.22	16.18	27556
NSR1810	F3AVerification	17.25	17.26	-0.0001	9.85	8.61	10065
NSR1830	F3AVerification	17.25	17.26	-0.0001	29.81	24.20	61087
NSR1850	F3AVerification	16.95	16.99	-0.0001	7.29	8.07	13404
NSR1870	F3AVerification	16.93	16.98	0.0001	22.21	17.10	42971
NSR1890	F3AVerification	16.05	16.22	0.0000	13.32	13.57	1056
NSR1910	F3AVerification	15.45	15.69	0.0002	39.36	37.48	4816
NSR1930	F3AVerification	16.53	16.11	-0.0001	66.52	66.27	1839

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
NSR1950	F3AVerification	16.70	16.28	0.0000	17.05	16.71	665
NSR1970	F3AVerification	16.84	16.44	0.0000	15.27	14.85	3399
NSR1990	F3AVerification	16.86	16.51	0.0000	7.25	6.43	949
NSR2010	F3AVerification	16.91	16.57	0.0000	8.48	7.25	7985
NSR2030	F3AVerification	16.90	16.57	0.0000	5.13	4.99	751
NSR2050	F3AVerification	16.88	16.57	0.0000	5.56	4.85	5600
NSR2070	F3AVerification	16.81	16.54	0.0000	4.30	4.41	781
NSR2090	F3AVerification	16.72	16.51	0.0000	4.66	4.30	673
NSR2110	F3AVerification	16.54	16.44	0.0000	8.31	7.74	11775
NSR2130	F3AVerification	16.50	16.43	0.0000	8.15	4.75	88473
NSR2150	F3AVerification	17.60	16.35	0.0000	44.10	41.74	42944
NSR2170	F3AVerification	17.62	16.58	0.0000	33.08	33.06	2088
NSR2190	F3AVerification	17.62	16.66	0.0000	33.10	33.08	967
NSR2210	F3AVerification	17.62	16.81	0.0000	26.86	22.71	42176
NSR2230	F3AVerification	17.62	16.73	0.0000	20.33	19.68	675
NSR2250	F3AVerification	17.63	16.80	0.0000	21.13	20.33	7143
NSR2270	F3AVerification	17.63	16.81	0.0000	21.44	19.96	12115
NSR2290	F3AVerification	17.63	16.84	0.0000	16.96	16.52	888
NSR2310	F3AVerification	17.63	16.87	0.0000	17.68	16.96	3520
NSR2330	F3AVerification	17.65	17.48	0.0000	15.79	12.96	14316
NSR2350	F3AVerification	17.65	17.48	0.0001	12.86	10.93	16227
NSR2370	F3AVerification	16.66	16.11	0.0000	14.77	12.57	9676
NSR2390	F3AVerification	18.07	17.88	0.0000	6.74	0.00	51654
NSR2410	F3AVerificatio	16.66	16.12	0.0000	23.59	14.77	15649

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
	n						
NSR2430	F3AVerification	17.99	17.96	0.0000	1.51	1.49	2259
NSR2450	F3AVerification	18.06	18.00	0.0000	21.41	21.16	12148
NSR3000	F3AVerification	17.04	17.06	-0.0727	4.38	49.45	871
NSR3005	F3AVerification	17.02	17.04	0.1453	49.45	3.76	566
NSR3020	F3AVerification	17.61	17.67	-0.0001	21.29	20.56	59430
NSR3040	F3AVerification	16.25	16.27	0.0001	42.38	41.10	30315
NSR3060	F3AVerification	16.21	16.05	-0.0001	10.09	9.37	35941
NSW0010	F3AVerification	2.00	2.00	0.0000	16.36	0.00	0
NSW0030	F3AVerification	2.13	2.35	-0.0004	16.36	16.36	587
NSW0050	F3AVerification	4.04	3.07	0.0001	16.40	16.36	959
Outfall	F3AVerification	2.00	2.00	0.0000	28.81	0.00	0
Outfall_NE	F3AVerification	21.00	18.24	0.0001	8.14	0.00	0
PondA	F3AVerification	0.00	17.42	0.0294	12.94	4.98	24073
PondB	F3AVerification	0.00	12.50	0.0000	42.65	23.53	66546
SH_OUTFALL	F3AVerification	2.00	2.00	0.0000	523.10	1.83	0
STORAGE1	F3AVerification	0.00	18.33	0.0000	1.29	0.73	7405
STORAGE10	F3AVerification	0.00	18.86	0.0000	1.10	0.00	9148
STORAGE11	F3AVerification	0.00	17.96	0.0000	5.64	0.00	18648
STORAGE12	F3AVerification	0.00	16.75	0.0000	6.81	5.91	10262
STORAGE13	F3AVerification	0.00	16.91	0.0000	0.00	0.00	5323
STORAGE14	F3AVerification	0.00	19.71	0.0000	1.57	0.00	13395
STORAGE2	F3AVerification	0.00	17.56	0.0000	5.44	1.05	18426
STORAGE4	F3AVerification	0.00	16.89	0.0000	8.17	1.04	12088

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft2]
STORAGE5	F3AVerification	0.00	20.71	0.0000	13.57	3.89	19571
STORAGE8	F3AVerification	0.00	14.94	0.0000	0.00	0.00	100
STORAGE9	F3AVerification	0.00	17.43	0.0000	6.15	0.20	11761
Sevilla1	F3AVerification	1.20	2.03	0.0000	0.02	0.02	804
Sevilla2	F3AVerification	1.23	2.01	0.0000	0.01	0.01	609
Sevilla3	F3AVerification	1.20	2.03	0.0000	0.06	0.05	1339
Sevilla4	F3AVerification	1.20	2.03	0.0000	0.10	0.08	1450
Shamrock2	F3AVerification	1.11	2.01	0.0001	28.86	28.81	5389
Shmrck1.1	F3AVerification	1.38	2.05	0.0001	28.75	28.77	6206
Shmrck1.2	F3AVerification	1.20	2.03	-0.0003	28.77	28.86	3971
THEA_JUNCT 1	F3AVerification	0.00	12.67	0.0000	16.03	15.91	667
THEA_JUNCT 2	F3AVerification	0.00	12.42	0.0000	15.91	15.89	501
THEA_Watrous	F3AVerification	0.00	13.04	0.0002	16.82	16.03	815
V3	F3AVerification	6.53	6.53	0.0000	0.00	0.00	436

Appendix P. Relevant Permitting Documentation

P.1 SWFWMD ERP Pre-Application Meeting Minutes

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
RESOURCE REGULATION DIVISION
PRE-APPLICATION MEETING NOTES

FILE NUMBER:

PA 412612

Date:	7/24/25		
Time:	11 am		
Project Name:	BAR PA 412612 - South Howard Flood Relief and Streetscape Project		
District Engineer:	Bob Dasta, Amber Smith		
District ES:	Russell Martin, John Clarke		
Attendees:	Brett Sillman, Amanda Serra, Christian Chandler, Cristina Jackson		
County:	Hillsborough	**Sec/Twp/Rge:**	26,27/29/18
Total Land Acreage:		**Project Acreage:**	Acres

Prior On-Site/Off-Site Permit Activity:

- ERP - 20724, 6550
- Pre App 404594

Project Overview:

- Comments provided - Project aims to alleviate roadway and structural flooding within the Parkland Estates and Palma Ceia Pines neighborhoods in South Tampa by constructing at least 5000 linear feet of new box culvert outfall to Hillsborough Bay
- W Swann Avenue at S Audubon Avenue
- If any localized closed basins (up to 100-year, 24-hour storm) are now being conveyed to the bay, address pollutant loading and may need treatment to ensure no increasing of pollutants to the bay.
- Tidal receiving waterbody
- THEA South Selmon Capacity Project. Taking in runoff from Albany Pond, Waltrous Ave overpass
- Taking some runoff that originally went to a pond today. Some of this runoff is to ERP permitted ponds (i.e., Swann Pond, etc). Will need to provide compensatory water quality treatment for this runoff which will now bypass its treatment pond and go to the bay.
- Anticipate submittal in spring 2026
- Discussed that South Selmon Capacity project currently under review (Application ID 915140) will be conditioned that construction cannot occur until permitting and construction of this trunkline project occurs. May modify current application for South Selmon to remove portion discharging to trunkline as we cannot transfer to operation portions of South Selmon separately.

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- FWC Manatee conditions for in water work. Possible surface water impacts from riprap installation at existing outfall into Hillsborough Bay.
- Provide the limits of jurisdictional wetlands and surface waters. Roadside ditches or other water conveyances, including permitted and constructed water conveyance features, can be claimed as surface waters per Chapter 62-340 F.A.C. if they do not meet the definition of a swale as stated under Rule 403.803 (14) F.S.
- Notice of changes to Florida Statues: Be advised that Senate Bill 492 provides changes to the Mitigation Banking statute and Senate Bill 180 provides changes to the tolling period of permits and formal determinations related to emergency orders.
  Link to Senate Bill 492: https://www.flsenate.gov/Session/Bill/2025/492/?Tab=BillText.
  Link to Senate Bill 180: https://www.flsenate.gov/Session/Bill/2025/180/?Tab=BillText .
- A site visit by District staff will be required to verify the presence or absence of wetlands and/or surface waters. Prior to the site visit, District staff will contact the applicant or authorized agent to provide an approximate date of the site visit and to ensure that the project area is accessible. If wetlands or surface waters are discovered during the site visit, additional information may be required. A site visit will not be scheduled until the appropriate signatures on the application and the fee is submitted.

- On February 15, 2024, the U.S. District Court for the District of Columbia issued a decision vacating the U.S. Environmental Protection Agency's approval of Florida's application to assume Clean Water Act Section 404 permitting responsibilities in certain waters in Florida. In light of this decision, the U.S. Army Corps of Engineers (USACE) is currently the only entity in the State of Florida with authority to issue permits under Section 404 of the Clean Water Act. The USACE recognizes that either the District Court or an Appellate Court may issue a full or partial stay of the February 15th order at some point. In the interim, applicants may submit applications to the USACE for activities involving the discharge of dredged or fill material into formerly state-assumed waters. The USACE will begin processing any applications it receives, however applicants and stakeholders should recognize the uncertainty surrounding the current litigation. Further information can be found at these two links:

  https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program

  https://www.saj.usace.army.mil/Missions/Regulatory/

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- WBIDs need to be independently verified by the consultant
  - WBID 1609 discharges directly to Tampa Bay.
  - Tampa Bay is impaired for nutrients.
- Document/justify SHWE's at pond locations
- Stormwater retention and detention systems are classified as moderate sanitary hazards with respect to public and private drinking water wells. Stormwater treatment facilities shall not be constructed within 100 feet of an existing public water supply well and shall not be constructed within 75 feet of an existing private drinking water well. Subsection 4.2, A.H.V.II.
- Any wells on site should be identified and their future use/abandonment must be designated.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).
- Watershed Model information may be available for download using the following link: https://watermatters.sharefile.com/d-s8c9019e00fd243908654e733a6b2016c
- Provide equivalent compensating storage for all 100-year, 24-hour riverine floodplain impacts if applicable. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation~~.~~ if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events for the pre- and post-development conditions.
- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges. [Section 3.0 Applicant's Handbook Volume II]
- On June 28, 2024, Senate Bill 7040, which updates Florida's stormwater rules and design criteria, was signed into law. The updates affect the water quality treatment performance standards, Operation & Maintenance (O&M) requirements, and Dam Safety requirements. Further information regarding the updated rules and design criteria, implementation timeline and grandfathering provisions can be found at the following link: https://floridadep.gov/water/engineering-hydrology-geology/content/erp-stormwater-resource-center

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Provide water quality treatment for entire project area and all contributing off-site flows.
- If any localized closed basins (up to 100-year, 24-hour storm) are now being conveyed to the bay, address pollutant loading and may need treatment to ensure no increasing of pollutants to the bay.

- Taking some runoff that originally went to a pond today. Some of this runoff is to ERP permitted ponds (i.e., Swann Pond, etc). Will need to provide compensatory water quality treatment for this runoff which will now bypass its treatment pond and go to the bay.
- On June 28, 2024, Senate Bill 7040, which updates Florida's stormwater rules and design criteria, was signed into law. The updates affect the water quality treatment performance standards, Operation & Maintenance (O&M) requirements, and Dam Safety requirements. Further information regarding the updated rules and design criteria, implementation timeline and grandfathering provisions can be found at the following link: https://floridadep.gov/water/engineering-hydrology-geology/content/erp-stormwater-resource-center

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

- Coordination with the Tampa Port Authority for projects located in Hillsborough County is recommended.

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

- The permit must be issued to entity that owns or controls the property.
- Provide evidence of ownership or control by deed, easement, contract for purchase, etc. Evidence of ownership or control must include a legal description. A Property Appraiser summary of the legal description is NOT acceptable.

Application Type and Fee Required:

- SWERP – Sections A, C, and E of the ERP Application.
- Consult the fee schedule for different thresholds.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.

- Provide a copy of the legal description (of all applicable parcels within the project area) in one of the following forms:
  a. Deed with complete Legal Description attachment.
  b. Plat.
  c. Boundary survey of the property(ies) with a sketch.

- The plans and drainage report submitted electronically must include the appropriate information required under Rules 61G15-23.005 and 61G15-23.004 (Digital), F.A.C. [Note: digital signature notes were revised in a rule update on April 21, 2025] The following text is required by the Florida Board of Professional Engineers (FBPE) to meet this requirement when a digitally created seal is not used and must appear where the signature would normally appear:

  ELECTRONIC (Manifest): *[NAME] State of Florida, Professional Engineer, License No. [NUMBER] This item has been electronically signed and sealed by [NAME] on the date indicated here using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies*

  DIGITAL: *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]; This item has been digitally signed and sealed by [NAME] on the date indicated here. Signature must be verified on any electronic copies.*
- Provide soil erosion and sediment control measures for use during construction. Refer to ERP Applicant's Handbook Vol. 1 Part IV Erosion and Sediment Control.
- Demonstrate that excavation of any stormwater ponds does not breach an aquitard (see Subsection 2.1.1, A.H.V.II) such that it would allow for lesser quality water to pass, either way, between the two systems. In those geographical areas of the District where there is not an aquitard present, the depth of the pond(s) shall

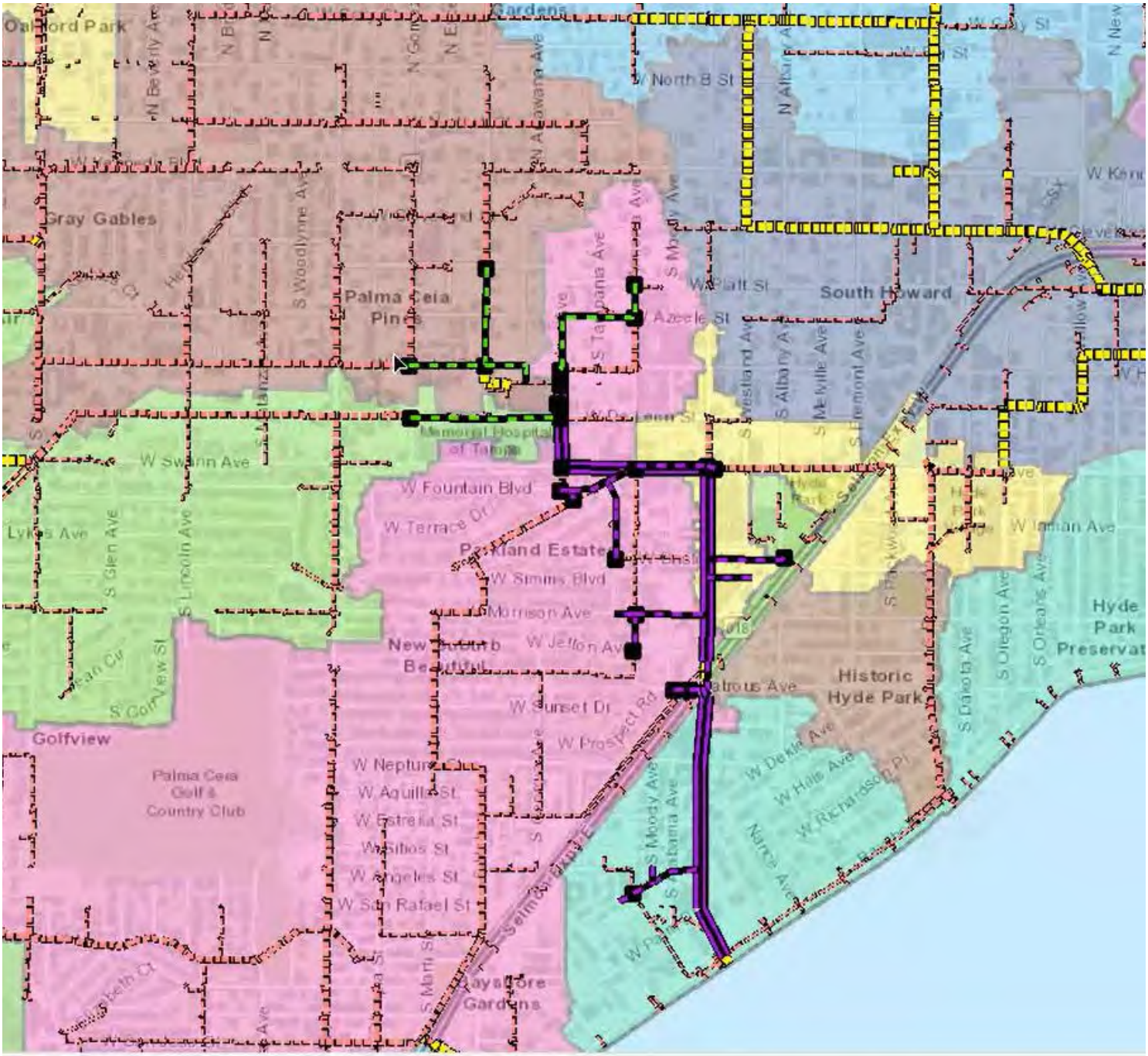
not be excavated to within two (2) feet of the underlying limestone which is part of a drinking water aquifer. [Refer to Subsection 5.4.1(b), A.H.V.II]

- If lowering of SHWE is proposed, then burden is on Applicant to demonstrate no adverse onsite or offsite impacts as per Subsection 3.6, A.H.V.II. Groundwater drawdown 'radius of influence' computations may be required to demonstrate no adverse onsite or offsite impacts. Please note that new roadside swales or deepening of existing roadside swales may result in lowering of SHWE. Proposed ponds with control elevation less than SHWE may result in adverse lowering of onsite or offsite groundwater.
- On February 15, 2024, the U.S. District Court for the District of Columbia issued a decision vacating the U.S. Environmental Protection Agency's approval of Florida's application to assume Clean Water Act Section 404 permitting responsibilities in certain waters in Florida. In light of this decision, the U.S. Army Corps of Engineers (USACE) is currently the only entity in the State of Florida with authority to issue permits under Section 404 of the Clean Water Act. The USACE recognizes that either the District Court or an Appellate Court may issue a full or partial stay of the February 15th order at some point. In the interim, applicants may submit applications to the USACE for activities involving the discharge of dredged or fill material into formerly state-assumed waters. The USACE will begin processing any applications it receives, however applicants and stakeholders should recognize the uncertainty surrounding the current litigation. Further information can be found at these two links:

  https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program

  https://www.saj.usace.army.mil/Missions/Regulatory/

Disclaimer: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.


Oakford Park
Gray Gables
Palma Ceia Pines
South Howard
Memorial Hospital of Tampa
W Swann Ave
W Fountain Blvd
W Terrace Dr
Parkland Estates
W Simms Blvd
Morrison Ave
W Jetton Ave
W Sunset Dr
W Prospect Rd
Historic Hyde Park
Hyde Park Preservat
Golfview
Palma Ceia Golf & Country Club
W Neptune St
W Aguilla St
W Estrella St
W Sibbs St
W Angeles St
W San Rafael St
Bayshore Gardens
W North B St
W Platt St
Azeele St
W Inman Ave
W Dekle Ave
W Hale Ave
S Lincoln Ave
S Glen Ave
S Golfview St
S Dakota Ave
S Oregon Ave
S Moody Ave
S Albany Ave
S Melville Ave
S Fremont Ave
S Westland Ave

THIS FORM IS INTENDED TO FACILITATE AND GUIDE THE DIALOGUE DURING A PRE-APPLICATION MEETING BY PROVIDING A PARTIAL "PROMPT LIST" OF DISCUSSION SUBJECTS. IT IS NOT A LIST OF REQUIREMENTS FOR SUBMITTAL BY THE APPLICANT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
RESOURCE REGULATION DIVISION
PRE-APPLICATION MEETING NOTES

FILE NUMBER:

PA 413326

Date:	04/22/2026		
Time:	1400		
Project Name:	South Howard Flood Relief and Streetscape Project		
District Engineer:	Scott VanOrsdale		
District ES:	Chaz LaRiche		
Attendees:	Chris Chandler, Amanda Serra, Daniel Parsons, Jeff DeBosier, Brett Sillman		
County:	Hillsborough County	**Sec/Twp/Rge:**	26,27/29/18
Total Land Acreage:		**Project Acreage:**	Acres

Prior On-Site/Off-Site Permit Activity:

- ERP - 20724, 6550, 2417
- Pre App 404594, 412612

Project Overview:

- Comments - Project aims to alleviate roadway and structural flooding within the Parkland Estates and Palma Ceia Pines neighborhoods in South Tampa by constructing at least 6000 linear feet of new box culvert outfall to Hillsborough Bay
- South Howard Ave and W Swann Ave
- Main purpose was to discuss a slight change in the box culvert and if the new water quality rules will impact the flood improvement project. Since no new impervious is proposed, formal water quality treatment will not likely be required; however, this project will modify several existing permits. Taking some runoff that originally went to a pond today. Will need to provide reasonable assurance the bypassed areas will not have an adverse water quality impact to the receiving systems (bay). In the case of Swan Pond, the permitted treatment volume was only designed to accommodate a portion of the contributing area. The current pond design is undersized to accommodate the entire drainage basin, reducing the contributing area will increase the treatment function for the remaining area. It may be warranted to provide some form of additional BMPs to reduce sediments and/or other pollutants for the redirected areas.
- If any localized closed basins (up to 100-year, 24-hour storm) are now being conveyed to the bay, address pollutant loading and may need treatment to ensure no increase of pollutants to the bay.
- Tampa Bay is considered impaired for nutrients.
- Tidal receiving waterbody.
- Improvements will modify several existing permits. Modifications to permitted areas will need to demonstrate no adverse impact to the water quality or attenuation requirements of the permitted systems.
- Individual permit would likely be required since the project will alter several permitted systems.
- Additional comments noted below:

Environmental Discussion: (Wetlands On-Site, Wetlands on Adjacent Properties, Delineation, T&E species, Easements, Drawdown Issues, Setbacks, Justification, Elimination/Reduction, Permanent/Temporary Impacts, Secondary and Cumulative Impacts, Mitigation Options, SHWL, Upland Habitats, Site Visit, etc.)

- FWC Manatee conditions for in-water work including, but not limited to, manatee grates on pipes greater than 8 inches. Possible surface water impacts from riprap installation at existing outfall into Hillsborough Bay.
- Provide the limits of jurisdictional wetlands and surface waters. Roadside ditches or other water conveyances, including permitted and constructed water conveyance features, can be claimed as surface waters per Chapter 62-340 F.A.C. if they do not meet the definition of a swale as stated under Rule 403.803 (14) F.S.
- Notice of changes to Florida Statues: Be advised that Senate Bill 492 provides changes to the Mitigation Banking statute and Senate Bill 180 provides changes to the tolling period of permits and formal determinations related to emergency orders.
  Link to Senate Bill 492: https://www.flsenate.gov/Session/Bill/2025/492/?Tab=BillText.

Link to Senate Bill 180: https://www.flsenate.gov/Session/Bill/2025/180/?Tab=BillText .

- A site visit by District staff will be required to verify the presence and extent, or absence of wetlands and/or surface waters. Prior to the site visit, District staff will contact the applicant or authorized agent to provide an approximate date of the site visit and to ensure that the project area is accessible. If wetlands or surface waters are discovered during the site visit, additional information may be required. A site visit will not be scheduled until the appropriate signatures on the application and the fee is submitted.
- On February 15, 2024, the U.S. District Court for the District of Columbia issued a decision vacating the U.S. Environmental Protection Agency's approval of Florida's application to assume Clean Water Act Section 404 permitting responsibilities in certain waters in Florida. In light of this decision, the U.S. Army Corps of Engineers (USACE) is currently the only entity in the State of Florida with authority to issue permits under Section 404 of the Clean Water Act. The USACE recognizes that either the District Court or an Appellate Court may issue a full or partial stay of the February 15th order at some point. In the interim, applicants may submit applications to the USACE for activities involving the discharge of dredged or fill material into formerly state-assumed waters. The USACE will begin processing any applications it receives, however applicants and stakeholders should recognize the uncertainty surrounding the current litigation. Further information can be found at these two links:

  https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program

  https://www.saj.usace.army.mil/Missions/Regulatory/

Site Information Discussion: (SHW Levels, Floodplain, Tailwater Conditions, Adjacent Off-Site Contributing Sources, Receiving Waterbody, etc.)

- Watersheds – Tampa Bay
- Check FDEP's HUC 12 Boundaries with Impaired Waters and OFWs to determine status of receiving waterbody. The site appears to be located within <McDill Air Force Base / Tampa Bay> HUC 12 subwatershed. The HUC 12 subwatershed appears to contain Impaired WBID which also appears to be located downstream of the site.
- Document/justify SHWE's at pond locations, wetlands, and OSWs.
- Determine normal pool elevations of wetlands.
- Determine 'pop-off' locations and elevations of wetlands.
- Provide documentation to support tailwater conditions for quality and quantity design.
- Proposed control structures in wetlands should be consistent with existing 'pop-off' elevations of wetlands; demonstrate no adverse impacts to wetland hydroperiod for up to 2.33-yr (mean annual) storm.
- Minimum flows and levels of receiving waters shall not be disrupted.
- Stormwater retention and detention systems are classified as moderate sanitary hazards with respect to public and private drinking water wells. Stormwater treatment facilities shall not be constructed within 100 feet of an existing public water supply well and shall not be constructed within 75 feet of an existing private drinking water well (Subsection 8.5.2, A.H.V.I)
- Any wells on site should be identified and their future use/abandonment must be designated.

Water Quantity Discussions: (Basin Description, Storm Event, Pre/Post Volume, Pre/Post Discharge, etc.)

- Storage modeling will be required to demonstrate no increase in flood stages will occur on off-site
- properties, using the mean annual, 10-year, 25-year, and 100-year storm events.
- Demonstrate that site will not impede the conveyance of contributing off-site flows.
- Demonstrate that the project will not increase flood stages up- or down-stream of the project area(s).
- Watershed Model information may be available for download using the following link: https://watermatters.sharefile.com/d-s8c9019e00fd243908654e733a6b2016c
- Provide equivalent compensating storage for all 100-year, 24-hour riverine floodplain impacts if applicable. Providing cup-for-cup storage in dedicated areas of excavation is the preferred method of compensation if no impacts to flood conveyance are proposed and storage impacts and compensation occur within the same basin. In this case, tabulations should be provided at 0.5-foot increments to demonstrate encroachment and compensation occur at the same levels. Otherwise, storage modeling will be required to demonstrate no increase in flood stages will occur on off-site properties, using the mean annual, 10-year, 25-year, and 100-year storm events for the pre- and post-development conditions.
- Please be aware that if there is credible historical evidence of past flooding or the physical capacity of the downstream conveyance or receiving waters indicates that the conditions for issuance will not be met without consideration of storm events of different frequency or duration, applicants shall be required to

provide additional analyses using storm events of different duration or frequency than the 25-year 24-hour storm event, or to adjust the volume, rate or timing of discharges (Section 3, A.H.V.II).

- Please verify whether the proposed activity meets the definition of a dam (Subsection 2.(a), A.H.V.I) and is subject to the dam safety criteria (Subsection 5.9, A.H.V.II). If applicable, please refer to Subsection 8.4.5 (A.H.V.I), Appendix L (A.H.V.I) and Subsection 5.9 (A.H.V.II), for permitting criteria that apply when the proposed activity is for construction of a new dam or alteration of an existing dam.

Water Quality Discussions: (Type of Treatment, Technical Characteristics, Non-presumptive Alternatives, etc.)

- Formal water quality treatment is not likely required for the flood control project unless stormwater is diverted into a new receiving system.
- If any localized closed basins (up to 100-year, 24-hour storm) are now being conveyed to the bay, address pollutant loading and may need treatment to ensure no increasing of pollutants to the bay.
- This project will modify several existing permits. Taking some runoff that originally went to a pond today. Will need to provide reasonable assurance the bypassed areas will not have an adverse water quality impact to the receiving systems (bay). In the case of Swan Pond, the permitted treatment volume was only designed to accommodate a portion of the contributing area. The current pond design is undersized to accommodate the entire drainage basin, reducing the contributing area will increase the treatment function for the remaining area. It may be warranted to provide some form of additional BMPs to reduce sediments and/or other pollutants for the redirected areas.
- Will acknowledge compensatory treatment to offset pollutant loads associated with portions of the project area that cannot be physically treated.
- Improvements will modify several existing permits. Modifications to permitted areas will need to demonstrate no adverse impact to the water quality or attenuation requirements of the permitted systems.

Sovereign Lands Discussion: (Determining Location, Correct Form of Authorization, Content of Application, Assessment of Fees, Coordination with FDEP)

- The project may be located within state owned sovereign submerged lands (SSSL). Be advised that a title determination will be required from FDEP to verify the presence and/or location of SSSL.
- If use of SSSL is proposed, authorization will be required. Refer to Chapter 18-21, F.A.C. and Chapter 18-20, F.A.C. for guidance on projects that impact SSSL and Aquatic Preserves.
- Include discussion on the potential type of SSSL authorization that may be required. Refer to Chapter 18-21.005, F.A.C.
- Coordination with the Tampa Port Authority for projects located in Hillsborough County is recommended.

Operation and Maintenance/Legal Information: (Ownership or Perpetual Control, O&M Entity, O&M Instructions, Homeowner Association Documents, Coastal Zone requirements, etc.)

- The permit must be issued to entity that owns or controls the property.
- Provide evidence of ownership or control by deed, easement, contract for purchase, etc. Evidence of ownership or control must include a legal description. A Property Appraiser summary of the legal description is NOT acceptable.
- Will need to demonstrate authorization to modify existing permits within the project.

Application Type and Fee Required:

- SWERP – Sections A, C, and E of the ERP Application.
  - Fee will need to be determined based on the project area limits. Consult the fee schedule for the applicable fee.

Other: (Future Pre-Application Meetings, Fast Track, Submittal Date, Construction Start Date, Required District Permits – WUP, WOD, Well Construction, etc.)

- An application for an individual permit to construct or alter a dam, impoundment, reservoir, or appurtenant work, requires that a notice of receipt of the application must be published in a newspaper within the affected area. Provide documentation that such noticing has been accomplished. Note that the published notices of receipt for an ERP can be in accordance with the language provided in Rule 40D-1.603(10), F.A.C.
- Provide a copy of the legal description (of all applicable parcels within the project area) in one of the following forms:
  a. Deed with complete Legal Description attachment.
  b. Plat.
  c. Boundary survey of the property(ies) with a sketch.

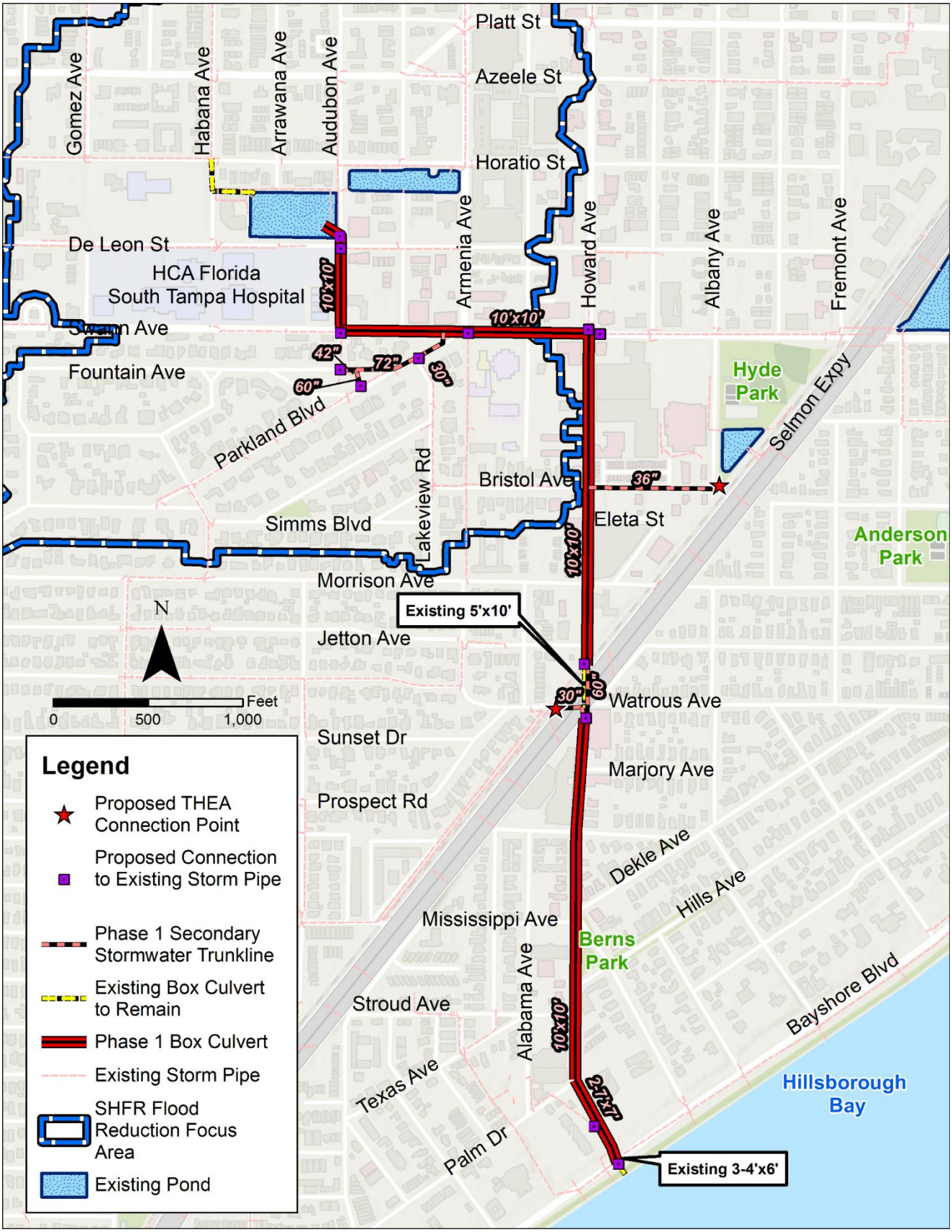
- The plans and drainage report submitted electronically must include the appropriate information required under Rules 61G15-23.005 and 61G15-23.004 (Digital), F.A.C. [Note: digital signature notes were revised in a rule update on April 21, 2025] The following text is required by the Florida Board of Professional Engineers (FBPE) to meet this requirement when a digitally created seal is not used and must appear where the signature would normally appear:

  ELECTRONIC (Manifest): *[NAME] State of Florida, Professional Engineer, License No. [NUMBER] This item has been electronically signed and sealed by [NAME] on the date indicated here using a SHA authentication code. Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies*

  DIGITAL: *[NAME] State of Florida, Professional Engineer, License No. [NUMBER]; This item has been digitally signed and sealed by [NAME] on the date indicated here. Signature must be verified on any electronic copies.*

- Provide soil erosion and sediment control measures for use during construction. Refer to ERP A.H.V.I, Part IV "Erosion and Sediment Control".
- Demonstrate that excavation of any stormwater ponds does not breach an aquitard (see Subsection 2(a)(9), A.H.V.I) such that it would allow for lesser quality water to pass, either way, between the two systems. In those geographical areas of the District where there is not an aquitard present, the depth of the pond(s) shall not be excavated to within three (3) feet of the underlying limestone which is part of a drinking water aquifer (Subsection 8.5.2, A.H.V.I)
- If lowering of SHWE is proposed, then burden is on Applicant to demonstrate no adverse onsite or offsite impacts as per Subsection 3.6, A.H.V.II. Groundwater drawdown 'radius of influence' computations may be required to demonstrate no adverse onsite or offsite impacts. Please note that new roadside swales or deepening of existing roadside swales may result in lowering of SHWE. Proposed ponds with control elevation less than SHWE may result in adverse lowering of onsite or offsite groundwater.
- On February 15, 2024, the U.S. District Court for the District of Columbia issued a decision vacating the U.S. Environmental Protection Agency's approval of Florida's application to assume Clean Water Act Section 404 permitting responsibilities in certain waters in Florida. In light of this decision, the U.S. Army Corps of Engineers (USACE) is currently the only entity in the State of Florida with authority to issue permits under Section 404 of the Clean Water Act. The USACE recognizes that either the District Court or an Appellate Court may issue a full or partial stay of the February 15th order at some point. In the interim, applicants may submit applications to the USACE for activities involving the discharge of dredged or fill material into formerly state-assumed waters. The USACE will begin processing any applications it receives, however applicants and stakeholders should recognize the uncertainty surrounding the current litigation. Further information can be found at these two links:
  https://floridadep.gov/water/submerged-lands-environmental-resources-coordination/content/state-404-program
  https://www.saj.usace.army.mil/Missions/Regulatory/
- On June 28, 2024, Senate Bill 7040, which updates Florida's stormwater rules and design criteria, was signed into law. The updates affect the water quality treatment performance standards, Operation & Maintenance (O&M) requirements, and Dam Safety requirements. Further information regarding the updated rules and design criteria, implementation timeline and grandfathering provisions can be found at the following link: https://floridadep.gov/water/engineering-hydrology-geology/content/erp-stormwater-resource-center

Disclaimer: The District ERP pre-application meeting process is a service made available to the public to assist interested parties in preparing for submittal of a permit application. Information shared at pre-application meetings is superseded by the actual permit application submittal. District permit decisions are based upon information submitted during the application process and Rules in effect at the time the application is complete.


Platt St
Azeele St
Horatio St
Gomez Ave
Habana Ave
Arrawana Ave
Audubon Ave
Armenia Ave
Howard Ave
Albany Ave
Fremont Ave
De Leon St
HCA Florida
South Tampa Hospital
Fountain Ave
Parkland Blvd
Lakeview Rd
Hyde
Park
Selmon Expy
Bristol Ave
Eleta St
Simms Blvd
Anderson
Park
Morrison Ave
Existing 5'x10'
Jetton Ave
N
0
500
1,000
Feet
Watrous Ave
Sunset Dr
Marjory Ave
Prospect Rd
Dekle Ave
Hills Ave
Mississippi Ave
Berns
Park
Alabama Ave
Stroud Ave
Bayshore Blvd
Texas Ave
Hillsborough
Bay
Palm Dr
Existing 3-4'x6'
10'x10'
42"
72"
30"
60"
36"
Legend
Proposed THEA Connection Point
Proposed Connection to Existing Storm Pipe
Phase 1 Secondary Stormwater Trunkline
Existing Box Culvert to Remain
Phase 1 Box Culvert
Existing Storm Pipe
SHFR Flood Reduction Focus Area
Existing Pond

P.2 AMI Pond ERP Documentation

JUNCTION BOX #1
SEE DETAIL - SHEET #
RIM EL. 18.12
TOP EL. 17.33
INV. EL. E. 14.14
N. 12.09
W. 11.99
S. 11.99
P.M. 14.00
WEIR EL. 12.24
BOTTOM EL. ~~11.99~~ 12.09 △

existing 8" water
existing 2" water
Storm Junction Box Rim El=18.12 Inv=14.14(E) 13.99(SW) 13.99(W)
TO BE REMOVED
Catch Basin Top=17.78, Throat 16.88, Inv=14.94(S)
exist f.h.
RELOCATE 8" D.I.P. WATER MAIN
REPLACE W/ 20 L.F. 8" D.I.P. THROUGH BOX CULVERT
CONNECT 15" RCP TO BOX CULVERT - VERIFY INV. IN FIELD.
existing 6" water
MANHOLE LID
existing 2" water
Catch Basin Top=17.96 Throat=17.11 Inv=14.12(N)
San Manhole Rim El=18.20 Inv=14.37(N) 12.59(E), 12.56(W)
INSTALL 8"x8"x6"x6" CROSS, 125 L.F. 6" D.I.P. GATE V. PLUG W/ TEMP B.O. 6"x6"x4" TEE, 4"x2" REDUCER, 2"x2" TAPPING SLEEVE & VALVE. CONNECT TO EXIST. 2" WATER MAIN & PLUG BOTH ENDS UNDER STREET. 2" WATER MAIN TO BE ABANDONED OR REMOVED
80 L.F. 12" D.I.P. (CLASS 50 @ 0.25% SLOPE
270 L.F. 8'x4' BOX CULVERT (ASTM C 850 H 20 WHEEL LOAD) @ 0.17%
152 L.F. 8'x4' BOX CULVERT (ASTM C 850 H 20 WHEEL LOADS) @ 0.15%
12" D.I.P FORCE MAIN (CLASS 50)
PUMP STATION
5' CLR.
2-45° BENDS
90° BEND
JUNCTION BOX #2
SEE DETAIL - SHEET #
RIM EL 18.92
TOP EL. 17.10
INV. EL. N. 11.76
E. 11.66
BOTTOM EL. 8.66
MANHOLE LID
15'-2" ASPHALT DRIVEWAY
TYPE 'C' INLET
3/4" "PE" Water service line
CONNECT 24" RCP TO BOX CULVERT - INV. 13.00
18"x8" Red.
8" DIP FM CL. 50
REPLACE 90 L.F. 24" RCP @ 3.46%
90° BEND
12" GV
45 L.F. 12" D.I.F. (CLASS 54) @ 0.50% SLOPE
EXTEND RELOCATED 8" D.I.F. WATER MAIN, INSTALL 8" GV, 8"x8"x4" TEE, 20 L.F. 8" D.I.P. W/ PLUG & TEMP BLOW OFF 4"x4" REDUCER, 2" x 2" TAPPING SLEEVE & VALVE (150 L.F. 8" D.I.P. TOTAL.) CONNECT TO EXIST 2" WATER

NOTE:
1. Underground TECO and GTE cables for service will be provided to pump station.
2. All ductile iron pipe used for gravity service shall be class 54 with Duraline epoxy lining.
3. All 12" DIP forcemain to be restrained joints.

HABANA AVENUE
ARRIANA AVENUE
ALHAMBRA AVENUE
HORATIO STREET
DELEON STREET
60' R/W
SAWCUT EDGE OF PAVEMENT MATCH EXIST SLOPE WITH NEW PAVEMENT & BASE
SAWCUT EXIST PAVEMENT
INSTALL 6' HIGH CHAIN LINK FENCE W/ 1 GATE
340 L.F. 12" PVC GRAVITY FLOW FROM DRAINFIELD TO PUMP STATION. @ 0.25% SLOPE
STORM MH#1 RIM 18.0 INV. E ~~6.61~~ 6.51 6.30 6.38
STORM MH#2 RIM 17.6 INV. ~~6.90~~ 6.34
118 L.F. 12" D.I.P. (CLASS 50) @ 0.25% SLOPE
STORM MH#3 RIM 20.0 INV S ~~7.85~~ (15") 7.79 W ~~7.75~~ (12") 8.06
DITCH TO REMAIN
TO REMAIN
SWALE
MANHOLE LID
12' GATE
30 L.F. 18" RCP TO REMAIN
CONCRETE △
INV. 11.19
INV. 10.2
25/8" GEOWEB W/ NON WOVEN FABRIC & 3/4"~1" STONE
25/8" GEOWEB W/ NON WOVEN FABRIC & 3/4"~1" STONE
T. O. B. EL. 18.5
D. H. W. EL. 17.5
BOTTOM EL. 10.0
EL 9.14 (NAVD88)
PILING (TYP)
3:1 SIDE SLOPE
ZONE CN
25/8" GEOWEB W/ NON WOVEN FABRIC & 3/4"~1" STONE
CLEANOUTS TYP.
200 L.F. 15" ADS UNDERDRAIN W/ SOCK @ 1.0% △
200 L.F. 8" ADS MANIFOLD
200 L.F. 4'x4' BOX CULVERT
200 L.F. 8" ADS UNDERDRAIN W/ SOCK
5 L.F. 8" P.V.C. @ 1.0% (4 TOTAL)
CONC. BLK. WALL
POST & RAIL FENCE
SOD
CLEANOUTS
12' GATE
CONST. 3' CURB TRANSITION EACH SIDE
SAW CUT & CONST. B10 LF 5' CONCRETE SIDEWALK
CONST. TYPE 'S' INLET ON EXIST. 18" RCP
TOP 18.48
E.O.P. 18.10
THROAT 17.56
INV. 15.47
278.50(M)
278.35(P)
30.00
200' to existing f.h.
100' to existing f.h.
SCALE: 1" = 30'
△ 43910 Record Drawings
RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND FEATURES AND VISIBLE LOCATION OF STORM AND SANITARY SEWER STRUCTURES AS SHOWN BY INVERTS. - RECORD DIMENSION IS SHOWN EITHER BY CROSSING OUT PLAN DIMENSION OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.
TPD FIELD SERVICES FILE OF RECORD NO. 406550.00
INVESTIGATE BEFORE YOU EXCAVATE
CALL CANDY 1-800-282-8817 TOLL FREE
FL STATUTE 553.851 (1978) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE.
DAVID M. LOVE
5-14-90
RECEIVED May 24 1990 SWFWMD TAMPA
CIVIL SITE PLAN
THIS DOES NOT CONTAIN EXEMPT INFO

Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602
GOTTFRIED + GARCIA / ARCHITECTS / A.I.A., P.A.
3333 west kennedy boulevard / tampa, florida
drawing

ARRAWANA AVENUE PLAN AND PROFILE

SCALE: 1" = 20' HORIZ.
1" = 2' VERT.

△ 4-30-90 Record Drawings

RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND STRUCTURES AND APPURTENANCES, AND VERTICAL LOCATION OF STORM AND SANITARY SEWER STRUCTURES AS SHOWN BY INVERTS. RECORD DIMENSION IS EQUAL TO FIELD MEASUREMENT UNLESS NOTED OTHERWISE OR CHECK-MARK BY PLAN DIMENSION IF NOT CHANGED.

Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602

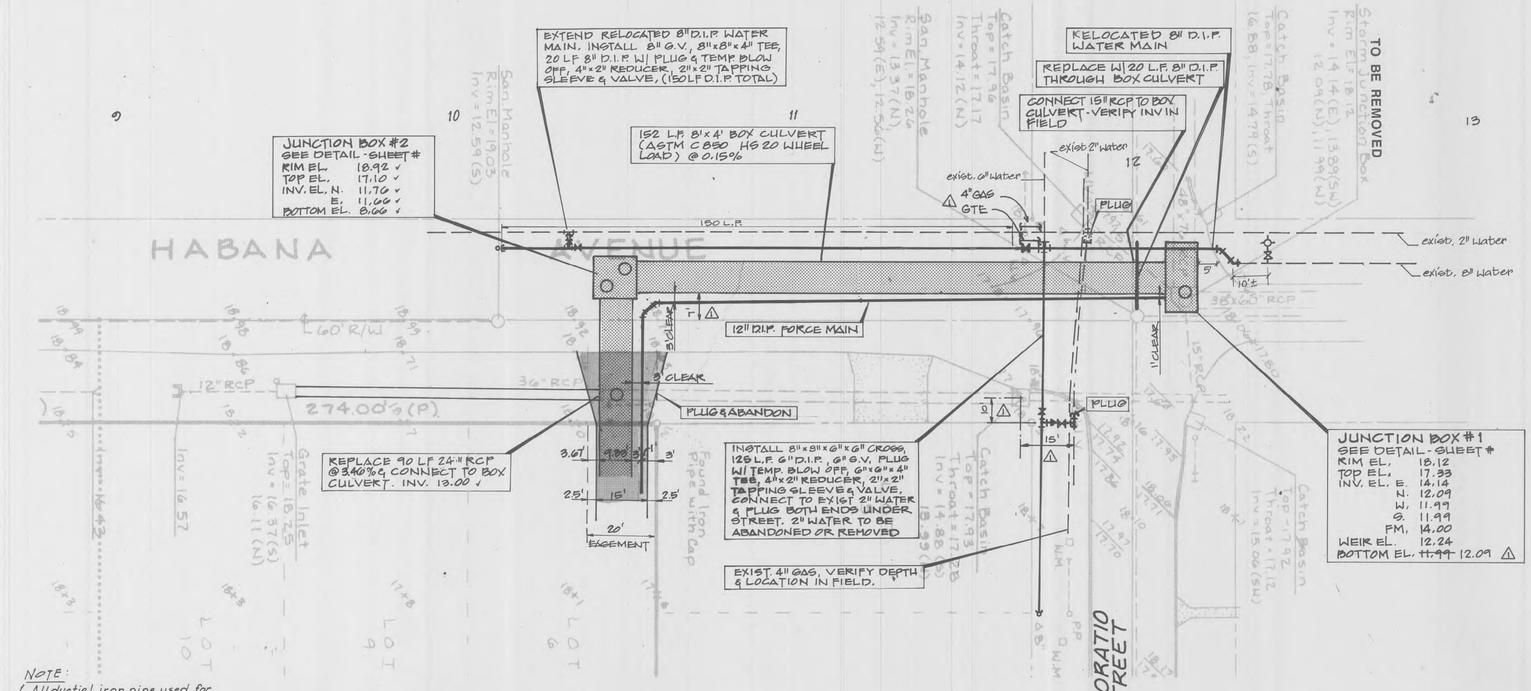
GOTTFRIED + GARCIA / ARCHITECTS / A.I.A., P.A.
3333 west kennedy boulevard / tampa, florida

INVESTIGATE BEFORE YOU EXCAVATE
"CALL CANDY" 1-800-282-8881 TOLL FREE
FL STATUS 553.851 (1975) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE.

RECEIVED
MAY 24 1990
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
TAMPA

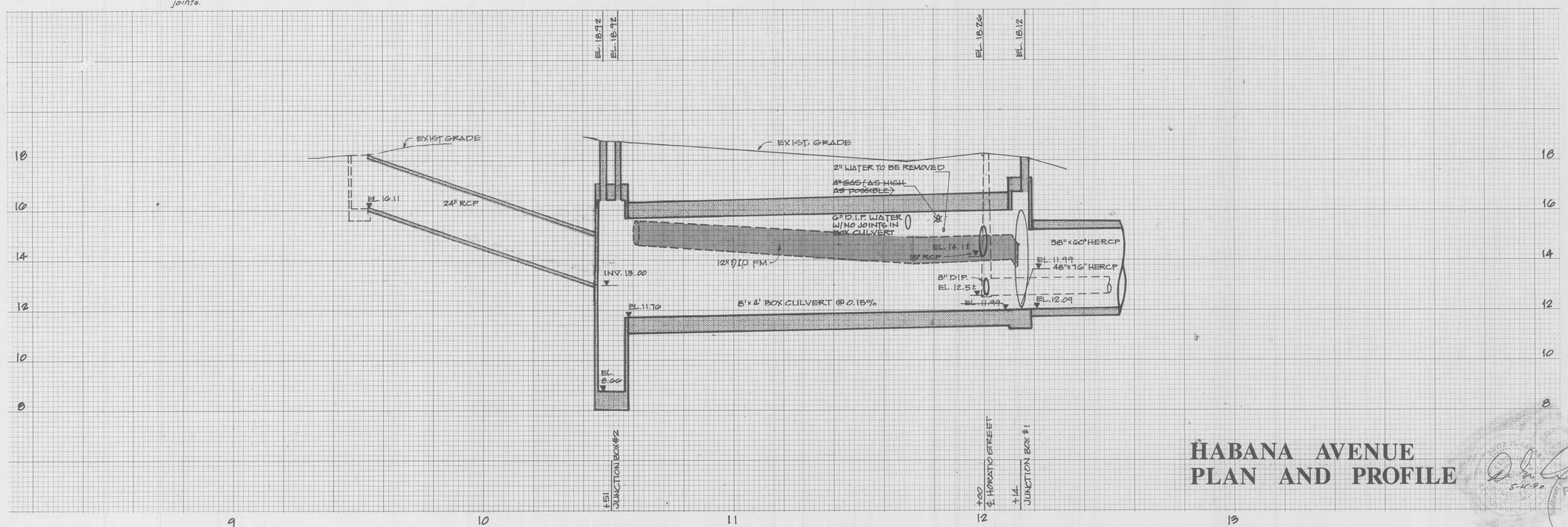
S/C 2

18



NOTE:
1. All ductial iron pipe used for gravity service shall be Class 54 with Duraline epoxy lining.

2. All 12" DIP forcemain to be restrained joints.



HABANA AVENUE
PLAN AND PROFILE

Δ 4-30-90 Record Drawings

RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND STRUCTURES AND APPURTENANCES, AND VERTICAL LOCATION OF STORM AND SANITARY SEWER STRUCTURES AS SHOWN BY INVERTS. RECORD DIMENSION AND ELEVATION IS AS BUILT. PLEASE VERIFY ON OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.

INVESTIGATE BEFORE YOU EXCAVATE
"CALL CANDY"
1-800-282-8881
TOLL FREE
FL STATUS 553.851 (1974) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE.

Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602

GOTTFRIED + GARCIA / ARCHITECTS / A.I.A., P.A.
3333 west kennedy boulevard / tampa, florida

S/C-3

RECEIVED
MAY 24
PRD - TAMPA

NOTE:

1. All ductile iron pipe used for gravity service shall be Class 54 with Duraline epoxy lining.
2. All 12" DIP forcemain to be restrained joints.

SCALE: 1"=20' HORIZ.
1"=2' VERT.

HABANA AVENUE

ARRAWANA AVENUE

Catch Basin
Top = 17.93
Throat = 17.28
Inv = 14.88 (S)
15.29 (N)

Driveway Apron (Typ.)

JUNCTION BOX #2
SEE DETAIL - SHEET #
RIM EL. 18.92
TOP EL. 17.10
INV. EL. N. 11.76
E. 11.66
BOTTOM EL. 8.66

270 LF 8'x4' BOX CULVERT (ASTM C 850 HS 20 WHEEL LOAD) @ 0.17%

BUILT UP GRATE ON 8'x4' BOX CULVERT TOP 18.0 "TYPE 'C' GRATE

STORM SEWER MH
RIM ~~18.0~~ 18.35
INV E ~~6.64~~ 6.30
S ~~6.51~~ 6.38

STORM SEWER MH
RIM 17.6
INV. ~~6.80~~ 6.94

SAWCUT EDGE OF PAVEMENT MATCH EXIST. SLOPE W/NEW PAVEMENT & BASE

SAWCUT EXIST PAVEMENT

INSTALL 6' HIGH CHAIN LINK FENCE W/ 16' GATE

Found Iron Pipe with Cap

12" D.I.P. FORCE MAIN CLASS 50

90° BEND

118 LF 12" D.I.P. CLASS 50

San. Manhole
TO BE REMOVED
Inv = ~~14.79~~ (E)
~~14.33~~ (S)

Headwall
TO BE REMOVED
Inv = 16.24

Headwall TO REMAIN
Top = 18.22
Inv = 16.02

340 LF 12" P.V.C. FROM DRAINFIELD TO PUMP STATION

6' Wood Fence

SWALE

0.50%

REPLACE 90 LF 24" RCP @ CONNECT TO BOX CULVERT INV. 13.00

¾" "PE" Water service line

30 LF 12" D.I.P. CLASS 50 @ 0.25% SLOPE

8"x12" REDUCER

8" 90° BEND

PUMP STATION

8" D.I.P.

12" G.V.

45 LF 12" DIP CLASS 50

INV. 10.2

4" GEOWEB W/ NON WOVEN FABRIC & ~~3/4"~1"~~ STONE

STORM SEWER MH ON BOX CULVERT RIM. 18.5

CONCRETE

INV. 11.19

4" GEOWEB W/ NON WOVEN FABRIC & 3/4" ~ 1" STONE

2 5/8" GEOWEB W/ NON WOVEN FABRIC & 3/4" ~ 1" STONE

Grate Inlet
TO BE REMOVED
Inv = 16.11 (S)
16.00 (N)

COLUMN (TYP.)

8" Water Oak

6' Chain L

INVESTIGATE BEFORE YOU EXCAVATE
"CALL CANDY"
1-800-282-8811
TOLL FREE
FL STATUTE 553.851 (1970) REQUIRES MIN. OF 2 DAYS AND MAX. OF 10 DAYS NOTICE BEFORE YOU EXCAVATE

KIM EL. 18.7
TOP EL. 17.10

RIM EL. 18.7

TOP EL. 18.0

KIM EL. 18.0
INV. E 6.47
S 5.37

KIM EL. 18.5

INV EL. 11.19

RIM EL. 17.6
INV EL 6.05

EXIST. GRADE

PROPOSED GRADE

EXISTING GRADE

3' MIN COVER

12" D.I.P. FORCE MAIN

24" RCP
INV. EL. 13.00

INV. EL. 11.76
INV. EL. 11.66

8.66

3:1

5:1

EXIST. 18" RCP
INV. FIELD VERIFY

2 5/8" GEOWEB W/ NON WOVEN FABRIC

TOB EL 18.5

BOTTOM EL 10.0

4" GEOWEB W/ NON WOVEN FABRIC

4" GEOWEB W/ NON WOVEN FABRIC
CONCRETE

12" PVC @ 0.5% FROM DRAINFIELD TO PUMP STATION

12" DIP 118 LF CLASS 54

+85.5 JUNCTION BOX #2 & HABANA AVENUE

+22.00

+46.00 GRATE TYPE 'C'

4+78.00 MH #1 & PUMP STA.

1+96.00 MH #2

10 11 12 13 14 15

20 18 16 14 12 10 8 6 4 2

4-30-98 Record Drawings

RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND STRUCTURES AND APPROXIMATE AND VERTICAL LOCATION OF STORM AND SANITARY SEWER STRUCTURES AS SHOWN BY INVERTS. RECORD DIMENSION IS SHOWN EITHER BY CROSSING OUT PLAN DIMENSION OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.

Wade-Trim
Engineering
Planning
Landscape Architecture
Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602

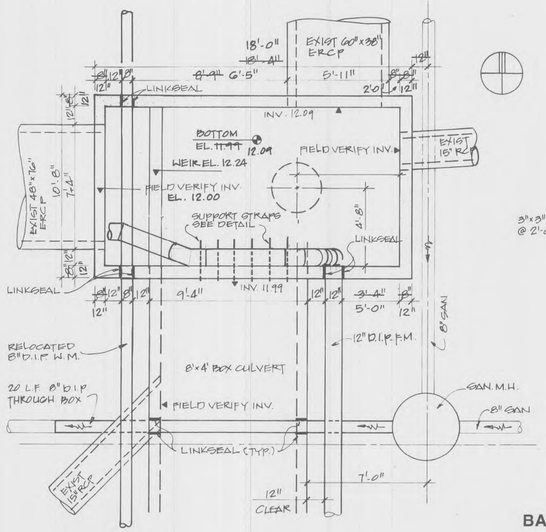
GOTTFRIED + GARCIA / ARCHITECTS / A.I.A. P.A.
3333 west kennedy boulevard / tampa, florida

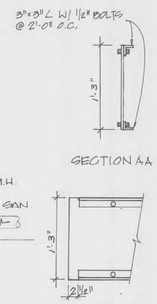
5-4-98

RECEIVED
MAY 2 1998
Southwest Florida Water Management District
TAMPA

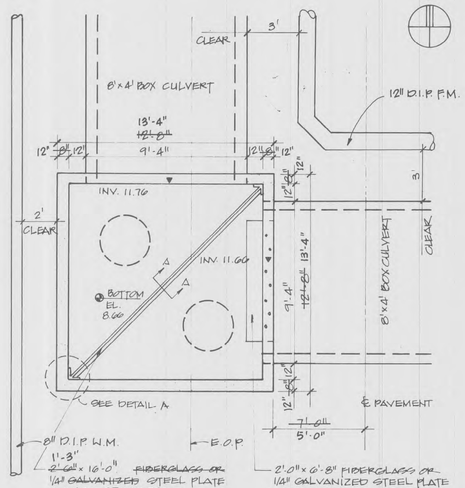
S/C-4

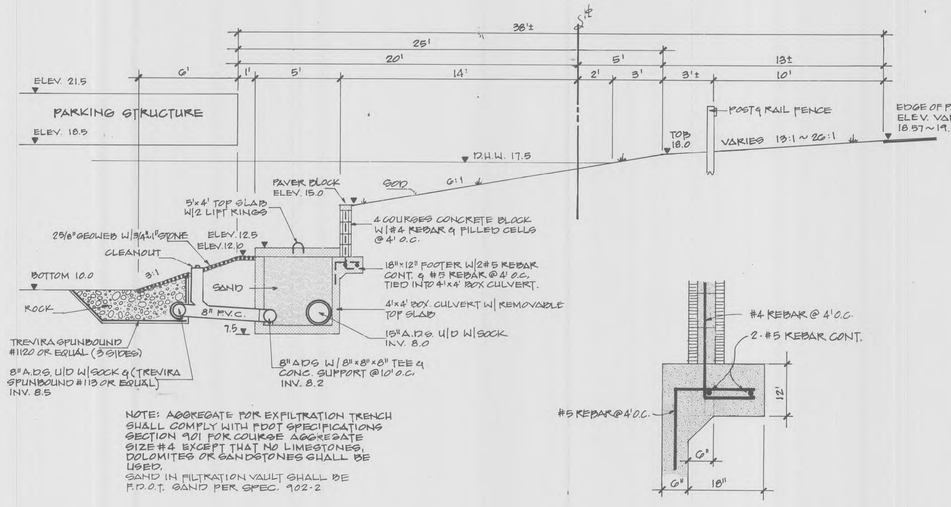
20



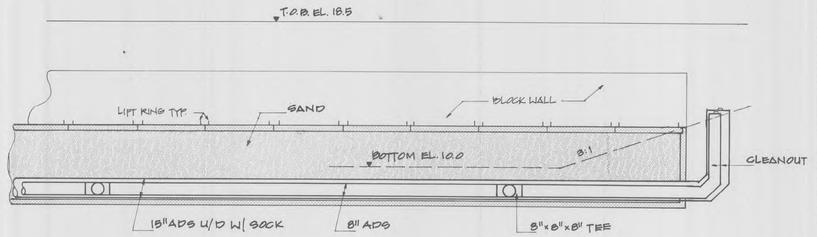


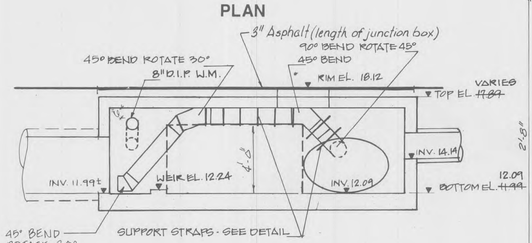
BAFFLE PLATE





NOTE: AGGREGATE FOR EXFILTRATION TRENCH SHALL COMPLY WITH FDOT SPECIFICATIONS SECTION 901 FOR COURSE AGGREGATE SIZE #4 EXCEPT THAT NO LIMESTONES, DOLOMITES OR SANDSTONES SHALL BE USED.
SAND IN FILTRATION VAULT SHALL BE F.D.O.T. SAND PER SPEC. 902-2





PLAN

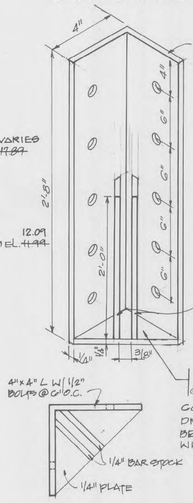
SECTION

CONTRACTOR TO PROVIDE THE ENGINEER WITH SHOP DRAWINGS, JUNCTION BOX & BOX CULVERT SHALL BE BUILT IN ACCORDANCE WITH ASTM C-850 (H-20 WHEEL LOADS)

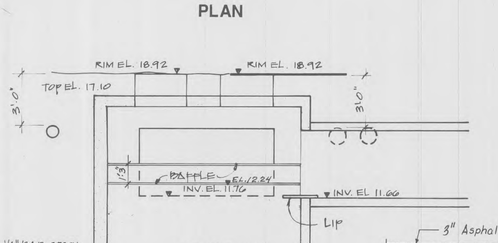
JUNCTION BOX NO. 1

SCALE: 1/4" = 1'-0"

NOTES: RELOCATED WATER MAINS AND SANITARY SEWER THROUGH JUNCTION BOXES AND BOX CULVERT SHALL NOT HAVE A JOINT WITHIN THE STRUCTURES, THE CONTRACTOR SHALL INSTALL LINK SEAL AT EACH OPENING AS REQUIRED.



BAFFLE PLATE BRACKET



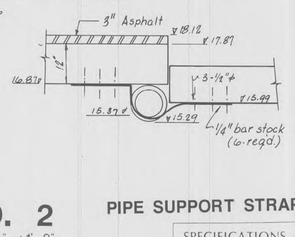
PLAN

SECTION

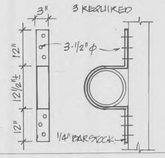
CONTRACTOR TO PROVIDE THE ENGINEER WITH SHOP DRAWINGS, JUNCTION BOX & BOX CULVERT SHALL BE BUILT IN ACCORDANCE WITH ASTM C-850 (H-20 WHEEL LOADS)

JUNCTION BOX NO. 2

SCALE: 1/4" = 1'-0"

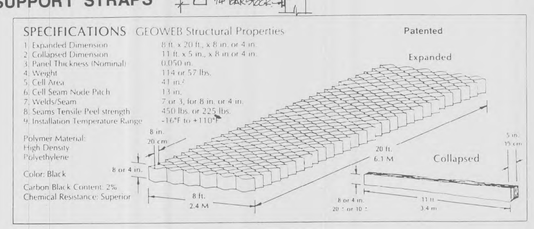


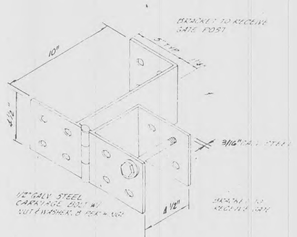
PIPE SUPPORT STRAPS



FILTRATION VAULT

SCALE : 1/4" = 1'-0"

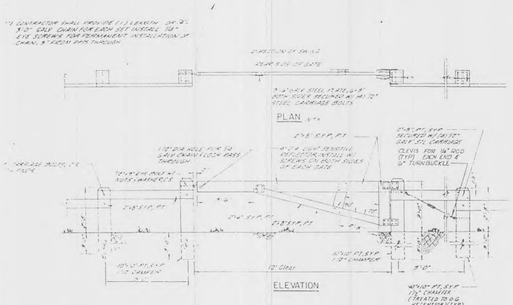




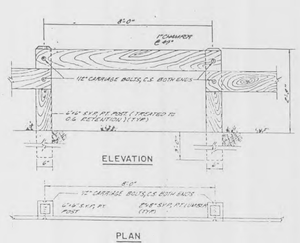
POST AND RAIL HINGE DETAIL
NTS

GEOWEB DETAIL

NTS



TYPICAL 12' POST AND RAIL GATE
NTS



TYPICAL POST AND RAIL FENCE DETAIL
NTS

NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BOX

INVESTIGATE BEFORE YOU EXCAVATE
"CALL CANDY"
1-800-282-8881
TOLL FREE
FL STATUS 553.851 (1979) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE.

Construction Fabrics by TerraTex

Typical Physical Properties

FABRIC PROPERTY	SD	N04	GS	GS-150	SC	HD	EP
Grab Strength (lb) ASTM D-1682	125	110	200	150	120	300	250
Elongation (%) ASTM D-1682	80	80	24	26	21	24	30
Trapezoid Tear (lb) ASTM D-2263	50	50	150	125	130	170	65
Mullen Burst (psi) ASTM D-751	275	250	475	350	300	500	500
Coef. of Permeability K (cm/sec)	0.5	0.2	0.1	0.06	0.08	0.08	0.02
Equivalent Opening Size U.S. Std. Sieve	#30	#70-100	#40-70	#50-70	#30-40	#40-70	#70-100
Weight (oz/sy) ASTM D-3776	4.5	3.0	4.0	5.0	2.5	6.0	6.3
APPLICATIONS							
Soil Stabilization			**	**		**	
Drainage Protection	**	**					*
Sediment Control					**		
Embankment Protection			*			**	**
** Primary * Secondary							
ROLL DIMENSIONS							
Width Std. (ft)	12.5/15	12.5/15	12.5/16.7	12.5	3	12.5	6
Length Std. (ft)	300	300	432	432	VAR	360	300
Area (sy)	500/600	500/600	600	600	VAR	500	200
Weight (lb)	150/185	165/190	170	160	VAR	185	85

FABRIC SPECIFICATIONS (NO.4)

(TO BE PLACED UNDER GEOWEB AS DIRECTED)

RECEIVED
MAY 14 1990
CITY OF TAMPA
Southwest Florida Water Management District

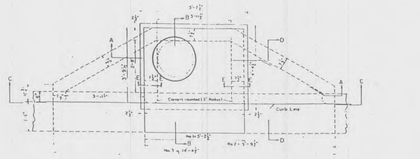
4-30-90 Record Drawings

RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND STRUCTURES AND APPURTENANCES, AND VERTICAL LOCATION OF STORM AND SANITARY SEWER PIPE AS SHOWN ON APPROVED CONSTRUCTION PLANS. IF IS SHOWN EITHER BY CROSSING OUT PLAN DIMENSION OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.

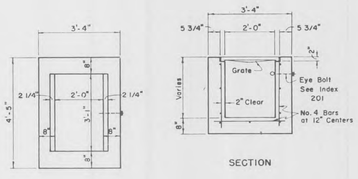
Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 1334 Tampa, FL 33602

GOTTFRIED + GARCIA / ARCHITECTS / A.I.A., P.A.
3333 west kennedy boulevard / tampa, florida

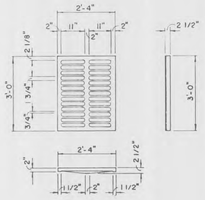
24



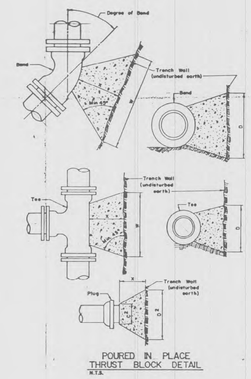
STANDARD CURB INLETS TYPE 1,2&3



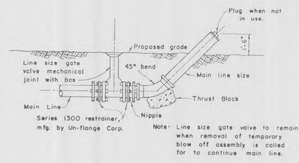
DITCH BOTTOM INLET TYPE C
N.T.S.



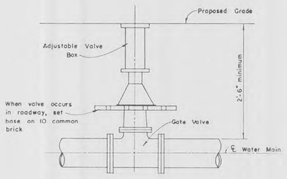
TYPE G
CAST IRON GRATE



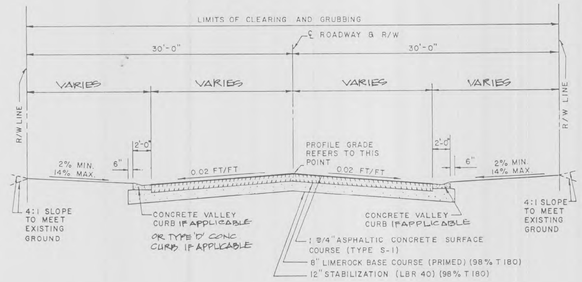
POURED IN PLACE
THRUST BLOCK DETAIL
N.T.S.



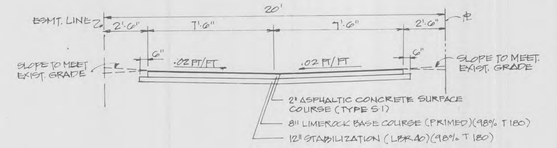
TEMPORARY BLOW-OFF ASSEMBLY
N.T.S.



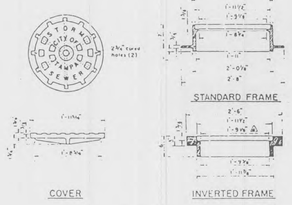
GATE VALVE & BOX
N.T.S.



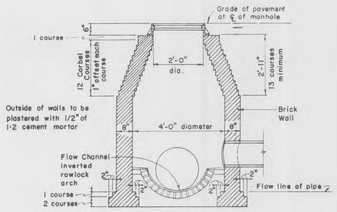
RESIDENTIAL 2 LANE STREET
N.T.S.



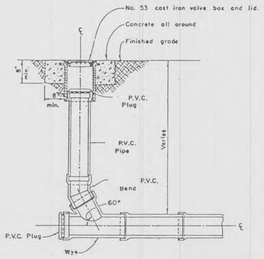
DRIVEWAY IN EASEMENT



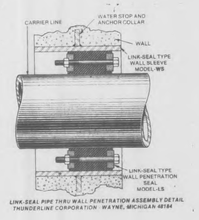
MANHOLE FRAMES AND COVER
TRAFFIC BEARING



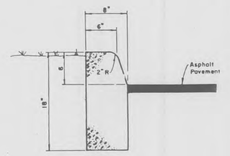
STORM SEWER MANHOLE-TYPE A
N.T.S.



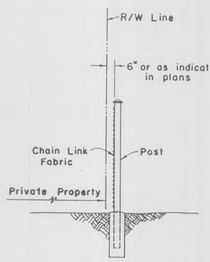
CLEAN-OUT
N.T.S.



LINK-SEAL PIPE THRU WALL PENETRATION ASSEMBLY DETAIL
THUNDERLINE CORPORATION - WAYNE, MICHIGAN 48184

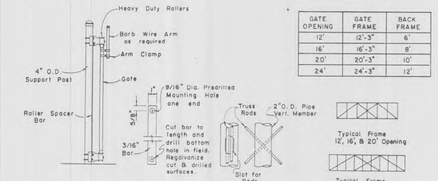


TYPE D
CONCRETE CURB
N.T.S.



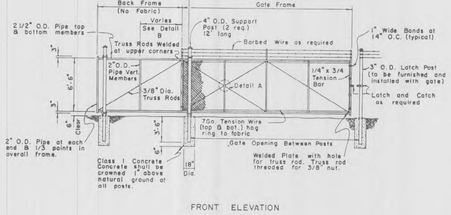
FENCE POSITION AT LOCATIONS
WITHOUT FRONTAGE ROADS
(Refer to detail plans for fence position at locations with frontage roads)

TYPE B FENCE
N.T.S.



GATE OPENING	GATE FRAME	BACK FRAME
12'	12'-3"	6'
16'	16'-3"	8'
20'	20'-3"	10'
24'	24'-3"	12'

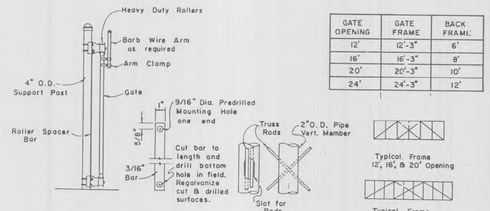
SUPPORT POST DETAIL | ROLLER SPACER BAR | DETAIL A | DETAIL B



FRONT ELEVATION

CANTILEVER SLIDE GATE
N.T.S.

TYPE B FENCE



GATE OPENING	GATE FRAME	BACK FRAME
12'	12'-3"	6'
16'	16'-3"	8'
20'	20'-3"	10'
24'	24'-3"	12'

SUPPORT POST DETAIL | ROLLER SPACER BAR | DETAIL A | DETAIL B

CANTILEVER SLIDE GATE
N.T.S.

TYPE B FENCE

GENERAL SITE NOTES

1. THE CONTRACTOR SHALL PROVIDE FOR MAINTENANCE OF TRAFFIC DURING CONSTRUCTION. TRAFFIC MAINTENANCE PRACTICES AND SIGNAGE SHALL BE IN ACCORDANCE WITH FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE".
2. EROSION/SEDIMENTATION CONTROL:

   THE CONTRACTOR IS TO PROVIDE EROSION CONTROL/SEDIMENTATION BARRIER (HAY BALES OR SILTATION CURTAIN). IF REQUIRED, TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW MULCH OR OTHER SUITABLE MATERIAL ON THE GROUND, AS REQUIRED. IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE, IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFFSITE, EITHER BY NATURAL DRAINAGE OR BY VEHICLE TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR LOCAL AUTHORITIES.

   PRIOR TO BEGINNING THE CLEARING AND GRUBBING OF THE PROPERTY, HAY BALES SHALL BE STAKED TO THE GROUND ALONG THE ALL AROUND THE SITE PROPERTY LINE TO PREVENT STORMWATER FROM WASHING ERODED SOILS FROM THE PROPERTY INTO THE EXISTING STORMWATER SYSTEM.
3. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSION OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING THIS WORK PRIOR TO CONSTRUCTION.
4. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO NOTIFY "SUNSHINE" FORTY-EIGHT (48) HOURS BEFORE DIGGING, BORING, OR ANY OTHER CONSTRUCTION ACTIVITY AT 1-800-282-8881. "UNDERGROUND UTILITY NOTIFICATION CENTER" SO THAT UNDERGROUND UTILITIES MAY BE FIELD LOCATED. SUCH LOCATIONS SHALL BE OBTAINED PRIOR TO STARTING CONSTRUCTION AND SHALL BE MAINTAINED DURING CONSTRUCTION.
5. IN AREAS WHERE FILL MATERIAL IS REQUIRED, THE EXISTING VEGETATION AND ROOTS SHALL BE REMOVED PRIOR TO PLACING ANY FILL MATERIAL. THE FILL SHALL BE PLACED IN LIFTS NO GREATER THAN 12" AS MEASURED LOOSE, AND COMPACTED TO A UNIFORM DENSITY ASTM D698. THE MATERIAL SHALL BE COMPACTED AT A MOISTURE CONTENT PERMITTING THE SPECIFIED COMPACTION. THE FILL SHALL BE TESTED BY AN INDEPENDENT TESTING LABORATORY AND THE RESULTS SUPPLIED TO THE ENGINEER.
6. ALL GRASSED AREAS DISTRIBUTED BY CONTRACTOR SHALL BE SEEDED AND MULCHED.
7. REPAIR AND REPLACEMENT OF ALL PRIVATE AND PUBLIC PROPERTY AFFECTED BY THIS WORK SHALL BE RESTORED TO A CONDITION EQUAL TO OR BETTER THAN EXISTED BEFORE COMMENCING CONSTRUCTION UNLESS SPECIFICALLY EXEMPTED BY THE PLANS. COST TO THE INCIDENTAL TO OTHER CONSTRUCTION OR NO EXTRA COMPENSATION TO BE ALLOWED.
8. CONTRACTOR SHALL SPRINKLE OR OTHERWISE APPLY WATER TO AFFECTED CONSTRUCTION AREA TO CONTROL BOTH SIGNIFICANT WIND EROSION AND FUGITIVE DUST.
9. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS. PORTLAND CEMENT SHALL CONFORM TO ASTM C150. AGGREGATE SHALL CONFORM TO ASTM C33. WIRE FABRIC SHALL CONFORM TO ASTM A185. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-94. SIX INCH MESH, 10 GAUGE WIRE FABRIC SHALL BE USED IN SLABS FOUR INCHES THICK. SIX INCH MESH, 6 GAUGE SHALL BE USED IN SLABS THICKER THAN 4". SURFACES SHALL BE FREE FROM TROWEL OR MACHINE MARKS. SURFACE VARIATIONS SHALL NOT EXCEED 1/4 INCH UNDER A 10 FOOT STRAIGHTEDGE. EDGE OF SLABS SHALL HAVE A SMOOTH FINISH. SIDEWALKS SHALL HAVE A BROOM FINISH.
10. COORDINATION WITH THE TELEPHONE COMPANY SHALL BE DONE WITH GENERAL TELEPHONE COMPANY, P.O. BOX (MC1886), TAMPA, FLORIDA, 33611, (813) 228-4111.
11. ELECTRIC POWER INSTALLATION SHALL BE COORDINATED BY CONTRACTOR WITH TAMPA ELECTRIC COMPANY, P.O. BOX 111, TAMPA, FLORIDA, 33601, (813) 228-4111.
12. THE CONTRACTOR SHALL CONTACT THE ENGINEERS OFFICE IMMEDIATELY ON ANY CONFLICTS ARISING DURING CONSTRUCTION OF ANY IMPROVEMENTS SHOWN ON THESE DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONSULT WITH THE ENGINEER FOR MAKING ANY AND ALL REQUIRED INTERPRETATIONS OF THE PLANS, HOWEVER, THIS IN NO WAY RELIEVES THE CONTRACTOR OF HIS RESPONSIBILITY FOR CONSTRUCTING THE PROJECT TO ACCOMPLISH THE INTENT OF THE PLANS.
13. ALL UNDERGROUND UTILITIES MUST BE INSTALLED AND/OR RELOCATED AS REQUIRED PRIOR TO CONSTRUCTION OF PAVEMENT.
14. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE CITY OF TAMPA, FLORIDA, CODES, ORDINANCES AND REGULATIONS.
15. AS PER FEDERAL FLOOD MAPS, THIS PROPERTY IS LOCATED IN ZONE C, COMMUNITY 120114, PANEL NO. 0014C, DATED SEPTEMBER 3, 1982.
16. WHERE EXISTING PAVEMENT MATCHES NEW PAVEMENT, EXISTING PAVEMENT SHALL BE SAW CUT AT EDGES. NEW CONSTRUCTION TO MATCH EXISTING.

UTILITY NOTES

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE CITY OF TAMPA CONSTRUCTION STANDARDS, LATEST EDITION.
2. A SEPARATION OF 10' HORIZONTALLY AND 18" VERTICALLY MUST BE MAINTAINED BETWEEN WATER AND SANITARY SEWER LINES.
3. WATER SYSTEM CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF TAMPA CONSTRUCTION STANDARDS, LATEST EDITION.
4. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO HE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS, ELEVATIONS AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.
5. ALL NEW WATER AND FIRE LINES SHALL HAVE A MINIMUM OF 3'-0" COVER. THRUST BLOCKING SHALL BE PROVIDED FOR ALL WATER AND FIRE LINES.
6. SANITARY SEWER PIPE SHALL BE PVC CONFORMING TO ASTM D3034, SDR 35.
7. ALL WATER MAINS SHALL BE PVC CONFORMING TO ASTM C-900, 200 PSI PIPE WITH PUSH ON "O" RING JOINT UNLESS OTHERWISE NOTED.
8. ALL SEWER LATERALS TO BE CONNECTED TO SEWER MAIN BY 4" WYE CONNECTION. ALL WERE LATERALS SHALL BE 4" PVC UNLESS OTHERWISE APPROVED BY ENGINEER.
9. ALL WATER SERVICE CONNECTIONS SHALL BE 3/4" UNLESS OTHERWISE APPROVED BY ENGINEER.
10. MINIMUM 95% DENSITY OF MODIFIED PROCTOR (ASTM 1557) SUBGRADE ELEVATION ABOVE ALL PIPE CROSSING OF ROAD.
11. ANY WATER OR SANITARY SEWER PIPE HAVING LESS THAN 36" OF COVER WHICH MUST SUPPORT VEHICLE WEIGHT, SHALL BE CAST IRON PIPE, DUCTILE IRON PIPE, CONCRETE ENCASED VITRIFIED CLAY PIPE, SCHEDULE 80 PVC OR C-900 PVC.
12. CONTRACTOR SHALL CONTROL RUNOFF AND EROSION DURING CONSTRUCTION THROUGH THE USE OF SEDIMENT BASINS, STRAW OR HAY BALES AS APPROPRIATE.
13. CONTRACTOR SHALL SPRINKLE OR OTHERWISE MANUALLY APPLY WATER TO AFFECTED CONSTRUCTION AREA TO CONTROL BOTH SIGNIFICANT WIND EROSION AND FUGITIVE DUST.

NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BOX

INVESTIGATE BEFORE YOU EXCAVATE
"CALL CANDY"
1-800-282-8881 (813)
IT STATES AT LEAST TWO FULL WORKING DAYS (48 HOURS) MIN. IF DAYS AND MAY INCLUDE WEEKENDS OR HOLIDAYS, NOTICE BEFORE YOU EXCAVATE

5-21-90

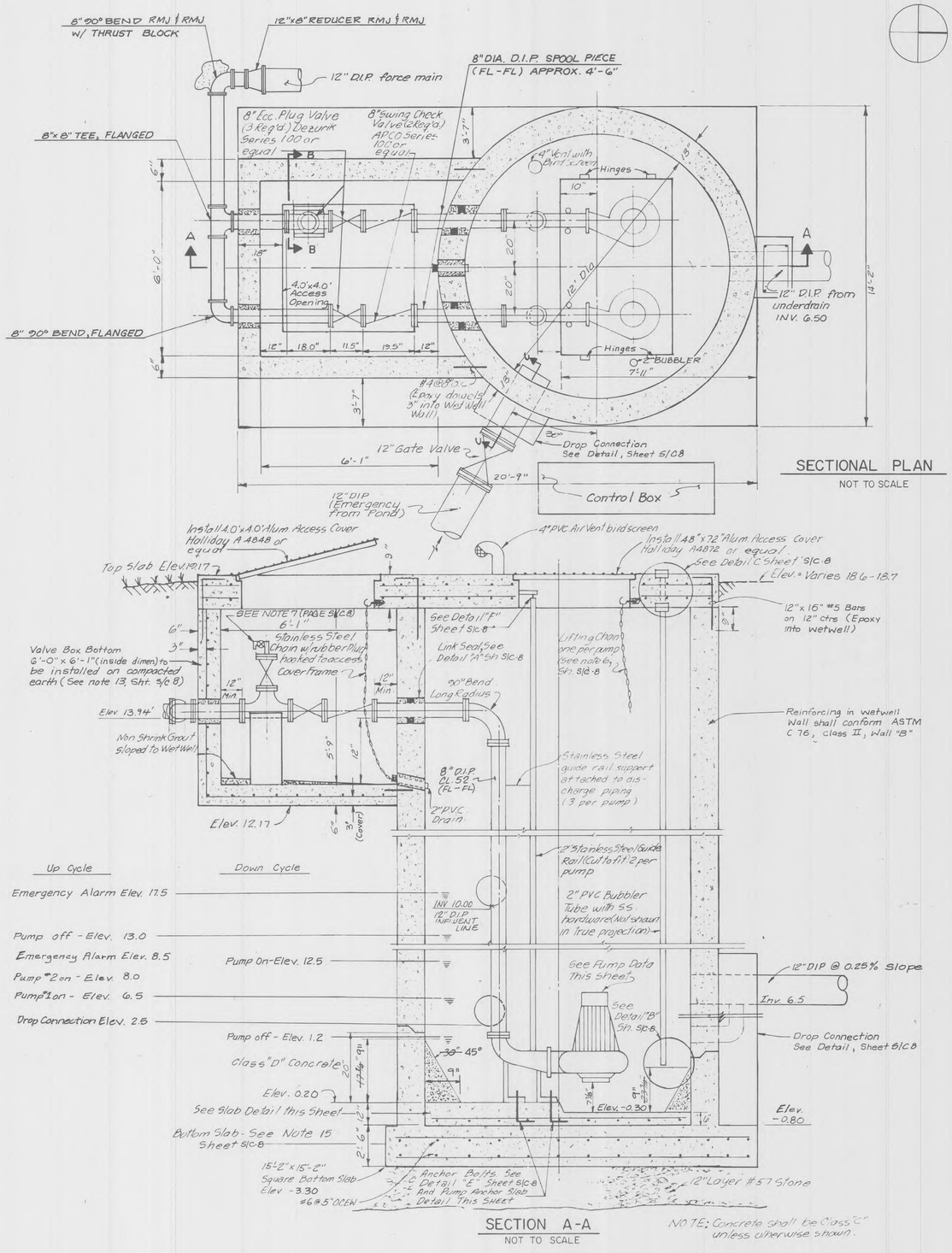
SCC 6

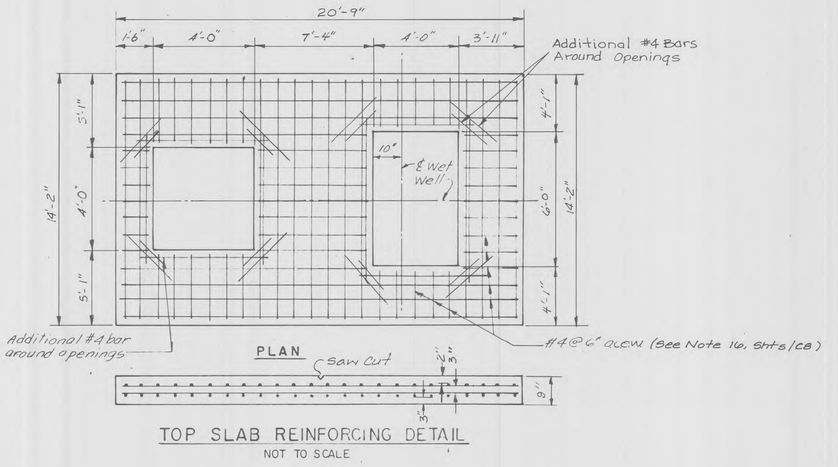
Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602

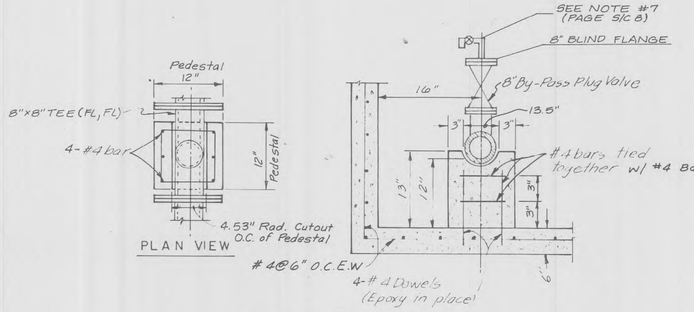
△ 4-30-90 Record Drawings

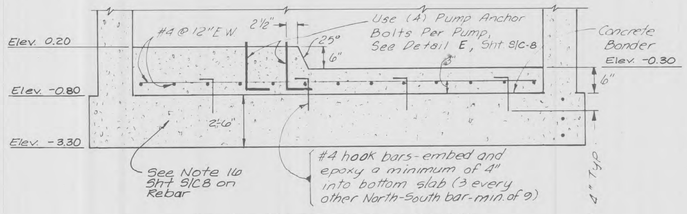
RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND STRUCTURES AND APPURTENANCES, AND VERTICAL LOCATION OF STORM AND SANITARY SEWER STRUCTURES AS SHOWN BY INVERTS. RECORD DIMENSION IS SHOWN EITHER BY CROSSING OUT PLAN DIMENSION OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.

GOTTFRIED + GARCIA / ARCHITECTS / A.I.A., P.A.
3333 west kennedy boulevard / tampa, florida









PUMP DATA
Install KSB (2) ERTU K or equal 200-315
280 mm Discharge Impeller No. 17 HP 1160 RPM 3 Ø, 230/460 Volts
1600 G.P.M. @ 26 T.D.H. 68% Efficiency

CALL CANDY 1-800-282-8881 48 HOURS BEFORE DIGGING

NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BOX.

RECEIVED MAY 1990 Southwest Florida Water Management District Tampa

5-4-90

REVISIONS 8-3-89

△ 430-9 Record Drawings

RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS OF ABOVE GROUND STRUCTURES AND APPURTENANCES, AND VERTICAL LOCATION OF STORM AND SANITARY SEWER STRUCTURES AS SHOWN BY INVERTS. EACH DIMENSION IS SHOWN EITHER BY CROSSING OUT PLAN DIMENSION OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.

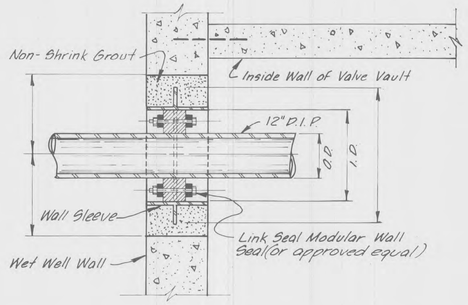
Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602

GOTTFRIED + GARCIA / ARCHITECTS / AIA, P.A.
3333 west kennedy boulevard / tampa, florida

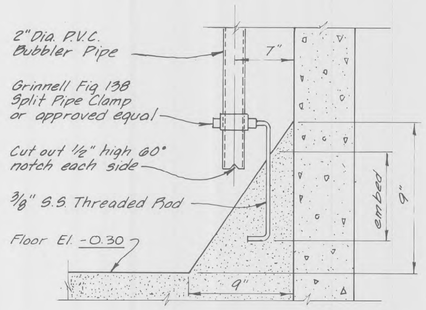
S/C-7

23

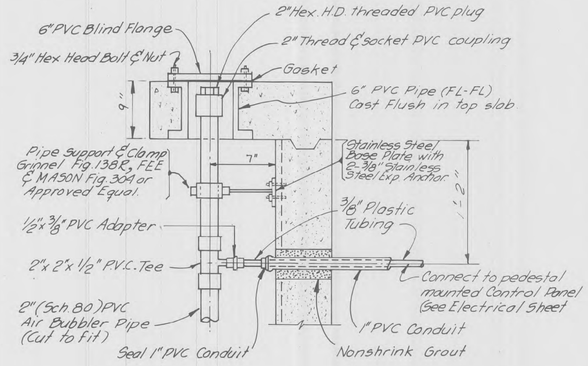
ZZZ 2087.01



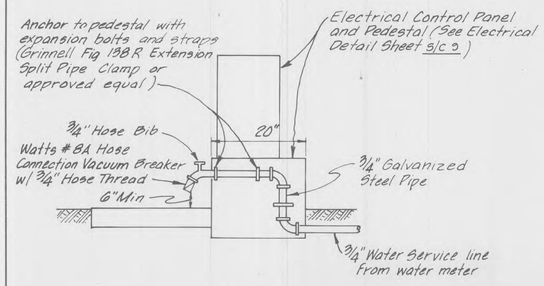
VALVE VAULT DETAIL A
NOT TO SCALE



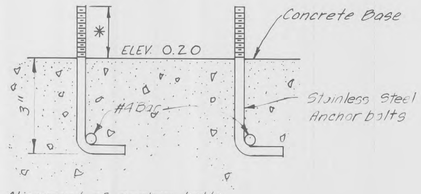
DETAIL B
NOT TO SCALE



DETAIL C
NOT TO SCALE

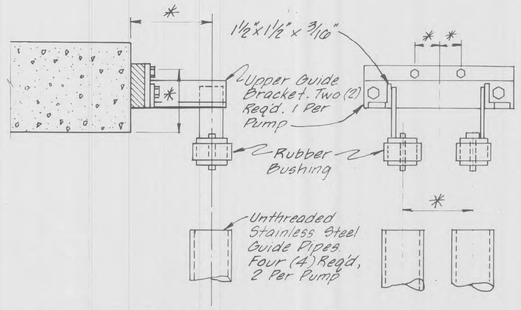


WATER SERVICE RISER, DETAIL D
NOT TO SCALE



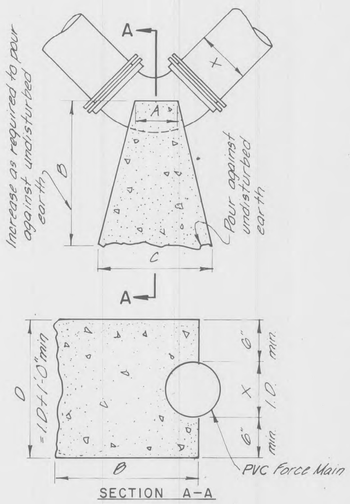
Alignment of anchor bolts shall be as recommended by pump manufacturer.

ANCHOR BOLT DETAIL E
NOT TO SCALE



* Per Pump Manufacturer's Recommendation

GUIDE BRACKET DETAIL F (SUPPLIED WITH PUMPS)
NOT TO SCALE

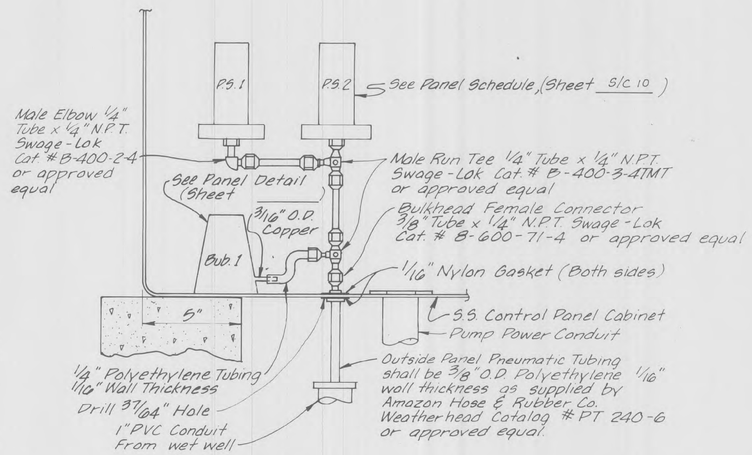


SECTION A-A

SCHEDULE

BLOCKING DIMENSIONS				
X	A	B	C	D
90° Bend				
12"	10"	2'-6"	3'-6"	2'-3"
10"	10"	2'-0"	3'-0"	2'-0"
8"	8"	2'-0"	2'-0"	2'-0"
6"	6"	1'-6"	1'-6"	1'-6"
4"	4"	1'-4"	1'-4"	1'-4"
45° Bend				
12"	8"	2'-0"	2'-3"	2'-3"
10"	6"	1'-9"	1'-6"	2'-0"
8"	5"	1'-9"	1'-3"	1'-9"
6"	4"	1'-6"	1'-3"	1'-6"
4"	3"	1'-4"	1'-0"	1'-4"
22 1/2° Bend				
12"	6"	2'-0"	1'-6"	2'-0"
10"	6"	1'-6"	1'-0"	2'-0"
8"	4"	1'-6"	1'-0"	1'-8"
6"	4"	1'-6"	10"	1'-6"
11 1/4° Bend				
12"	8"	2'-0"	1'-0"	2'-0"
10"	6"	2'-0"	6"	1'-10"
8"	3"	2'-0"	9"	1'-8"
6"	6"	1'-6"	6"	1'-6"

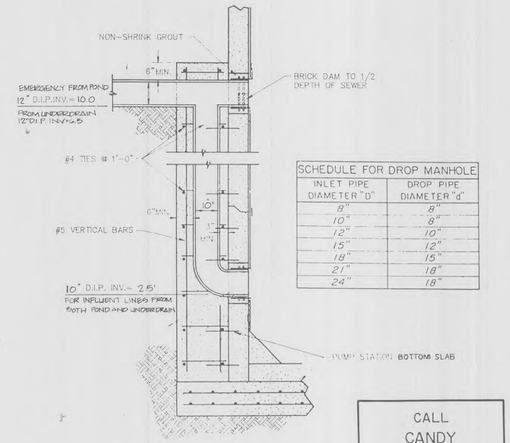
FORCE MAIN THRUST BLOCKING DETAIL G
NOT TO SCALE



BUBBLER PIPE FITTINGS DETAIL H
NOT TO SCALE

GENERAL NOTES

1. ALL SHOWN DIMENSIONS ARE APPROXIMATE. TRUE DIMENSIONS SHOULD BE DETERMINED IN THE FIELD.
2. FORCE MAIN FITTINGS SHALL BE THRUST BLOCKED OR USE R.M.J.
3. FORCE MAIN PIPE SHALL BE DIP CLASS 50
4. FILL ALL OPENINGS AROUND PIPES WITH NON-SHRINK GROUT EXCEPT WHERE OTHERWISE SPECIFIED.
5. BOLTS, WASHERS, NUTS, SCREWS, HINGES, ETC., SHALL BE STAINLESS STEEL TYPE 316 UNLESS OTHERWISE SPECIFIED OR APPROVED BY ENGINEER.
6. STAINLESS STEEL, TYPE 304, WELDED LINK CHAIN WITH A 1240# (PUMP WT x 1.5) LIFTING CAPACITY
7. DRILL AND TAP BY-PASS PLUG VALVE BLIND FLANGE, INSTALL 3/4" BRASS VALVE AND PIPE DOWNWARD TO VALVE VAULT FLOOR.
8. ECCENTRIC PLUG VALVES SHALL BE DEZURIK SERIES 100, OR APPROVED EQUAL.
9. CHECK VALVES SHALL BE APCO SERIES 100, OR APPROVED EQUAL.
10. ALL PIPE, FITTINGS, SUPPORTS, VALVES, ETC. SHALL RECEIVE THE FOLLOWING SYSTEM COATING:
    a) SHOP COAT - ONE, 1.5 MILS, MDFT SIKAGARD #62 (THINNED 10-15%)
    b) FIELD COAT - TWO COATS, 10 MILS, MDFT EACH SIKAGARD #62 NO. 300 M, OR APPROVED EQUAL.
11. VALVE VAULT AND WET WELL ACCESS COVERS SHALL BE ALUMINUM WITH STAINLESS STEEL HARDWARE AND SHALL WITHSTAND A LIVE LOAD OF 150 PSF. CONTRACTOR TO SUBMIT SHOP DRAWINGS DETAILING INSTALLATION.
12. ALL STEEL REINFORCING SHALL BE DETAILED ACCORDING TO THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI STANDARD 315-65. THE ACTUAL PLACEMENT OF STEEL REINFORCING SHALL BE SHOWN ON SHOP DRAWINGS. ALL LAPS AND SPLICES SHALL BE AT LEAST 32 BAR DIAMETERS OR 24 INCHES.
13. BACKFILL SHALL BE COMPACTED IN 8 INCH LAYERS TO 95% OF THE MAXIMUM DRY DENSITY IN CONFORMANCE WITH AASHTO T-180, METHOD A.
14. THE EXTERIOR OF EACH WET WELL SHALL BE PAINTED WITH TWO (2) COATS OF KOPPERS "BITUMASTIC 300-M" OR AN APPROVED EQUAL, APPLIED IN ACCORDANCE WITH MANUFACTURERS DIRECTIONS.
15. BOTTOM SLAB AND FIRST BARREL TO BE MONOLITHICALLY POURED AS ONE INTEGRAL PART / COMPONENT.
16. REINFORCING IN THE WET PIT BASE AND BASE AND TOP SLABS SHALL BE AS SHOWN ON THE PLANS. REINFORCING SHALL COMPLY WITH ASTM C 478 EXCEPT THAT REINFORCING SHALL CONSIST ONLY OF BARS MEETING THE REQUIREMENTS OF ASTM A 615 GRADE 60.



SCHEDULE FOR DROP MANHOLE	
INLET PIPE DIAMETER "D"	DROP PIPE DIAMETER "d"
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
21"	18"
24"	18"

DROP CONNECTION TO PUMP STATION
SECTION C-C
N.T.S.

CALL CANDY 1-800-282-8811 48 HOURS BEFORE DIGGING

NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BOX.

5-21-90

RECEIVED MAY 24 1990 RRD - TAMPA

SWFWMD

SC 8

24

Wade-Trim
Engineering Landscape Architecture
Planning Environmental Sciences
201 E. Kennedy Blvd. Suite 334 Tampa, FL 33602

GOTTFRIED + GARCIA / ARCHITECTS / A.I.A. P.A.
3333 west kennedy boulevard / tampa, florida

△ 4-30-90 Record Drawings

RECORD DRAWINGS BASED ON ACTUAL FIELD MEASUREMENTS VERIFICATION OF EQUIPMENT, STRUCTURES AND APPURTENANCES, AND STRUCTURES AS SHOWN BY INVERTS. RECORD DIMENSION IS SHOWN EITHER BY CROSSING OUT PLAN DIMENSION OR CHECK MARK BY PLAN DIMENSION IF NOT CHANGED.

ZZZ2807.01

P.3 Swann Pond ERP Documentation

THIS CONTRACT PLAN SET INCLUDES:

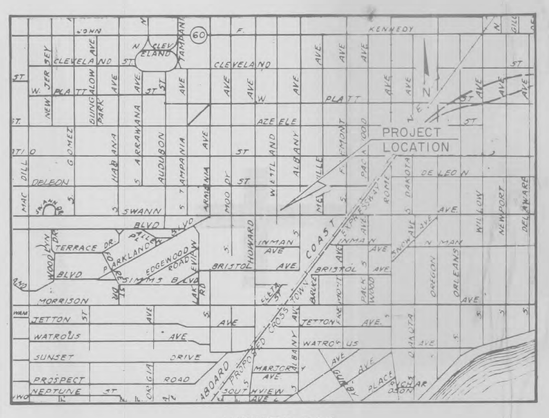
ROADWAY PLANS
SANITARY SEWER CONSTRUCTION PLANS
UTILITY ADJUSTMENT PLANS
~~SIGNING AND PAVEMENT MARKING PLANS~~
~~SIGNALIZATION PLANS~~
MAINTENANCE OF TRAFFIC PLANS

CITY OF TAMPA

ROADWAY AND DRAINAGE IMPROVEMENTS

SWANN AVENUE

ARMENIA AVENUE TO PACKWOOD AVENUE



VICINITY MAP
Scale 1"= 1000'

INDEX OF SHEETS

Sheet No.	Description
1	Cover Sheet and Vicinity Map
2	General Notes and Legend
3	Drainage Map
4	Typical Sections
5	Special Pond Details
6	Summary of Quantities
7	Summary of Drainage Structures
8-14	Plan and Profile
15	Existing Pond Modification Plan
16	Soil Borings
17-35	Cross Sections
36-43	Sanitary Sewer Construction Plans
44-48	Utility Adjustment Plans
49-50	Maintenance of Traffic Plan

APPLICABLE CITY STANDARD DRAWINGS

DPW D-2	STANDARD INLET TYPES 1,2,3,D,E,& H
DPW D-4	STANDARD CURB INLETS TYPES B-S-1, B-V-1, B-R-1, & B-R-2
DPW D-8	MODIFIED GRATE INLETS AND TRAFFIC BEARING MANHOLE FRAME AND COVER
DPW D-13	MISCELLANEOUS DRAINAGE DETAILS
DPW P-3	CURB AND GUTTER JOINT DETAILS
DPW P-4	DRIVEWAY DETAILS

APPLICABLE F.D.O.T. STANDARDS (1988)

102	BALED HAY OR STRAW BARRIERS AND SILT FENCES
200	STRUCTURE BOTTOMS TYPES J AND P
201	SUPPLIMENTARY DETAILS FOR MANHOLES AND INLETS
250	STRAIGHT CONCRETE ENDWALLS
280	**MISCELLANEOUS DRAINAGE DETAILS**
282	BACK OF SIDEWALK DRAINAGE

FILE No. A-2-73

JOB No. 6895

THIS FILE DOES NOT CONTAIN EXEMPT INFO

Southwest Florida Water Management District
RECEIVED
JUN 2 9 1992
TAMPA
Permitting Dept.

Department of Public Works
City of Tampa, Florida

PREPARED BY:
FLD&E
Florida Land Design & Engineering, Inc.
planning / engineering / landscape architecture / surveying
one north dale mabry suite seven hundred tampa, florida 33609 tampa (813) 875-1115 pinellas (813) 443-6827

AS-BUILT PLANS PREPARED FROM COMPLETED CONSTRUCTION INFORMATION SUBMITTED BY CONSTRUCTION ENGINEER AND REVIEWED FOR CONFORMATION OF GENERAL SITE CONDITIONS

Project Engineer_____ Date_____
Construction Engineer_____ Date_____

Jerry A. Dabkowski
JERRY A. DABKOWSKI, P.E.
REG. No. 34810

8-7-89
DATE

APPROVED BY THE CITY OF TAMPA

_____
Transportation Manager

DATE

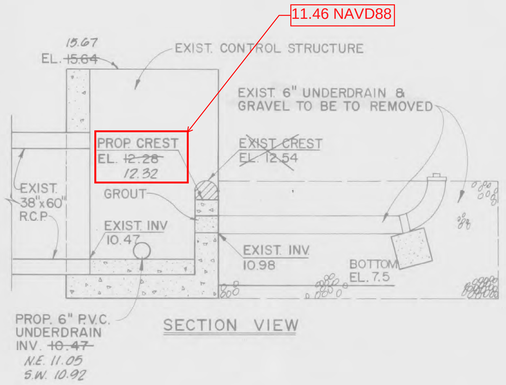
Not Sealed

402417.01

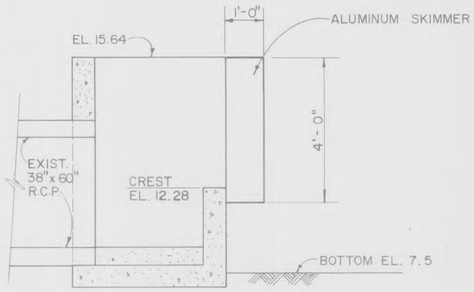
Imaged As Is

1

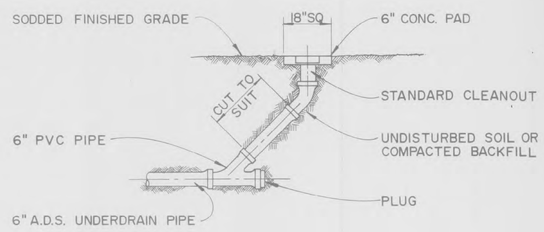
173
6



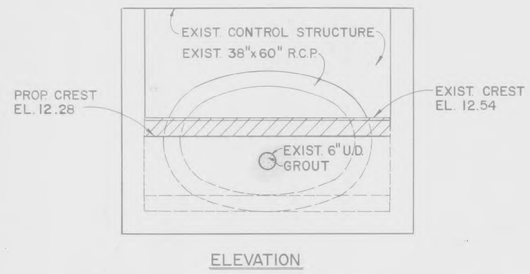
SECTION VIEW



SECTION 'A-A'

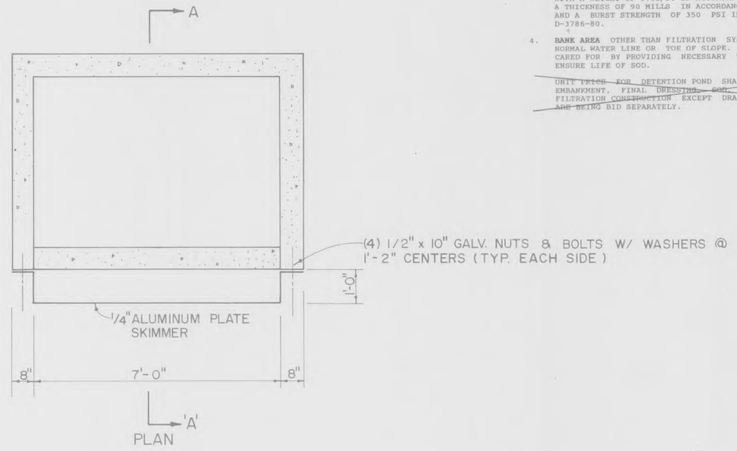


UNDERDRAIN CLEANOUT DETAIL



ELEVATION

CONTROL STRUCTURE MODIFICATION



PLAN

SKIMMER DETAIL

SIDE DRAIN FILTER NOTES

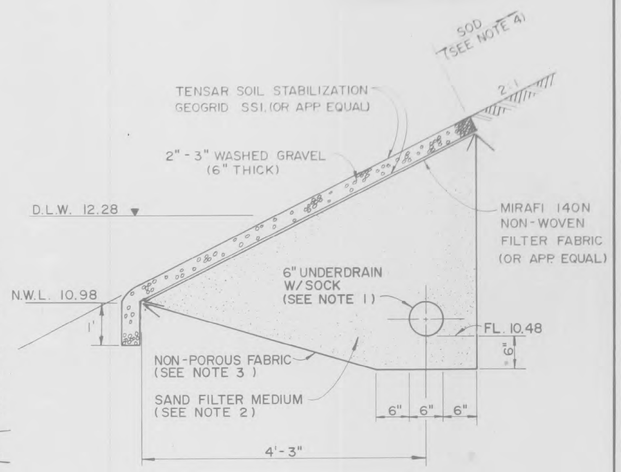
1. **DRAIN PIPE** SHALL BE 6" DIAMETER CORRUGATED POLYETHYLENE PIPE AS MANUFACTURED BY A.D.S. OR APPROVED EQUAL. PIPE SHALL BE PERFORATED IN ACCORDANCE WITH ASTM F-405 AND ASTM F-667. PIPE SHALL BE WRAPPED WITH A HEAVY DUTY POLYESTER FILTER ENVELOPE (ADS SOCK) WITH A WEIGHT OF 2.5 TO 3.5 OZ/SY IN THE ACCORDANCE WITH ASTM D1910 AND D231. CLEANOUTS SHALL BE PROVIDED AT 100' O.C.

2. **SAND FILTER MEDIUM** SHALL BE SILICA SAND PER F.D.O.T. INDEX NO. 266 OF THE ROADWAY AND TRAFFIC DESIGN STANDARDS WITH REFERENCE TO SECTION 902-4 OF THE STANDARD SPECIFICATIONS, OR APPROVED EQUAL.

3. **NON-POUROUS FABRIC** SHALL BE MIRAFI 1R OR ON APPROVED EQUAL WITH A WEIGHT OF 9.0Z/SY IN ACCORDANCE WITH ASTM D-3776-79, A THICKNESS OF 90 MILLS IN ACCORDANCE WITH ASTM D-1777-64, AND A BURST STRENGTH OF 350 PSI IN ACCORDANCE WITH ASTM D-3786-80.

4. **BANK AREA** OTHER THAN FILTRATION SYSTEM SHALL BE SODDED TO NORMAL WATER LINE OR TOE OF SLOPE. SOD SHALL BE PROPERLY CARED FOR BY PROVIDING NECESSARY WATER AND NUTRIENTS TO ENSURE LIFE OF SOD.

UNIT PRICE FOR DETENTION POND SHALL INCLUDE EXCAVATION, EMBANKMENT, FINAL DRESSING, SOD, SEEDING AND MULCHING, FILTRATION CONSTRUCTION EXCEPT DRAINAGE STRUCTURES WHICH ARE BEING BID SEPARATELY.



POND UNDERDRAIN DETAIL

N.T.S.

AS-BUILT

REVIEWED BY _____ DATE _____

Southwest Florida Water Management District RECEIVED JUN 29 1993 TAMPA Permitting Dept.

CONTROL STRUCTURE MODIFICATION DETAILS

S-43

Not Sealed

FLD&E Florida Land Design & Engineering, Inc.

planning / engineering / landscape architecture / surveying

No.	Date	REVISION	By

SPECIAL POND DETAILS

PUBLIC WORKS DEPARTMENT

CITY OF TAMPA, FLORIDA

Imaged As Is

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Designed: APF	Date: 5/88	Drawn: CLC	Date: 5/88	Checked:	Date:		
Reviewed:	Date:	Approved:	Date:	Scale:			
Field Book:							
FILE No. A-2-73		JOB No. 6895		SHEET 5	of 50		

AF 12087

SWANN AVE.

ARMENIA AVE.

MOODY AVE.

PARKLAND BLVD.

BEGIN CONSTRUCTION STA. 0+25.00

T29S-R18E

Scale 1"= 20'

T.B.M. #1 Elev. 19.71
Cut on ℄ Pace 10' Conc. A/W to St. John Greek Orthodox Church S.E. Cor. Armenia Ave. & Swann Ave.

STA. 6+00

MATCH LINE

1 - Sty Masonry Bldg.

Asph. Lot

P.K. Nail (Control)

Exist. 24'± Asph. Pav't

Exist. 6" Conc. Curb

Exist. 15'± Asph. Pav't

Exist. 6" Conc. Curb & Gutter

Exist. 16'± Asph. Pav't

Exist. 6" Conc. Curb

Exist. 36" R.C.P. TO REMAIN

Exist. 15" R.C.P. (TO REMAIN)

Exist. 36" R.C.P. (TO REMAIN)

Exist. 21" R.C.P. (TO REMAIN)

Exist. 15" R.C.P. (TO REMAIN)

Exist. 8" V.C.P. San.

Exist. 8" Water

Exist. 2" Gas

Exist. Telephone

Exist. 6" Chain Link Fence

Exist. 2" Conc. Curb

Exist. 24" R.C.P.

Exist. 15" R.C.P.

Exist. 8" V.C.P. San.

Exist. Manhole

Exist. 12" Asph. Pav't

Exist. 2" Gas

Exist. 8" Water

Exist. Telephone

Exist. 8" Water

Exist. 6" Conc. Curb & Gutter

Exist. 6" Water

Exist. 8" V.C.P. San.

Exist. 8" Water

Exist. 2" Gas

Exist. 6" Conc. Curb

Exist. 2" Gas

Exist. 8" Water

Exist. Telephone

Exist. 20'± Asph. Pav't

Exist. 8" Water

Exist. Telephone

CONST. 5' CONC. S/W

CONST. 15" OF 24" R.C.P.

CONST. 270' OF 24" x 38" R.C.P.

CONST. 370 CONC. CURB & GUTTER

CONST. CONC. D/W

CONST. CONC. G/W

CONST. 55' OF 15" R.C.P.

CONST. 38' OF 18" R.C.P.

CONST. 30' OF 15" R.C.P.

CONST. 240' OF 34"x53" R.C.P.

CONST. CONC. D/W

CONST. 5' CONC. S/W

CONST. 5' CONC. S/W

CONST. CONC. D/W

PROP. 8" SAN.

PROP. 8" SAN.

Survey ℄

Storm M.H. (TO REMAIN)

Storm M.H.

San. M.H.

San. Sew. H.C.

Conc. Inlet

Conc. Man

Conc. Drive

Guy Pole

Bushes

Trees

18 Oak

20 Oak

30" Oak

Conc. C/W

Conc. A/W

22' Asph. D/W

4' Asph. D/W

2' Asph. D/W

4' Asph. Curb

2' Asph. Curb

6" San. H.C.

6" San. H.C.

6" San. H.C.

6" San. H.C.

1/2" I.P.

1" I.P.

L.P.

℄ Exist. 6" Water

℄ Exist. 6" Water

℄ Exist. 8" Water

℄ Exist. 6" Water

℄ Exist. 8" Water

℄ Exist. 6" Water

℄ Exist. 8

A.F. 12087

(18) STA. 4+55 (LT.) (@ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 15.73 15.68

(19) STA. 4+55 (RT.) (@ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 14.00 14.25

(29) STA. 10+62 (LT.)
CONST. INLET TYPE B-R-2
F.L. 14.31 14.25

(28) STA. 11+38 (LT.) 11+30, 20' LT.
CONST. INLET TYPE B-R-1
F.L. 14.50 14.67

MATCH LINE — STA. 5+00

SWANN AVE.

STA. 6+00

(20) STA. 4+55 (@ HOWARD AVE.) / (18' LT.)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 16" (W) 15.71
INV. 15" (E) 13.86
F.L. 13.31

+80 @ 20' D/W

Asph. Lot

CONST. 6' OF 15" R.C.P.

PROP. R/W LINE

(15) STA. 6+50 (LT.)
CONST. INLET TYPE B-V-1
F.L. 15.60 15.60

BEGIN PVM'T. TRANS. (LT.) +53.64

+80 @ 25' D/W

CONST. 48' OF 36" R.C.P.

CONST. 5' CONC. S/W

Exist. Telephone

6' Chain Link Fence

Exist. 8" R.C.P.

Exist. 6" Conc. Curb

94" x 58" R.C.P.

CONST. 35' OF 34" x 53" R.C.P.

Exist. Grate Inlet

Exist 15" R.C.P.

Exist. 24" Asph. Pav't.

PROF. & GRADE

Exist. 6" Conc. Curb

Exist. 24" R.C.P.

Storm M.H.

Exist. 6" Gas

Conc. Plate

Exist. 8" Water

Conc. D/W

Conc. Blds.

3.5' Wooden Planter

CONST. 5' CONC. S/W

25' CONST. 20' OF 15" RCP

(24) STA. 3+45 (LT) (@ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 15.75
INV. 15" (W) 15.75 15.40

(26) STA. 3+75 (8' LT) (@ HOWARD AVE.)
CONST. M.H. TYPE F-7T
(ALT. "B")
INV. 15" (W) 15.72 15.38
INV. 18" (E) 13.83 13.33
F.L. 13.24 13.33

(27) STA. 7+45 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 30" (S) 18.72 13.27
INV. 36" (N) 13.21 13.27
F.L. 13.08 13.27

Exist 12" R.C.P. (To Remain)

INV. 14.62
16.50 14.40

CONST. 15' OF 15" R.C.P.

HOWARD

PROP. R/W

CONST. 5' CONC. S/W

Exist. 6" Granite Curb

Exist. 6" Granite Curb

Survey ℄ "B"

℄ PROFILE GRADE

Exist. 6" Granite Curb

30" R.C.P.

CONST. 68' OF 30" R.C.P.

Exist. 12" Brick Pav't.

Exist. 35' Brick Pav't.

PROFILE GRADE

Exist. 6" Granite Curb

Exist. 6" Conc. Curb

Exist. 15" R.C.P.

Exist. Grate Inlet

Exist. 18" R.C.P.

Exist. 6" Conc. Curb

Exist. 6" Conc. Curb

Exist. 6" Conc. Curb

AF 12087

SWANN AVE

ALBANY AVE

MELVILLE AVE

60' R/W

50' R/W

Scale 1" = 20'

STA. 12+00

STA. 18+00

MATCH LINE

MATCH LINE

SAW-CUT 2

5.65'

18'

18'

60' R/W

8' Palm

8' Palm

Exist. 39" Conc. S/W

Asphalt Drive

San M.H.

8" San Sewer

8" Exist. Water

G.T.E. U.G.

Exist. 6" Conc. Curb

16" Oak

12" Oak

Exist. Telephone

+82.76

+39.10

18.66'

17.91'

+39.41

25' R

T

25' R

1 High Conc. Curb

1 High Conc. Curb

5' Conc. S/W

Exist. 6" Conc. Curb

Asphalt D/W

Exist. 12"

Planters

Planters

Conc. Port

Tree

Exist. Telephone

+43.33

+43.50

Planters

+42.64

25' R

+97.00

397'

CONST. 395' OF 43"x 68" R.C.P.

89°27'40"

(33)

13

14

15

16

17

(34)

CONST. 335' OF 43"x 68" R.C.P.

285'

89°27'40"

Exist. 6" Water

CONST. STD. CONC. CURB & GUTTER

Exist 40'± Asphalt Pav't

CONST. STD. CONC. CURB & GUTTER

Exist. 8" Water

San. M.H.

Abandoned 8" San.

Exist. 6" Conc. Curb

5.5' Asphalt S/W

5' Asphalt S/W

5' CL. Fence

5' CL. Fence

Asphalt Drive

Conc. Drive

Conc. Drive

Conc. Drive

60" Oak

4 Trees

4 Trees

6' CL Fence

15' Palm

Asphalt Parking

+86.00

+42.62

+43.35

25' R

+64.00

Exist. Telephone

(33) STA. 14+25 (5' LT)
CONST. M.H. TYPE J-7T
(3.5'x3'I.D.)
F.L. 12.49 12.32

17+13

(34) STA. 17+60 (5' LT)
CONST. M.H. TYPE J-7T
(3.5'x3'I.D.)
F.L. 12.06 11.89

0 10 20 40 60
Scale

@ San M.H.

@ STORM M.H. #33

+50 PKI (NO VC)
EL. 21.60

@ Abandoned M.H.
@ STORM M.H. #34

@ STORM M.H. #35

PROFILE GRADE LINE

+0.33%

(-) 0.2727%

Survey Line Profile

20.77

20.65

10" Water

8" Water

8" Water

8" Water

8" Water

8" Water

8" Water

6" Water

8" Water

2-8" San Sewer

Abandoned 8" San Sewer

43"x 68" R.C.P.
@ (-) 0.10%

43"x 68" R.C.P.
@ (-) 0.10%

+60.5

+25
12.40

+0.13

18+00

17+00

12+00

13+00

14+00

15+00

16+00

AS-BUILT

REVIEWED BY_____ DATE_____

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

No.	Date	REVISION	By

Received Public Works Department Date RECEIVED 12-9-052 Permit Desk

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Not Sealed

Imaged As Is

Designed: A.P.F. Date:	Drawn: Date:	Checked: Date:
Reviewed: Date:	Approved: Date:	Scale:
FIELD BOOK:		
FILE No. A-2-73	JOB No. 6895	SHEET 10 of 50

5

AF 12087

SWANN AVE

FREMONT AVE.

Scale 1"=20'

60' R/W

X-Town Ret. Wall

Existing Landscaped Area (Heavy Vegetation)

REMOVE EXIST. 30" R.C.P.

42'

CONST. 42' OF 43"x68" R.C.P.

STA. 23+00

MATCH LINE

60' R/W

STA. 18+00

Exist. Telephone

Asphalt S/W

Exist. Telephone

Exist. 6" Conc. Curb

Exist. Telephone

Dirt S/W

I.P. (Fd)

Exist. 2" Water

Storm M.H.

Exist. 36" R.C.P. (To Remain)

15"x30" R.C.P.

18" R.C.P.

Grate Inlet

PLUG & ABANDON 24" R.C.P.

Exist. Grate Inlet (To Remain)

Exist. 30" R.C.P. (To Remain)

Palm

Exist. Telephone

Conc. S/W

REPLACE S/W AS REQ'D

Exist. 6" Conc. Curb & Gutter

Exist. Tel

CONST. 45' OF 43"x68" R.C.P.

Exist. 18" R.C.P. (To Remain)

CONST. STD. CONC. CURB & GUTTER

379' 376'

CONST. OF 43"x68" R.C.P.

Exist. 18" R.C.P. (To Remain)

2.58 +6.08

89°23'00"

184°58'00"

19

20

21

22

SURVEY ℄

Exist. 18" R.C.P. (To Remain)

15' OF 24" R.C.P.

REMOVE 30' OF 24" R.C.P.

CONST. 50' OF 96" STEEL CASING

CONST. 162' 170.5' OF 43"x68" R.C.P.

CONST. STD. CONC. CURB & GUTTER

Exist. 8" Water

Abandoned San. M.H.

Abandoned 8" San.

Exist. 6" Conc. Curb

5' Asph. S/W

5' Conc. S/W

1/6 Steel Casing

Exist. 8" Water

W.M.

5' CL. Fence

I.R. (Fd)

Exist. 24" R.C.P. (To Remain)

4' Conc. Headwall

Conc. Ditch

123.80

Exist. 6" Conc. Curb & Gutter

Exist. Endwall (To Remain)

5' Conc. S/W

Exist. 18" C.M.P. (To Remain)

18" C.M.P.

Conc. Ditch Flr.

END PAVEMENT CONSTRUCTION BEGIN RESURFACING STA. 20+00

STA. 19+94± (LT & RT) END CURB & GUTTER MATCH EXIST. INLETS

60' R.R. R/W

END PAVEMENT CONSTRUCTION STA. 23+00

(35A) STA 91+83, 3' LT.
J-7T MH
F.L. 11.03 (E & W)
F.L. 14.55 (S)

(35B) STA 91+86, 11' ET
J-7T MH
F.L. 15.71 (S.W.)
F.L. 16.03 (N.)

(35) STA 20+96 (5' LT)
CONST. M.H. TYPE J-7T
(3.5'x 12' I.D.)
F.L. EXIST. 24" 15.35 (THRU-M.H.)
F.L. ~~15.78~~

(36) STA 22+58 (5' LT.)
CONST. M.H. TYPE J-7T
(7' X 7' I.D.)
F.L. 11.57 11.53

(37) STA. 22+58 (50' LT.)
CONST. M.H. TYPE J-7T
(7' X 7' I.D.)
F.L. EXIST. 30" 13.60 13.57
F.L. 11.53 11.30

0 10 20 40 60
Scale

Abandoned San. M.H.

END PAVEMENT CONST. BEGIN RESURFACING STA. 20+00

PROFILE GRADE LINE

Survey Line Profile

(-) 0.2727%

80.05

8" Water

18" R.C.P.

8" Water

Abandoned 8" San.

43"x 68" R.C.P. @ (-) 0.10%

PVI (NGVD) EL. 20.10

+00

+37.10

+26

+76

+78

+75

+07

+21

+88

+85

+58

+82

11.49

Exist. 24" R.C.P.

18" R.C.P.

8" Water

19"x30"

36" R.C.P.

43"x 68" R.C.P. @ (-) 0.10%

96" STEEL CASING

50' OF CL. V R.C.P.

30" R.C.P.

18" C.M.P.

18" C.M.P.

18" R.C.P.

Top of Rail El. 21.04

FL. 43"x68" 11.49

FL. EXIST. 24" 15.35

FL. 43"x68" 11.57

18+00

19+00

20+00

21+00

22+00

23+00

22

20

18

16

14

12

10

8

6

AS-BUILT

REVIEWED BY_____ DATE_____

Approved Public Water Mains Are Dedicated

RECEIVED

JUN 2 9 1982

TAMPA Permitting Dept.

SWANN AVE.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Not Sealed

Imaged As Is

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

No.	Date	REVISION	By

Designed: A.P.F. Date:	Drawn: S.A.N. Date:	Checked: Date:	
Reviewed: Date:	Approved: Date:	Scale:	
FIELD BOOK:			
FILE No. A-2-73	JOB No. 6895	SHEET 11 of 13	

6

A.F. 12087

FOR DETENTION POND MODIFICATION SEE SHEET No. 15

Scale 1" = 20'

EXISTING DETENTION POND

N.W.L. 10.98
D.L.W. 12.28
25 YR. D.H.W. 14.98

(48) EXISTING CONTROL STRUCTURE TO BE MODIFIED SEE SHEET No. 5

CONST. 500' OF 6" UNDERDRAIN

CONST. 45' OF 6" SOLID P.V.C.

CONST. 35' OF STAKED SILT FENCE

CONST. CLEANOUT (TYP.) INV. EL. 10.98

CONST. 250' OF 6" UNDERDRAIN

CONST. 10' OF 6" SOLID P.V.C.

SWANN AVE.

S. PACKWOOD AVE.

S. ROME AVE.

MATCH LINE STA 23+00

X-Town Ret. Wall

Crosstown X-Way

Exist Landscaped Area (Heavy Vegetation) 85'

P.T. Hedge

Dlenner

(44) Remove Exist. Storm M.H. & 30" R.C.P.

Remove Exist. 30" R.C.P. & Endwall

Remove Exist Storm M.H.

(Ex 5 Clogs S/W)

G.T.E. M.H.

Exist. Tel. Duct Bk.

Exist. C.L. Fence

Exist. Curb & Gutter To Remain

Exist. 6' Curb

Elec. & Tele. Cables

Exist. Telephone

Exist. 2' Curb & Gutter

3-15"x21" R.C.P.'s (To Remain)

San. M.H.

10" San.

Survey ℄

Exist. 8" Water

Exist. 6' Conc. S/W

"X" in S/W

F.I.R.

Exist. 4" Gas

Exist. 8" Water

Exist Storm Sewer To Remain

Storm M.H.

(To Remain)

38"x60" R.C.P.

14"x23" R.C.P.

42"x42" R.C.P.

FDM #F 3343

+26.09

60' R/W

(44) STA. 23+00 (50' LT.)
CONST. M.H. TYPE J-7T (3.5'x7'1.0)
INV. EXIST. 18" 10.10±
F.L. 11.49

(38) STA. 23+83 (50' LT.)
CONST. STRAIGHT CONC. ENDWALL
F.L. H.S.F. 11.18

0 10 20 40 60
Scale

Survey Line Profile

8" Water

6" Water

30" R.C.P.

43"x68" R.C.P. @ (-)0.10%

10" San.

10" V.C.P. San.

3-15"x21" R.C.P.'s

38"x60" E.L.P.

43"x68" R.C.P.

15" R.C.P.

38"x60" R.C.P.

14"x23" R.C.P.

23+00 24+00 25+00 26+00 27+00 28+00

AS-BUILT
REVIEWED BY _____ DATE _____

Received Water Management Dist. RECEIVED JUN 2 9 1992 TAMPA Permitting Dept.

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

SWANN AVE.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Not Sealed
Imaged As Is

Designed: A.P.F.	Date:	Drawn: S.A.N.	Date:	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale:	
FIELD BOOK:					
FILE No. A-2-73		JOB No. 6895		SHEET 12 of 50	

No. Date REVISION By

173

AF 12087

Scale: 1" = 20'

Sec. 26-T29S-R18E

HOWARD AVE

STA. 3+00

STA. 0+00 (AHD) = STA. 10+00 (BK)

MATCH LINE

MATCH LINE

BEGIN CONSTRUCTION
STA. 0+62.00

+62 BEGIN P/VMT. & SIDEWALK TRANSITION

+80 END SIDEWALK TRANS.

+00 END PAV'T TRANSITION

BEGIN D/W +70

+58 ℄ 20' D/W

+12 ℄ 20' D/W

+76 ℄ 36' D/W

Charter Boy Lounge

Asph. Lot

Conc. Lot

Asph. Lot

Conc. Curb

Conc. Sign Base

Exist. Tel.

Conc. Dr.

Exist. 4' Conc. S/W

Hedge

Exist. 30'± Brick Pav't.

Exist. 8" Gas

Exist. 10" V.C.P. San.

Exist. 12" Water

Gas Valve

Exist. 6" Granite Curb

Asph.

Lot

Asph. Lot

"X" On Conc.

Tel. Booth

Sign

Sign

CONST. CONC. D/W

CONST. CONC. D/W

CONST. CONC. D/W

CONST. CONC. D/W

PROP. R/W

PROP. R/W

CONST. 28' OF 24" R.C.P.

CONST. 12' OF 15" R.C.P.

CONST. 230' OF 30" R.C.P.

PROFILE GRADE

CONST. STD. CONC. CURB & GUTTER

CONST. 5' CONC. S/W

CONST. 64' OF 15" R.C.P.

END GRATE AT BACK S/W

PROP. 10" SAN.

6" V.C.P. San.

4" V.C.P. San.

San. M.H.

12" V.C.P. San.

Exist. Tel.

CITY OF TAMPA Parking Lot Drain (Cap)

10'

12'

12'

12'

12'

40' R/W

Exist. 80' R/W

15.30'

25.30'

18.70'

28.70'

22.00'

18.70'

15.30'

1.70'

2.00'

NOTE: FOR PROPOSED SANITARY SEWER DETAILS, SEE SANITARY SEWER CONSTRUCTION PLANS.

(21) STA. 1+10 (LT)
CONST. INLET TYPE 1
F.L. ~~16.55~~ 17.42

(22) STA. 1+10 (RT)
CONST. INLET TYPE B:S:1
INV. 15" (N) 16.80 15.70
F.L. 13.80 13.66

(22a) STA. 1+73 (RT)
CONST. INLET TYPE "C" (MODIFIED) W/HANDRAIL
F.D.O.T. INDEX No. 282
SLOT (E) EL. ~~13.40~~, F.L. 17.00
13.27

(23) STA. 1+15 (8' LT.)
CONST. M.H. TYPE P-7T
INV. 15" (W) 16.51 16.31
INV. 24" (E) 13.78 13.63
F.L. 13.70 13.63

0 10 20 40 60
Scale

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 0+62.00

STORM M.H. #23

E. San. M.H.

E. STORM M.H. #26

STORM M.H. #27

+00 P.V.I. (NO V.C.) EL. 19.67

Survey Line Profile

PROFILE GRADE LINE

(-) 0.30 1/4%

+0.40%

+62 P.V.I. (NO V.C.) EL. 20.32

15" R.C.P. (W)

12" Water

8" Gas

15" R.C.P. (W)

12" V.C.P. San.

12" V.C.P. San.

6" V.C.P. San.

6" V.C.P. San.

Exist. Tel.

24" R.C.P. (E)

30" R.C.P. @ (-) 0.20%

18" R.C.P. (E)

+45 P.V.I. (NO V.C.) EL. 19.45

INV. 30" RCP 13.12
INV. 18" x 23" RCP 13.18

+05

+15 F.L. 13.20

+66

145 13.24

0+00

1+00

2+00

3+00

4+00

AS-BUILT
REVIEWED BY _____ DATE _____

Water Distribution Section
JUN 2 8 '83
TAMPA
Permitting Dept.

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

No.	Date	REVISION	By

HOWARD AVE.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Not Sealed Imaged As Is

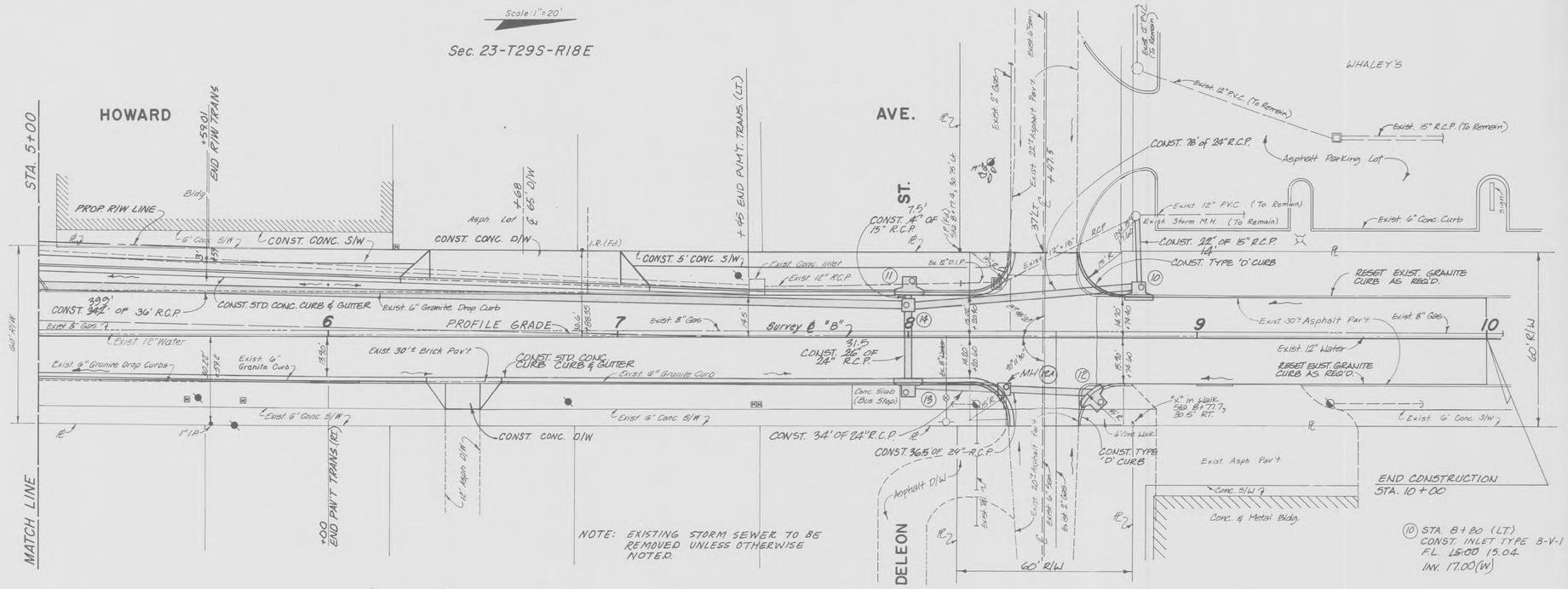
Designed: A.P.F. Date:	Drawn: S.M. Date: 3-23-82	Checked:	Date:
Reviewed: Date:	Approved: Date:	Scale: 1"=20' Hor. 1"=4' Vert.	
FIELD BOOK: 1982-5			
FILE No. A-2-73	JOB No. 6895	SHEET 13	

8

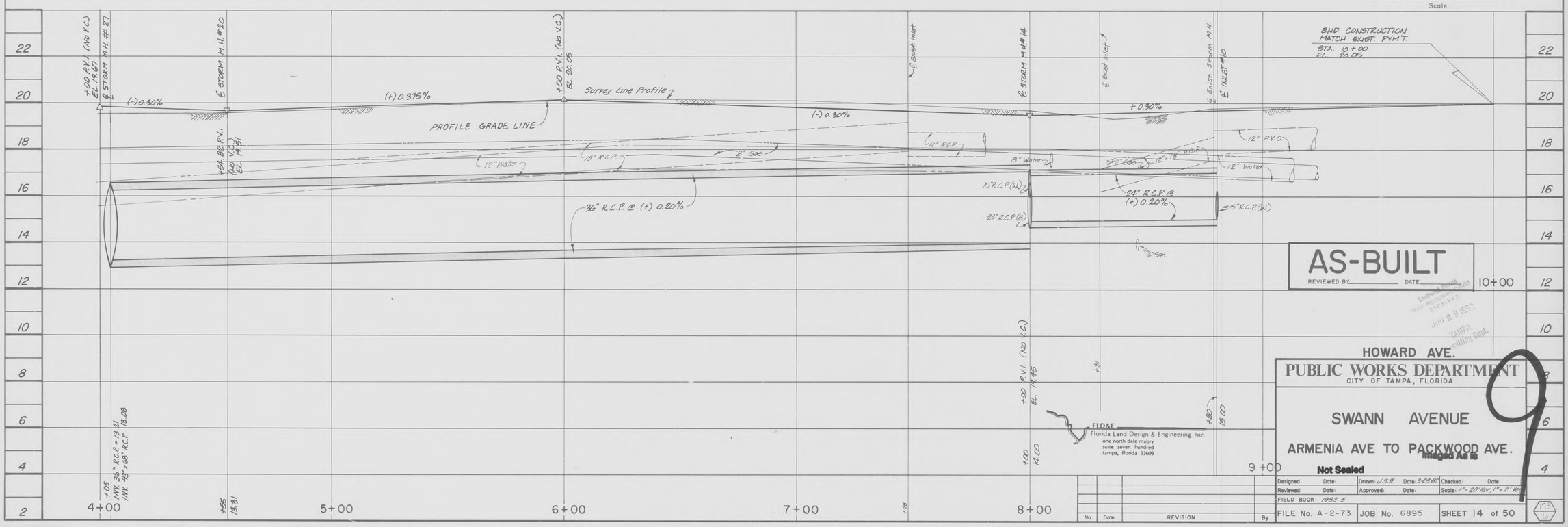
AF 12087

Scale: 1"=20'

Sec. 23-T29S-R18E



Scale: 0 10 20 40 60



AS-BUILT

REVIEWED BY_____ DATE_____

Southwest Florida Water Management District
JAN 2 9 1992
TAMPA Billing Dept.

HOWARD AVE.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE.

Imaged As Is

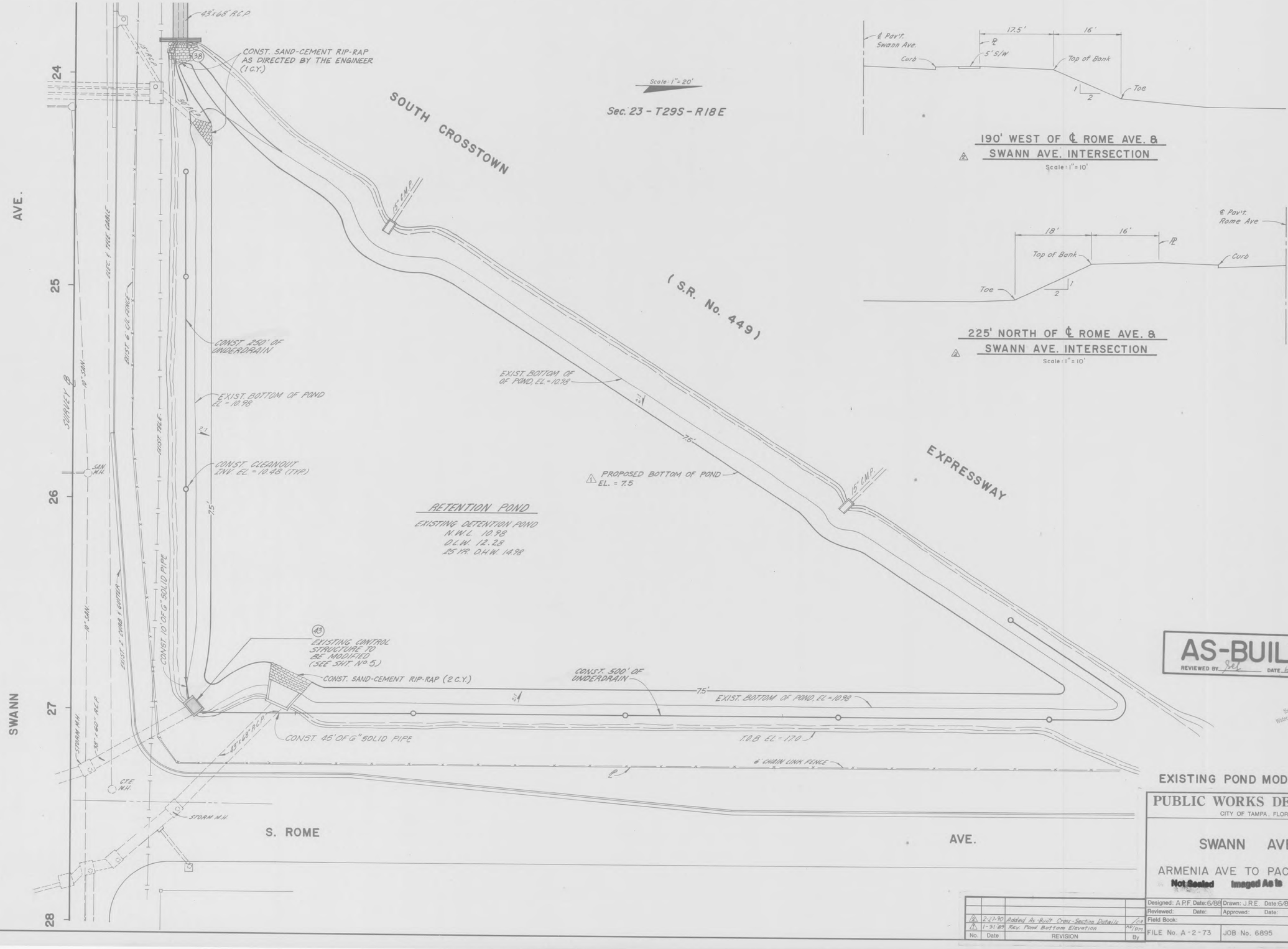
Not Sealed

9

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

No.	Date	REVISION	By

Designed:	Date:	Drawn: J.S.M.	Date: 3-28-82	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=2' Ver.	
FIELD BOOK: 1982-5					
FILE No. A-2-73	JOB No. 6895			SHEET 14 of 50	



190' WEST OF ℄ ROME AVE. & SWANN AVE. INTERSECTION

Scale: 1" = 10'

225' NORTH OF ℄ ROME AVE. & SWANN AVE. INTERSECTION

Scale: 1" = 10'

AS-BUILT
REVIEWED BY JEL DATE 6-17-92

Southwest Florida Water Management District
RECEIVED
JUN 29 1992
TAMPA Permitting Dept.

EXISTING POND MODIFICATION

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Not Sealed Imaged As Is

10

No.	Date	REVISION	By
2	2-27-90	Added As-built Cross-Section Details	JCR
1	1-31-89	Rev. Pond Bottom Elevation	AE/DPS

Designed: A.P.F. Date: 6/88 | Drawn: J.R.E. Date: 6/88 | Checked: Date:
Reviewed: Date: | Approved: Date: | Scale:
Field Book:
FILE No. A-2-73 | JOB No. 6895 | SHEET 10 of 50

113

(18) STA. 4+44 (LT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-R-1
F.L. 15.25

(19) STA. 4+38 (RT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-R-1
F.L. 15.15

(20) STA. 4+44 (℄ HOWARD AVE.)
CONST. M.H. TYPE J-7T
(3.5' x 4.5' I.D.)
INV. 15" (W) 15.19
INV. 15" (E) 15.03
F.L. 13.09

(22) STA. 8+12 (LT.)
CONST. INLET TYPE B-S-1
F.L. 15.70

(28) STA. 10+66 (LT.)
CONST. INLET TYPE B-R-2
F.L. 16.35

(29) STA. 11+38 (LT.)
CONST. INLET TYPE B-R-2
INV. 15" (W) 16.07
F.L. 15.82

(24) STA. 6+50 (LT.)
CONST. INLET TYPE B-V-1
F.L. 15.60

(24) STA. 3+57 (LT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 15.25
INV. 15" (W) 15.25

(26) STA. 3+45 (8' LT.) (℄ HOWARD AVE.)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 15" (W) 15.21
INV. 18" (E) 13.42
F.L. 13.14

(27) STA. 7+45 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 30" (S) 14.66
INV. 36" (N) 13.05
F.L. 13.03

(25) STA. 3+45 (RT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 13.50

(18) STA. 8+05 (RT.)
CONST. INLET TYPE B-R-2
F.L. 15.70

(44) STA. 8+12 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 15.60
INV. 15" (S) 15.60
F.L.

(39) STA. 9+22 (5' LT.)
CONST. CONFLICT M.H. TYPE J-7T
(4' x 8' I.D.)
F.L. 12.85
BOTTOM EL. 11.40

(32) STA. 10+70 (RT.)
CONST. INLET TYPE B-R-1
F.L. 16.15

(31) STA. 11+30 (RT.)
CONST. INLET TYPE B-R-1
INV. 15" (W) 15.97
F.L. 15.22

(32) STA. 11+38 (5' LT.)
CONST. M.H. TYPE J-7T
(4' x 7.5' I.D.)
INV. 18" (N) 15.77
INV. 24" (S) 15.16
F.L. 12.63

(40) STA. 6+50 (RT.)
CONST. INLET TYPE B-V-1
F.L. 14.00

(41) STA. 6+50 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 15.55
INV. 15" (S) 15.50
F.L. 13.19

MATCH LINE — STA. 5+00 — MATCH LINE — STA. 3+00 — MATCH LINE — STA. 12+00

SWANN AVE. — HOWARD AVE. — WESTLAND AVE.

STA. 7+52.83 SWANN AVE. ℄ = STA. 4+00 ℄ "B" FROM SOUTH

STA. 7+62.78 SWANN AVE. ℄ = STA. 4+00 ℄ "B" TO NORTH

SEE SHEET 37

Conflict San MH 2+43.0 (SEE SHT. 37 FOR PROFILE)

P.I. & San MH 2+15.0

P.I. & San MH 1+74.0 19°-45' (SW)

P.I. & San MH 0+47.0

Ex San MH (Fiberglass) 0+00.0 Inv 12.71 (N) 12.67 (S)

Ex 8" San To Be Removed

CONST. 5' CONC. S/W

CONST. 5' C S/W

CONST. 12' OF 15" RCP

CONST. 75' OF 34" x 53" RCP

CONST. 110' OF 43" x 68" R.C.P.

CONST. 24' OF 5" RCP

CONST. 67' OF 43" x 68" RCP

CONST. 40' OF 15" R.C.P.

CONST. 20' OF 15" R.C.P.

CONST. 22' OF 36" R.C.P.

CONST. 8' OF 15" R.C.P.

CONST. 28' OF 15" R.C.P.

CONST. 20' OF 15" RCP

CONST. 60' OF 30" R.C.P.

CONST. 24' OF 18" R.C.P.

CONST. 70' OF 15" R.C.P.

CONST. 216' OF 43" x 68" RCP

CONST. 60' OF 15" R.C.P.

CONST. 30' OF 24" R.C.P.

CONST. STD. CONC. CURB & GUTTER

CONST. 17' OF 18" R.C.P.

CONST. CONC. D/W

CONST. 1" on Brick

CONST. 4" on Brick

CONST. 4" on Conc.

CONST. 1" on Brick

CONST. 4" on Brick

CONST. 4" on Conc.

CONST. 35' Wooden Planter

CONST. 4" Conc. Curb

CONST. 6" Conc. Curb

CONST. 8" Conc. Curb

CONST. 4" Conc. Curb

CONST. 6" Conc. Curb

CONST. 8" Conc. Curb

CONST. 4" Conc. Curb & Gutter

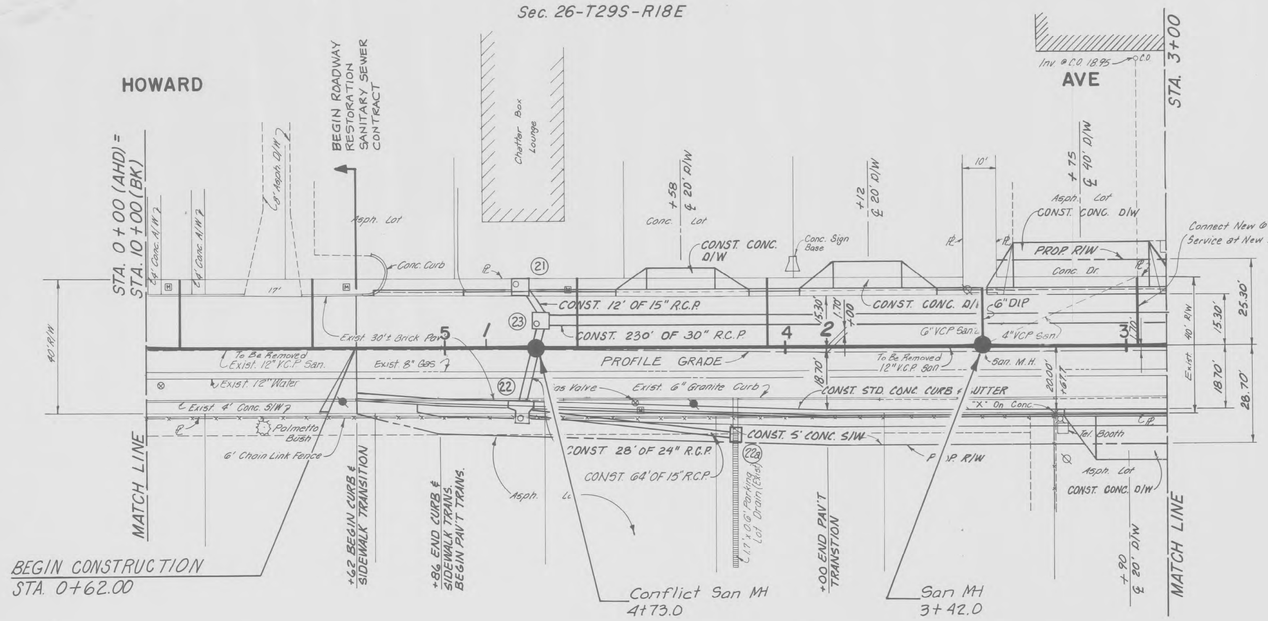
CONST. 6" Conc. Curb & Gutter

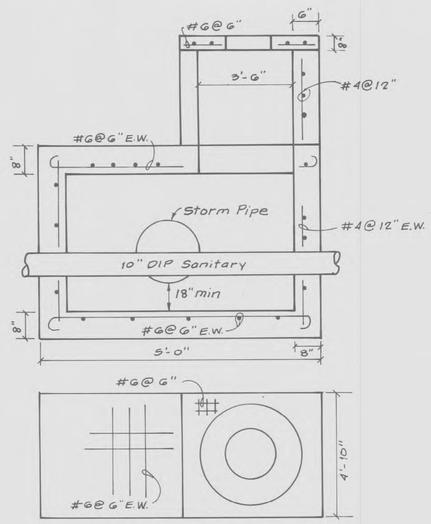
CONST. 8" Conc. Curb & Gutter

AP 12087

Scale: 1"=20'

Sec. 26-T29S-R18E





TYPE J-7T CONFLICT MANHOLE
NOT TO SCALE

GENERAL NOTES

1. Remove existing pipe and manhole as necessary to install new pipe.
2. All connections between existing and proposed pipe shall be made with flexible coupling.
3. All pipe bedding shall be Class C.

(22a) STA. 1+73 (RT)
CONST. INLET TYPE "C" (MODIFIED) W/HANDRAIL
F.D.O.T. INDEX No. 282
SLOT(E) EL. 19.50, F.L. 17.50

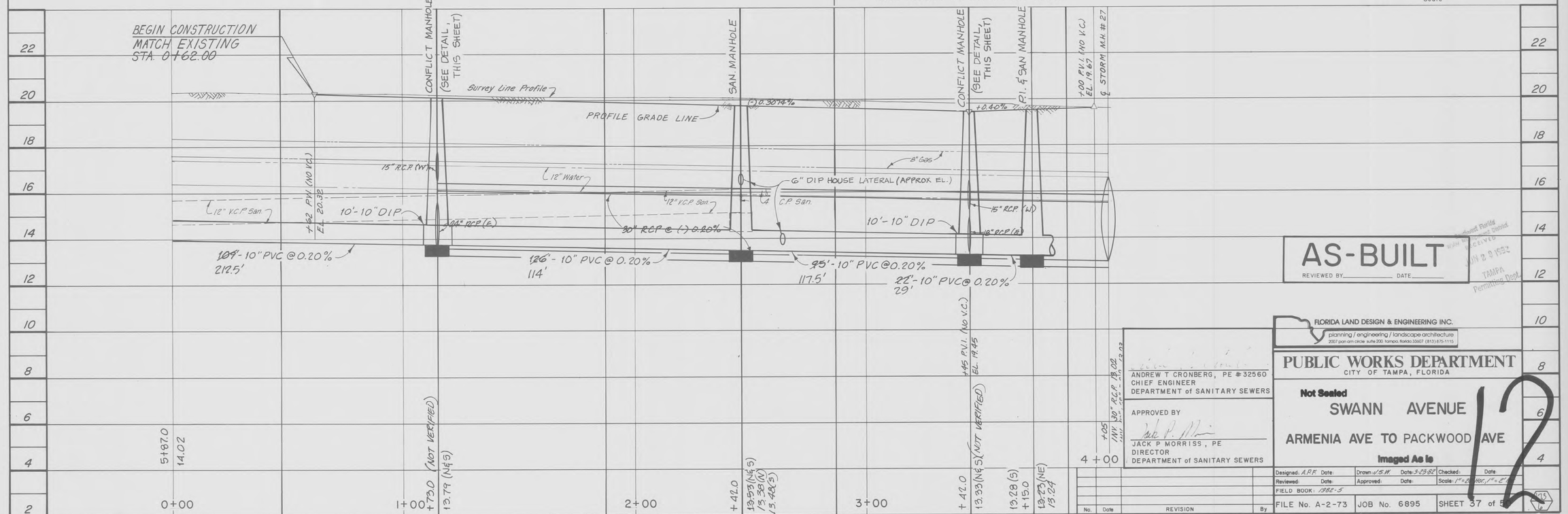
(21) STA. 1+10 (LT)
CONST. INLET TYPE 1
F.L. 16.55

(22) STA. 1+10 (RT.)
CONST. INLET TYPE B-S-1
INV. 15"(N) 17.00
F.L. 13.80

(23) STA. 1+15 (8' LT.)
CONST. M.H. TYPE P-7T
INV. 15" (W) 16.51
INV. 24" (E) 13.72
F.L. 13.70

→ SEE SHEET 1 FOR PLAN VIEW

0 10 20 40 60
Scale



AS-BUILT
REVIEWED BY_____ DATE_____

Received Florida Water Management District
JUN 29 1998
TAMPA Permitting Dept.

FLORIDA LAND DESIGN & ENGINEERING INC.
planning / engineering / landscape architecture
2007 pan-am circle suite 200 tampa, florida 33607 (813) 875-1115

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

12

Designed: A.P.F.	Date:	Drawn: J.S.W.	Date: 3-23-98	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=2' Ver.	
FIELD BOOK: 1982-5					
FILE No. A-2-73	JOB No. 6895	SHEET 37 of 52			

No. Date REVISION By

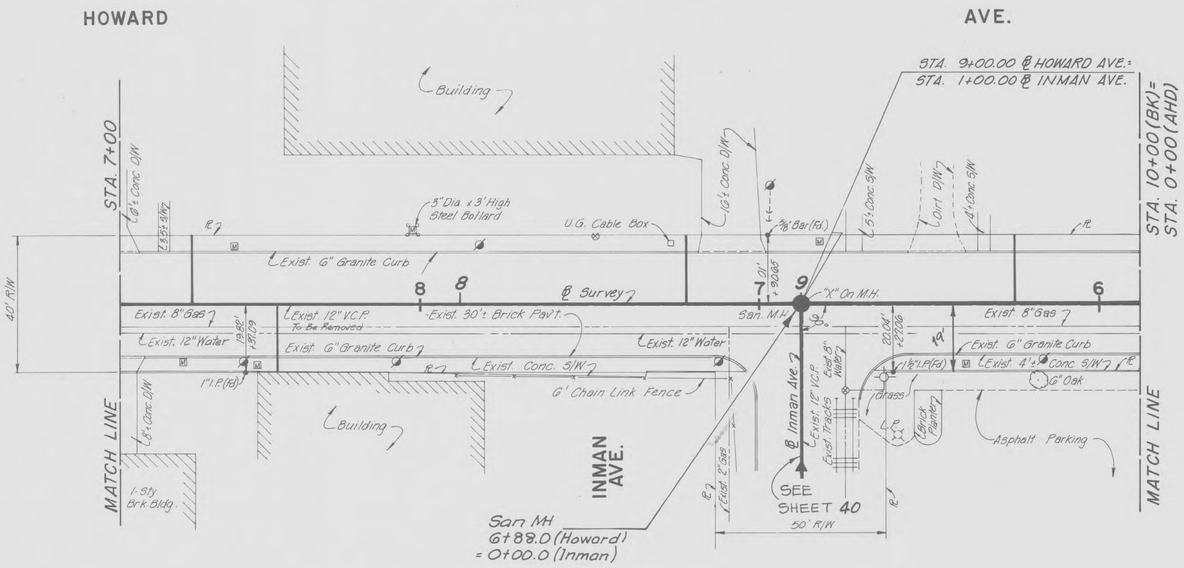
SANITARY SEWER CONSTRUCTION PLANS

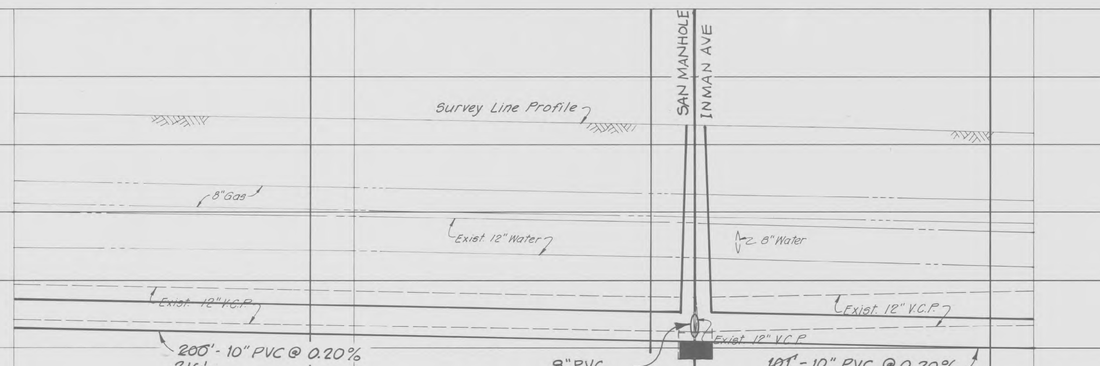
AF 12087

Benchmark Elev. 20.58
⊟ Cut In N.E. Cor. Conc. Sign Foundation
Of Union TO Sign S.E. Cor. Swann Ave.
And Howard Ave.

Scale: 1"=20'

Sec. 26-T29S-R18E





NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.

AS-BUILT
REVIEWED BY _____ DATE _____

Southwest Florida Water Management District
JUN 2 9 1995
TAMPA Permitting Dept.

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering Inc.
one north dale mabry highway
suite seven hundred
tampa, florida 33609

HOWARD AVENUE
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed
SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE
Imaged As Is

No.	Date	REVISION	By

Designed:	Date:	Drawn: A.P.F.	Date: 1-20-95	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=2' Vert.	
FIELD BOOK:					
FILE No. A-2-73	JOB No. 6895	SHEET 38 of 58			

SANITARY SEWER CONSTRUCTION PLANS

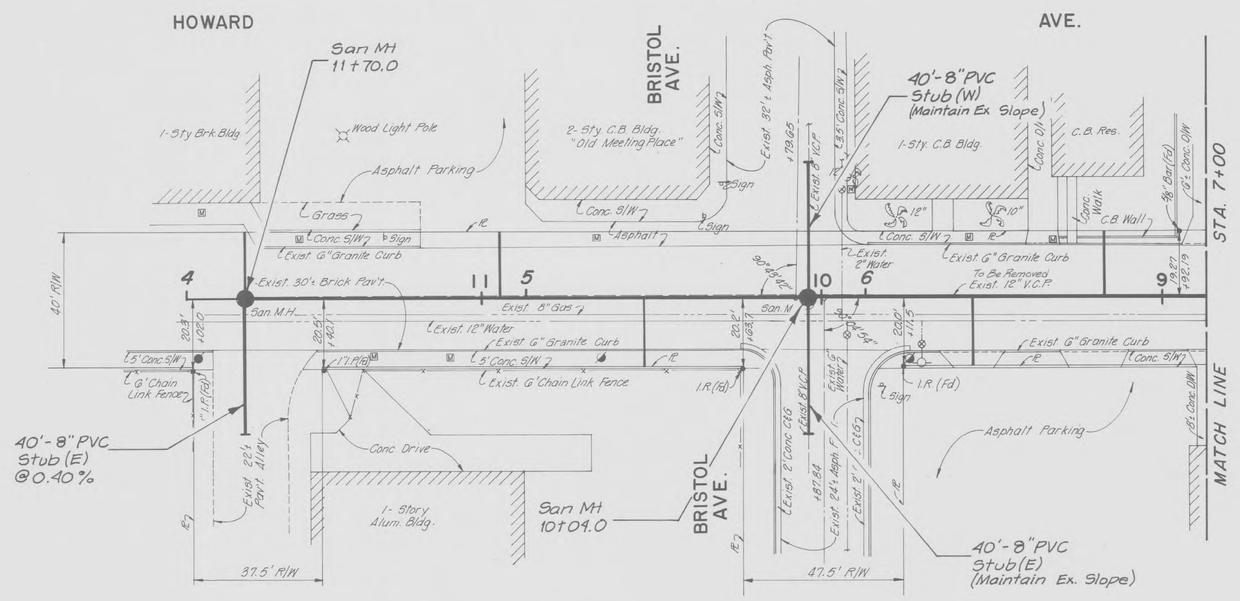
13

AF 12087

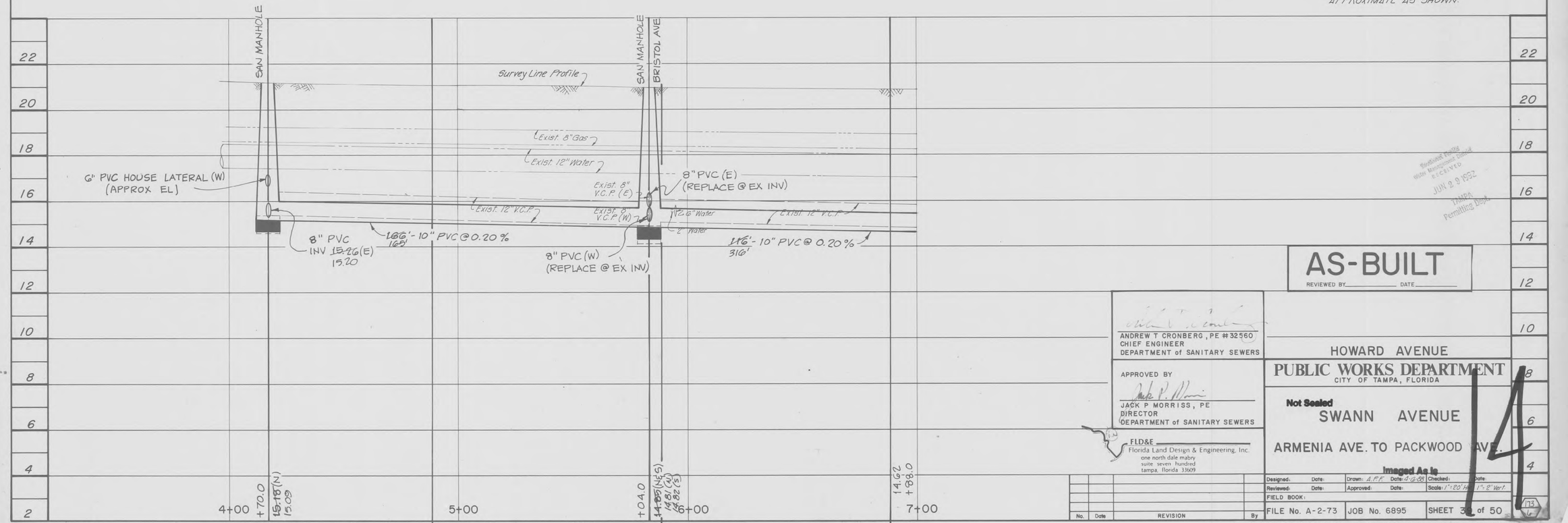
Benchmark Elev. 20.58
Cut In N.E. Cor. Conc. Sign Foundation
Of Union TG Sign S.E. Cor. Swann Ave.
And Howard Ave.

Scale: 1"=20'

Sec. 26-T29S-R18E



NOTE:
WATER AND GAS LOCATIONS ARE
APPROXIMATE AS SHOWN.



Engineering Permits Water Management District
RECEIVED
JUN 9 1992
TAMPA
Permitting Dept.

AS-BUILT
REVIEWED BY _____ DATE _____

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

HOWARD AVENUE
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA
Not Sealed
SWANN AVENUE
ARMENIA AVE. TO PACKWOOD AVE.
Imaged As Is

Designed:	Date:	Drawn: A.P.F.	Date: 4-12-88	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor.	1"=2' Vert.
FIELD BOOK:					
FILE No. A-2-73	JOB No. 6895	SHEET 30 of 50			

No.	Date	REVISION	By

SANITARY SEWER CONSTRUCTION PLANS

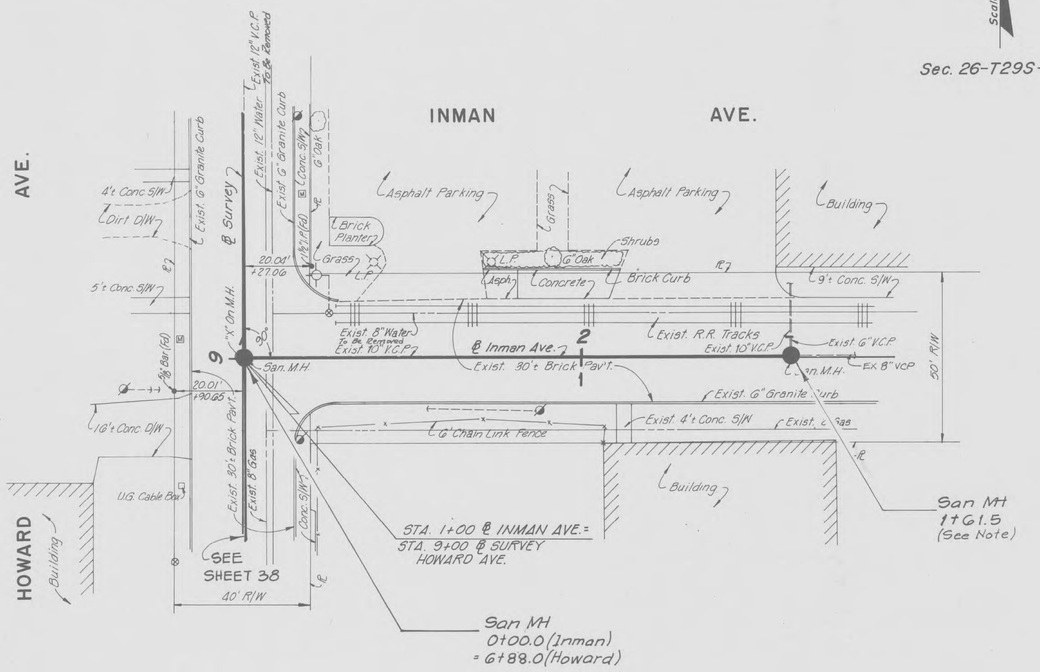
14

AF 12087

Scale: 1"=20'

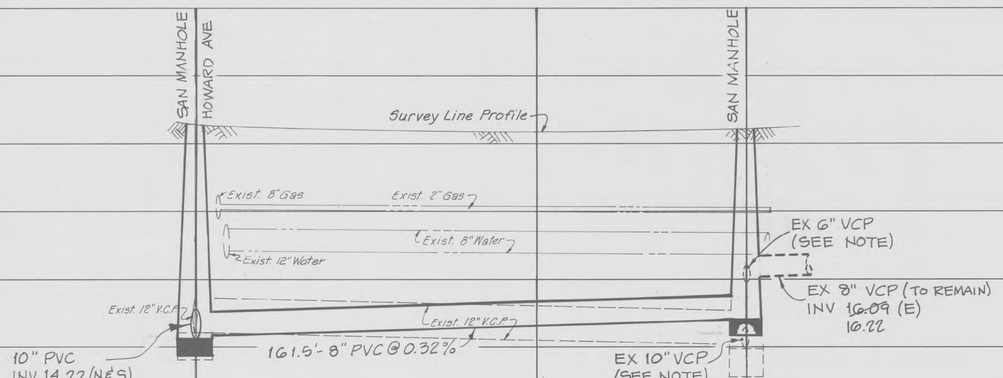
Sec. 26-T29S-R18E

Benchmark Elev. 20.58
Cut In N.E. Cor. Conc. Sign Foundation Of Union 76 Sign S.E. Cor. Swann Ave. And Howard Ave.



NOTE
Plug and abandon Existing 10" line to the North; Reconnect Existing 6" to new manhole.

NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.



Received Florida Water Management District
JUN 2 8 1982
TAMPA Permitting Dept.

AS-BUILT
REVIEWED BY_____ DATE_____

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering Inc.
one north dale mabry highway
suite seven hundred
tampa, florida 33609

INMAN AVENUE
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

No.	Date	REVISION	By

Designed:	Date:	Drawn: A.P.F.	Date: 1-2086	Checked:	Date:		
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=5' Vert.			
FIELD BOOK:							
FILE No. A-2-73	JOB No. 6895	SHEET 40 of 50					

SANITARY SEWER CONSTRUCTION PLANS

15

SWANN

BEGIN CONSTRUCTION
STA. 0+25.00

1-Sty. Masonry Bldg.

Asph. Lot

P.K. Nail (Control)

ARMENIA AVE.

60' R/W

6" San. H.C.

Exist. Conc. Curb & Gutter

Exist. Telephone

Exist. 1" Asph. Pav't.

San MH
Inv 15.93 (S)
15.92

59'
60'-8" PVC
@ 0.75%

To Be Removed 8" V.C.P. San.

Exist. 6" Conc. Curb & Gutter

Exist. 18" R.C.P.

Exist. 15" R.C.P. (TO REMAIN)

Exist. 6" Water

Exist. 24" R.C.P.

Exist. 36" R.C.P. TO REMAIN

Exist. 16' ± Asph. Pav't.

Exist. 6" Conc. Curb

Conc. S/W

Bushes

Exist. 16' ± Asph. Pav't.

Exist. 6" Conc. Curb

PARKLAND BLVD.

MATCH EXIST. 0+47.1, 55' ± RT

P.C. +59.6 ±

+37.72

+53.42

+09.57

+46.70 ±

+36.30

CUT & PLUG TO REMAIN

CUT & PLUG Exist. 15" R.C.P. (TO REMAIN)

Exist. 30" R.C.P. (TO REMAIN)

Storm M.H. (TO REMAIN)

Exist. 24" R.C.P.

CONST. 12' OF 24" R.C.P.

CONST. 5' CONC. S/W

5' R

San. San. H.C.

CONST. CONC. D/W

CONST. 270' OF 24" x 38" RCP

CONST. STD. CONC. CURB & GUTTER

Survey ℄

Exist. 24" R.C.P.

Exist. 25" ±

Asph. Pav't.

Exist 8" V.C.P. San. To Be Removed

Exist. 6" Conc. Curb

Storm M.H.

Exist. 15" R.C.P.

Conc. D/W

San. H.C.

Exist. 5' Conc. S/W

½" I.P.

6" San. H.C.

Replace Existing with 6" PVC, install cleanout @ R

NOTE: ALL EXIST. STORM SEWER SYSTEMS TO BE REMOVED EXCEPT WHERE NOTED.

San MH
0+85.0

P.T.

Exist. 12" Asph. D/W

Exist. 10" Conc. A/W

Exist. Telephone

T29S-R18E

Scale 1" = 20'

20'

95' R

88.00

60' R/W

12'

18.80

91.30

+74.30

Exist. 24" R.C.P.

Exist. 25" ±

Exist. 6" Conc. Curb

Exist. 15" R.C.P.

Storm M.H.

Exist 8" V.C.P. San. To Be Removed

Exist. Water

Survey ℄

San. M.

San. H.C.

Exist. 5' Conc. S/W

½" I.P.

+94.43

+94.48

+42.6

+25.4

45°

55'-8" PVC Stub (S) @ 0.40% Inv 14.43 (@ S. End of Stub)

P.I. & San MH 4+24.5

CONST. 55' OF 15" R.C.P.

MOODY AVE.

60' R/W

T.B.M. #1 Elev. 19.71
Cut on ℄ face 10' Conc. A/W to St. John Greek Orthodox Church S.E. Cor. Armenia Ave. & Swann Ave.

Exist. 2" Gas

Exist. Telephone

Exist. 2" Asph. Pav't.

CONST. 30' OF 18" R.C.P.

CONST. CONC. D/W

6' Chain Link Fence

Guy Pole

1" I.P.

CONST. 5' CONC. S/W

Exist. 6" Conc. Curb

Exist. 21" R.C.P.

CONST. 240' OF 34" x 53" RCP

Ex 8" San. To be Removed

Exist. 5' Conc. S/W

Exist. 8" Water

Exist. Telephone

Conc. Dr.

Conc. Man.

CONST. CONC. D/W

Asph. Lot

18 Oak

20 Oak

22

+42.75

+43.25

+94.43

+94.48

+42.6

+25.4

STA. 6+00

MATCH LINE

① STA. 0+67 (LT)
CONST. INLET TYPE B-R-1
F.L. 14.80

② STA. 1+22 (RT)
CONST. INLET TYPE B-R-2
F.L. 14.04

STA. 1+32 (LT)
CONST. INLET TYPE B-R-1
F.L. 14.00

④ STA. 1+40 (8' LT)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
F.L. 13.96

⑤ STA. 4+15 (LT)
CONST. INLET TYPE B-R-1
F.L. 15.75

⑥ STA. 4+07
CONST. INLET TYPE B-R-1
INV. 18" (W) 15.63
F.L. 15.13

⑦ 4+02 (RT)
CONST. INLET TYPE B-R-1
F.L. 16.00

⑧ STA. 4+58 (RT)
CONST. INLET TYPE B-R-1
F.L. 15.78

⑨ STA. 4+10 (8' LT)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 24" (N) 15.06
INV. 15" (S) 15.66
F.L. 13.42

0 10 20 40 60
Scale

BEGIN CONSTRUCTION
MATCH EXISTING
STA. 0+

CONNECT to EXISTING

SAN. DROP MANHOLE

G INLET #3

G STORM M.H. #4

Survey Line Profile

+ 0.3481 % PROFILE GRADE LINE

8" PVC
INV 15.48 (N)
12.51

6" PVC HOUSE LATERAL
(APPROX EL)

+25 PVI (NO V.C.)
EL. 18.55

85'-8" PVC @ 0.30%

20'-8" DIP
(CENTERED UNDER STORM)

313'-8" PVC @ 0.40%

20'-8" DIP
(CENTERED UNDER STORM)

(-) 0.30%

11.5'-8" PVC @ 0.40%

164.5'-8" PVC @ 0.40%

P.I. & SAN MANHOLE

P.I. & SAN MANHOLE

9 P.V.I. (NO V.C.)
19.96

14.89 (E4' W)
5+89.0

12.74 (W) 12.43
0+85.0

12.77 (E) 12.47
+00

14.10 (W)
+13.0 INV S-14.02

14.13 (SE)
+24.5

14.18 (E) 14.16 INV. NW - 14.13

15.82

0+00 +00.0 12.48

+32 14.00 +80 13.96

2+00

3+00

4+00

6+00

0 1 2 3 4 5

AS-BUILT
REVIEWED BY_____ DATE_____

FLORIDA LAND DESIGN & ENGINEERING INC.
planning / engineering / landscape architecture
2007 pan am circle suite 200 tampa, florida 33607 (813) 875-1115

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

No.	Date	REVISION	By
1	4-18-85	8" V.C.P. San. on Moody Ave. from Swann Ave. to North removed as per Bob Sloan	RS/C.B

Designed: A.P.F. Date: | Drawn: J.S.W. Date: 3-23-82 | Checked: Date:
Reviewed: Date: | Approved: Date: | Scale: 1" = 20' Hor. 1" = 2' Vert.
FIELD BOOK: 1982-5
FILE No. A-2-73 | JOB No. 6895 | SHEET 41 of 50

SANITARY SEWER CONSTRUCTION PLANS

Southwest Florida Water Management District
RECEIVED
JUN 29 1982
TAMPA
Permitting Dept.

16

SWANN AVE

STA. 12+00

STA. 18+00

60' R/W

50' R/W

MATCH LINE

MATCH LINE

ALBANY AVE.

MELVILLE AVE.

Scale 1"= 20'

SAW-CUT

CONST. ' OF 43"x 68" R.C.P.

CONST. 335' OF 43"x 68" R.C.P.

CONST. STD. CONC. CURB & GUTTER

CONST. STD. CONC. CURB & GUTTER

Exist 40'± Asphalt Pav't

Asphalt D/W

Exist. Telephone

Exist. 10" Water

Exist. 6" Conc Curb

1' High Conc Curb

5' Conc S/W

Planters

Tree

Conc Pav't

INSTALL SAN MH.

213.7' 8" PVCP

INSTALL 20' OF 8" DIP FROM MH TO SOUTH

REMOVE THE EXISTING SANITARY MANHOLE

41.5'

SAN MH
INV 15.44 (E)
INV 15.45 (S)

SAN MH
INV 15.60 (N)
INV 15.68 (S)

PROP 8" SAN.
EXIST 8" SAN.

Abandoned 8" San.

Exist. 8" Water

5.5' Asphalt S/W

5' Asphalt S/W

5' CL. Fence

Asphalt Parking

Conc Drive

Asphalt Drive

8" Palm

8" Palm

Exist. 9.3' Conc S/W

Asphalt Drive

Exist. San MH

8" Exist Water

8" San Sewer

10" Oak

12" Oak

G.T.E. U/G

Exist. 6" Conc Curb

Oak

4 Trees

3 Trees

Conc Drive

15' Palm

6' CL Fence

Conc Drive

Exist Telephone

Exist 12"

Exist 8" Water

Exist. San MH

Exist 8" Water

89°27'40"

(33) STA. 14+25 (5' LT)
CONST. M.H. TYPE J-7T
(3.5'x 3' I.D.)
F.L. 12.40

(34) STA. 17+60 (5' LT)
CONST. M.H. TYPE J-7T
(3.5'x 3' I.D.)
F.L. 12.06

0 10 20 40 60
Scale

PROFILE GRADE LINE

Survey Line Profile

+0.33 %

(-) 0.2727 %

20.77

20.69

+50 PK (NO VC)
EL. 21.60

STORM M.H. #33

STORM M.H. #34

PROP MH'S

8" Water

8" Water

8" Water

8" Water

8" San Sewer

10" Water

8" Water

8" Water

6" Water

PROP 8" PVCP 135'LT.
(MATCH EX. GRADE)

Abandoned 8" San Sewer

43"x 68" R.C.P.
@ (-) 0.10 %

43"x 68" R.C.P.
@ (-) 0.10 %

+60
12.06

12+00

13+00

14+00

15+00

16+00

17+00

18+00

SWANN AVE.

AS-BUILT

REVIEWED BY _____ DATE _____

FLD&E _____

Florida Land Design & Engineering, Inc
one north dale mabry
suite seven hundred
tampa, florida 33609

Reviewed for Compliance
Water Management District
S.S.C.I. 142
JUN 28 1993
TAMPA
Permitting Dept.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

17

Designed: A.P.F. Date:	Drawn: Date:	Checked: Date:
Reviewed: Date:	Approved: Date:	Scale:
FIELD BOOK:		
FILE No. A-2-73	JOB No. 6895	SHEET 41A of 50

No.	Date	REVISION	By

SWANN AVE

FREMONT AVE.

60' R/W

Scale 1"=20'

STA. 18+00

STA. 23+00

MATCH LINE

60' R/W

INSTALL NEW SAN. MH CONNECT TO THE EXIST. SAN. SEWER INV. 13.02(N) 15.08(W)

CONST. STD. CONC. CURB & GUTTER PROP. 8" PVCP SAN. 213.5' OF 8" PVCP

CONST. STD. CONC. CURB & GUTTER

THE EXISTING MH SHALL BE CUT OFF 1' BELOW THE BOTTOM OF THE PROPOSED CURB AND FILLED WITH SAND

FILL ALL ABANDONED SANITARY SEWER PIPE WITH GROUT

END PAVEMENT CONSTRUCTION BEGIN RESURFACING STA. 20+00

STA. 19+94 ± (LT & RT) END CURB & GUTTER MATCH EXIST INLETS

CONST. 336' OF 43"x68" R.C.P.

CONST. 50' OF 96" STEEL CASING

CONST. 162' OF 43"x68" R.C.P.

CONST. 45' OF 43"x68" R.C.P.

Const. 42' of 30" R.C.P.

Remove Exist. 30" R.C.P.

REPLACE S/W AS REQ'D

END PAVEMENT CONSTRUCTION STA. 23+00

Exist. Telephone

Asphalt D/W

Exist. G" Conc. Curb

Dirt D/W

Exist. 2" Water

Exist. 18" R.C.P. (To Remain)

Exist. 36" R.C.P. (To Remain)

Exist. Grate Inlet (To Remain)

Exist. 30" R.C.P. (To Remain)

Exist. 2' Conc. Curb & Gutter

Exist. 8" Water

Exist. 18" C.M.P. (To Remain)

Exist. Endwall (To Remain)

Abandoned 8" San.

Abandoned San. M.H.

5' Asph. S/W

6' Conc. S/W

5' Conc. S/W

5' CL Fence

4' Conc. Headwall

Conc. Ditch

Conc. Ditch Plan

(35) STA. 20+96 (5' LT)
CONST. M.H. TYPE J-7T
(3.5' x 12' I.D.)
F.L. EXIST 24" 15.35 (THRU-M.H.)
F.L. 11.78

(36) STA. 22+58 (5' LT)
CONST. M.H. TYPE J-7T
(7' X 7' I.D.)
F.L. 11.57

(37) STA. 22+58 (50' LT.)
CONST. M.H. TYPE J-7AT
(7' X 7' I.D.)
F.L. EXIST 30" 13.60
F.L. 11.53

0 10 20 40 60
Scale

PROP. SAN. MH Abandoned San. M.H.

END PAVEMENT CONST. BEGIN RESURFACING STA. 20+00

PROFILE GRADE LINE

Survey Line Profile

(-) 0.2727%

20.05

PROP 8" PVCP 13.5' LT. (MATCH EX GRADE)

Abandoned 8" San. 19' R/I

8" Water

18" R.C.P.

2" Water

43"x68" R.C.P. @ (-) 0.10%

+00 P.V.I. (NOV.C.) EL 20.10

Exist. 24" R.C.P.

96" STEEL CASING

50' OF CL. V R.C.P.

FL 43"x68" 11.78
FL EXIST 24" 15.35

Top of RDI El. 21.04

18" C.M.P.

30" R.C.P.

43"x68" R.C.P. @ (-) 0.10%

+58 @ 49°48" 11.57

+82 11.49

18+00 19+00 20+00 21+00 22+00 23+00

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

AS-BUILT
REVIEWED BY _____ DATE _____
Southwest Florida Water Management District
RECEIVED
JUN 28 1974
TAMPA
Permitting Dept.

SWANN AVE.
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed
SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

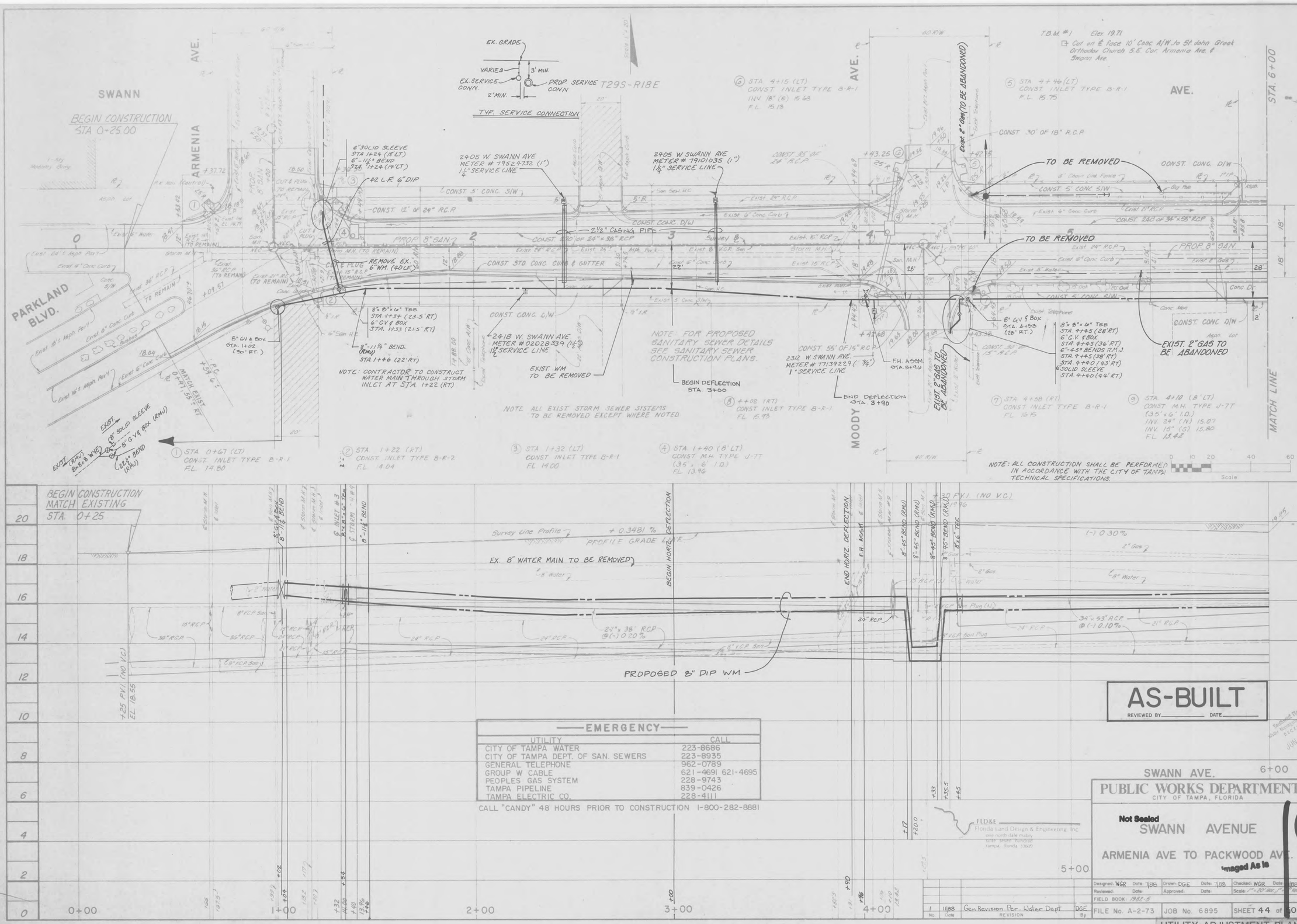
Imaged As Is

18

Designed: A.P.F. Date:	Drawn: S.A.N. Date:	Checked: Date
Reviewed: Date:	Approved: Date:	Scale:
FIELD BOOK:		

FILE No. A-2-73 | JOB No. 6895 | SHEET 418 of 50

No.	Date	REVISION	By


SWANN AVE.
BEGIN CONSTRUCTION STA 0+25.00
ARMENIA AVE.
PARKLAND BLVD.
MOODY AVE.
EX. GRADE
VARIES
3' MIN.
EX. SERVICE CONN.
PROP. SERVICE CONN
2' MIN.
TYP. SERVICE CONNECTION
T29S-R18E
T.B.M. #1 Elev. 19.71
Cut on ℄ face 10' Conc. A/W. to St. John Greek Orthodox Church S.E. Cor. Armenia Ave. & Swann Ave.
2405 W. SWANN AVE METER # 7952-4732 (1")
1¼" SERVICE LINE
2405 W. SWANN AVE METER # 79101035 (1")
1¼" SERVICE LINE
2418 W. SWANN AVE METER # 02028339 (1½")
1½" SERVICE LINE
2312 W. SWANN AVE. METER # 77139229 (¾")
1" SERVICE LINE
6" SOLID SLEEVE STA 1+24 (18' LT)
6"-11¼° BEND STA. 1+24 (14' LT)
42 L.F. 6" DIP
CONST. 5' CONC. S/W
CONST. 12' OF 24" RC.P.
CONST. CONC. D/W
2½" CASING PIPE
CONST. 200' OF 24" x 38" RCP
CONST. 5TO CONC. CURB & GUTTER
CONST. CONC. C/W
CONST. 35' OF 24" R.C.P.
CONST. 30' OF 18" R.C.P.
CONST. 2AC OF 34"x53" RCP
CONST. 55' OF 15" R.C.P.
CONST. CONC. S/W
CONST. CONC. D/W
TO BE REMOVED
REMOVE EX. 6" WM. (40 L.F.)
CUT & PLUG 15" R.C.P. TO REMAIN
CUT & PLUG TO REMAIN
PROP. 8" SAN.
EXIST. WM TO BE REMOVED
EXIST. 2" GAS TO BE ABANDONED
8"x8"x6" TEE STA. 1+34 (23.5' RT)
6" GV & BOX STA. 1+33 (21.5' RT)
8"-11¼° BEND. (RMJ) STA. 1+46 (22' RT)
8" GV & BOX STA. 1+02 (30' RT.)
8" GV & BOX STA. 4+53 (46' RT.)
8"x8"x6" TEE STA. 4+45 (28' RT)
6" G.V. & BOX STA. 4+45 (36' RT)
6"-45° BENDS R.M.J. STA. 4+45 (38' RT)
STA. 4+40 (43' RT)
6" SOLID SLEEVE STA. 4+40 (44' RT)
EXIST. 2" GAS TO BE ABANDONED
NOTE: FOR PROPOSED SANITARY SEWER DETAILS SEE SANITARY SEWER CONSTRUCTION PLANS.
NOTE: CONTRACTOR TO CONSTRUCT WATER MAIN THROUGH STORM INLET AT STA. 1+22 (RT)
NOTE ALL EXIST. STORM SEWER SYSTEMS TO BE REMOVED EXCEPT WHERE NOTED
BEGIN DEFLECTION STA. 3+00
END DEFLECTION STA. 3+90
F.H. A-53M STA. 3+96
NOTE: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF TAMPA TECHNICAL SPECIFICATIONS.
Scale
0 10 20 40 60
STA. 6+00
MATCH LINE
MATCH EXIST. 0+71 35° RT
EXIST. (RMJ) 8"x8"x8" WYE
8" SOLID SLEEVE
8" G.V. & BOX (RMJ)
22½° BEND (RMJ)
① STA. 0+67 (LT) CONST. INLET TYPE B-R-1 FL. 14.80
② STA. 1+22 (RT) CONST. INLET TYPE B-R-2 FL. 14.04
③ STA. 1+32 (LT) CONST. INLET TYPE B-R-1 FL 14.00
④ STA. 1+40 (8' LT) CONST. M.H. TYPE J-77 (3.5' x 6' I.D.) FL. 13.96
⑤ STA. 4+46 (LT) CONST. INLET TYPE B-R-1 F.L. 15.75
⑥ STA. 4+15 (LT) CONST. INLET TYPE B-R-1 INV. 18" (E) 15.63 F.L. 15.13
⑦ STA. 4+58 (RT) CONST. INLET TYPE B-R-1 FL. 16.15
⑧ 4+02 (RT) CONST. INLET TYPE B-R-1 FL. 15.93
⑨ STA. 4+10 (8' LT) CONST. M.H. TYPE J-77 (3.5' x 6' I.D.) INV. 24" (N) 15.07 INV. 15" (S) 15.80 F.L. 13.42
BEGIN CONSTRUCTION MATCH EXISTING STA. 0+25
Survey Line Profile
+0.3481 % PROFILE GRADE LINE
EX. 8" WATER MAIN TO BE REMOVED
PROPOSED 8" DIP WM
BEGIN HORIZ. DEFLECTION
END HORIZ. DEFLECTION
+30 FV.I. (NO V.C.)
(-) 0.30%
+25 PVI (NO V.C.) EL 18.55
24"x38" RCP @(-) 0.20%
34"x53" RCP @(-) 0.10%
0+00 1+00 2+00 3+00 4+00 5+00
SWANN AVE. 6+00
AS-BUILT
REVIEWED BY_____ DATE_____
EMERGENCY
UTILITY / CALL
CITY OF TAMPA WATER 223-8686
CITY OF TAMPA DEPT. OF SAN. SEWERS 223-8935
GENERAL TELEPHONE 962-0789
GROUP W CABLE 621-4691 621-4695
PEOPLES GAS SYSTEM 228-9743
TAMPA PIPELINE 839-0426
TAMPA ELECTRIC CO. 228-4111
CALL "CANDY" 48 HOURS PRIOR TO CONSTRUCTION 1-800-282-8881
FLD&E Florida Land Design & Engineering, Inc.
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA
Not Sealed
SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE.
Imaged As Is
Designed: WGR Date: 7/88 Drawn: DGE Date: 7/88 Checked: WGR Date: 7/88
Reviewed: Date: Approved: Date: Scale: 1"=20' Hor., 1"= Ver.
FIELD BOOK: 1982-5
1 11/88 Gen. Revision Per. Water Dept. DGE
No. Date REVISION By
FILE No. A-2-73 JOB No. 6895 SHEET 44 of 60
UTILITY ADJUSTMENT PLANS

AP 12087

(18) STA. 4+55 (LT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-R-1
F.L. 15.75

(19) STA. 4+55 (RT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-R-1
F.L. 14.00

(29) STA. 10+66 (LT.)
CONST. INLET TYPE B-R-2
F.L. 14.81

(28) STA. 11+38 (LT.)
CONST. INLET TYPE B-R-1
F.L. 14.50

MATCH LINE

STA. 5+00

STA. 6+00

SWANN AVE.

(20) STA. 4+55 (℄ HOWARD AVE.) (18' LT.)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 15" (W) 15.71
INV. 15" (E) 13.86
F.L. 13.31

(15) STA. 6+50 (LT.)
CONST. INLET TYPE B-V-1
F.L. 16.60

CONST. 6' OF 15" R.C.P.
12"-45° BENDS
STA. 4+42 (33' LT.) (℄ B)
STA. 4+53 (52' LT.) (℄ B)
12"x12"x8" TEE
STA. 4+31 (46' LT.) (℄ B)
8" 45° BENDS R.M.J.
STA. 4+28 (42' LT.) (℄ B)

CONST. 48' OF 36" R.C.P.

CONST. 5' CONC. S/W

CONST. 12' OF 15" RCP

Exist. Telephone

Exist. 6' Conc. Curb

Exist. 24" RCP

Exist. 24" Asph. Pav't

PROP. 8" SAN.

Exist. 2" Gas

Exist. 84" x 58" RCP

PROPOSED 12" DIP WM CL 50

ABANDON 8" GAS

8" G.V. & BOX
STA. 7+25 (28' LT.)

Exist. 15" R.C.P.

Exist. Grate Inlet

CONST. 96' OF 34" x 53" RCP

Storm M.H.

Conc. Slope

Conc. Apron

Conc. Curb

1" Wooden Planter

PROPOSED 8" DIP WATER MAIN CL 50

2303 W. SWANN AVE.
METER # 7713922 B (3/4")
3/4" SERVICE LINE

(26) STA. 3+45 (8' LT.) (℄ HOWARD AVE.)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 15" (W) 15.72
INV. 18" (E) 13.49
F.L. 13.24

(27) STA. 7+45 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 30" (S) 13.12
INV. 36" (W) 13.21
F.L. 13.08

(26a) STA. 3+75 (8' LT.) (℄ HOWARD)
CONST. CONC. COLLAR
INV. 15" (N) 13.90
℄ 30" 13.18

HOWARD AVE.

PROP. R/W LINE

CONST. 60' OF 30" R.C.P.

PROFILE GRADE TO BE REMOVED

PROP. 8" GAS

Exist. 8" Gas

Exist. 6" Conc. Curb

Exist. 6" Conc. Curb & Gutter

Exist. 8" Conc. Curb

Exist. 8" Asph. Pav't

Exist. 40' R/W

15.30'

18.70'

25.30'

28.70'

MATCH LINE

STA. 3+00

CONST. 28' OF 15" R.C.P.

STA. 7+52.83 SWANN AVE. ℄ =
STA. 4+00 ℄ "B" FROM SOUTH

2110 W. SWANN AVE
METER # 76DT2069 (3/4")
3/4" SERVICE LINE

1-Sty Masonry Bldg.

BEGIN PAVT. TRANS. 2%

CONST. 67' OF 43" x 68" RCP

CONST. CONC. D/W

CONST. 12' OF 15" RCP

CONST. 110' OF 43" x 68" R.C.P.

CONST. 24' OF 15" RCP

℄ PROP. 10" SAN.

SURVEY ℄

Exist. 8" Water TO BE REMOVED

Exist. 40' Asph. Pav't

CONST. CONC. D/W

Conc. Apron

Conc. Pump Island

Asph. Lot

Bond Flat Sign Post

Aluminum Overhang

STA. 7+62.78 SWANN AVE ℄ =
STA. 4+00 ℄ "B" TO NORTH

(41) STA. 8+05 (RT.)
CONST. INLET TYPE B-R-2
F.L. 15.80

(41a) STA. 8+12 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 13.93
INV. 15" (S) 13.70
F.L. 13.01

702 S. HOWARD AVE
METER # 85079199 (1")
1" SERVICE LINE

(25) STA. 3+65 (RT.) (℄ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 13.50

T29S-R18E

Scale 1" = 20'

(40) STA. 8+12 (LT.)
CONST. INLET TYPE B-S-1
F.L. 14.00

CONST. 48' OF 18" R.C.P.

6" G.V. & BOX
STA. 10+75 (50' LT.)
6"-45° BENDS E.M.
STA. 10+75 (42' LT.)
STA. 10+63 (31' LT.)

8"x8"x6" TEE
STA. 10+63 (28' LT.)

PROPOSED 8" DIP WATER MAIN CL 50

Asph. Lot

Exist. 8" Water TO REMAIN

2-Sty. Office Bldg.

2111 W. SWANN AVE
METER # 02028368 (1½")
1½" SERVICE LINE

8"x8"x6" TEE
STA. 11+14 (28' LT.)

Conc. Curb

Exist. 6" Conc. Curb

8" G.V. & BOX
STA. 11+23 (28' LT.)

CONST. 5' CONC. S/W

SAW CUT

CONST. 20' OF 18" R.C.P.

CONST. STD. CONC. CURB & GUTTER

CONST. 216' OF 43" x 68" R.C.P.

PROPOSED 8" DIP
C.L. 150 W.M.

43" x 68" R.C.P.

CONST. 36' OF 18" R.C.P.

Exist. 6" Conc. Curb

10 Pine

12" Elm

2' High Hedge

6" G.V. & BOX
STA. 11+14 (30' RT.)
6" x 2" RED.
STA. 11+14 (32' RT.)

NOTE: FOR PROPOSED SANITARY SEWER DETAILS, SEE SANITARY SEWER CONSTRUCTION PLANS

CONST. 32' OF 15" R.C.P.

(31) STA. 10+70 (RT.)
CONST. INLET TYPE B-R-1
INV. 15" (E) 14.62
F.L. 14.37

(30) STA. 11+30 (RT.)
CONST. INLET TYPE B-R-1
F.L. 14.75

(32) STA. 10+70 (5' LT.)
CONST. M.H. TYPE J-7T
(3.5' x 8' I.D.)
INV. 18" (N) 14.23
INV. 18" (S) 14.23
F.L. 12.75

(39) STA. 9+22 (5' LT.)
CONST. CONFLICT M.H. TYPE J-7T
(4' x 8' I.D.)
F.L. 12.90
BOTTOM EL. 1140

NOTE: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF TAMPA TECHNICAL SPECIFICATIONS.

ABANDON 2" GAS

WESTLAND AVE.

60' R/W

0 10 20 40 60
Scale

AS-BUILT
REVIEWED BY: _____ DATE: _____

(16) STA. 6+50 (RT.)
CONST. INLET TYPE B-V-1
F.L. 14.00

(17) STA. 6+50 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 15.58
INV. 15" (S) 13.89
F.L. 13.18

℄ STORM M.H. #17

12"x8" RED.

℄ Grate Inlet

12"x12"x12" TEE

8" Curb Box

℄ Inlet 2

8"-45° BEND (RMJ)

℄ STORM M.H. #27

8"-45° BEND (RMJ)

+55 P.V.I. (NO V.C.)
EL. 14.67

℄ Inlet 3

℄ Inlet 2

℄ STORM M.H. #28

℄ CONFLICT M.H. #39

℄ San. M.H.

8"x8"x6" TEE

℄ STORM M.H. #32

8"-45° BEND (RMJ)

8"-45° BEND (RMJ)

8"x8"x6" TEE

8" Curb & Box

+50 P.V.I. (NO V.C.)
EL. 14.80

(-) 0.3%

+0.3584%

(-) 0.40%

+0.33%

Survey Line Profile

PROFILE GRADE LINE

2" Gas

8" Gas

6" Gas

6" Water

8" Water

PROPOSED 8" PVC SAN. SEW.

15" Water

Exist 16"

15" RCP (N)

12" RCP

15" RCP

18" RCP

12" R.C.P.

15" R.C.P.

18" R.C.P.

24" R.C.P.

84" x 58" R.C.P.

21" R.C.P.

15" RCP

84" x 58" R.C.P. @ (-) 0.10%

12"x18" CMP

MH. 18"

36" R.C.P. (N)
36" R.C.P. (S)

15" R.C.P. (S)

EX. 8" WM TO BE REMOVED

43" x 68" R.C.P. @ (-) 0.10%

8" PVC San.

PROPOSED 8" DIP WATER MAIN CL 50

15" R.C.P. (N)

PROPOSED 10" PVC SAN. SEWER

18" R.C.P. (N & S)

43" x 68" R.C.P. @ (-) 0.10%

Surveyed Field Water Numbers Added 8-6-93 JJM

TAMPA Permitting Dept.

SWANN AVE. 12+00

11+00

FLD&E Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

6+00 7+00 8+00 9+00 10+00

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

20

Designed: WGR Date: 7/88	Drawn: DGE Date: 7/88	Checked: WGR Date: 11/88
Reviewed: Date:	Approved: Date:	Scale: 1" = 20'
FIELD BOOK: 1982-5		

No	Date	REVISION	By
1	11/88	Gen. Revision Per Water Dept	DGE

FILE No. A-2-73 | JOB No. 6895 | SHEET 45 of 50

UTILITY ADJUSTMENT PLANS

AP 12087

SWANN AVE.

STA. 12+00

MATCH LINE

60' R/W

BEGIN HORIZ DEFLECTION STA. 12+00 (2.8' LT)

END HORIZ. DEFLECTION STA. 12+50 (25.5' LT)

F.H. ASSEMBLY STA. 13+99 (3.6' LT)

PROPOSED 8" DIP WATER MAIN CL 50

STA 13+93 (25.5' LT) 8" G.V. & BOX

8" Palm

8' Palm

Walnut Drive

Palm M.H.

4.5'

9.6' Conc S/W

Exist Telephone

Exist 6" Conc Curb

8"x8" TEE STA. 12+50 (7.6' LT.)

8" G.V. & BOX STA. 12+50 (13' LT.)

8" 45° BENDS R.M.J. STA. 12+50 (3' LT.) STA 12+56 (17' LT.)

EX. 8" W.M. TO BE REMOVED

25.5' CONST. 287' OF 43"x68" RCP

18.66' +39.10

17.91' +39.41

REMOVE WATER LINE

10" CUT IN SLEEVE 10"x10"x8" TEE STA. 14+17. (25.5' LT.)

8" G.V. WITH RESTRAINED PLUG

13 14 15 16 17

CONST. STD. CONC. CURB & GUTTER

CONST 335' OF 43"x68" R.C.P.

Exist 40'± Asphalt Pvmt

Exist 6" Conc Curb

5.5' Asphalt S/W

5' CL Fence

Exist 8" Water

Abandoned 8" San

5' Asphalt S/W

5' CL Fence

Asphalt D/W

1 High Conc Curb

5' Conc S/W

Planters

Exist Telephone

Conc Pvmt

+43.33

+42.64

MELVILLE AVE.

50' R/W

STA. 18+00

MATCH LINE

60' R/W

8 Trees

Conc Drive

15' Pvmt

Asphalt Parking

8"-45° BENDS R.M.J. STA. 12+56 (24' RT.) STA. 12+57 (26' RT.) 8" SOLID SLEEVE R.M.J. STA. 12+57 (28' RT.)

ALBANY AVE.

Conc Drive

+42.68

+43.35

Exist Telephone

50' R/W

(33) STA. 14+28 (5' LT.) CONST. M.H. TYPE J-7T (3.5'x3.5' I.D.) F.L. 12.40

(34) STA. 17+60 (5' LT.) CONST. M.H. TYPE J-7T (3.5'x7.5' I.D.) F.L. 12.06

NOTE: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF TAMPA TECHNICAL SPECIFICATIONS.

Scale 1"=20'

0 10 20 40 60 Scale

BEGIN HORIZ. DEFLECTION

END HORIZ. DEFLECTION 8"x6"x8" TEE (2.8' LT.)

8"x45° BEND (RT.)

8"-45° BEND (RT.)

8" G.V. & BOX

F.H. ASSEMBLY

10"x10"x8" TEE

STORM M.H. #33

+50 FYL (NO VC) EL 21.60

STORM M.H. #34

+0.93%

-0.2727%

PROFILE GRADE LINE

Survey Line Profile

EX. 8" WATER MAIN TO BE REMOVED

PROPOSED 8" DIP W.M. CL 50

18" MIN.

8" Water

8" Sanitary Sewer

Ø Exist. Tel.

EXIST. 8" W.M.

Abandoned 8" San Sewer

43"x68" RCP @ (-) 0.10%

43"x68" RCP @ (-) 0.10%

20.77

20.65

18+00

17+00

12+00

13+00

4+00

15+00

16+00

SWANN AVE.

AS-BUILT

REVIEWED BY_____ DATE_____

TLD&E Florida Land Design & Engineering, Inc. one team one vision suite seven hundred tampa, florida 33609

No	Date	Revision	By
2	4/89	GEN. REVISION	DGE
1	11/88	Gen. Revision Per Water Dept	DGE

Designed WJR Date 7/88 | Drawn DGE Date 7/88 | Checked WJR Date 7/88

Reviewed Date | Approved Date | Scale 1"=20' HOR. 1"=2' VER.

FIELD BOOK | FILE No. A-2-73 | JOB No. 6895 | SHEET 46 of 50

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

21

UTILITY ADJUSTMENT PLANS

Scale 1"=20'

Sec. 26-T29S-R18E

HOWARD AVE

709 S. HOWARD AVE METER # 852897 76 (3/4") 1" SERVICE CONNECTION

BEGIN HORIZONTAL DEFLECTION 2+71 (19' LT.)

STA. 3+00

STA. 0+00 (AHD) = STA. 10+00 (BK)

12"-45° BEND STA. 0+80, 1+02 (8' LT.)

12"-45° BEND STA. 1+18 (19' LT.)

PROPOSED 12" DIP WATER MAIN CL 50

PROP. 10" SAN.

8" GAS TO REMAIN

CONST. 12' OF 15" R.C.P.

CONST. 230' OF 30" R.C.P.

PROFILE GRADE

ABANDON 8" GAS

CONST. STD CONC. CURB & GUTTER

CONST. CONC. D/W

PROP. R/W

EXISTING 10" WATER TO BE REMOVED

MATCH LINE

12" G.V. & BOX STA. 0+62 (10' RT.)

+62 BEGIN PVMT. & SIDEWALK TRANSITION

+80 END SIDEWALK TRANS.

TO BE ABANDON

CONST. 28' OF 24" R.C.P.

PROP. 8" GAS

Exist. Parking Lot Drain

2212 W. SWANN AVE. METER # 3160230 9 (1"x2") 2" SERVICE CONNECTION

+00 END PVMT TRANSITION

+27 @ 20.0% D/W

BEGIN CONSTRUCTION STA. 0+62.00

PROPOSED 12" G.V. EXISTING 12" WYE R.M.J. EXISTING

NOTE: FOR PROPOSED SANITARY SEWER DETAILS, SEE SANITARY SEWER CONSTRUCTION PLANS.

(21) STA. 1+10 (LT) CONST. INLET TYPE 1 F.L. 16.55

(22) STA. 1+10 (RT.) CONST. INLET TYPE B-S-1 F.L. 13.80

(23) STA. 1+15 (8' LT.) CONST. M.H. TYPE P-7T INV. 15" (W) 16.51 INV. 24" (E) 13.72 F.L. 13.70

NOTE: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF TAMPA TECHNICAL SPECIFICATIONS.

SEE SHEET 45 FOR PLAN VIEW

0 10 20 40 60 Scale

BEGIN CONSTRUCTION MATCH EXISTING STA. 0+62.00

12"-45° BEND (RMJ)

12"-45° BEND (RMJ)

@ 21.5' 12"-45° BEND #2

12"-45° BEND (RMJ)

Survey Line Profile

PROFILE GRADE LINE

EX 12" WATER MAIN TO BE REMOVED

12" PVI (NO V.C.) EL 20.32

12" VCP San

15" RCP (E)

24" RCP (e)

30" RCP @ (-) 0.20%

Exist Tel. Ø

PROPOSED 12" DIP WATER MAIN CL 50

RESTRAINED JOINT PIPE 60'

RESTRAINED JOINT PIPE

BEGIN HORIZ. DEFLECTION

END HORIZ. DEFLECTION

E STORM M.H. #26

+00 PVI (NO V.C.) EL 14.87

G STORM M.H. #27

+0.40% 8" GAS

15" RCP (E)

18" RCP (E)

SEE SHT. 48 FOR CONTINUATION OF 12" DIP W.M.

INV. 30" RCP 13.12 INV. 18" RCP 13.22

MIN. 16"

+45 PVI (NO V.C.) EL 19.45

AS-BUILT

REVIEWED BY_____ DATE_____

Zoning Dept. Solar Inspection Dept. RECEIVED JUN 29 1989 Permitting Dept.

HOWARD AVE.

PUBLIC WORKS DEPARTMENT

CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Imaged As Is

FLD&E Florida Land Design & Engineering, Inc one north dale mabry suite seven hundred tampa, florida 33609

Designed: WJR Date: 7/88	Drawn: DGE Date: 7/88	Checked: WJR Date: 7/88
Reviewed: Date:	Approved: Date:	Scale: 1"=20' Hor. 1" Ver.
FIELD BOOK: 1982-5		

FILE No. A-2-73	JOB No. 6895	SHEET 47 of 50

No.	Date	REVISION	By
1	4/89	GEN. REVISION	DGE

UTILITY ADJUSTMENT PLANS

22

Sec. 23-T29S-R18E

HOWARD AVE.

STA. 5+00

PROP. R/W LINE

CONST. CONC. SIW

CONST. CONC. DIW

PROPOSED 12" DIP WATER MAIN CL 50

CONST 342' OF 36" R.C.P.

CONST STD. CONC. CURB & GUTTER

EXIST 6" GRANITE DROP CURB

(TO BE REMOVED)

CASING PIPE (TYP.)

EXIST 30'± BRICK PVMT

PROFILE GRADE

ABANDON

Survey ℄ "B"

CONST. 26' OF 24" R.C.P.

PROP. 8" GAS

EXIST 8" GAS

EXIST 6" CONC. SIW

614 S HOWARD AVE
METER # 76091028 (3/4")
1/4" SERVICE LINE

610 S. HOWARD AVE
METER # 76081029 (3/4")
1/4" SERVICE LINE

602 S HOWARD AVE
METER # 79101869 (1")
METER # 76066802 (1")
1/4" SERVICE LINE

MATCH LINE

+00 END PAVT TRANS. (RT)

+68 END R/W TRANS.

+65 END R/W TRANS.

+00 END PAVT TRANS (LT)

NOTE: EXISTING STORM SEWER TO BE REMOVED UNLESS OTHERWISE NOTED.

F.H. ASSEMBLY
STA. 8+13 (26' LT.)

CONST. 4' OF 15" R.C.P.

ST.

DELEON

60' R/W

CONST. 60 OF 24" R.C.P.

CONST. TYPE 'D' CURB

EXIST. 15" R.C.P. (To Remain)

EXIST. 6" CONC. CURB

CONST. 78 of 24" R.C.P.

Asphalt Parking Lot

EXIST. 15" R.C.P. (To Remain)

EXIST. Storm M.H. (To Remain)

CONST. 22 OF 15" R.C.P.

CONST. TYPE 'D' CURB

12"-45° BENDS
STA. 9+80 (18' LT)
STA. 9+93

RESET EXIST. GRANITE CURB AS REQ'D

EXIST. 10'± Asphalt Pvmt

EXIST 8" Gas

12" G.V. & BOX
STA. 10+00

BEGIN HORIZONTAL DEFLECTION
STA. 8+86 (26.6' LT)

(TO BE REMOVED)
RESET EXIST. GRANITE CURB AS REQ'D

END HORIZ. DEFLECTION
STA. 9+57 (18' LT.)

EXIST 12" CONC. SIW

END CONSTRUCTION
STA. 10+00

CONST. TYPE 'D' CURB

EXIST. Asph. Pvmt

Conc. S.I.T.

Conc. & Metal Bldg.

60' R/W

(14) STA. 8+00 (12' LT)
CONST. M.H. TYPE P-7T
INV. 24" (N.) 14.84
INV. 24" (E.) 14.44
INV. 15" (W.) 15.89
F.L. 14.00

(13) STA. 8+00 (RT.)
CONST. INLET TYPE B-V-1
INV. 24" (N) 15.37
F.L. 14.60

(12) STA. 8+65 (RT.)
CONST. INLET TYPE B-V-1
F.L. 15.50

(11) STA. 8+00 (LT.)
CONST. INLET TYPE B-V-1
F.L. 15.90

(10) STA. 8+80 (LT.)
CONST. INLET TYPE B-V-1
F.L. 15.00

NOTE: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF TAMPA TECHNICAL SPECIFICATIONS.

0 10 20 40 60
Scale

SEE SHEET 45 FOR PLAN VIEW

12"-45° BEND (RMJ)

+00 P.V.I. (NO V.C.)
EL. 19.67

E STORM M.H. # 27

12"-45° BEND (RMJ)

(+) 0.30%

E STORM M.H. # 20

(+) 0.375%

+00 P.V.I. (NO V.C.)
EL. 20.05

Survey Line Profile

PROFILE GRADE LINE

(-) 0.30%

+54.88 P.V.I. (NO V.C.)
EL. 14.51

36" COVER MIN.

36" R.C.P. @ (+) 0.80%

PROPOSED 12" DIP WATER MAIN CL 50

MIN. 18"

RESTRAINED JOINT PIPE

+56

+91
+96
+05
INV 36" R.C.P. = 13.81
INV 42" R.C.P. = 13.68
+115
+145

4+00
5+00
6+00
7+00
8+00
9+00
10+00

E STORM M.H. #18

+30%

12"-45° BEND (RMJ)

12"-45° BEND (RMJ)

HORIZONTAL DEFLECTION

12" PVC

24" R.C.P. @ (+) 0.20%

18" MIN.

EXIST. 12" W.M.

RESTRAINED JOINT PIPE

+12

+57
+80
+95
+72
+75
+85
+87
+90
+20
15.20

END CONSTRUCTION
MATCH EXIST. PVMT.
STA. 10+00
EL. 20.05

12"-45° BEND

12"-45° BEND
8"-G.V. & Box

HOWARD AVE.

AS-BUILT
REVIEWED BY_____ DATE_____

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

Not Sealed

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE.

Imaged As Is

Designed: WGR Date: 7/88	Drawn: DGE Date: 7/88	Checked: WGR Date: 11/88
Reviewed: Date:	Approved: Date:	Scale: 1"=40', 1"=4', 1"=10'
FIELD BOOK 1982-5		

No	Date	REVISION	By
1	11/88	Gen. Revision Per Water Dept.	DGE

FILE No. A-2-73 JOB No. 6895 SHEET 48 of 56

23

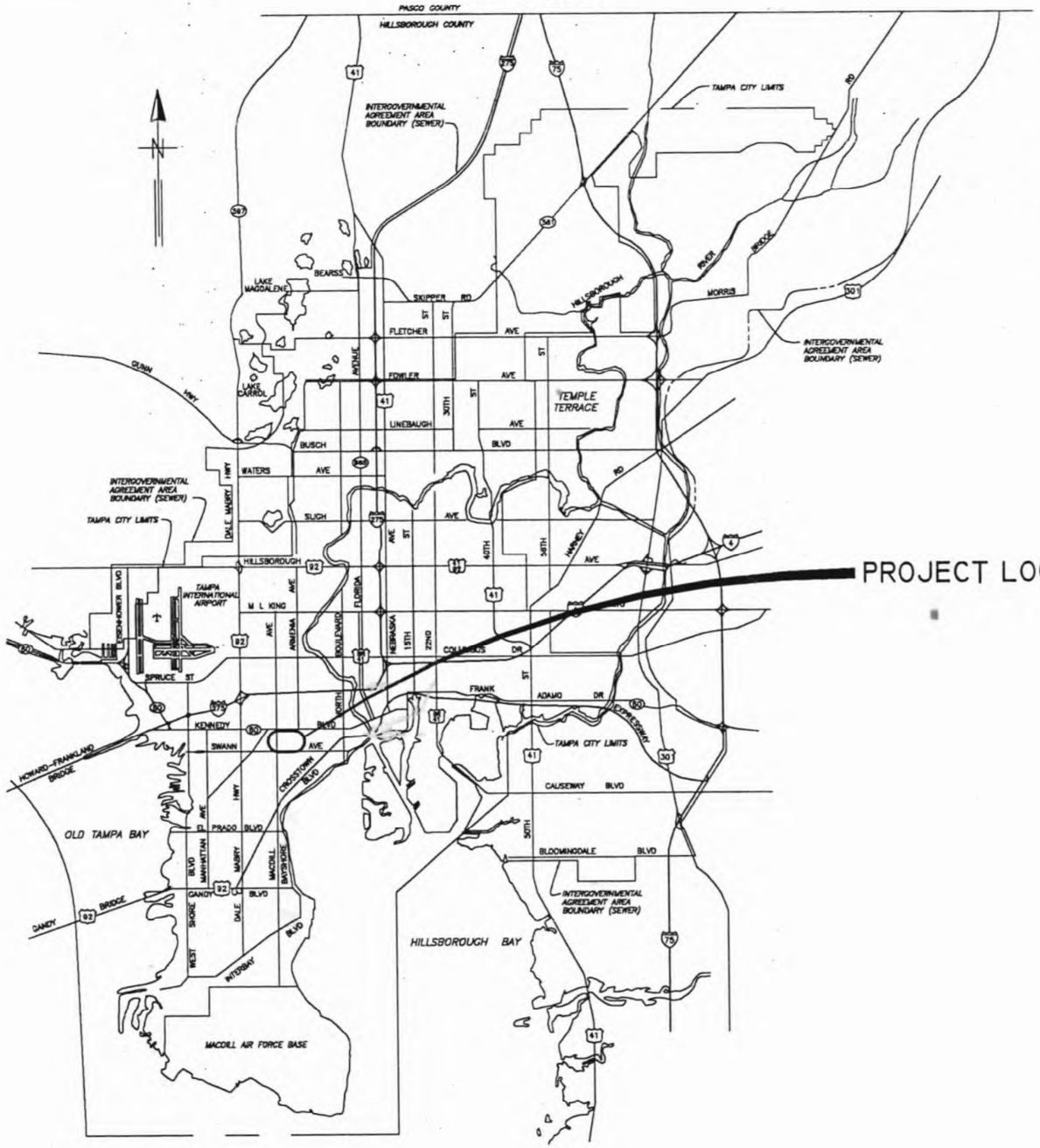
UTILITY ADJUSTMENT PLANS

P.4 ZOM Pond ERP Documentation

TS0642

SW

LOCATION MAP



CITY of TAMPA

CITY OF TAMPA FLORIDA
ORGANIZED JULY 15 1887
MASCOTTE

MAY 10 2000
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
PERMITTED CONSTRUCTION DRAWINGS

FILE OF RECORD
PERMIT NO. 4420724 00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Reviewed
APR 11 2000
RRO Tampa

DEPARTMENT OF SANITARY SEWERS

PLANS FOR

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND

CONTRACT 10-00

THIS DOES NOT CONTAIN EXEMPT INFO

4/10/00

1=1

C:\DWG\STORM\5697-1

HENRY DORZBACK, P.E. #39449 CHIEF ENGINEER DEPARTMENT OF SANITARY SEWERS	RALPH L. METCALF II, P.E. DIRECTOR DEPARTMENT OF SANITARY SEWERS	DES: A.D. DRN: BB CKD: DATE:	No.	DATE	REVISIONS	CITY of TAMPA DEPARTMENT OF SANITARY SEWERS STORMWATER DIVISION	COVER SHEET	W.O. 5697 SHEET 1 OF 28
			3					
			2					
			1					

SW

LEGEND

	UP to 36" & SMALLER	36" & LARGER
EX SEWERS		
EX FORCE MAIN		
EX SAN SEWER & MANHOLES		
EX STORM SEWER & MANHOLES		
PROP SEWERS		
PROP FORCE MAIN		
PROP SANITARY SEWER & MANHOLES		
PROP STORM SEWER & MANHOLES		

OTHER FEATURES

RIGHT of WAY LINE — R/W
EDGE of PAVEMENT
WATER LINE
GAS LINE
ELECTRICAL CABLE or DUCT
TELEPHONE CABLE or DUCT
TV CABLE
VALVE
HYDRANT
CATCH BASIN, GRATE
POWER POLE
TELEPHONE POLE
GUY POLE
GUY WIRE

VALVE VAULT — V
WATER METER — M
ELECTRICAL MANHOLE or VAULT — E
TELEPHONE MANHOLE or VAULT — T
TRAFFIC BOX or VAULT — TR
BUILDING LIMIT — 1236
PROPERTY OWNERSHIP
FENCE
CONIFER
PALM — 8"
OAK — 10"
OTHER — 12"
SHRUB
HEDGE
RAILROAD TRACKS
IRON PIPE
CONCRETE MONUMENT
OPEN DITCHES
EXISTING WYE
PROPOSED WYE
CLEAN OUT

ABBREVIATIONS

TOP of PIPE	TP	DUCTILE IRON PIPE	DIP
INVERT ELEVATION	IE or INV EL	REINFORCED CONCRETE PIPE	RCP
RIGHT of WAY	R/W	CONCRETE PIPE	CP
MANHOLE	MH or ⓂH	APPROXIMATE LOCATION	AL
POLYVINYL CHLORIDE PIPE	PVCP	BENCH MARK	BM
VITRIFIED CLAY PIPE	VCP	POINT of INTERSECTION	PI
ADVANCED DRAINAGE SYSTEM	ADS		

INDEX

SH No	DESCRIPTION	FROM	TO
1	COVER SHEET		
2	PROJECT MAP, LEGEND & INDEX		
3	NOTES		
4	PROPOSED POND AREA	AUDUBON	ARMENIA
5	PLAN & PROFILE(STORMWATER)	DELEON	HORATIO
6	PLAN & PROFILE(STORMWATER)	TAMPANIA	ARMENIA
7	PLAN(SANITARY)	SWANN	DELEON
8	PROFILE(SANITARY)	SWANN	DELEON
9	PLAN(SANITARY)	DELEON	HORATIO
10	PROFILE(SANITARY)	DELEON	HORATIO
11	PROPOSED WATER PLANS	AUDUBON	TAMPANIA
12	STORMWATER DETAILS		
13	MANHOLE DETAILS		
14	HOUSE CONNECTION DETAILS		
15	MISCELLANEOUS DETAILS		
16	PLANTING PLAN		
17–28	CROSS SECTIONS		



PROJECT MAP 4420724 00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT Received APR 11 2000 RRD Tampa

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROJECT MAP, LEGEND & INDEX

W.O. 5697
SHEET 2 OF 28

C:\DWG\STORM\5697-2

SW

NOTES

1. ALL ELEVATIONS ARE BASED ON NOS DATUM UNLESS OTHERWISE NOTED.

2. LOCATIONS OF EXISTING UNDERGROUND UTILITIES WERE PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE. VERIFY THE LOCATION AND DEPTH OF ALL PERTINENT UTILITIES PRIOR TO CONSTRUCTION. NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION.

3. NEW HOUSE CONNECTION LOCATIONS ARE APPROXIMATE ONLY. REQUIRED LOCATION AND DEPTH WILL BE COORDINATED WITH THE HOMEOWNER AT THE TIME OF CONSTRUCTION BY THE D.S.S. CONSTRUCTION CREWS.

4. WHERE AN EXISTING SEWER IS TO BE REMOVED OR ABANDONED AND REPLACED WITH A NEW SEWER, CONTINUOUS SEWER SERVICE MUST BE MAINTAINED AT ALL TIMES, WHILE CONNECTING THE LATERALS TO THE NEW SEWER IN PLACE.

5. THE MINIMUM CLEARANCE BETWEEN HOUSE LATERALS AND WATER LINES SHALL BE 6" UNDER ALL CIRCUMSTANCES. IF THE HOUSE LATERAL IS BELOW A WATER LINE AND HAS BETWEEN 6" AND 18" OF CLEARANCE, OR IF THE LATERAL IS ABOVE THE WATER LINE REGARDLESS OF CLEARANCE, THEN A NOMINAL 20' LENGTH OF GREEN AWWA CLASS 150 C900 PVC PIPE SHALL BE CENTERED OVER/UNDER THE WATER LINE.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

4420724 00

1=1

C:\DWG\STORM\5697-3

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

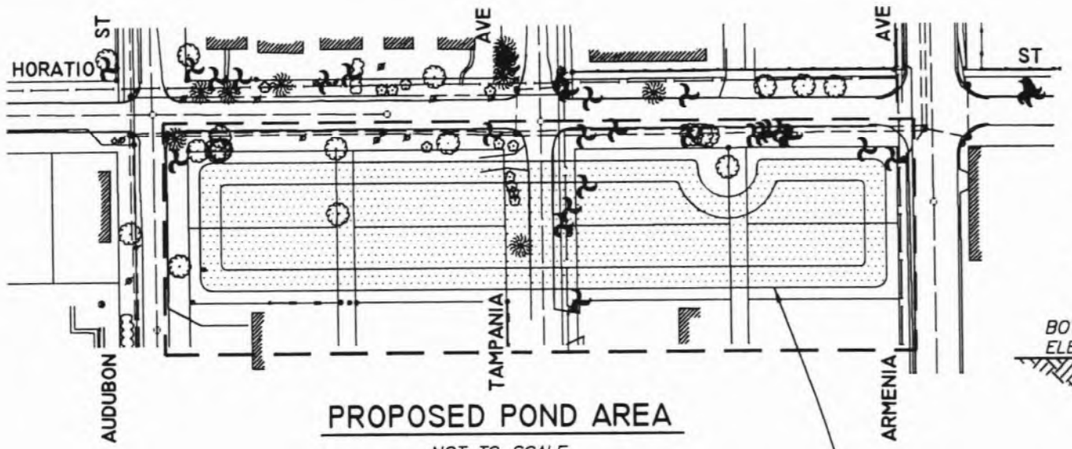
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROJECT MAP, LEGEND & INDEX

W.O. 5697
SHEET 3 OF 28

3

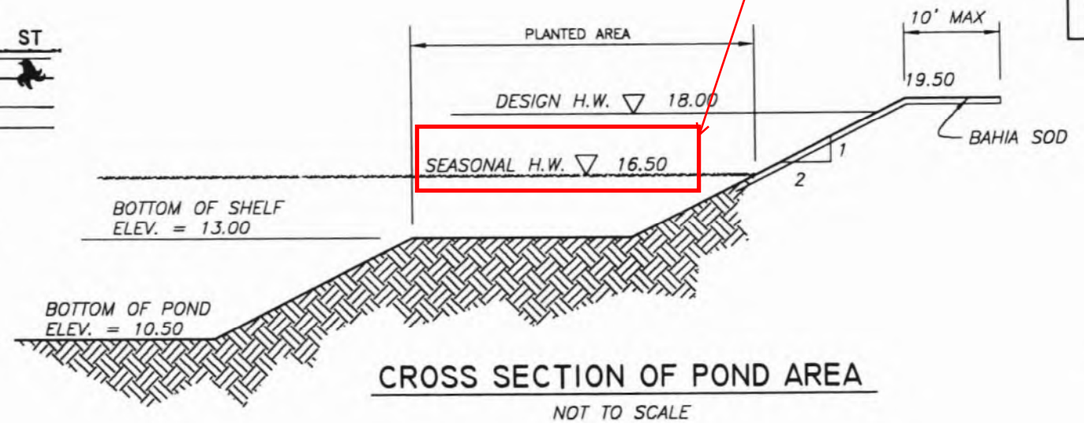
EL 15.64 NAVD88

SW



PROPOSED POND AREA

NOT TO SCALE

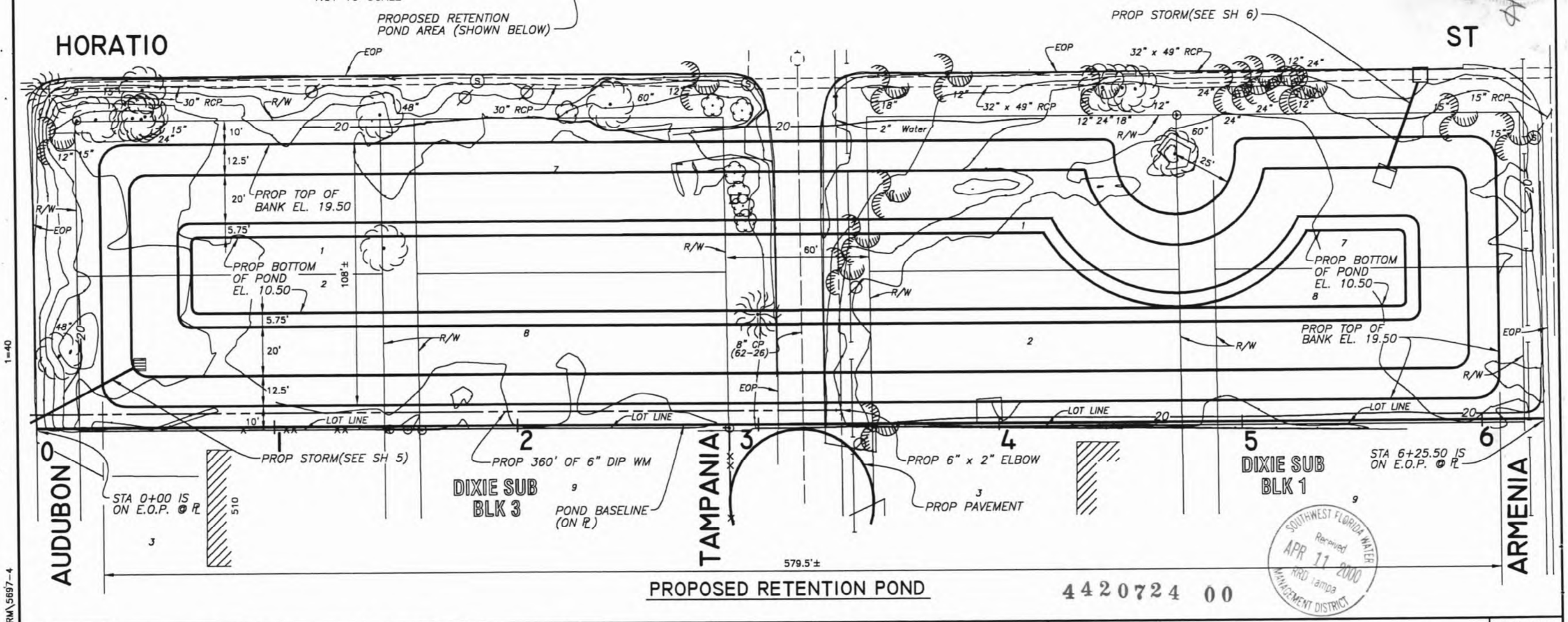


CROSS SECTION OF POND AREA

NOT TO SCALE



PROPOSED RETENTION POND AREA (SHOWN BELOW)



PROPOSED RETENTION POND

4420724 00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

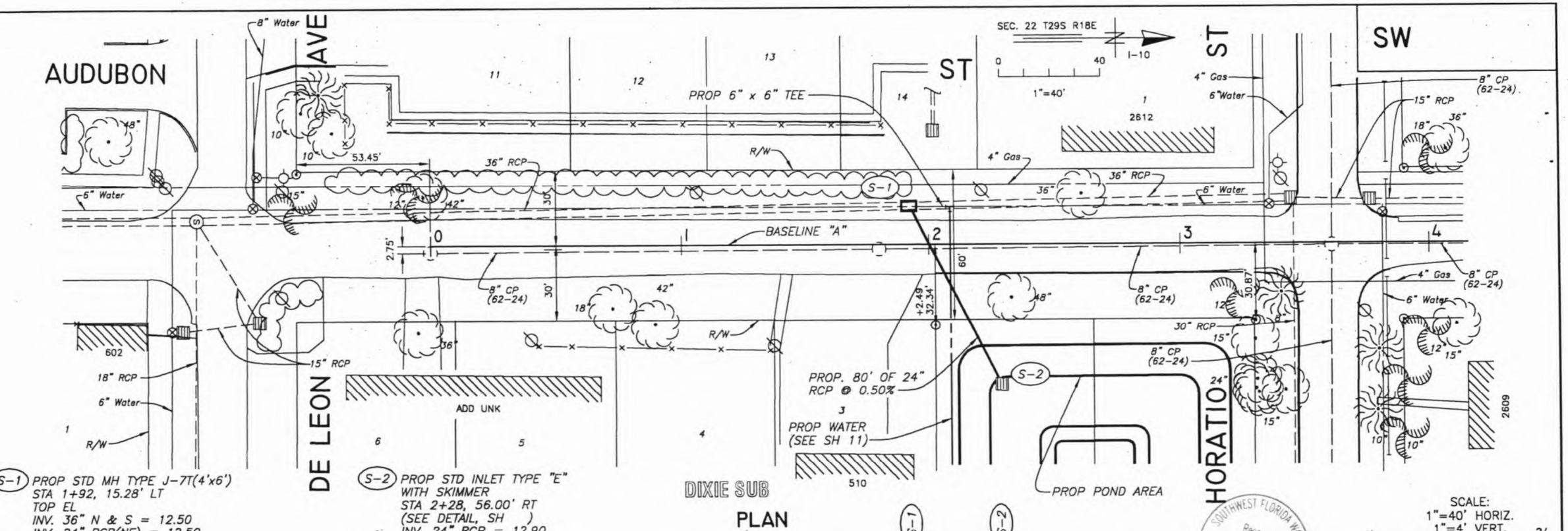
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROPOSED POND

W.O. 5697
SHEET 4 OF 28

1=40

C:DWG\STORM\5697-4

4



No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PLAN AND PROFILE

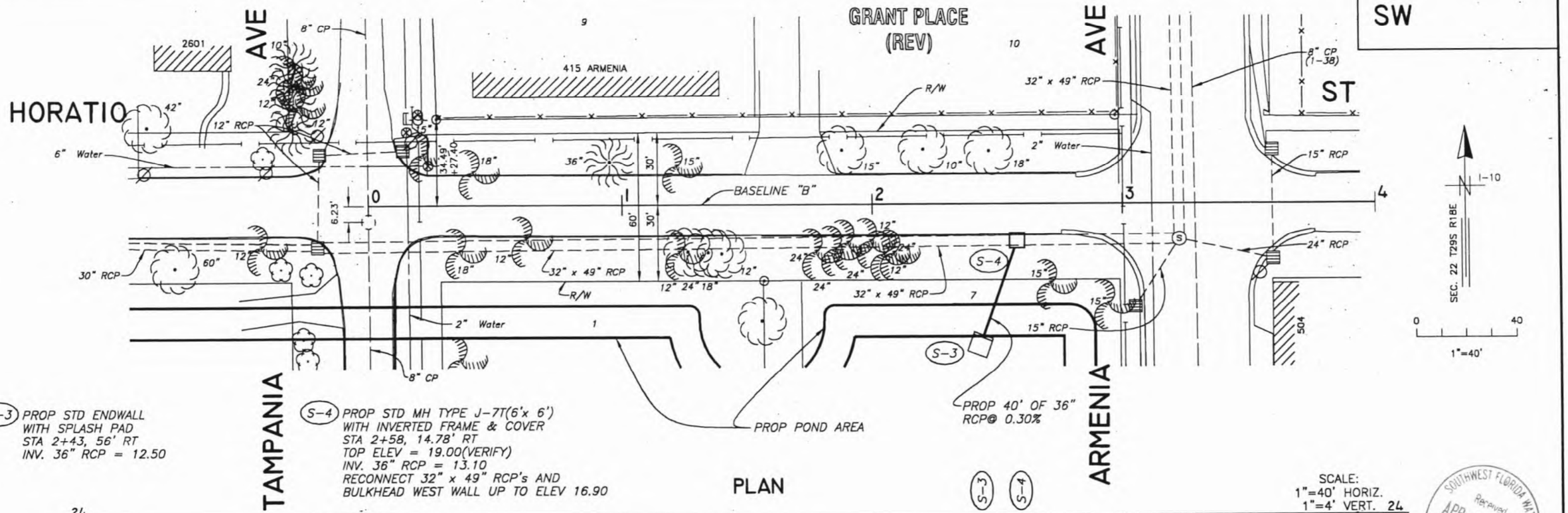
W.O. 5697
SHEET 5 OF 28

C:DWG\STORM\5697-4

1=40

5

SW

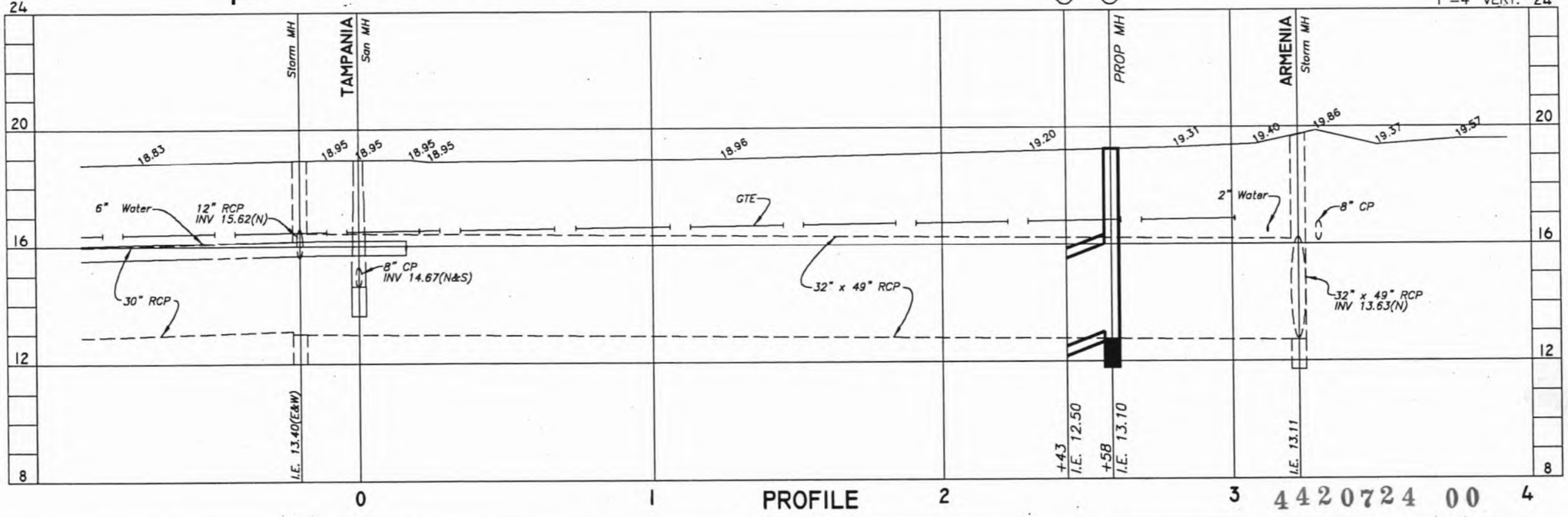


(S-3) PROP STD ENDWALL
WITH SPLASH PAD
STA 2+43, 56' RT
INV. 36" RCP = 12.50

(S-4) PROP STD MH TYPE J-7T(6'x 6')
WITH INVERTED FRAME & COVER
STA 2+58, 14.78' RT
TOP ELEV = 19.00(VERIFY)
INV. 36" RCP = 13.10
RECONNECT 32" x 49" RCP's AND
BULKHEAD WEST WALL UP TO ELEV 16.90

PLAN

SCALE:
1"=40' HORIZ.
1"=4' VERT.



PROFILE

4420724 00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

4/13/00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

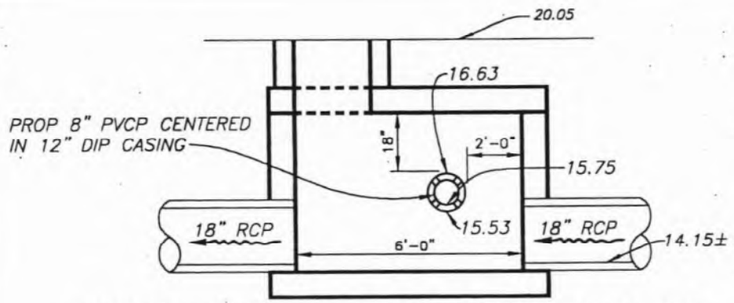
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PLAN AND PROFILE

W.O. 5697
SHEET 6 OF 28

1=40
C:DWG\STORM\5697-4

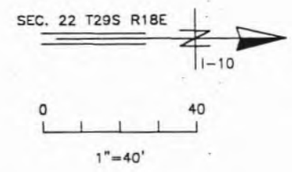
SW

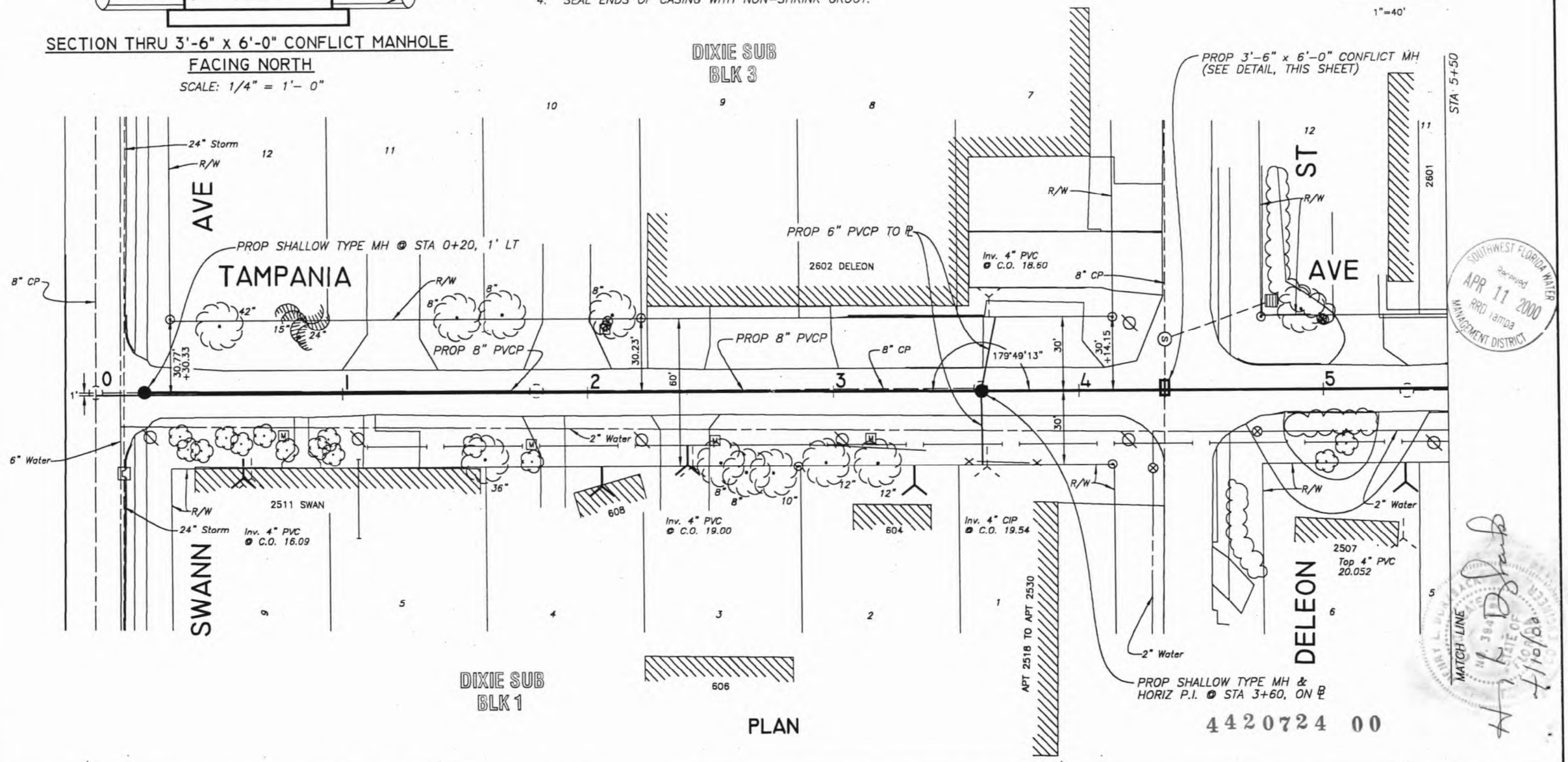


SECTION THRU 3'-6" x 6'-0" CONFLICT MANHOLE
FACING NORTH
SCALE: 1/4" = 1'- 0"

NOTES:

1. DO NOT CONSTRUCT PAVED INVERT / BENCHING IN CONFLICT STRUCTURES.
2. USE 12" DIA., CLASS 52 DIP, MINIMUM OF 7'-10" LONG, CENTERED ON CONFLICT STRUCTURE AS CASING.
3. CENTER 8" DIA. PVCP WITHIN DIP CASING WITH TWO STAINLESS STEEL, CASCADE WATERWORKS MFG. CO. CASING SPACERS.
4. SEAL ENDS OF CASING WITH NON-SHRINK GROUT.





PLAN

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: J.P.W.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

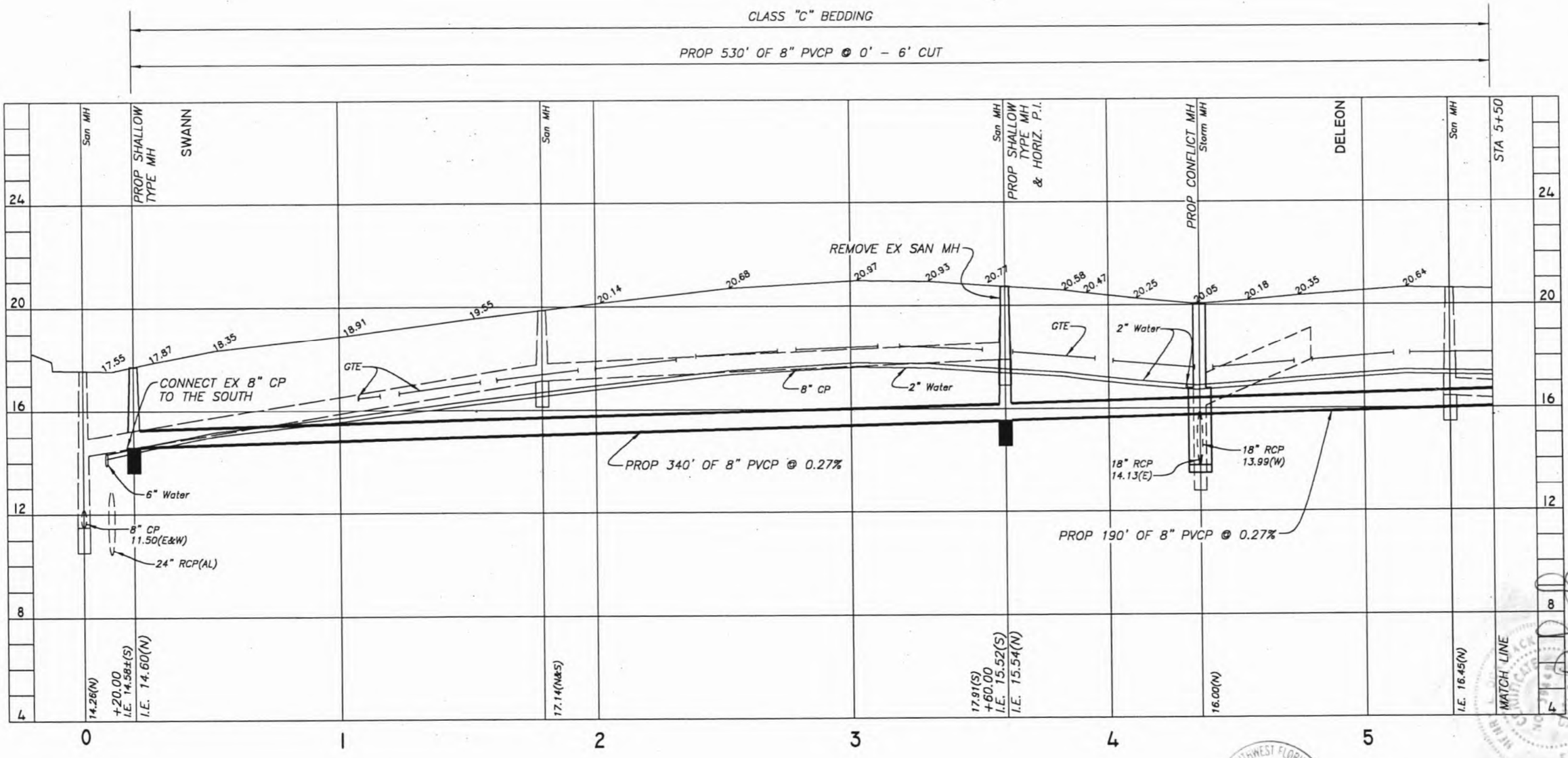
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PLAN SHEET

W.O. 5697
SHEET 7 OF 28

1=40

C:\DWG\STORM\5697-5

SW



PROFILE

SCALE:
1"=40' HORIZ.
1"=4' VERT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

4420724 00

1=40

C:\DWG\STORM\5697-5

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: J.P.W.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROFILE SHEET

W.O. 5697
SHEET 8 OF 28

8

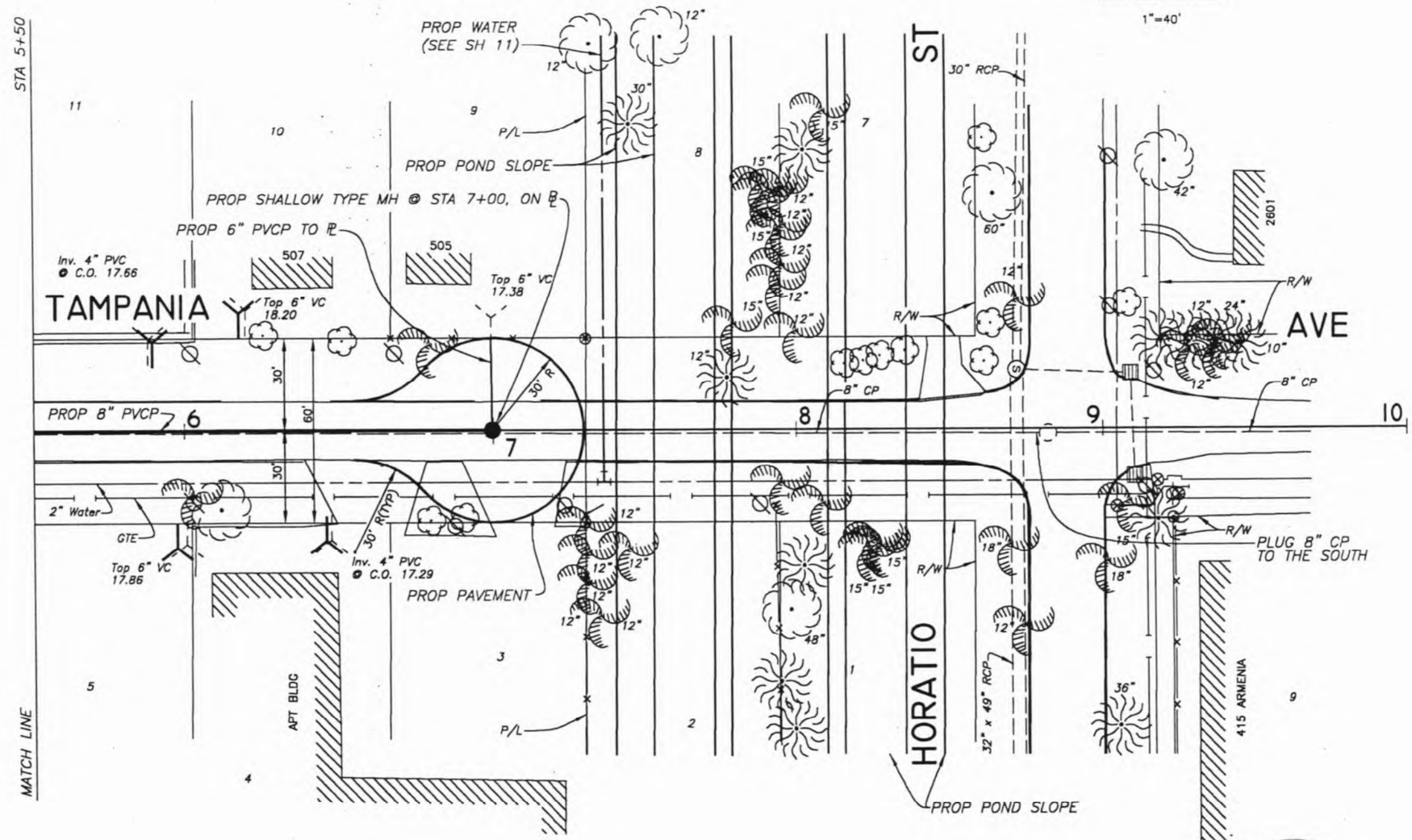
SW

SEC. 22 T29S R18E

I-10

0 40

1"=40'



PLAN

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: J.P.W.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PLAN SHEET

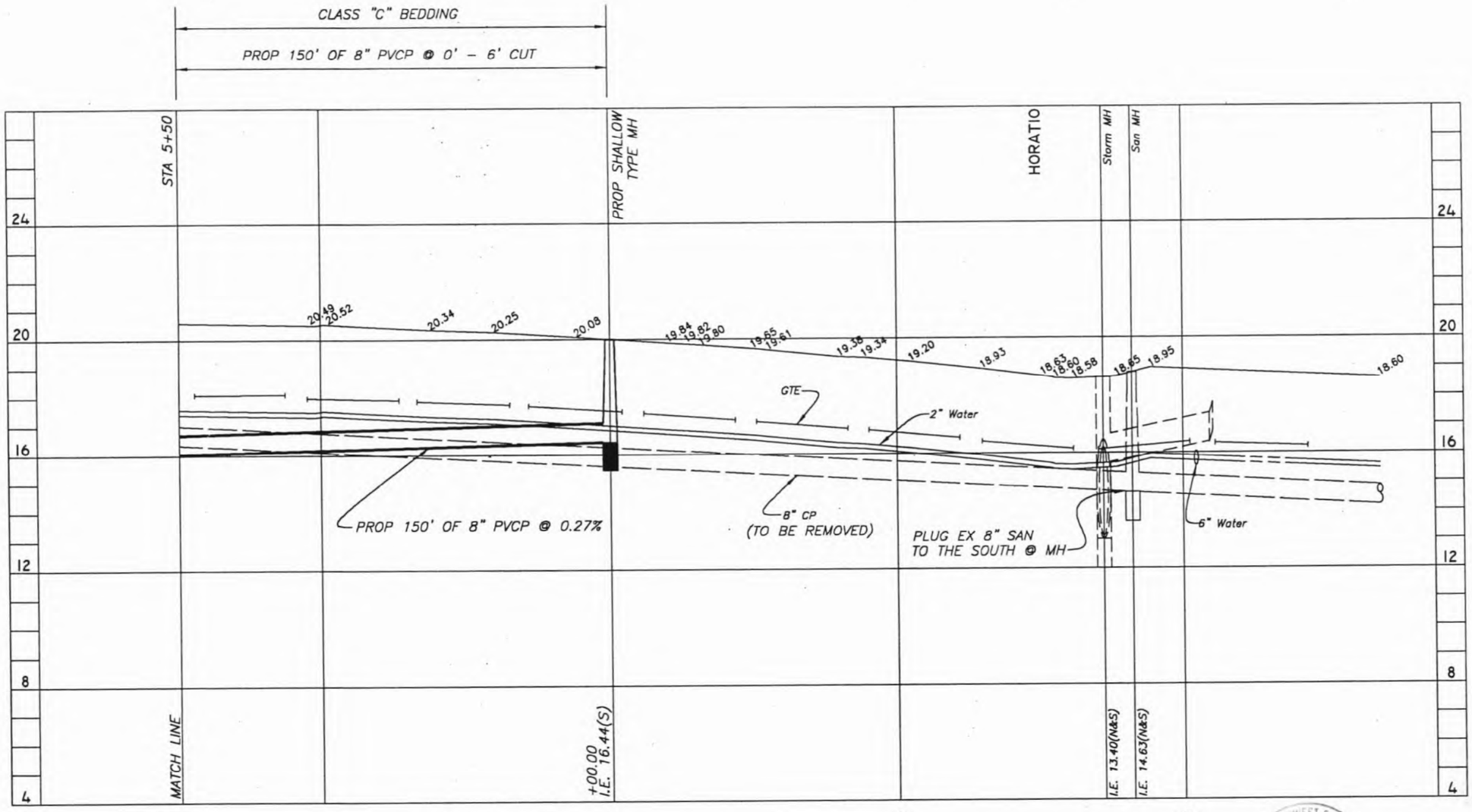
W.O. 5697
SHEET 9 OF 28

1=40

C:\DWG\STORM\5697-5

9

SW



PROFILE

SCALE:
1"=40' HORIZ.
1"=4' VERT.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Surveyed
APR 11 2000
RRO Tampa

4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: J.P.W.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROFILE SHEET

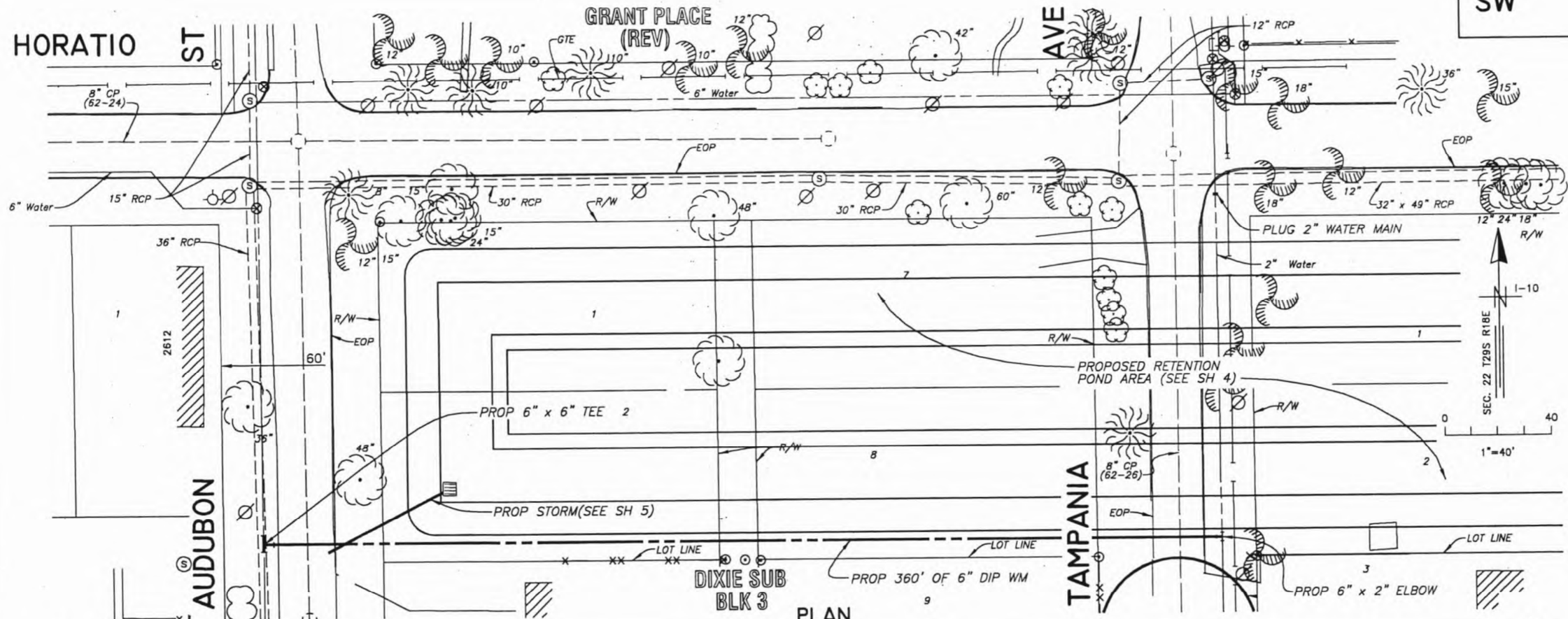
W.O. 5697
SHEET 10 OF 28

1=40

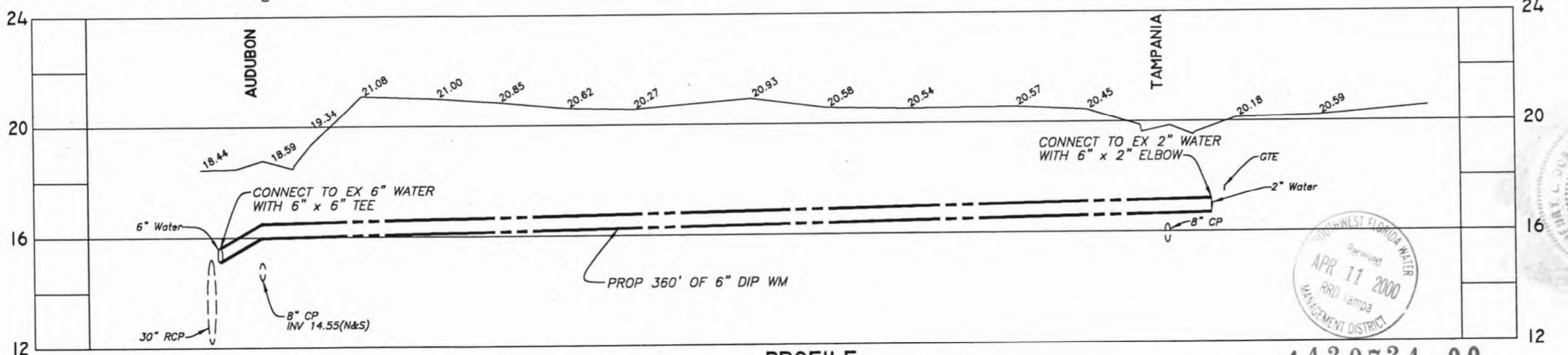
C:\DWG\STORM\5697-5

10

SW



PLAN



PROFILE

SCALE:
1"=40' HORIZ.
1"=4' VERT.

4420724 00

SOUTHWEST FLORIDA WATER Approved APR 11 2000 RRD Tampa MANAGEMENT DISTRICT

HENRY L. JORGBACK CERTIFICATE NO. 26447 STATE OF FLORIDA

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROPOSED WATER PLANS

W.O. 5697
SHEET 11 OF 28

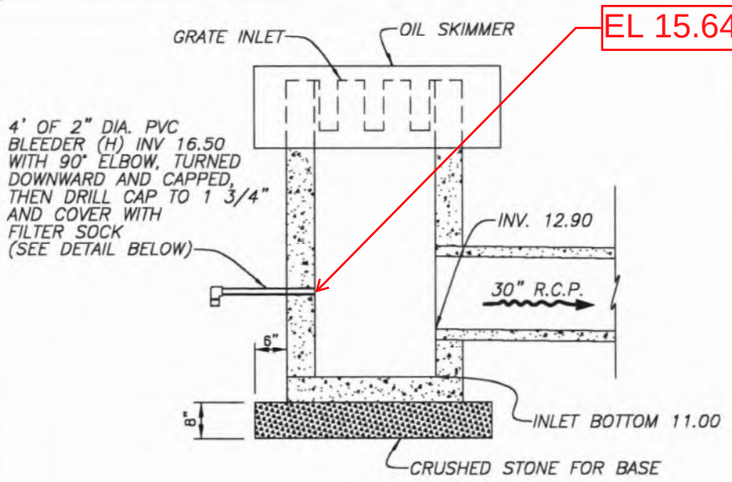
1=40

C:\DWG\STORM\5697-6

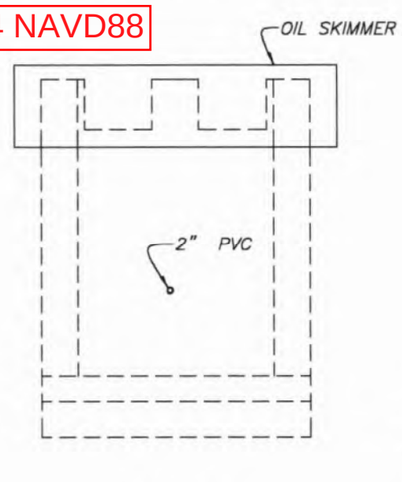
11

SW

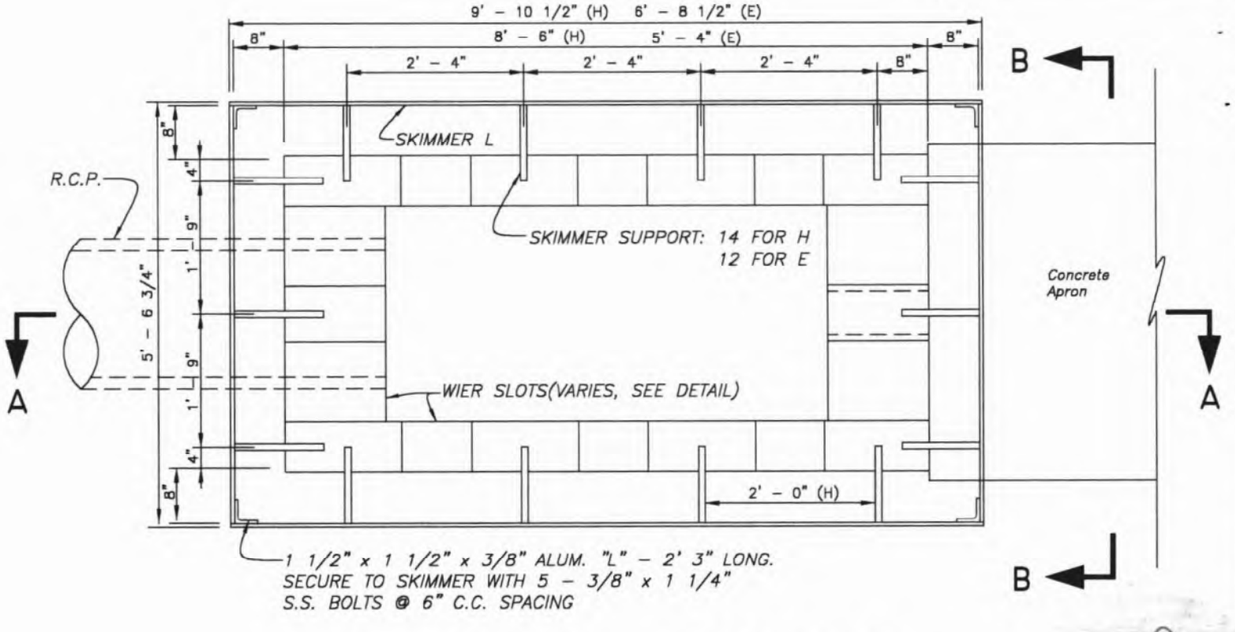
EL 15.64 NAVD88

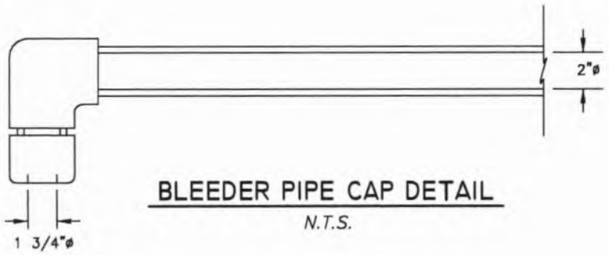


SECTION A-A
N.T.S.

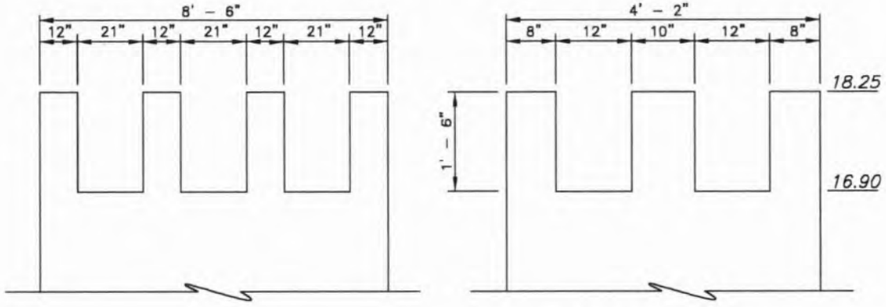


SECTION B-B
N.T.S.



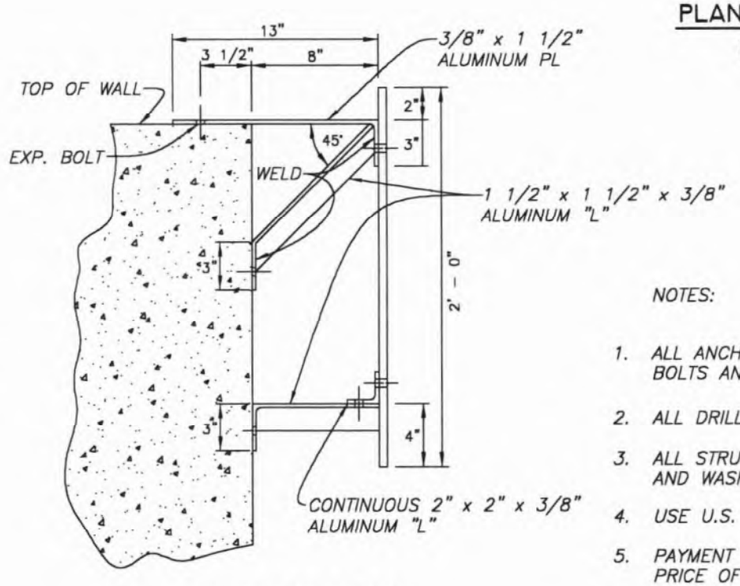


BLEEDER PIPE CAP DETAIL
N.T.S.



TYPE 'H' INLET

WEIR DETAILS FOR MODIFIED INLET OUTFALL STRUCTURE
(MODIFIED TYPE "H" INLET)
N.T.S.



SUPPORT DETAIL
N.T.S.

PLAN VIEW - OUTLET STRUCTURE
(MODIFIED TYPE "H" INLET)
N.T.S.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 12 2000
RRD Tampa

NOTES:

1. ALL ANCHORS TO CONCRETE ARE 3/8" x 4" STAINLESS STEEL EXPANSION BOLTS AND WASHERS (42 REQUIRED)
2. ALL DRILL HOLES ARE 1/2" DIAMETER.
3. ALL STRUCTURAL FASTENERS ARE 3/8" x 1 1/4" STAINLESS STEEL BOLTS AND WASHERS (62 REQUIRED).
4. USE U.S. FOUNDRY TYPE U.S.F. 4641 FRAME AND U.S.F. 6492 GRATE OR EQUAL.
5. PAYMENT FOR GRATE AND SKIMMER STRUCTURE SHALL BE INCLUDED IN THE PRICE OF MODIFIED INLET.

4420724 00

1/4"=1'-0"

C:\DWG\STORM\5697-7

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

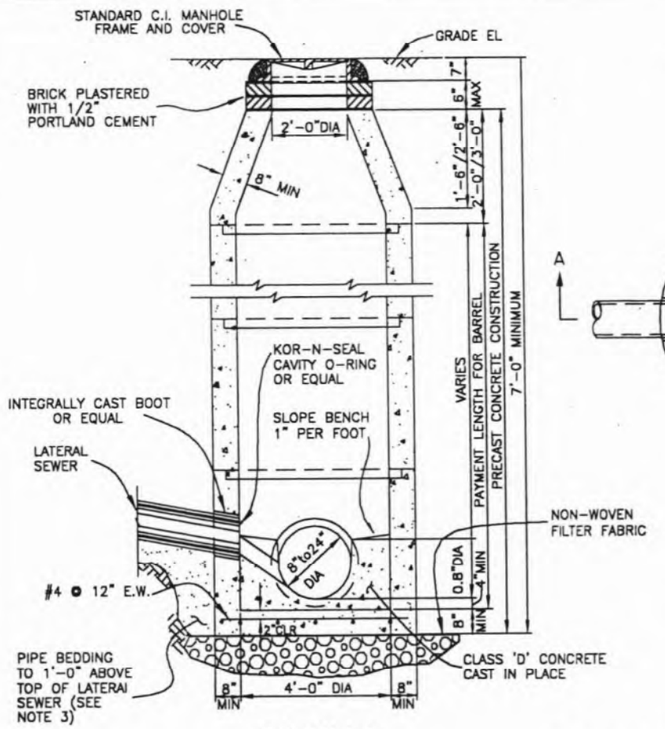
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

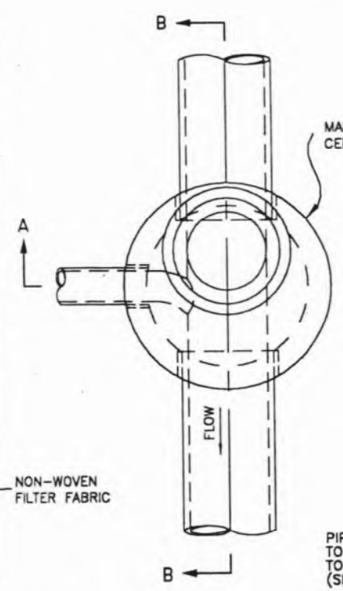
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS:
ARMENIA AND HORATIO STORMWATER DETENTION POND
DETAILS

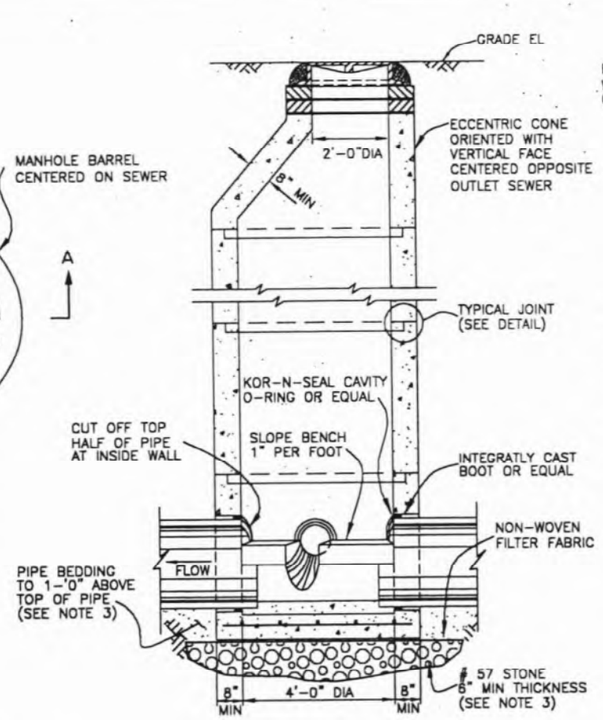
W.O. 5697
SHEET 12 OF 28

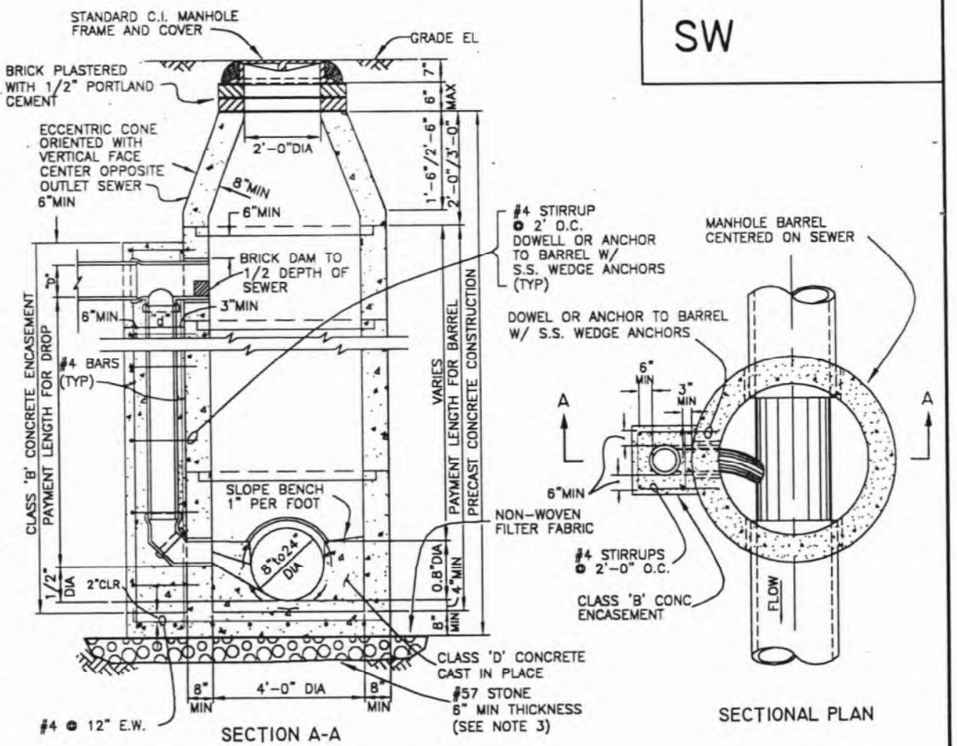
12

SW



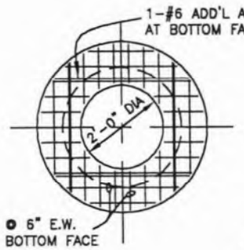




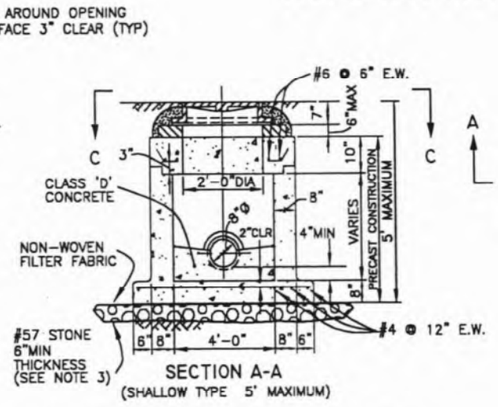


STANDARD MANHOLE - DEEP TYPE
FOR SEWERS 24" OR LESS IN DIAMETER

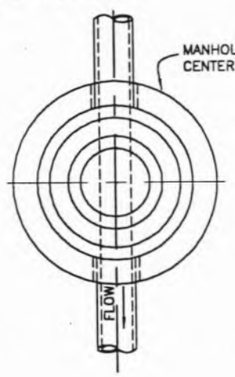
STANDARD DROP MANHOLE
FOR SEWERS 24" OR LESS IN DIAMETER



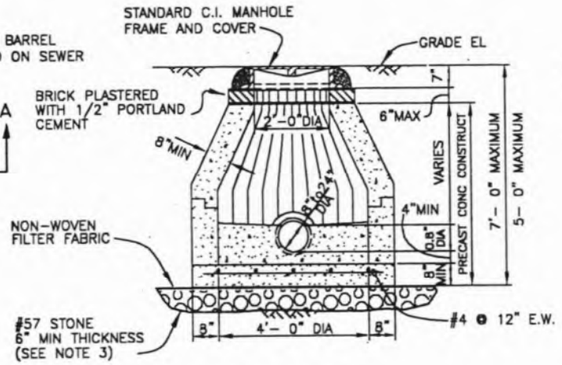
CONCRETE SLAB DETAIL
SECTION C-C



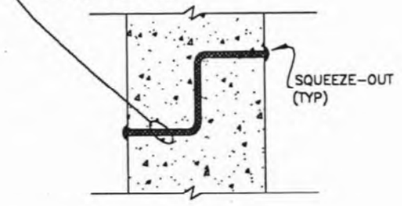
SECTION A-A
(SHALLOW TYPE 5' MAXIMUM)



PLAN

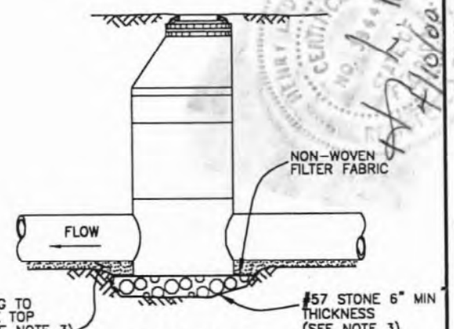


SECTION A-A
5'-0" TO 7'-0" DEEP
(SEE NOTE 4)



MANHOLE BARREL
JOINT DETAIL
NOT TO SCALE
(SEE NOTE 5)

SCHEDULE FOR DROP MANHOLE	
INLET PIPE DIAMETER "D"	DROP PIPE DIAMETER "d"
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
21"	18"
24"	18"



ELEVATION
FOR SEWERS 24" OR LESS IN DIAMETER
NOT TO SCALE

4420724 00

RECEIVED APR 11 2000 WEST FLORIDA WATER MGMT. DISTRICT TAMPA

NOTES

1. REINFORCING STEEL FOR ALL MANHOLES SHALL CONFORM TO ASTM-DES: C-48 AND PLACED AS DESCRIBED IN THE SPECIFICATIONS.
2. ALL PIPE STUBS FROM MANHOLES FOR FUTURE CONNECTIONS OR OTHER CONTRACT DIVISIONS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM WITHIN THE MANHOLE.
3. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS AND PLACEMENTS AND COMPACTION OF PIPE AND STRUCTURE BEDDING.
4. STANDARD SHALLOW-TYPE MANHOLES WITH DEPTHS BETWEEN A MAXIMUM OF 7'-0" AND A MINIMUM OF 5'-0" MUST HAVE A CONCRETE CONE FOR THE TOP SECTION.
5. ALL MANHOLE JOINTS MUST BE SEALED WITH AN ACCEPTABLE JOINT SEALING COMPOUND REGARDLESS OF WHETHER AN O-RING GASKET IN A PREFORMED GROOVE IS USED.
6. FILTER FABRIC SHALL BE NON-WOVEN FABRIC PER D.O.T. SPECIFICATION SECTIONS 514 AND 985 AND SHALL BE WRAPPED ENTIRELY AROUND THE #57 STONE.

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: DSS
DRN: BB
CKD:
DATE:

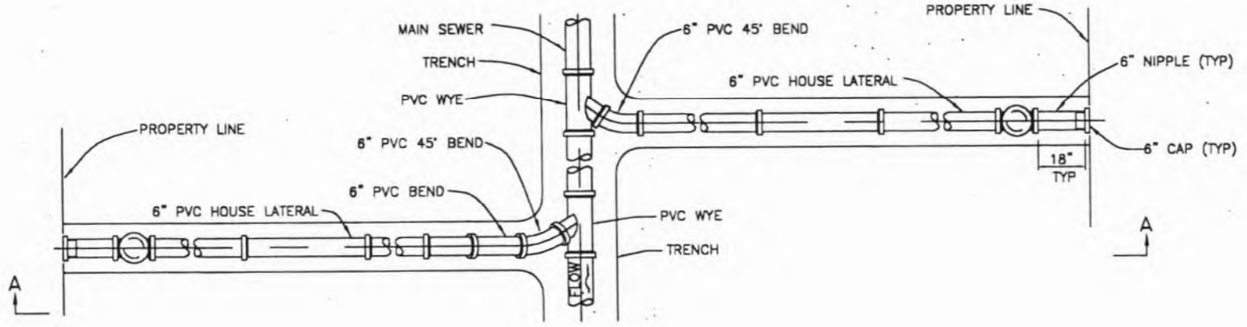
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
MANHOLE DETAILS (NOT TO SCALE)

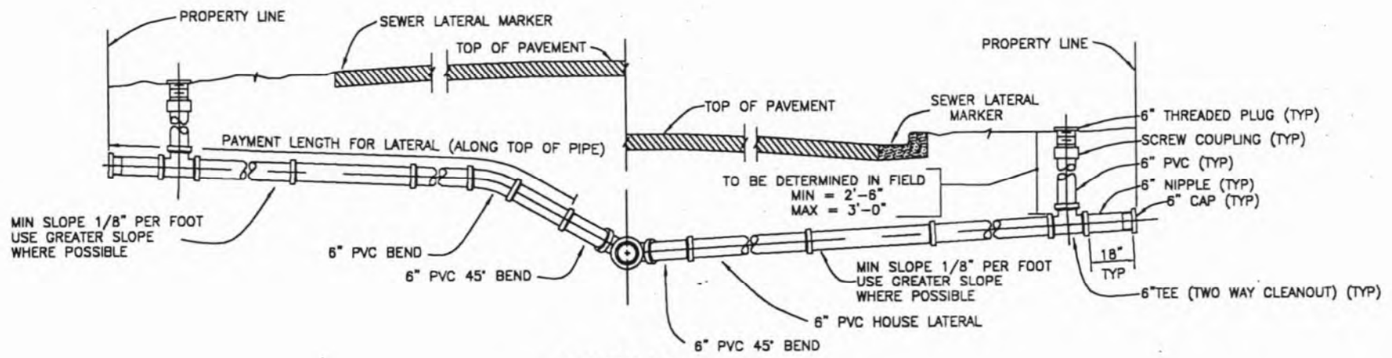
W.O. 5697
SHEET 13 OF 28

R14
1=1
C:\DWG\STORM\5697-8
13

SW



PLAN



SECTION A-A

TYPE A HOUSE LATERAL DETAIL

NOT TO SCALE

NOTES

1. THE LOCATIONS OF HOUSE LATERALS BY SYMBOLS ON PLANS ARE APPROXIMATE ONLY AND THE ACTUAL LOCATION AND SLOPES WILL BE DETERMINED IN THE FIELD BY THE CONTRACTOR WITH THE APPROVAL OF THE ENGINEER.
2. THE MINIMUM DIAMETER OF ALL HOUSE LATERALS SHALL BE 6".
3. HOUSE LATERALS WHICH PASS UNDER DRAINAGE DITCHES WITH LESS THAN 18" OF COVER OR WHICH HAVE LESS THAN 30" OF COVER UNDER PAVEMENT, SHALL BE CLASS 54 POLY-LINED DIP PER SPECIFICATIONS.
4. THE DEPARTMENT'S STANDARD REGARDING VERTICAL PERPENDICULAR CONFLICTS REQUIRES THAT THERE BE A MINIMUM OF 18" CLEARANCE BETWEEN HOUSE LATERALS AND ALL CROSSING UTILITIES. IF, HOWEVER, CONDITIONS DICTATE THAT IT IS IMPOSSIBLE TO MEET THIS STANDARD, THE FOLLOWING NOTES ARE INTENTED TO ADDRESS THE MOST COMMON CONFLICT CONDITIONS.
5. THE MINIMUM CLEARANCE BETWEEN HOUSE LATERALS AND WATER LINES SHALL BE 6" UNDER ALL CIRCUMSTANCES. IF THE HOUSE LATERAL IS BELOW A WATER LINE AND HAS BETWEEN 6" AND 18" OF CLEARANCE OR IF THE LATERAL IS ABOVE THE WATER LINE REGARDLESS OF CLEARANCE, THEN A NOMINAL 20' LENGTH OF GREEN AWWA CLASS 150 C900 PVC PIPE SHALL BE CENTERED OVER/UNDER THE WATER LINE.
6. IF THE HOUSE LATERAL MUST PASS OVER ANY UTILITY OTHER THAN A WATER LINE WITH LESS THAN 18" CLEARANCE, THE LATERAL SHALL REMAIN SDR 35 PVC PIPE.
7. IF THE HOUSE LATERAL MUST PASS UNDER ANY UTILITY OTHER THAN A WATER LINE WITH LESS THAN 18" CLEARANCE, THE LATERAL SHALL REMAIN SDR 35 PVC PIPE UNLESS THE UTILITY POSES A STRUCTURAL LOAD TOO GREAT FOR THE PVC LATERAL. IF THE UTILITY POSES SUCH A STRUCTURAL LOAD AS DETERMINED BY THE ENGINEER, EACH CONFLICT WILL BE REVIEWED ON A CASE BY CASE BASIS.
8. TRANSITIONS FROM SDR 35 PVC TO EITHER C900 OR DUCTILE IRON PIPES SHALL BE MADE WITH PVC RIGID ADAPTORS. TRANSITIONS FROM SDR 35 PVC TO EITHER EXISTING CLAY OR CONCRETE PIPES SHALL BE MADE WITH FERNCO FLEXIBLE ADAPTORS OR EQUAL.

HENRY L. BORBACK — No. 1994 — STATE OF FLORIDA — REGISTERED ENGINEER — 4/10/00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT — Reviewed — APR 11 2000 — HRD Tampa

4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: DSS
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
HOUSE CONNECTION DETAILS (NOT TO SCALE)

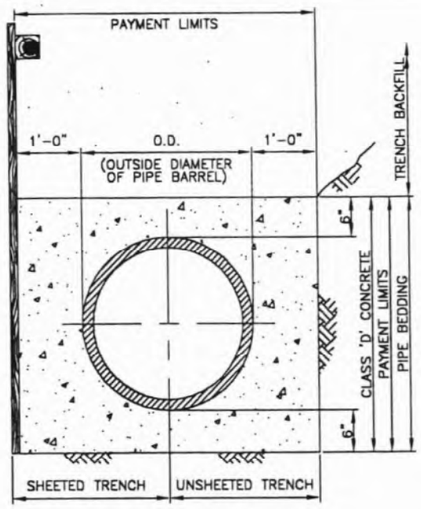
W.O. 5697
SHEET 14 OF 28

1=1

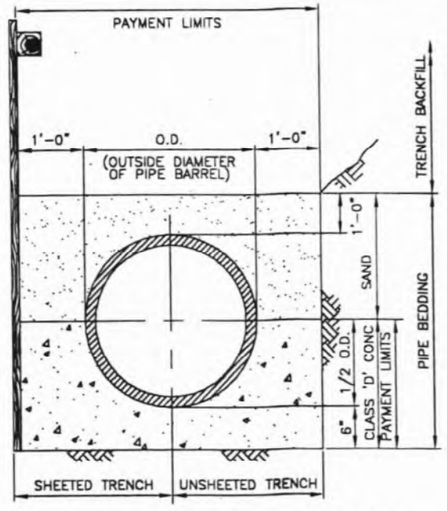
C:\DWG\STORM\5697-9

14

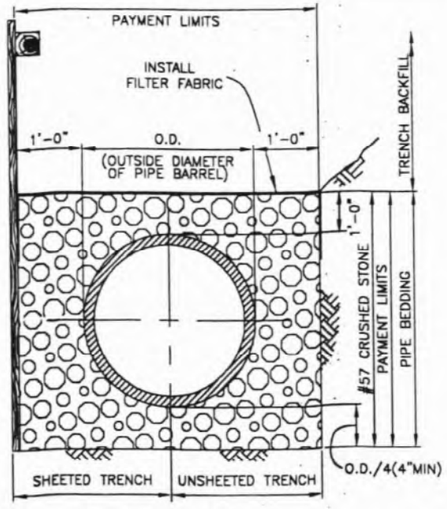
SW



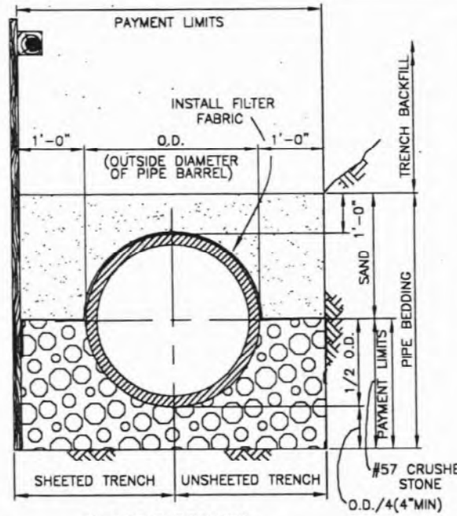
CONCRETE ENCASEMENT



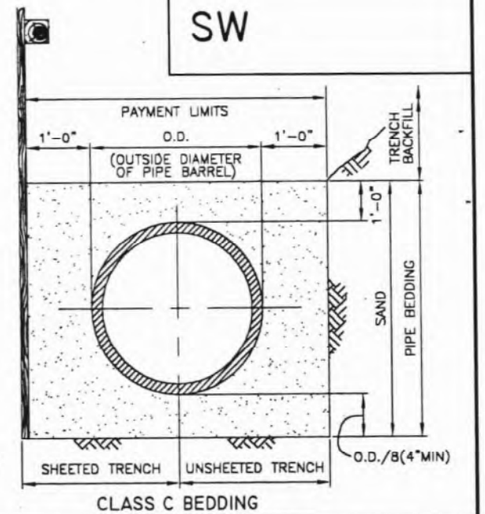
CLASS A BEDDING (CONCRETE CRADLE)



CLASS B-I BEDDING



CLASS B BEDDING



CLASS C BEDDING

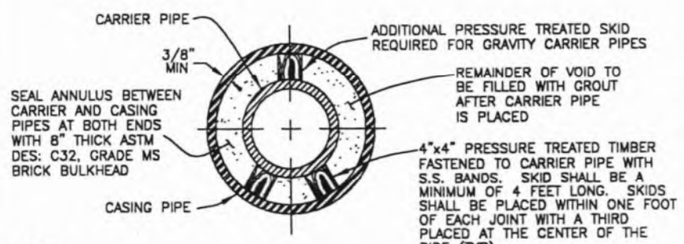
PIPE BEDDING DETAILS

NOTES:

1 ALL TYPES OF PIPE BEDDING SHALL EXTEND TO UNDISTURBED EARTH AT SIDES AND BOTTOM OF THE TRENCH.
2. SAND AND CRUSHED STONE PIPE BEDDING SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH SPECIFICATIONS.

QUANTITIES FOR PAYMENT FOR ADDITIONAL PIPE BEDDING MATERIALS ORDERED IN WRITING BY THE ENGINEER																					
NOMINAL INSIDE PIPE DIAMETER (INCHES)	6	8	10	12	14	15	16	18	20	21	24	27	30	36	42	48	54	60	66	72
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CONCRETE ENCASEMENT	0.141	0.167	0.191	0.216	0.229	0.256	0.252	0.299	0.300	0.340	0.383	0.427	0.472	0.588	0.690	0.797	0.909	1.027	1.150	1.279
CUBIC YARDS OF CONCRETE PER LINEAR FOOT OF PIPE IN CLASS A BEDDING (CONBCRETE CRADLE)	0.071	0.084	0.098	0.108	0.115	0.128	0.126	0.150	0.150	0.170	0.192	0.214	0.236	0.294	0.345	0.399	0.455	0.514	0.575	0.640
CUBIC YARD OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B-1 BEDDING	0.172	0.201	0.228	0.225	0.269	0.304	0.298	0.362	0.363	0.419	0.479	0.542	0.608	0.781	0.936	1.103	1.281	1.471	1.673	1.887
CUBIC YARDS OF CRUSHED STONE PER LINEAR FOOT OF PIPE IN CLASS B BEDDING	0.055	0.066	0.078	0.088	0.094	0.111	0.108	0.143	0.143	0.173	0.207	0.243	0.280	0.381	0.475	0.578	0.690	0.810	0.939	1.078

NOTE: STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY CASCADE OR EQUAL MAY BE USED RATHER THAN A TIMBER SKID SYSTEM



NOTES:

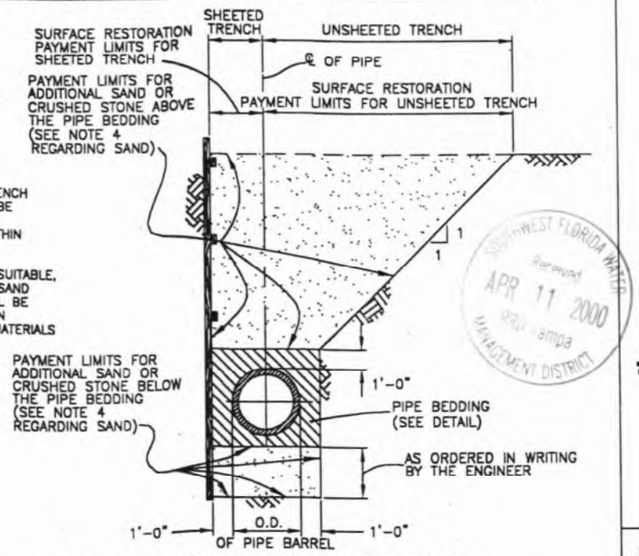
ALL CASING PIPES SHALL BE WELDED STEEL PIPE CONFORMING TO ASTM DES A139 GRADE B OR ASTM DES A53 GRADE B, HAVING A MINIMUM INSIDE DIAMETER AS INDICATED ON PLANS. THE MINIMUM WALL THICKNESS SHALL BE 3/8" OR THICKER IF SO INDICATED ON THE PLAN AND PROFILE DRAWINGS.

CORRESPONDING CARRIER AND CASING PIPE SIZES																				
NOMINAL INSIDE DIAMETER OF CARRIER PIPE (INCHES)	4	6	8	10	12	14	15	16	18	20	21	24	27	30	36	42	48	54	60	66	72
MINIMUM INSIDE DIAMETER OF CASING PIPE (INCHES)	12	18	20	24	30	30	30	30	36	36	36	48	48	60	60	66	78	84	90	96	102

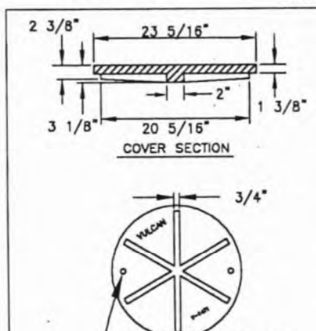
DETAIL OF JACKED CROSSINGS

NOTES:

1. PAYMENT FOR ADDITIONAL CRUSHED STONE OR CLASS D CONCRETE PIPE BEDDING MATERIALS WILL BE MADE ONLY FOR PIPE BEDDING NOT SHOWN IN THE PLANS AND ORDERED IN WRITING BY THE ENGINEER.
2. PAYMENT FOR SURFACE RESTORATION WILL MADE FOR THE ACTUAL QUANTITIES, AS DETERMINED BY THE ENGINEER, OF SURFACE RESTORED WITHIN THE PAYMENT LIMITS SHOWN.
3. PAYMENT FOR ADDITIONAL SAND OR CRUSHED STONE FOR TRENCH STABILIZATION, ORDERED IN WRITING BY THE ENGINEER, WILL BE MADE FOR THE ACTUAL COMPACTED VOLUME, AS DETERMINED BY THE ENGINEER, OF SAND OR CRUSHED STONE PLACED WITHIN THE PAYMENT LIMITS SHOWN.
4. CONTRACTOR SHALL USE ALL SURPLUS SAND, APPROVED AS SUITABLE, FROM EXCAVATIONS IN THIS CONTRACT PRIOR TO SUPPLYING SAND FROM OTHER SOURCES. PAYMENT FOR ADDITIONAL SAND WILL BE MADE ONLY FOR SAND SUPPLIED FROM SOURCES OTHER THAN EXCAVATIONS IN THIS CONTRACT. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS.



PAYMENT LIMITS FOR SURFACE RESTORATION AND ADDITIONAL SAND OR CRUSHED STONE FOR TRENCH STABILIZATION

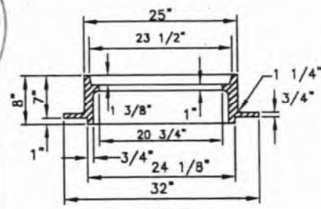


COVER SECTION

COVER BACK

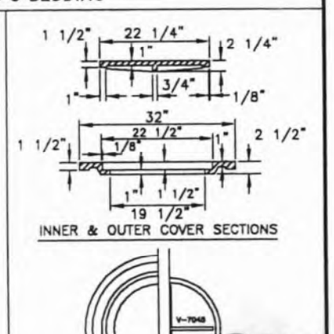


COVER FACE

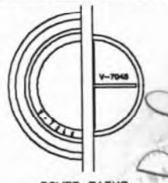


FRAME SECTION

FOR MH'S OF SEWERS 24" OR LESS IN DIAMETER:
VULCAN FOUNDRY NO. V-1471,
U.S. FOUNDRY NO. 575-AT, OR EQUAL



INNER & OUTER COVER SECTIONS

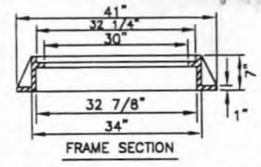


COVER BACKS



3/4" CORED VENT HOLE

COVER FACES



FRAME SECTION

FOR MH'S OF SEWERS 27" OR GREATER IN DIAMETER:
VULCAN FOUNDRY NO. V-7045,
U.S. FOUNDRY NO. 230-AB-M, OR EQUAL

HEAVY DUTY CAST IRON MANHOLE FRAME & COVER DETAILS

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: DSS
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
SANITARY SEWERS DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
MISCELLANEOUS DETAILS

W.O. 5697
SHEET 15 OF 28

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT Received APR 11 2000 Brooksville Tampa

4420724 00

C:\DWG\STORM\5697-10

1=1

15

PLANTING PLAN 3-28-00
BY HEIDT & ASSOC., INC.

SW

LEGEND

650 PICKERELWEED (PONTEDERIA SPP.)
4" POT OR BARE ROOT EQUIVALENT;
3'-4' O.C. TYP.

500 ARROWHEAD (SAGITTARIA LANCIFOLIA)
4" POT OR BARE ROOT EQUIVALENT;
3'-4' O.C. TYP.

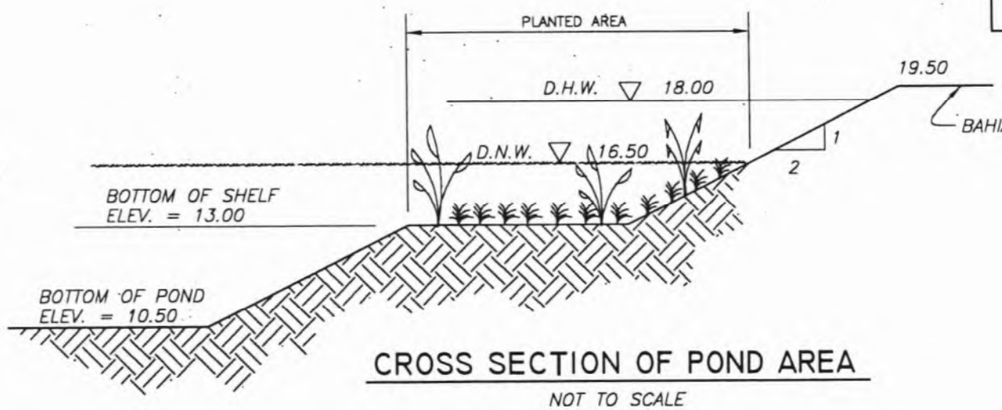
220 BULRUSH (SCIRPUS VALIDUS)
4" POT OR BARE ROOT EQUIVALENT;
3'-4' O.C. TYP.

40 WHITE WATER LILY (NYMPHAEA ODORATA)
ONE GALLON POT; 5' O.C.±

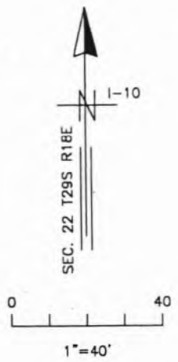
400 CORDGRASS (SPARTINA BAKERI)
ONE GALLON POT; DOUBLE STAGGERED
ROWS, EACH 3' O.C.± (UNDULATE, JUST
ABOVE WATERS EDGE

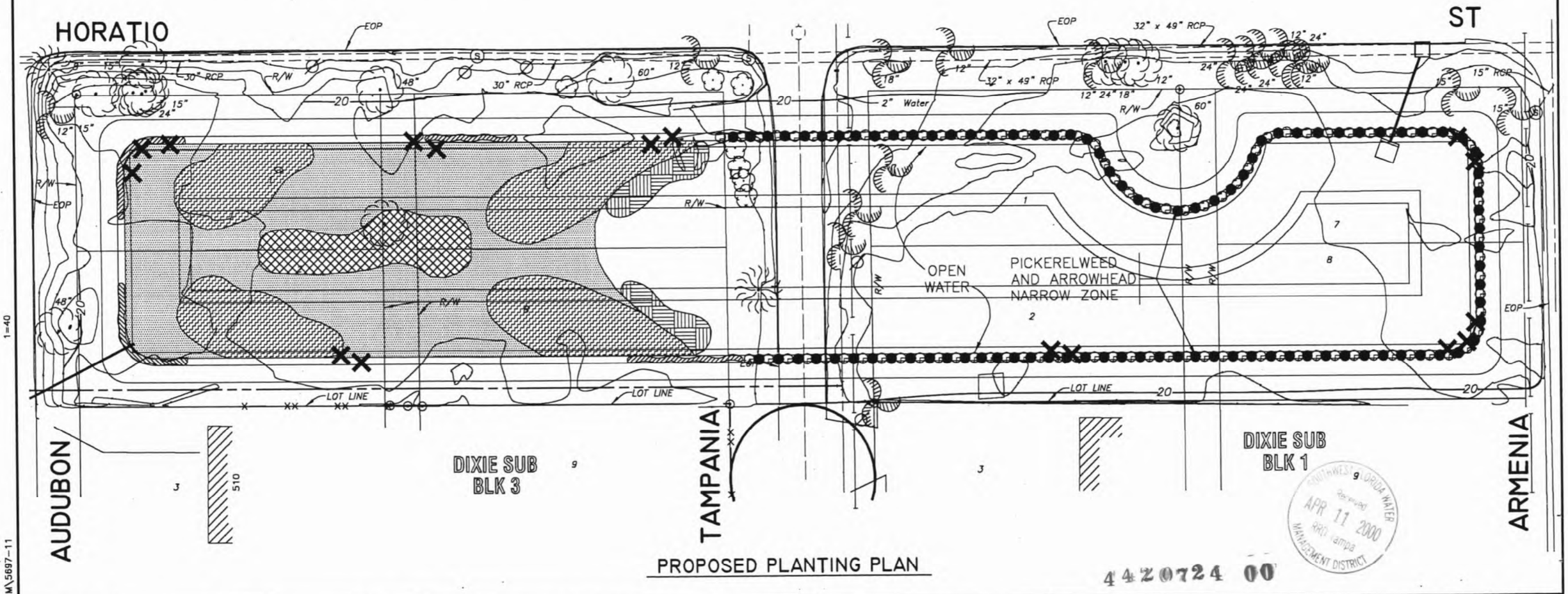
20± CYPRESS (TAXODIUM DISTICHUM)
15 GALLON± POT

NOTE: FOR BAND AROUND OPEN WATER AREA: USE 220 PICKERELWEED (60%)
AND 150 ARROWHEAD (40%), STAGGERED 2' O.C.



CROSS SECTION OF POND AREA
NOT TO SCALE





PROPOSED PLANTING PLAN

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RMD Tampa

4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

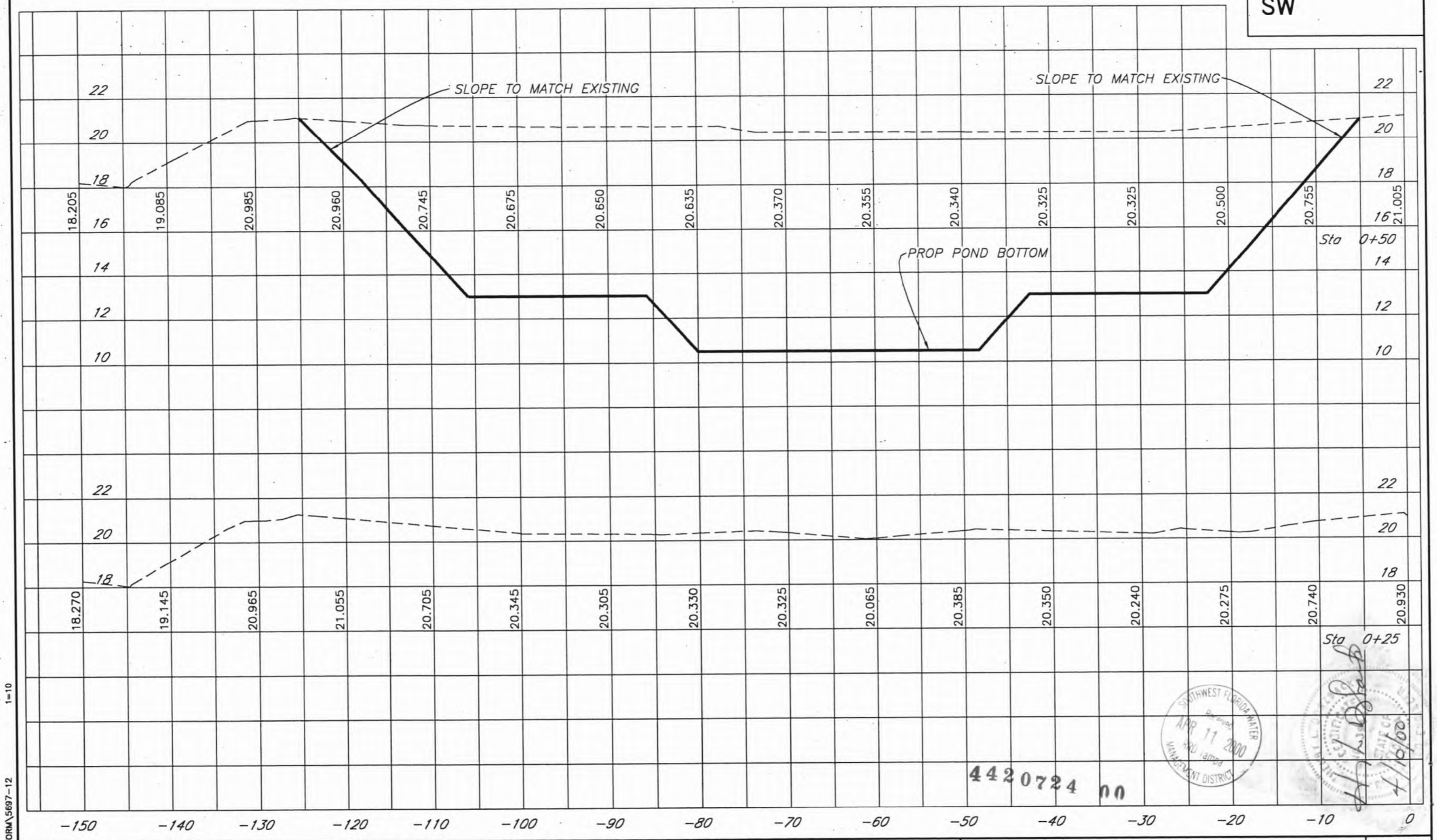
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
PROPOSED PLANTING PLAN

W.O. 5697
SHEET 16 OF 28

1=40
C:DWG\STORM\5697-11

16

SW



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
Tampa

4420724 00

4/10/00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

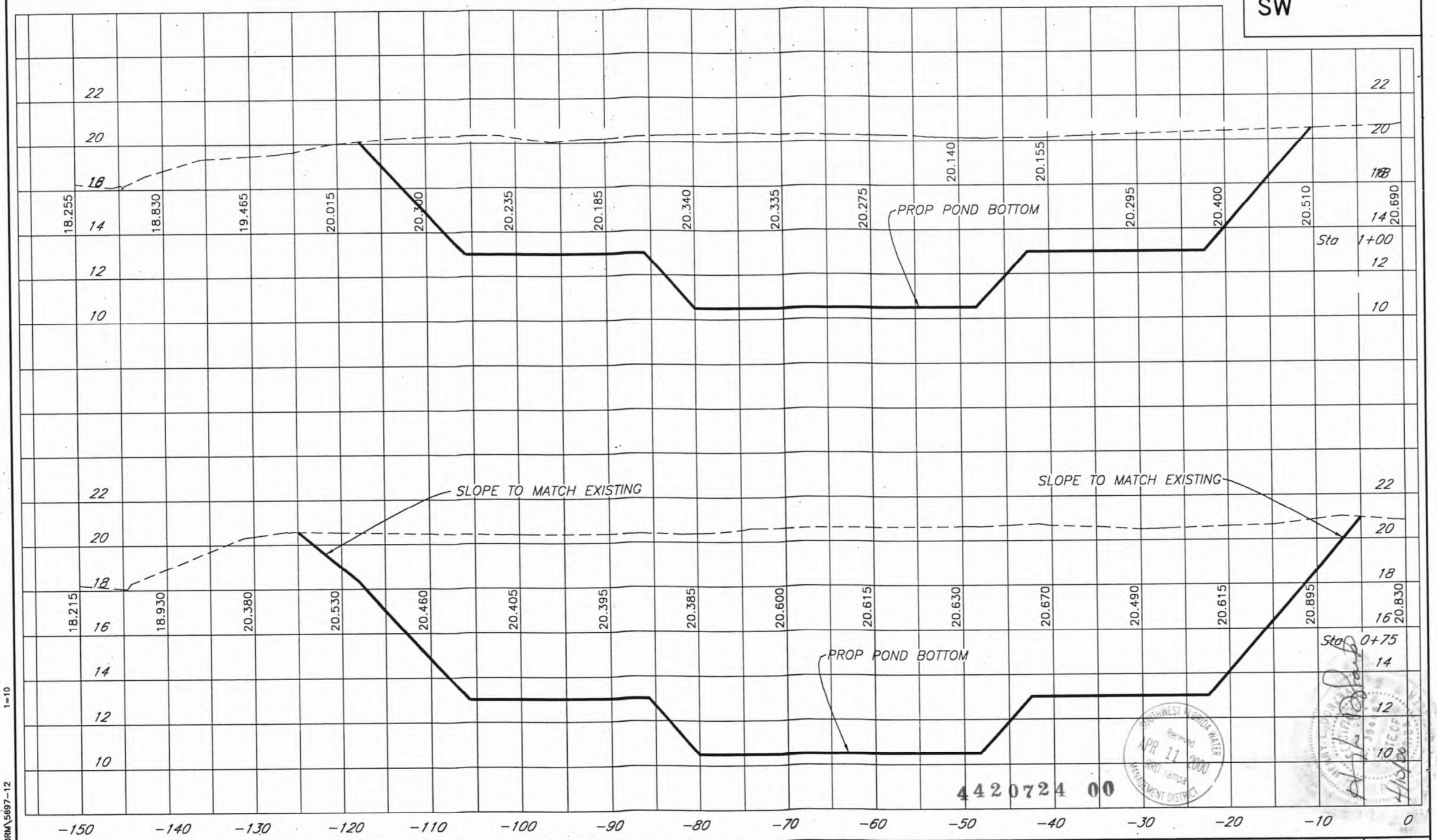
W.O. 5697
SHEET 17 OF 28

1=10

C:\DWG\STORM\5697-12

17

SW



4420724 00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT Received APR 11 2000 SWFWMD Tampa

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

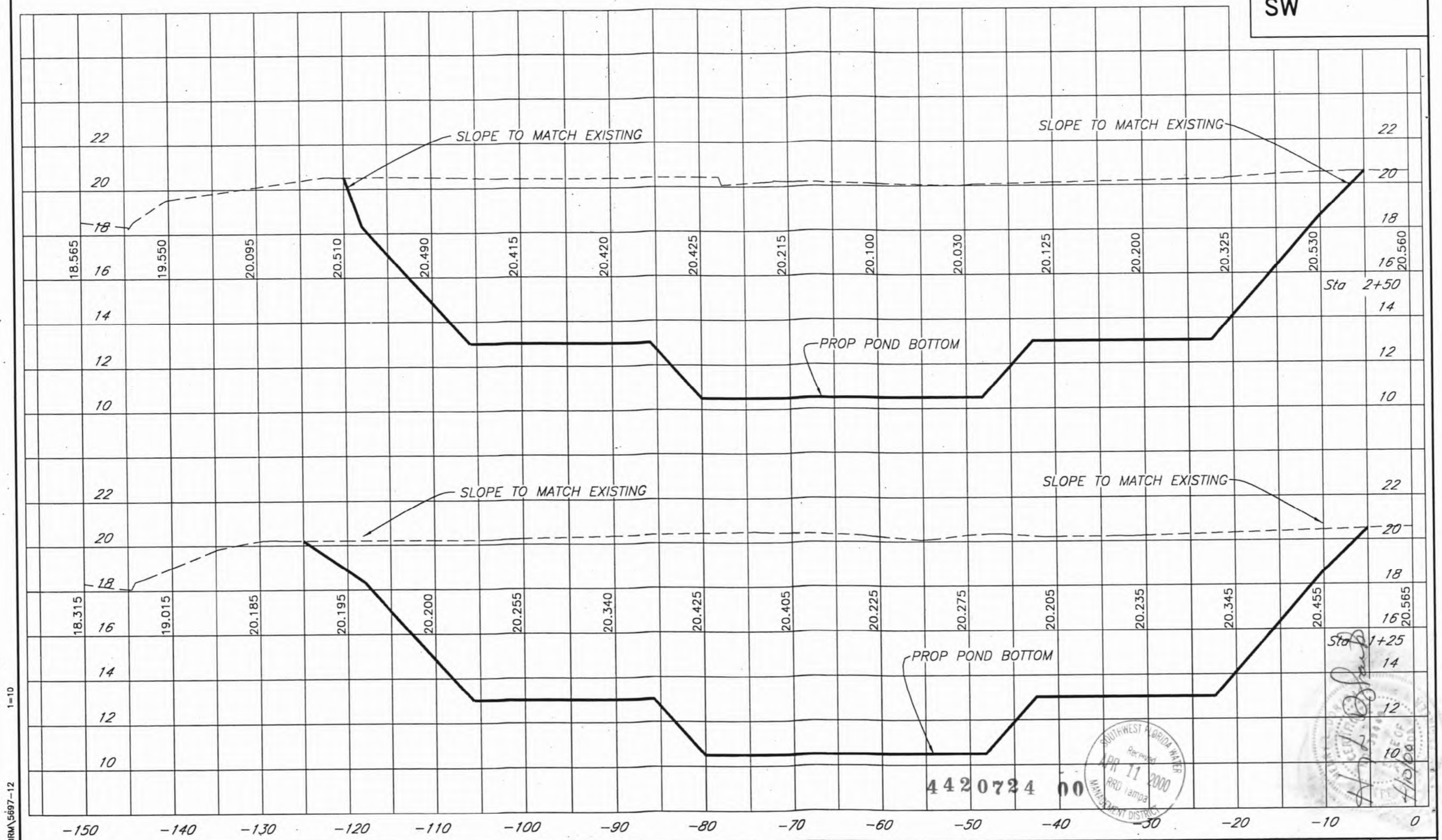
W.O. 5697
SHEET 18 OF 28

1=10

C:\DWG\STORM\5697-12

18

SW



4420724 00

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
RRD Tampa

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

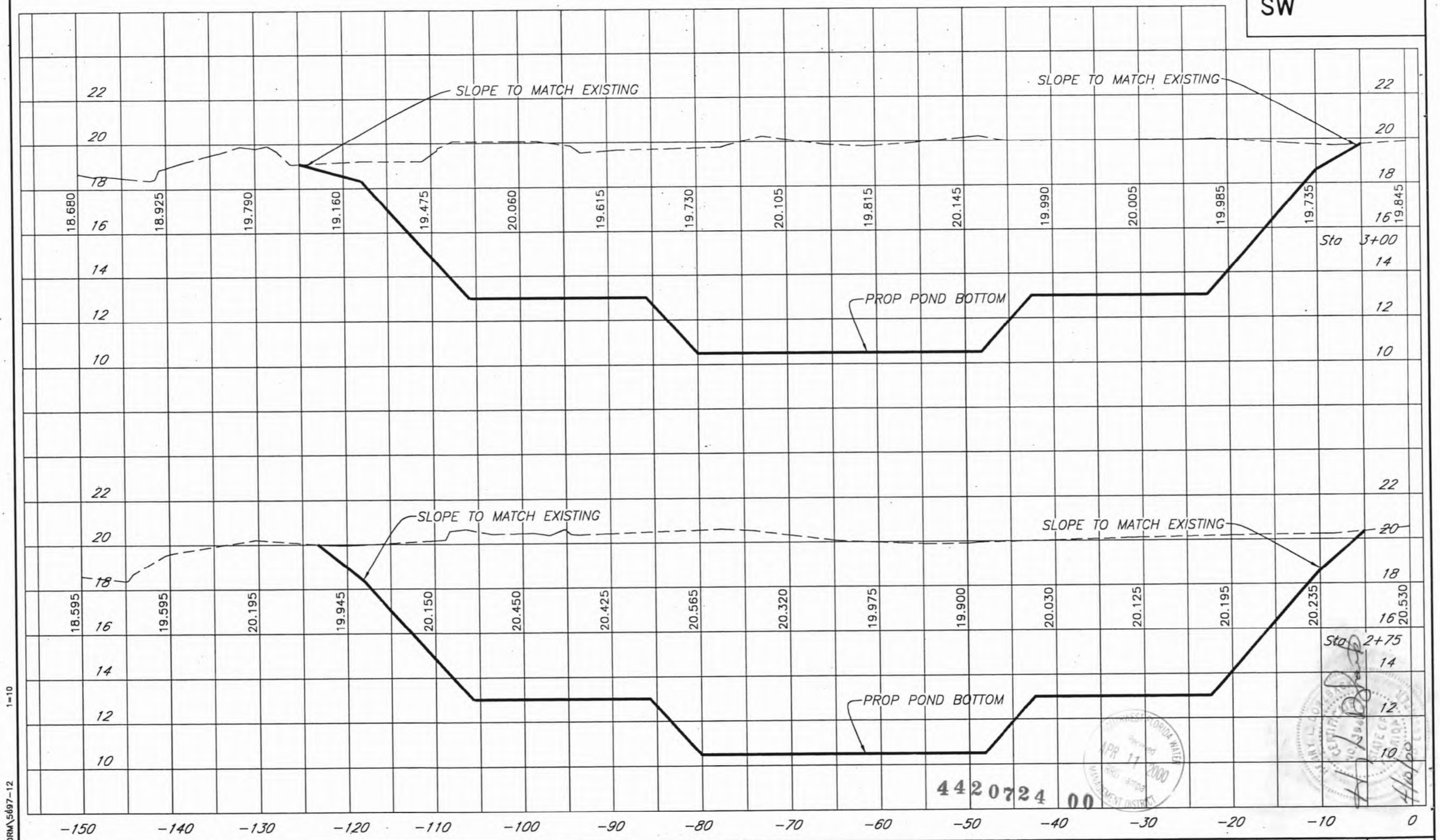
W.O. 5697
SHEET 19 OF 28

1=10

C:\DWG\STORM\5697-12

19

SW



4420724 00

APR 11 2000

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

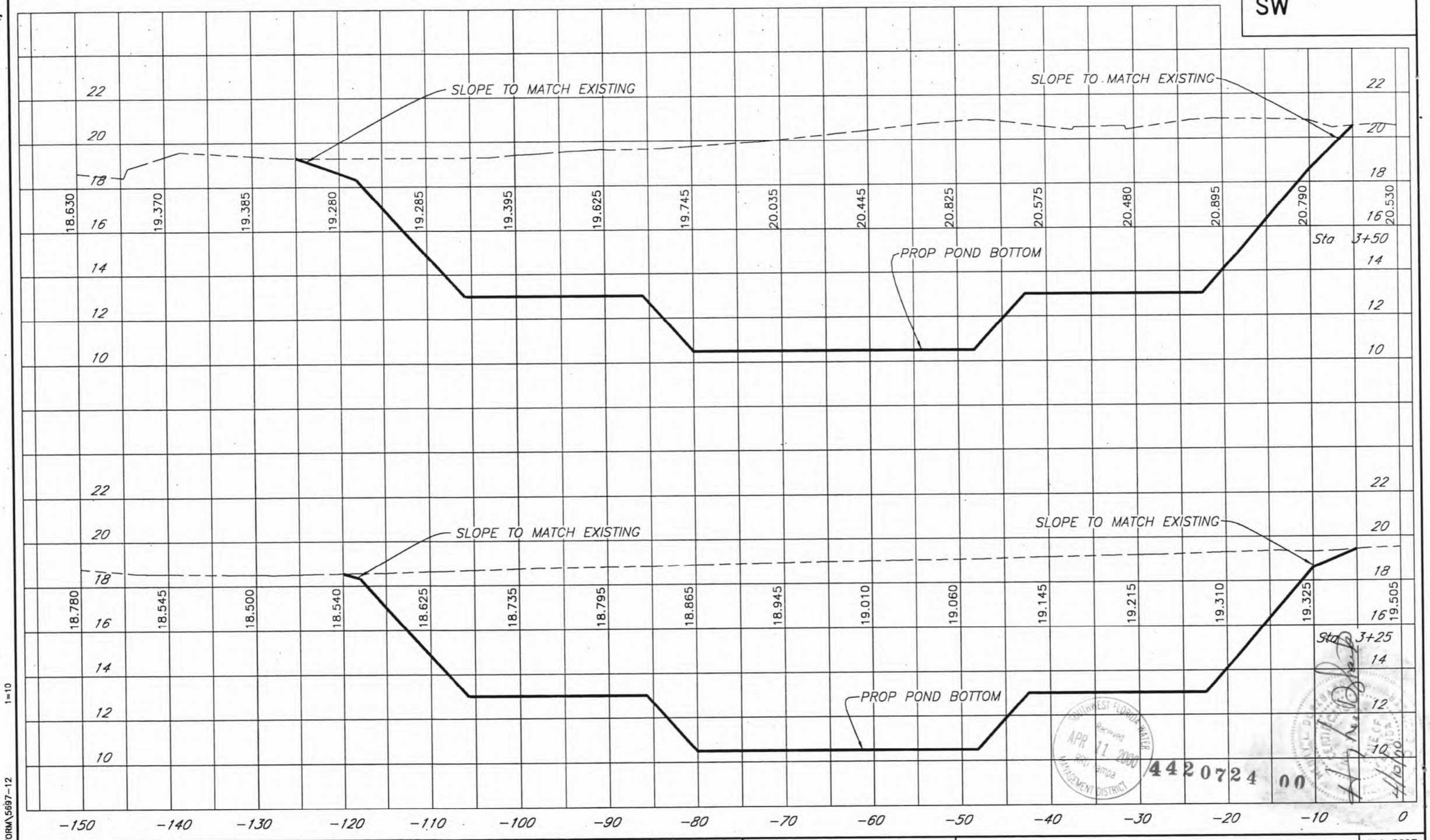
W.O. 5697
SHEET 20 OF 28

1=10

C:\DWG\STORM\5697-12

20

SW



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT Received APR 11 2000 Bureau Tampa
4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

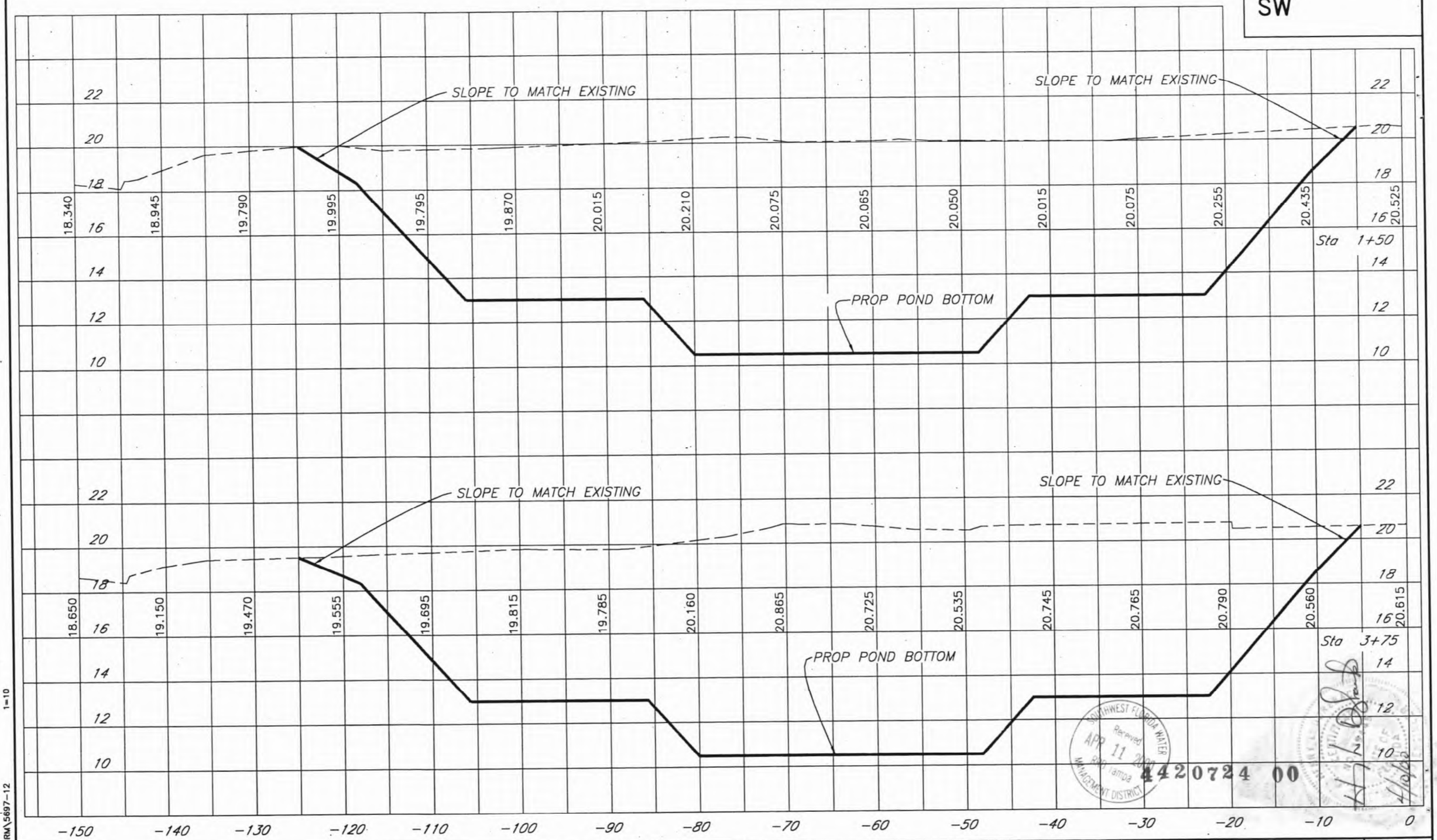
W.O. 5697
SHEET 21 OF 28

1=10

C:\DWG\STORM\5697-12

21

SW



1=10

C:\DWG\STORM\5697-12

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

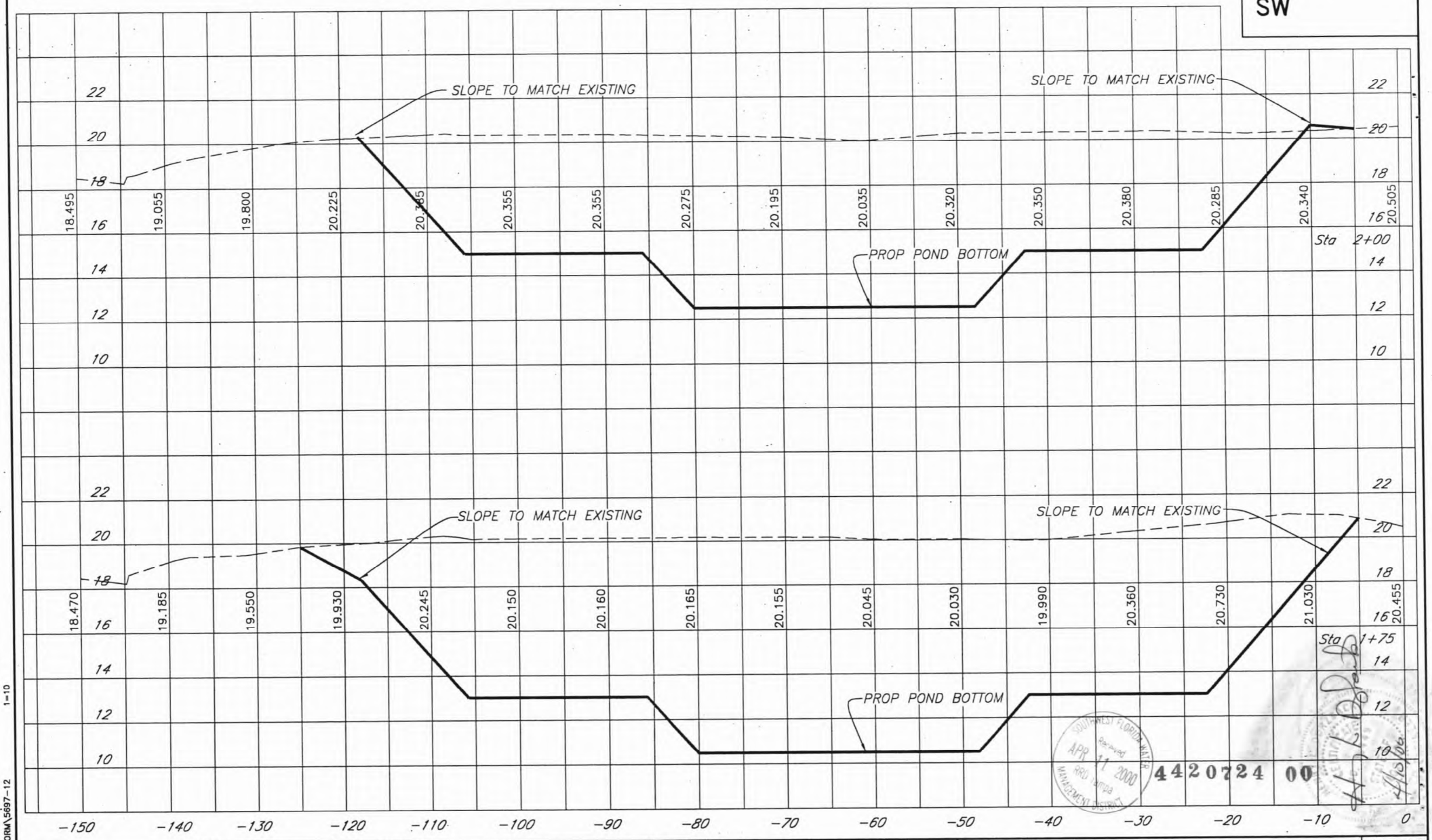
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

W.O. 5697
SHEET 22 OF 28

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2005
Reg. Tampa
4420724 00

22

SW



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT APR 11 2000 Approved TAMPA REGULATION DEPARTMENT

44207240 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

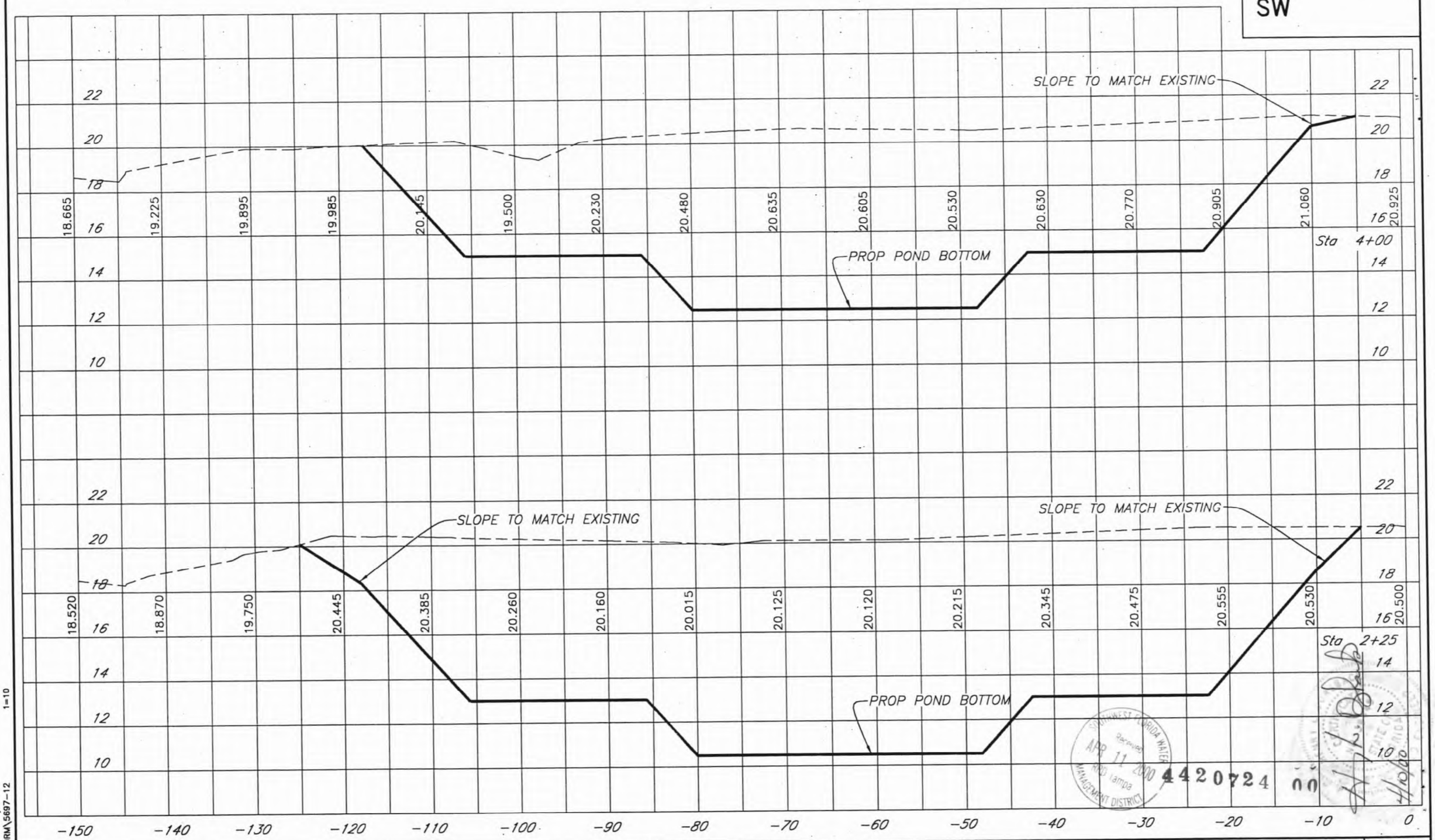
W.O. 5697
SHEET 23 OF 28

1=10

C:\DWG\STORM\5697-12

23

SW



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT Received APR 11 2000 Tampa 4420724 00

1=10

C:\DWG\STORM\5697-12

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

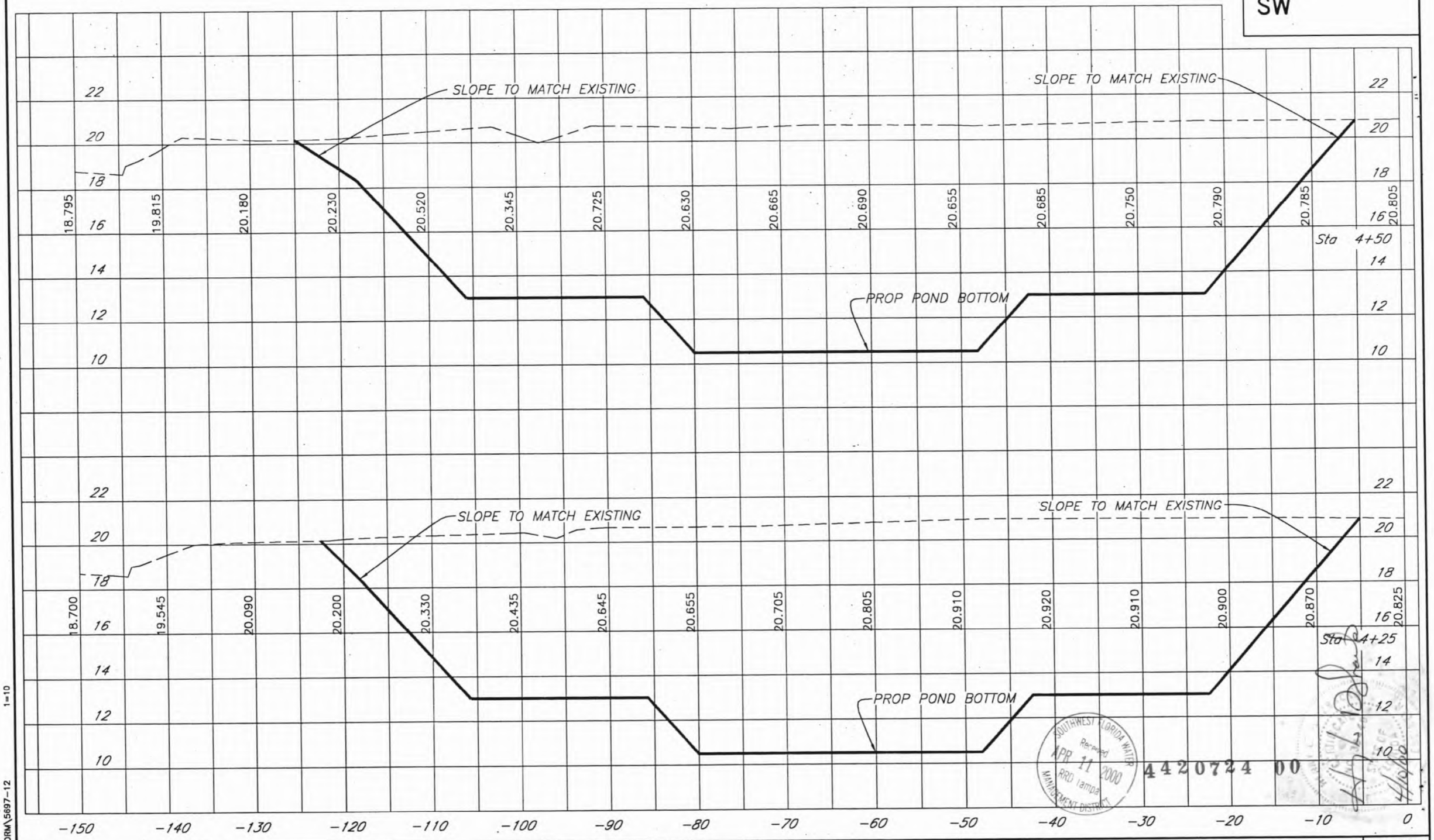
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

W.O. 5697
SHEET 24 OF 28

24

SW



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
BRD Tampa

4420724 00

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

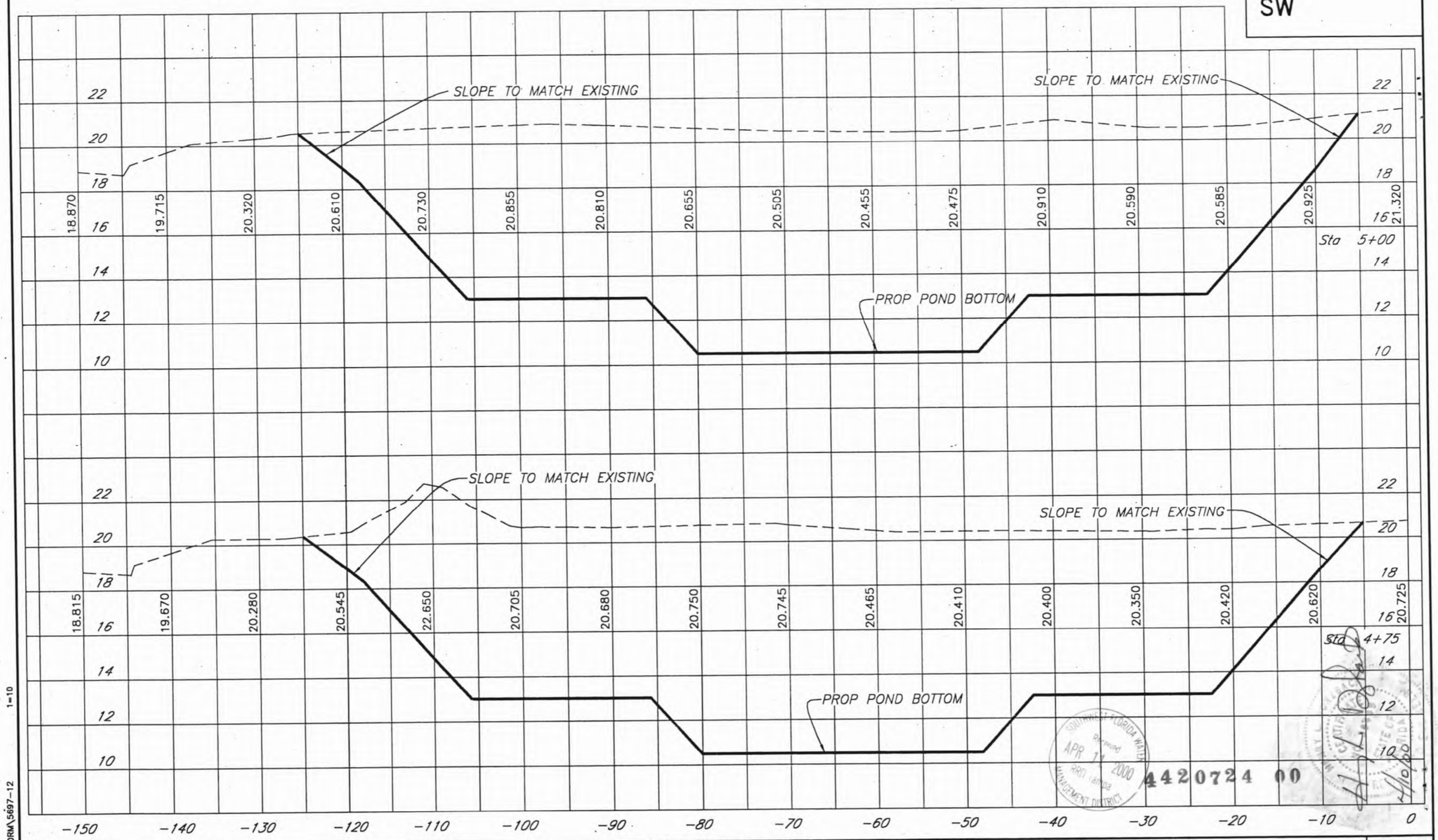
W.O. 5697
SHEET 25 OF 28

1=10

C:\DWG\STORM\5697-12

25

SW



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT Received APR 14 2000 Brd Tampa 4420724 00

1=10

C:\DWG\STORM\5697-12

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

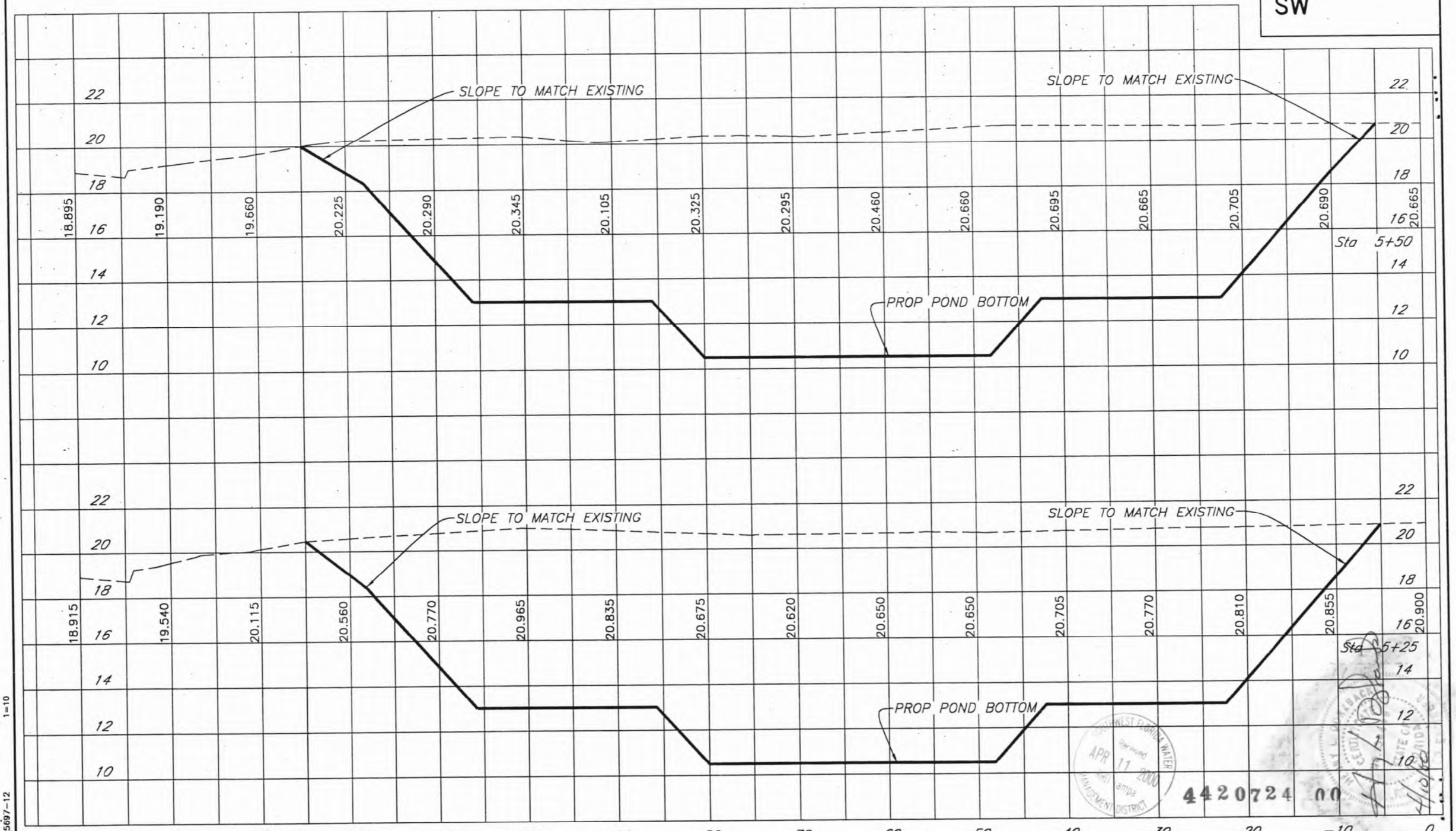
CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

W.O. 5697
SHEET 26 OF 28

26

SW



1=10

C:\DWG\STORM\5697-12

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

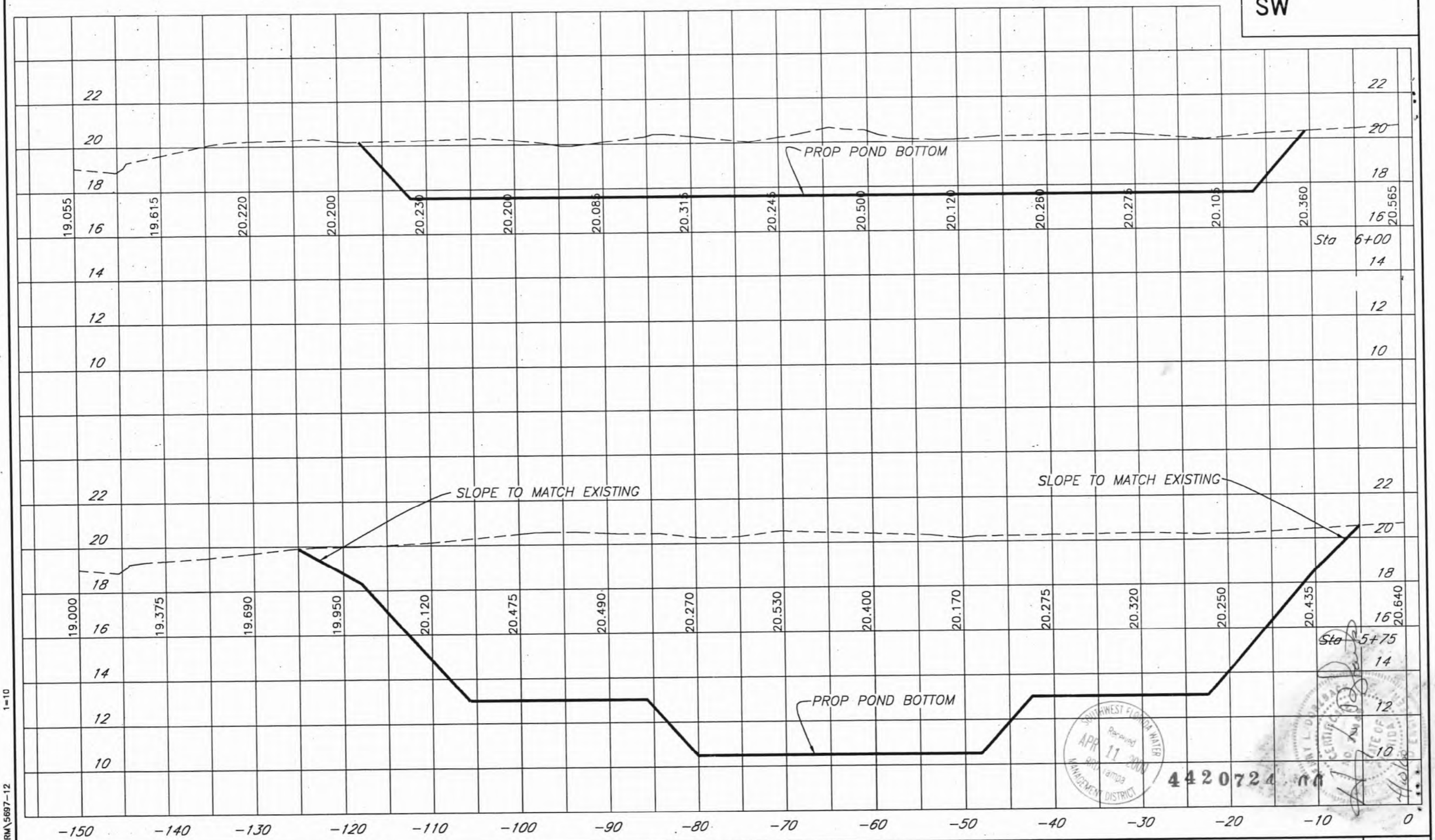
PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

W.O. 5697
SHEET 27 OF 28

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2000
Tampa
4420724 00

27

SW



1=10

C:\DWG\STORM\5697-12

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: A.D.
DRN: BB
CKD:
DATE:

CITY of TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE BASIN IMPROVEMENTS
ARMENIA AND HORATIO STORMWATER DETENTION POND
CROSS SECTIONS

W.O. 5697
SHEET 28 OF 28

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
Received
APR 11 2008
Regulation
4420724.00

28

P.5 Cypress Street Outfall ERP Report

TETRA TECH

Cypress Street Outfall Regional Stormwater Improvements
SECTIONS 22 & 23, TOWNSHIP 29S, RANGE 18E
TAMPA, HILLSBOROUGH COUNTY, FLORIDA

ENVIRONMENTAL RESOURCE PERMIT (ERP) DRAINAGE DESIGN REPORT

Submitted to:

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Prepared for:

306 East Jackson Street
Tampa, Florida 33602

Prepared by:

TETRA TECH
5201 West Kennedy Boulevard, Suite 620
Tampa, Florida 33609

March 2021

Tt #: 200-55595-18001

CERTIFICATION BY A REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME: Cypress Street Outfall Regional Stormwater Improvements

____ I hereby certify that the material and data contained in this document was prepared under the supervision and direction of the undersigned, whose seal as a registered professional engineer in the State of Florida is affixed below.

NAME: Michael D. Thatcher, P.E.

COMPANY NAME: Tetra Tech

ADDRESS: 201 E. Pine Street, Suite 1000

Orlando, FL 32801

TELEPHONE NO.: (407) 839-3955

Signature of Professional: 

Florida Registration No.: 83331

Engineering Business No.: 2429

TETRA TECH

CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

ENVIRONMENTAL RESOURCE PERMIT (ERP)

DRAFT DRAINAGE DESIGN REPORT – REVISION LOG

This revised drainage design report is intended to make changes to the stormwater connection at the intersection of W. Gray Street at N. Westland Avenue. The revision log below depicts sections in the report which have been modified, since the previous ERP submittal in April, 2019.

Report Section	Description of Changes
Section 1.0. Introduction	Section modified to depict revised project limits.
Figure 1. Aerial Location Map	Figure modified to depict revised project limits.
Figure 2. Modified Existing Conditions Basin	Figure modified to depict revised project limits.
Figure 3. Modified Proposed Conditions Basin	Figure modified to depict revised project limits.
Table 2. Modified Proposed Model Hydrological Parameters	Table modified to reflect revised basin names, due to the changes outlined in Section 1.0.
Table 3. Modified Proposed Combined Model Hydrological Parameters	Table modified to reflect revised basin names, due to the changes outlined in Section 1.0.
Figure 5. Existing Basin Node/Link Map	Figure modified to depict revised project limits.
Figure 6. Proposed Basin Node/Link Map	Figure modified to depict revised project limits.
Table 4. Proposed Box Culvert Locations and Dimensions	Table modified to reflect revised project limits and updated maximum flowrates.
Section 2.7. Model Results	Section modified to reflect revised project limits.
Table 5. Peak Stages at Nodes	Table modified to reflect revised project limits and updated peak stages.

Figures 7A, 7B, and 7C. Existing Flooding Conditions	Figures modified to reflect revised project limits.
Figures 8A, 8B, and 8C. Proposed Flooding Conditions	Figures modified to reflect revised project limits and updated flooding conditions.
Section 3.2.1. Nutrient Separating Baffle Boxes	Section modified to reflect revised baffle box locations due to revised project limits.
Table 7. Estimated Nutrient Reductions	Table modified to reflect revised baffle box locations due to revised project limits.
Figure 9. Proposed Water Quality Improvements Map	Figure modified to reflect revised project limits and revised baffle box locations.
Appendix B. HGL Profiles	Appendix modified to reflect revised project limits and updated modeling results.

TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... **IV**

1.0 INTRODUCTION **1**

2.0 H&H MODEL REFINEMENT **3**

2.1 Delineation of Basins 3

2.2 Hydrological Component 3

2.3 Hydraulic Roughness 12

2.4 Hydraulic Model Parameters 12

2.4.1 Existing Conditions 12

2.4.2 Proposed Conditions 12

2.5 Design Rainfall 12

2.6 Boundary Condition 12

2.7 Model Results 17

3.0 WATER QUALITY **26**

3.1 Summary 26

3.2 Types of Proposed Treatment BMP's 26

3.2.1 Nutrient Separating Baffle Boxes 26

3.2.2 Pervious Pavement 27

3.2.3 Grass Swales 27

4.0 CONCLUSION **29**

Appendix A Geotechnical Engineering Services Report; Prepared by MC^2, August, 2018.

Appendix B Proposed Hydraulic Grade Line (HGL) Profiles for the 25-year / 24-hour Storm Event.

LIST OF TABLES

Table 1. Modified Existing Model Hydrological Parameters 7
Table 2. Modified Proposed Model Hydrological Parameters 8
Table 3. Modified Proposed Model Hydrological Parameters (Combined) 11
Table 4. Proposed Box Culvert Locations and Dimensions 18
Table 5. Peak Stages at Nodes for Existing and Proposed Conditions 19
Table 6. Impervious and Semi-Impervious Areas Summary 26
Table 7. Estimated Nutrient Reductions from Proposed Baffle Boxes 27

LIST OF FIGURES

Figure 1. Aerial Location Map 2
Figure 2. Modified Existing Conditions Basin 4
Figure 3. Modified Proposed Conditions Basin 5
Figure 4. Land Use Map 6
Figure 5. Existing Basin Node/Link Map 13
Figure 5 (cont'd). Existing Basin Node/Link Map 14
Figure 6. Proposed Basin Node/Link Map 15
Figure 6 (cont'd). Proposed Basin Node/Link Map 16
Figure 7A. Existing Flooding Condition: 5-Year / 24-Hour Storm Event 20
Figure 7B. Existing Flooding Condition: Mean-Annual Storm Event 21
Figure 7C. Existing Flooding Condition: 25-Year / 24-Hour Storm Event 22
Figure 8A. Proposed Flooding Condition: 5-Year / 24-Hour Storm Event 23
Figure 8B. Proposed Flooding Condition: Mean-Annual Storm Event 24
Figure 8C. Proposed Flooding Condition: 25-Year / 24-Hour Storm Event 25
Figure 9. Proposed Water Quality Improvements Map 28

EXECUTIVE SUMMARY

The Cypress Street Outfall Regional Stormwater Improvements project consists of approximately 11.6 acres of project area. The project site is part of an approximately 220-acre watershed, located west of the Hillsborough River, within the West Tampa and Hyde Park neighborhoods, in the City of Tampa, Hillsborough County, Florida (Sections 22 and 23, Township 29 South, Range 18 East). The location of the project area and contributing watershed are shown in **Figure 1** and **Figure 2**, respectively.

The City of Tampa is implementing these stormwater infrastructure improvements to reduce flooding at both a regional and local level. The Cypress Street Outfall Regional Stormwater Improvements project is the second phase of a regional box culvert system, aimed at this flood reduction.

This project will be implemented by routing stormwater through a box culvert system along W. Gray Street, N. Rome Avenue, and W. Cass Street, where this project will connect to the first phase, which routes this stormwater north along North Boulevard, and east along Cypress Street, where it ultimately discharges into the Hillsborough River.

1.0 INTRODUCTION

The City of Tampa (City) has retained the Woodruff & Sons / Tetra Tech Design-Build team for the design and construction of the Cypress Street Outfall Regional Stormwater Improvements project. In addition to the stormwater improvements proposed in the executive summary, this project also makes improvements to potable water distribution and transmission mains, sanitary sewer, fiber optic, as well as roadway, signing, and signalization upgrades. The stormwater portion of the project connects to an existing box culvert at the intersection of W. Gray Street at N. Westland Avenue and it travels east to N. Rome Avenue; N. Rome Avenue from W. Kennedy Boulevard north to W. Cass Street; and W. Cass Street from N. Rome Avenue east to North Boulevard.

This multi-phase regional box culvert system received an Environmental Resource Permit (ERP) through the Southwest Florida Water Management District (SWFWMD) in February, 2015 (permit # 43041855.000). This permit consisted of an ERP for phase I (North Boulevard and the outfall at the Hillsborough River, W. Cass Street, and N. Rome Avenue), as well as a conceptual ERP for phase II (W. Gray Street) and phase III (N. Westland Avenue).

This report has been modified to remove modeling assumptions for the proposed phase III improvements along N. Westland Avenue and the proposed box culvert west of N. Westland Avenue, as the City of Tampa no longer intends to construct these infrastructure improvements. Connections to the existing box culverts are proposed at these locations. In the case that the City of Tampa wishes to construct these improvements in the future, the City will apply for a permit modification.

Tetra Tech has prepared the refined Hydrologic and Hydraulic (H&H) Modeling for this project to document the H&H modeling effort for the stormwater improvements.

Three design storms (mean annual, 5-year / 24-hour and 25-year / 24-hour) have been modeled and evaluated, based upon the unique needs of the project. The mean-annual storm and the 5-year / 24-hour storm were evaluated to address City standards, and to ensure that the flooding attributed to more frequent storms was addressed. The 25-year / 24-hour storm was also evaluated to meet the conditions of the Cooperative Funding Agreement set forth between both the City and SWFWMD. These design storms were modeled using the proposed stormwater improvements, including box culverts along W. Gray Street, N. Rome Avenue, and W. Cass Street, which convey water to the outfall on W. Cypress Street, and ultimately discharge into the Hillsborough River (**Figure 1**).

The project requires a detailed review and refinement of the previous stormwater conceptual model performed by Dyer, Riddle, Mills, and Precourt, Inc. (DRMP) for the City. The conceptual models (existing and proposed) were developed in the Expert Stormwater and Wastewater Model (XP-SWMM) 2D platform and used ‘large sub-basin’ concepts. The conceptual models’ full watershed encompasses approximately two (2) square miles, which is bound on the north by I-275, on the south by W. Swann Avenue, on the west by S. Habana Avenue, and on the east by the Hillsborough River. The refinement of the conceptual model divides some of the drainage basins to distribute flows along the proposed primary conveyance system.

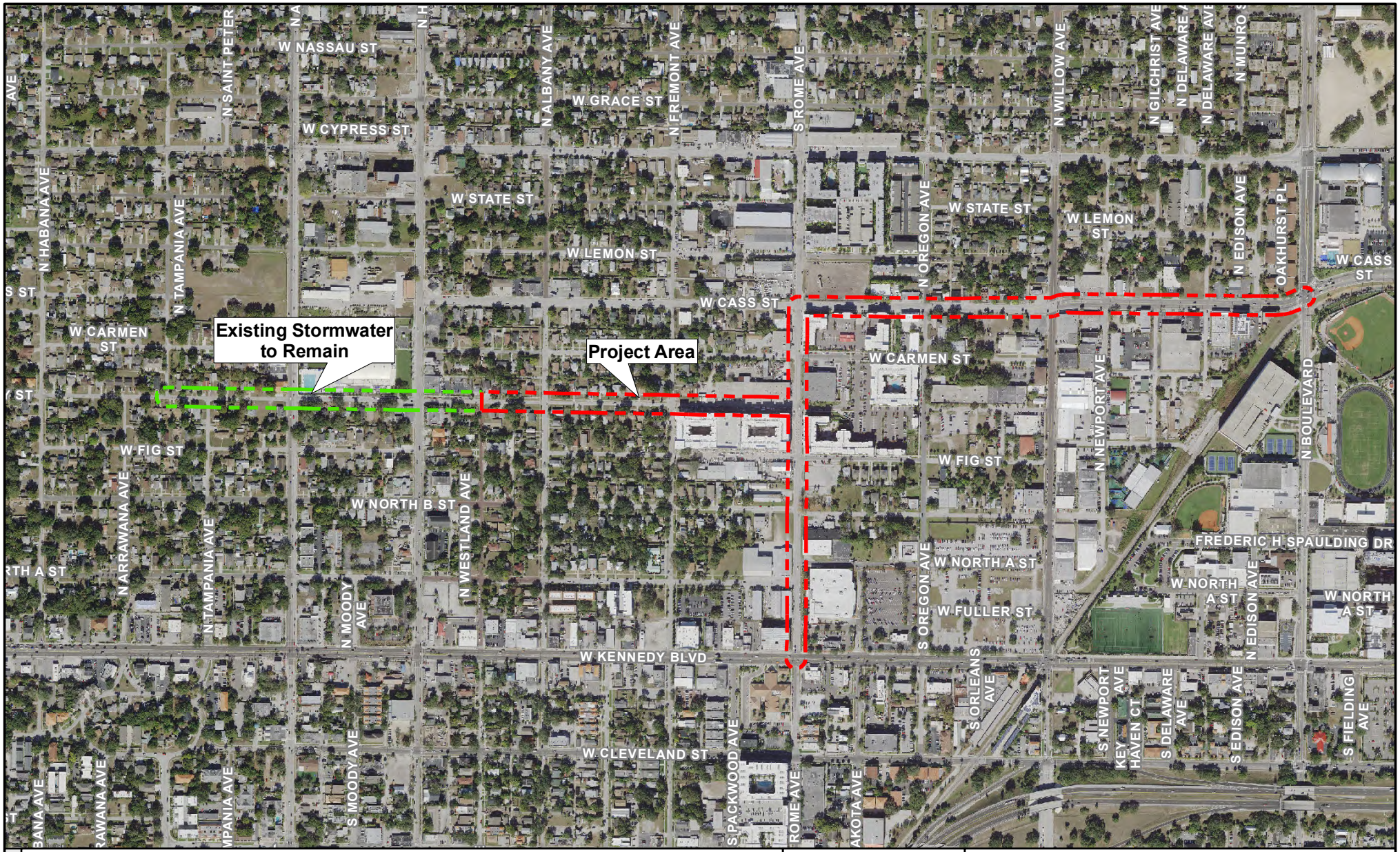
For the refinement of the H&H models in XP-SWMM, the following tasks were performed:

a. Further delineation of the basins to establish drainage divides and flow through the conveyance system from the conceptual models (existing and proposed);

b. Refinement of the land use and soil data, as well as other hydraulic inputs (existing and proposed models) within the areas draining to the corridor for the Cypress Street Outfall;

c. Model simulation for the mean-annual, 5-year / 24-hour, and 25-year / 24-hour storms and analysis of the results; and

d. Verification of the proposed primary and secondary conveyance systems.



LEGEND

- Project Area
- Existing Stormwater to Remain

N

0 700

Feet

CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

LOCATION MAP

TETRA TECH

FIGURE 1

Source: Hillsborough County 2017 Imagery, GIS data; City of Tampa

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\ALIF1.mxd [betty.morris 12/29/2020]

2.0 H&H MODEL REFINEMENT

Tetra Tech received the conceptual model in version 10.5 of XP-SWMM 2000 on June 15, 2018. Tetra Tech utilized version 15.0 [12.0] of XP-SWMM 2014 for the refinement. ArcGIS 10.4 was utilized for the refinement of the hydrological and hydrodynamic data.

2.1 DELINEATION OF BASINS

Tetra Tech delineated the basins based upon the best available information, including aerial photography, LiDAR topography, field observations, and survey data. The LiDAR topography is a combination of the years 2004 and 2008 and covers the existing model basin area (Source: Florida Division of Emergency Management). The elevation of the project area ranges from 23 ft. NAVD (west) to 9 ft. NAVD (east). Arc-Hydro (used in ArcGIS) was initiated to delineate the basins from the LiDAR topography. The new basins in the project boundary were verified and adjusted using the contours, aerial photography, field observations, and survey data. The existing basins, inside the Cypress street corridor and abutting it, were created as larger basins with each collection of stormwater inlets receiving runoff from the associated basin.

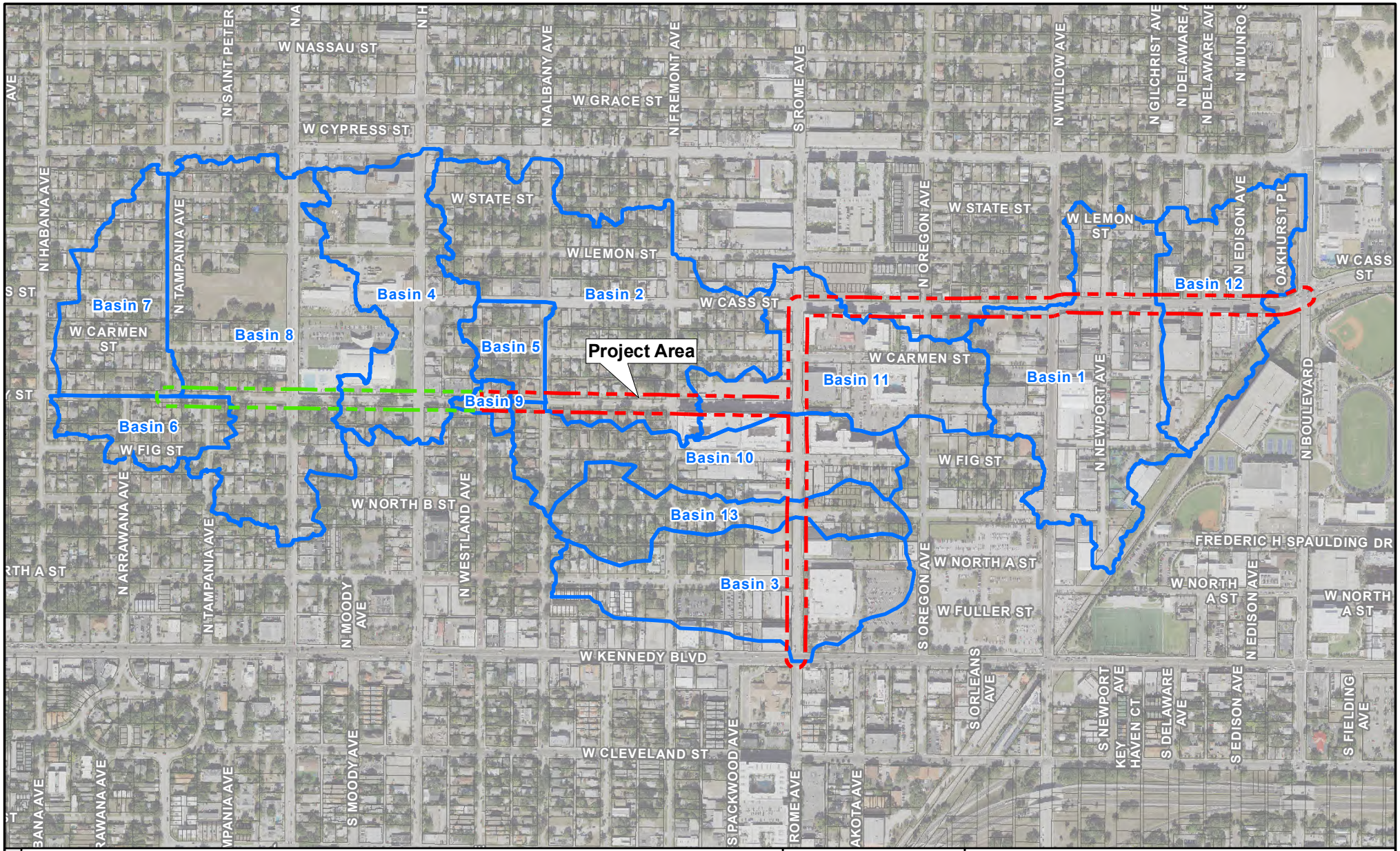
In XP-SWMM, surface runoff from a watershed is routed to the stormwater system via nonlinear reservoir technology. The flow rate from a catchment is directly related to the watershed slope, overland flow surface roughness, depression storage, and width parameter. The watershed width for a given basin is found by dividing the watershed area by the longest flow path (SWMM user manual, 2014). This methodology was adopted for this model refinement.

The full watershed area was delineated to the watershed which drains to the project area. The project area watershed was divided into 13 basins for the existing conditions (**Figure 2**). The drainage basin is defined as the system associated with road and parcel drainage: the stormwater pipes, catch basins, curbs and gutters, storm leads, and service connections.

The proposed basins were further delineated with the use of LiDAR topography, field observations, and survey data, and are displayed in **Figure 3**. The project area was divided into 81 basins for the proposed conditions. The existing and proposed basins include business and commercial development, residential homes, paved roads, parks, and institutional developments.

2.2 HYDROLOGICAL COMPONENT

Land cover within a watershed affects the quantity and timing of runoff. Each land use generates a different quantity of runoff due primarily to the amount of impervious area within that land cover. The land use map for this project area is shown in **Figure 4**. The impervious area input into the XP-SWMM model is, by definition, hydraulically connected to the drainage systems being analyzed. This directly connected impervious percentage includes driveways, rooftops, and parking areas that are directly connected to the stormwater collection system. Runoff from the portion of a rooftop draining onto adjacent pervious areas was not treated as connected impervious area.



LEGEND

- Project Area
- Existing Stormwater to Remain
- Modified Existing Basin

N

0 700

Feet

CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

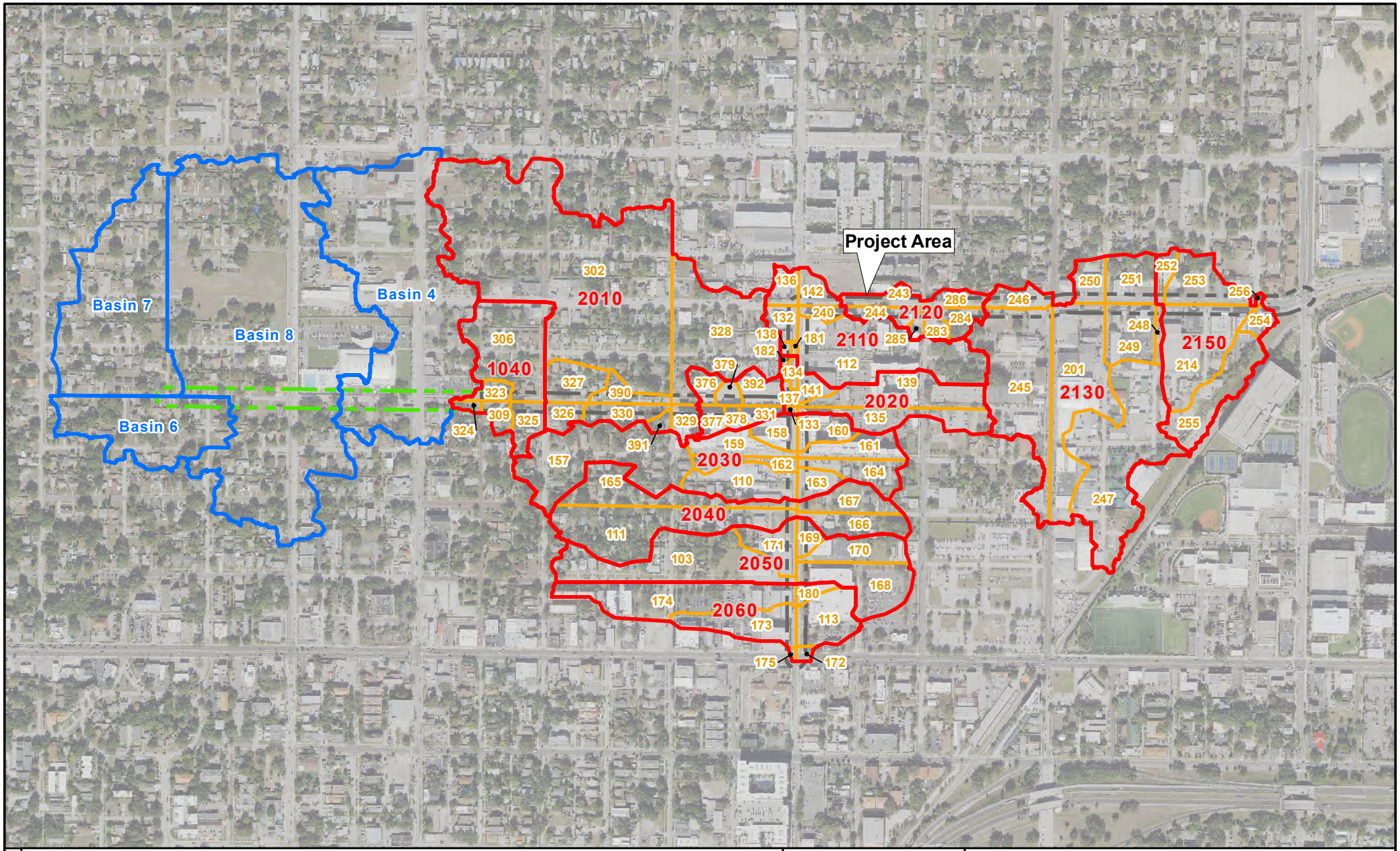
MODIFIED EXISTING BASIN

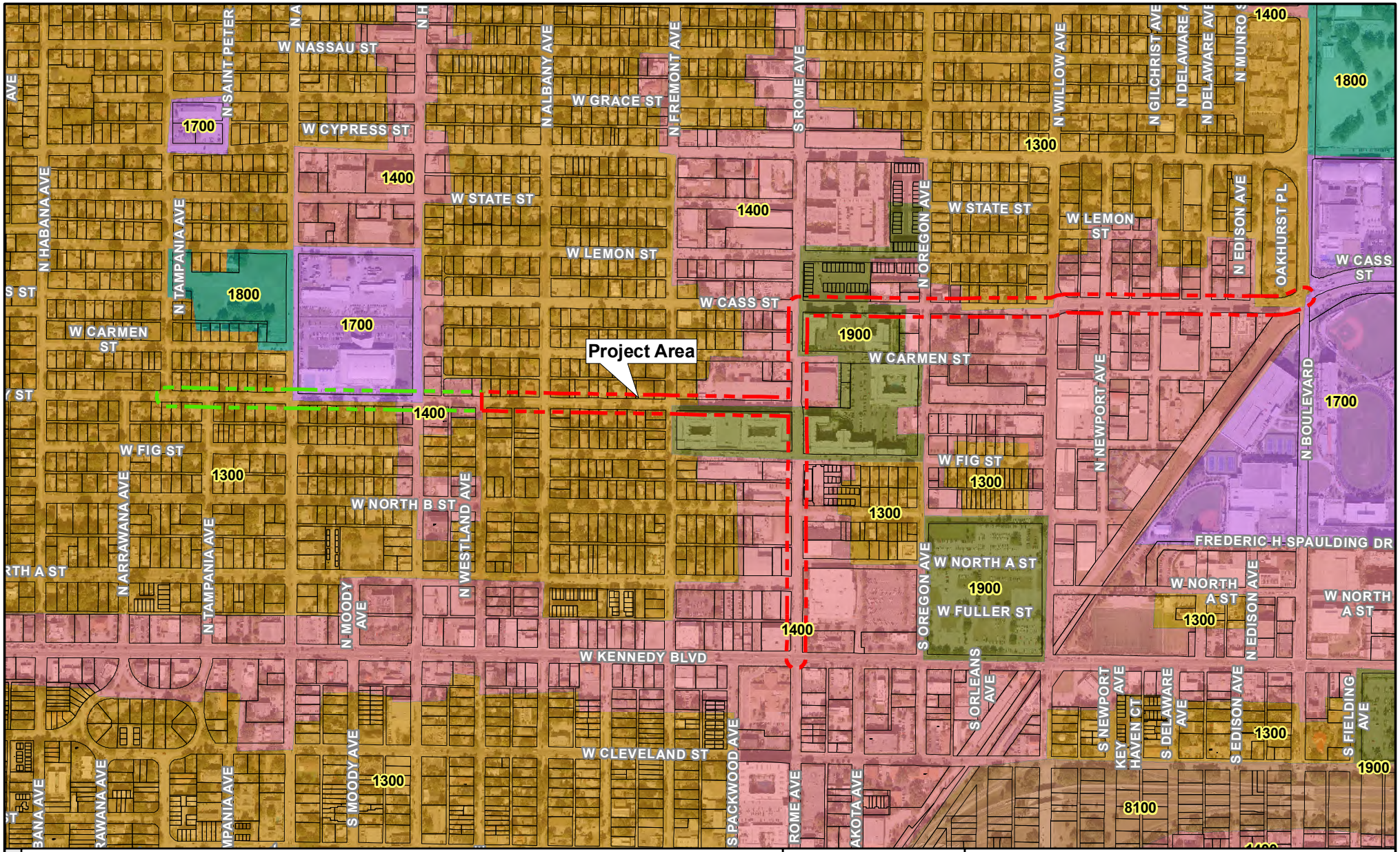
TETRA TECH

FIGURE 2

Source: Hillsborough County 2017 Imagery, GIS data; City of Tampa;

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\ALexBF2.mxd [betty.morris 12/30/2020]


Project Area
Basin 7
Basin 8
Basin 4
Basin 6
2010
1040
2020
2030
2040
2050
2060
2110
2120
2130
2150
302
306
323
324
309
325
326
327
330
390
391
329
377
378
331
379
376
392
328
136
142
132
240
138
182
181
134
137
141
133
135
158
159
160
161
162
163
164
165
157
110
167
166
169
171
170
168
180
173
113
174
103
111
175
172
243
244
286
284
285
283
112
139
246
245
250
251
252
253
256
254
248
249
201
214
255
247
LEGEND
Project Area
Existing Stormwater to Remain
Catchment Basin
Catchment Sub-Basin
Modified Existing Basin
N
0
700
Feet
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS
PROPOSED MODIFIED BASIN
TETRA TECH
FIGURE 3
Source: Hillsborough County 2017 Imagery, GIS data; City of Tampa;
P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\ALproBF3.mxd [betty.morris 12/30/2020]



LEGEND

- Project Area
- Existing Stormwater to Remain

Land Use / Land Cover

- 1300, RESIDENTIAL HIGH DENSITY
- 1400, COMMERCIAL AND SERVICES
- 1700, INSTITUTIONAL
- 1800, RECREATIONAL
- 1900, OPEN LAND
- 8100, TRANSPORTATION

N

0 700

Feet

CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

LAND USE / LAND COVER MAP

TETRA TECH

FIGURE 4

Source: Hillsborough County 2017 Imagery, GIS data; City of Tampa; SWFWMD 2011 Land Use/Land Cover

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\ALLUF4.mxd [betty.morris 12/30/2020]

Land use information obtained from SWFWMD was utilized to represent the imperviousness of the site. The percentage of imperviousness is referenced from TR-55 for the urban areas. There are three types of land use for the existing basin: 'commercial and services', 'open land/space,' and 'residential high density'. For the proposed basin, 'open land/space' was changed to 'commercial and services', as most of these locations are developed as apartment complexes. **Tables 1** and **2** show the modified hydrological parameters.

To directly compare peak stages between the conceptual model and the updated proposed model, the nodes along the streets in the project area remained the same as in the conceptual model. The delineated basins were combined and assigned to the closest node, and the hydrological parameters were averaged on a weighted basis. **Table 3** reflects the hydrological parameters for the merged basins.

The average watershed slope was calculated in GIS using Arc-Hydro tools. The methodology for calculating the watershed slope for the updated areas is the same methodology that was used in the conceptual XP-SWMM model. The area-weighted average watershed slope (feet/feet) for each basin for proposed conditions was estimated using GIS and a digital elevation model (DEM) using the same basin.

Table 1. Modified Existing Model Hydrological Parameters

Basin Name	Group	Node Name	Area (ac)	Width (ft)	Impervious Area (%)
7	A	G-98	12.49	438	38
6	B	G-91	6.27	293	38
8	C	G-84	36.26	748	41
4	D	G-62	19.34	558	71
9	E	G-53	1.14	145	50
5	F	G-41	4.32	293	38
2	G	G-23	33.23	728	44
3	H	R-40	20.08	463	67
13	I	R-31	10.70	251	47
10	J	R-24	16.74	350	61
11	K	C-71	17.62	504	85
1	L	C-29	27.07	639	84
12	M	C-69	16.27	450	68

Table 2. Modified Proposed Model Hydrological Parameters

Basin Name	Group	Node Name	Area (ac)	Width (ft)	Impervious Area (%)	Average Slope (%)
7	A	G-98	12.49	438	38	1.0
6	B	G-91	6.27	293	38	1.0
8	C	G-84	36.26	748	41	1.0
4	D	G-62	19.34	558	71	1.0
103	H	2050	5.25	176	46	0.64
110	J	2030	2.25	160	74	0.84
111	I	2040	5.11	170	44	0.90
112	K	2110	6.17	265	57	0.63
113	H	2060	1.90	245	85	0.92
132	K	2110	0.66	153	85	0.78
133	K	2020	0.06	39	85	0.75
134	K	2020	0.23	56	85	0.72
135	K	2020	1.97	85	85	0.88
136	K	2110	0.65	115	85	0.68
137	K	2020	0.20	54	85	0.85
138	K	2110	0.09	57	85	0.77
139	K	2020	2.94	128	85	0.92
141	K	2020	0.49	98	85	0.87
142	K	2110	0.69	149	85	0.73
157	J	2030	6.00	278	39	0.61
158	J	2030	0.85	146	85	0.77
159	J	2030	1.24	91	85	0.91
160	J	2030	1.06	136	85	0.94
161	J	2030	1.33	110	85	0.40
162	J	2030	0.73	57	83	0.79
163	J	2030	0.69	115	85	0.73
164	J	2030	1.42	107	56	0.79
165	I	2040	2.73	94	43	0.95
166	I	2040	1.43	102	57	0.73
167	I	2040	1.43	119	53	0.78

Basin Name	Group	Node Name	Area (ac)	Width (ft)	Impervious Area (%)	Average Slope (%)
168	H	2050	2.61	186	85	0.76
169	H	2050	0.48	101	85	0.76
170	H	2050	1.61	121	56	0.44
171	H	2050	1.30	139	85	1.03
172	H	2060	0.16	57	85	0.47
173	H	2060	2.15	139	85	0.66
174	H	2060	4.20	143	61	0.90
175	H	2060	0.05	31	85	0.76
180	H	2060	0.36	66	85	0.76
181	K	2110	0.06	35	85	0.83
182	K	2020	0.08	39	85	0.56
201	L	2130	5.75	217	85	0.56
214	M	2150	4.04	310	85	0.79
240	K	2110	0.37	63	85	0.80
243	*	2120	0.78	74.05	85	0.50
244	*	2120	0.62	67	85	0.60
245	L	2130	6.44	249	85	0.74
246	*	2130	0.80	95	39	0.85
247	L	2130	7.89	304	85	0.75
248	M	2130	0.27	37	85	0.87
249	L	2130	1.89	199	85	0.73
250	L	2130	0.90	128	85	0.63
251	L	2130	1.57	187	85	0.85
252	M	2150	0.50	72	68	0.99
253	M	2150	1.88	172	79	1.16
254	M	2150	0.46	116	84	1.01
255	M	2150	2.68	166	85	1.00
256	M	2150	0.05	33	38	0.85
283	*	2120	0.36	73	85	0.83
284	*	2120	0.69	89	82	1.05
285	*	2120	0.24	54	85	0.87

Basin Name	Group	Node Name	Area (ac)	Width (ft)	Impervious Area (%)	Average Slope (%)
286	*	2120	0.58	73	65	0.34
302	G	2010	22.42	558	39	0.46
306	F	1040	4.32	294	38	0.74
309	E	1040	0.47	95	38	1.03
323	E	1040	0.49	63	47	0.92
324	E	1040	0.18	45	85	0.38
325	J	1040	0.93	120	38	0.74
326	G	2010	0.64	151	38	0.39
327	G	2010	1.41	209	38	0.44
328	G	2010	6.37	348	60	1.00
329	G	2010	0.62	116	84	0.93
330	G	2010	1.00	90	38	1.07
331	K	2011	0.39	72	85	0.72
376	K	2011	0.57	102	70	0.87
377	K	2011	0.50	102	85	0.81
378	K	2011	0.26	66	85	0.72
379	K	2011	0.36	95	85	0.84
390	G	2010	0.78	79	38	1.08
391	G	2010	0.25	68	38	1.42
392	K	2011	0.88	131	85	0.82

Table 3. Modified Proposed Model Hydrological Parameters (Combined)

Node Name	Area (ac)	Width (ft)	Impervious Area (%)	Average Slope (%)
G-98	12.49	438	38	1.0
G-91	6.27	293	38	1.0
G-84	36.26	748	41	1.0
G-62	19.34	558	71	1.0
1040	1.14	73	0.50	0.85
2010	33.49	459	0.44	0.83
2011	2.95	103	0.82	0.67
2020	5.97	104	0.85	0.75
2030	20.80	202	0.57	0.74
2040	10.70	135	0.47	0.89
2050	11.25	163	0.63	0.89
2060	8.82	158	0.74	0.86
2110	8.70	223	0.65	0.75
2120	3.25	74	0.81	0.81

2.3 HYDRAULIC ROUGHNESS

Hydraulic roughness was incorporated into the model using Manning's roughness coefficients across the basin model. The conceptual existing model considers a global value of 0.02. In the modified existing and proposed models, the roughness coefficients were unchanged.

2.4 HYDRAULIC MODEL PARAMETERS

2.4.1 Existing Conditions

A node-link network approach was set up in the XP-SWMM model to simulate the stormwater collection and conveyance system throughout the project area. **Figure 5** shows the existing basin node and link map for the entire basin. The existing conditions XP-SWMM model includes the structures from structural inventory (surveyed by City of Tampa Stormwater Division, summarized in "Spanishtown Creek Basin Study, 2004"). Inlets inventory were extracted from the City's GIS database program. For this project, Hyatt Survey Services, Inc., has conducted a stormwater, sewer, and utility survey within the project boundary. This information was incorporated in the model.

2.4.2 Proposed Conditions

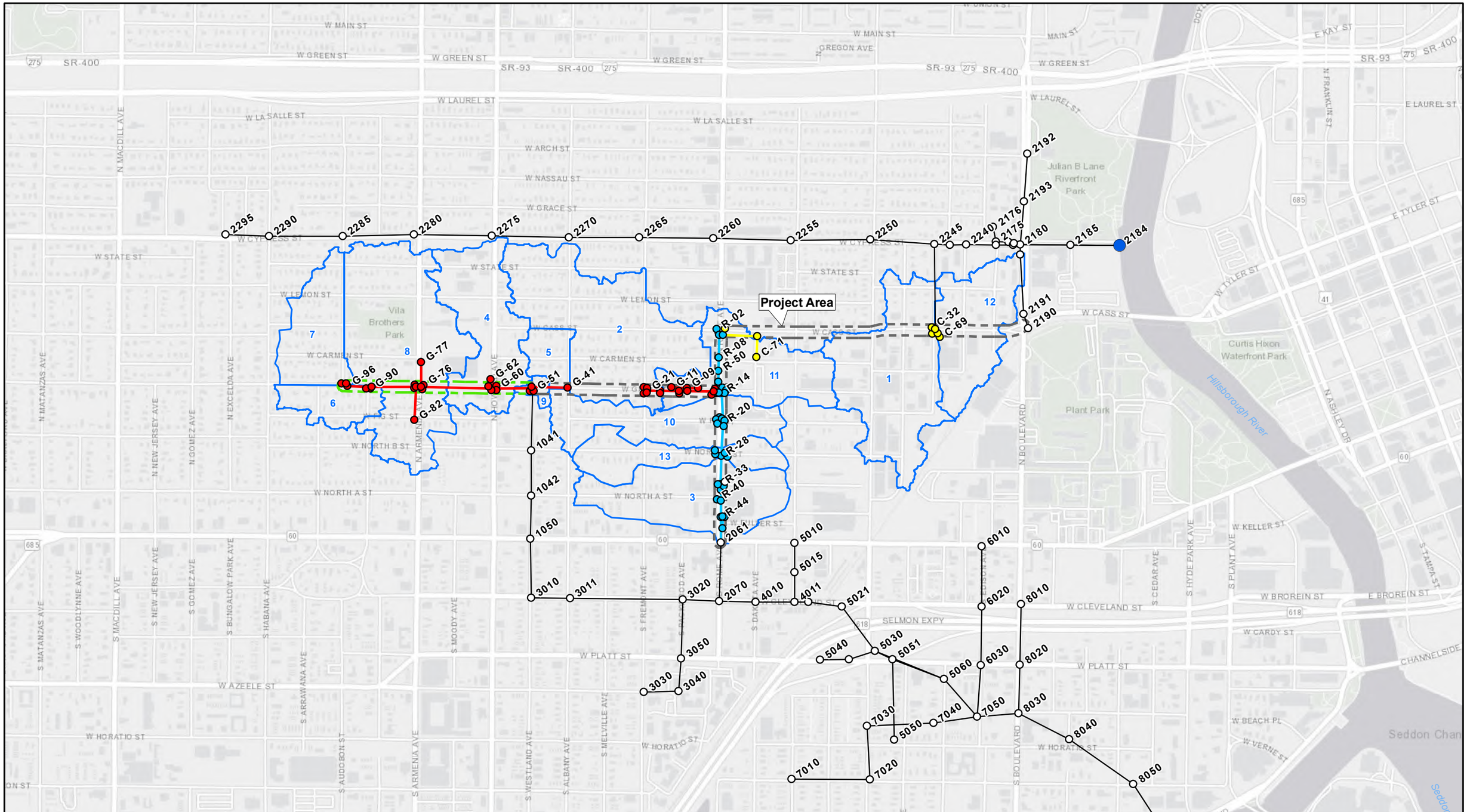
The proposed conditions model includes the proposed box culvert structures for the project area. The proposed link/node map for the project area is shown in **Figure 6**. The proposed box culvert locations proposed along W. Gray Street, N. Rome Avenue, and W. Cass Street are represented in **Figure 6**.

2.5 DESIGN RAINFALL

The model refinement was conducted based upon the 25-year / 24-hour storm event which was required by the City to meet the contractual obligation under the cooperative funding agreement with SWFWMD. The design rainfall was implemented for the processing of iterative model runs to ensure that the results concur with known flood conditions that have been provided by the City. The model also simulated the mean annual and 5-year / 24-hour rainfall events.

2.6 BOUNDARY CONDITION

The boundary conditions for the modified existing and proposed models were taken from the conceptual models provided by the City. The main north-south stormwater trunk lines located along N. Oregon Avenue and N. Rome Avenue flow south and connect to the W. Cleveland Street trunkline, which ultimately flows southeast to the Hillsborough River / Hillsborough Bay. This project changes that flow from south to north by connecting to the existing system at the intersection of W. Cass Street and North Boulevard, with the outfall on W. Cypress Street discharging into the Hillsborough River.



Source: XPSWMM Model

N

0 800

Feet

LEGEND

- Project Area
- Existing Stormwater to Remain
- Modified Existing Basin
- Outfall

Modified Nodes

- W. Cass St.
- W. Gray St.
- S. Rome Ave.

Modified Links

- W. Cass St.
- W. Gray St.
- S. Rome Ave.

Existing Nodes

- from City

Existing Links

- from City

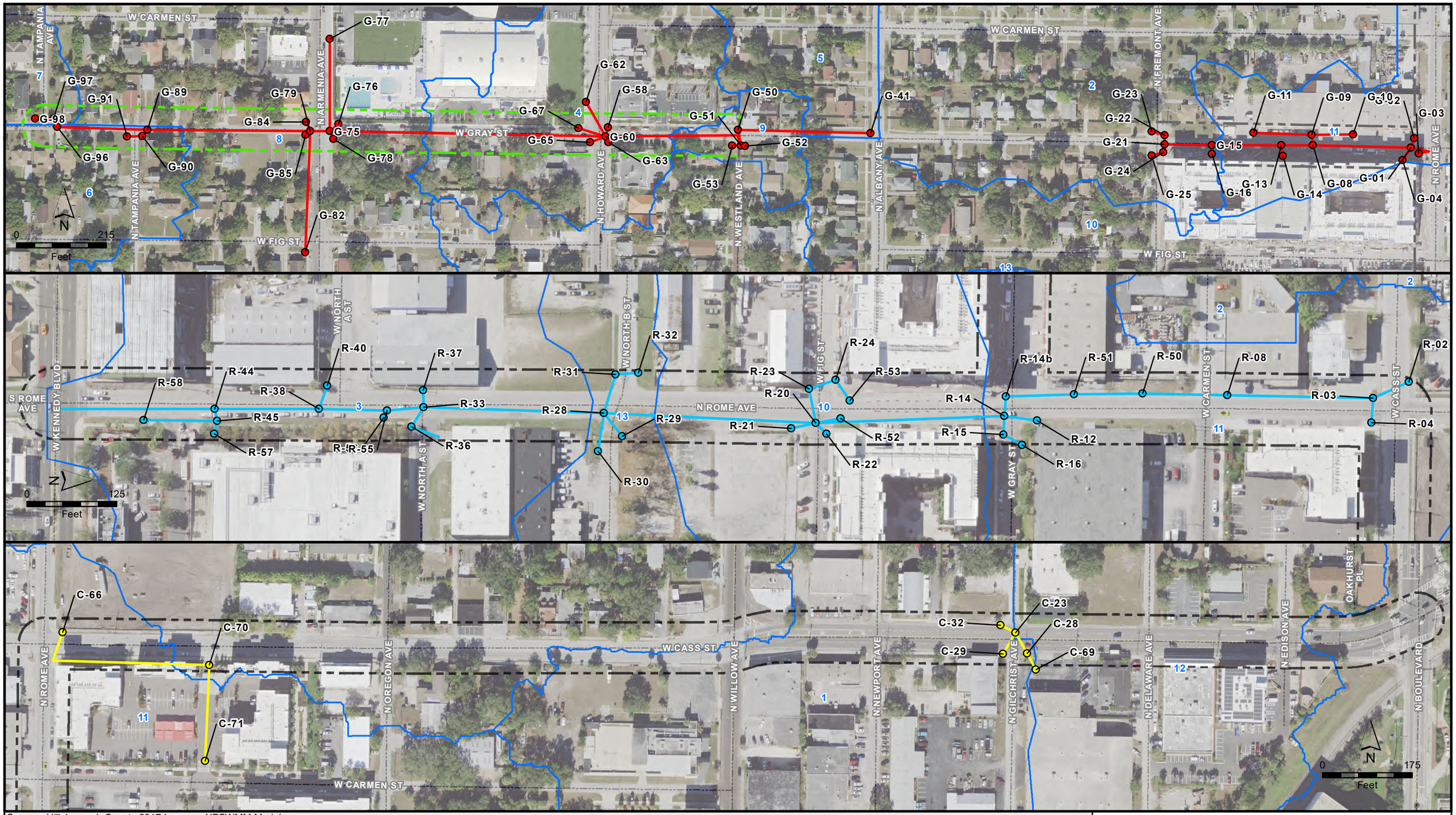
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

EXISTING MODIFIED MODEL FEATURES

TETRA TECH

FIGURE 5

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLexModelF5.mxd [betty.morris 12/30/2020]



Source: Hillsborough County 2017 Imagery; XPSWMM Model

LEGEND

- Project Area
- Existing Stormwater to Remain
- Modified Existing Basin

Modified Nodes	Modified Links
W. Cass St.	W. Cass St.
W. Gray St.	W. Gray St.
S. Rome Ave.	S. Rome Ave.

Existing Nodes	Existing Links
from City	from City

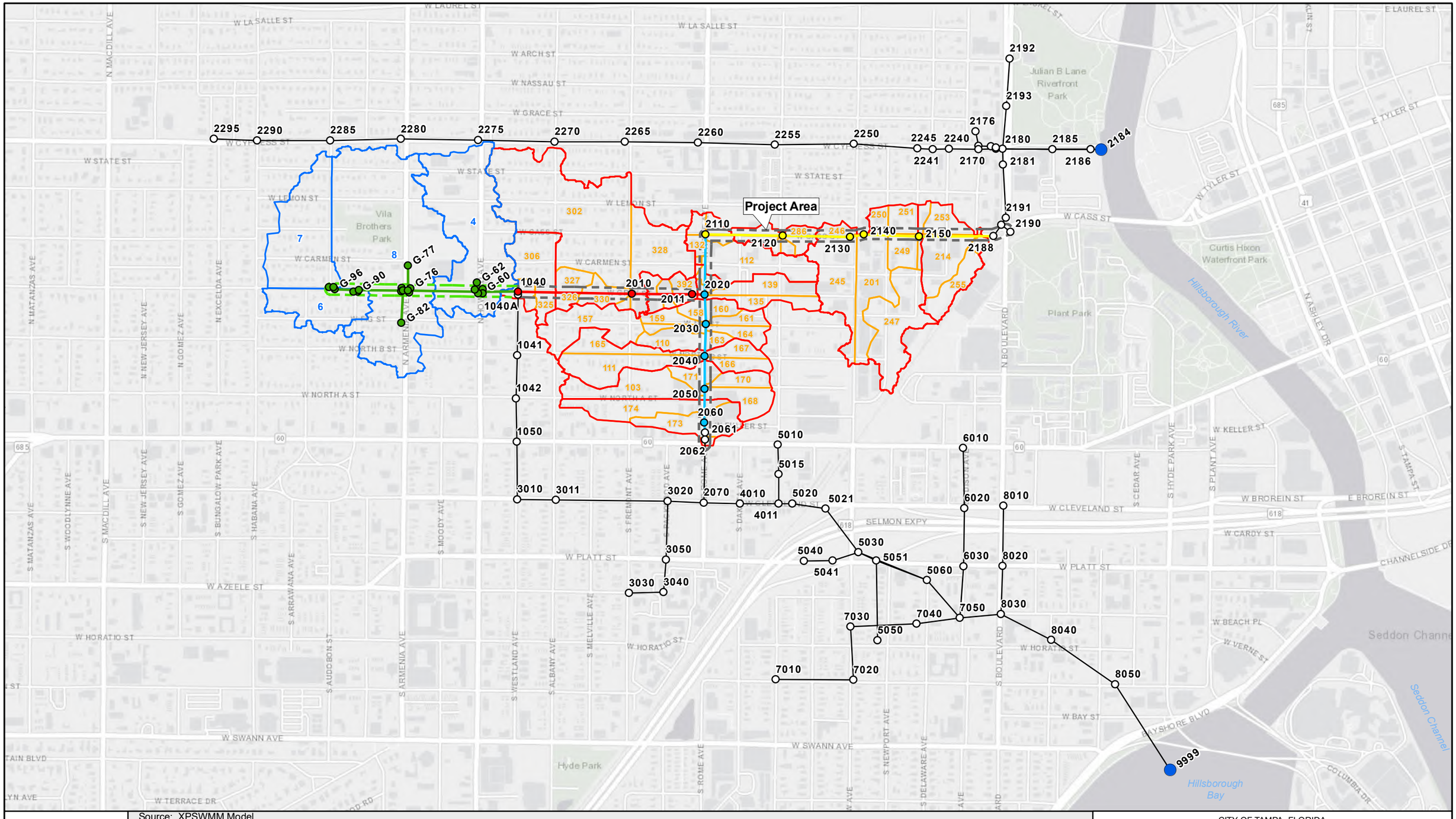
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

EXISTING MODIFIED MODEL FEATURES

TETRA TECH

FIGURE 5 cont'd

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLexModel3F5c.mxd [betty.morris 12/30/2020]



N

0 800

Feet

Source: XPSWMM Model

LEGEND

- Project Area
- Existing Stormwater to Remain
- Catchment Basin
- Catchment Sub-Basin
- Modified Existing Basin
- Outfall

Proposed Modified Nodes
- W. Cass St.
- W. Gray St.
- S. Rome Ave.

Modified Nodes
- W. Gray St.

Existing Nodes
- from City

Proposed Modified Links
- W. Cass St.
- W. Gray St.
- S. Rome Ave.

Modified Link
- W. Gray St.

Existing Links
- from City

CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

PROPOSED MODIFIED MODEL FEATURES

TETRA TECH

FIGURE 6

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLproModelF6.mxd [betty.morris 12/30/2020]

Source: Hillsborough County 2017 Imagery; XPSWMM Model

LEGEND

- Project Area
- Existing Stormwater to Remain
- Catchment Basin
- Catchment Sub-Basin
- Modified Existing Basin

Proposed Modified Nodes
- W. Cass St.
- W. Gray St.
- S. Rome Ave.

Modified Nodes
- W. Gray St.

Existing Nodes
- from City

Proposed Modified Links
- W. Cass St.
- W. Gray St.
- S. Rome Ave.

Modified Link
- W. Gray St.

Existing Links
- from City

CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

PROPOSED MODIFIED MODEL FEATURES

TETRA TECH

FIGURE 6 cont'd

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLproModel3F6c.mxd [betty.morris 1/4/2021]

2.7 MODEL RESULTS

Tables 4 and **5** indicate the modeling results for the project area. **Figure 7a**, **Figure 7b**, **Figure 7c**, **Figure 8a**, **Figure 8b**, and **Figure 8c** indicate the flood depth for the project area, for the given storm event.

The City of Tampa no longer intends to construct the future phase III (N. Westland Avenue) improvements or upsize the existing box culvert west of N. Westland Avenue. The intent of phase III was to replace the existing 36" x 54" box culvert flowing east along W. Gray Street, then south along N. Westland Avenue, and reversing the flow with a proposed 10' x 5' box culvert flowing from south to north and connecting to the 10' x 7' box culvert flowing from west to east along W. Gray Street. Presently, there is minor flooding at the intersection of W. Gray Street at N. Westland Avenue. This project proposes to connect an overflow manhole to the upstream side of the existing 36" x 54" box culvert flowing from north to south along N. Westland Avenue. This overflow manhole will be utilized during rain events when the existing 36" x 54" box culvert backs up, allowing stormwater to overflow into the proposed box culvert system and help to reduce flooding at this intersection. Connections to the existing box culverts are proposed at this intersection. In the case that the City of Tampa wishes to construct these improvements in the future, the City will apply for a permit modification.

There is an existing 4'x4' box culvert flowing from north to south along N. Rome Avenue, and south through the intersection of W. Kennedy Boulevard. This project proposes to replace a portion of this existing box culvert along N. Rome Avenue, and reversing the flow with a proposed 10' x 5' box culvert flowing from south to north. Presently, there is minor flooding present at the intersection of N. Rome Avenue at W. Kennedy Boulevard. This project proposes to connect an overflow manhole to the upstream side of the existing 4'x4' box culvert flowing from north to south along N. Rome Avenue. This overflow manhole will be utilized during rain events when the existing 4' x 4' box culvert backs up, allowing stormwater to overflow with a short section of 48" RCP flowing north. This 48" RCP will connect to the proposed 10' x 5' box culvert flowing from south to north along N. Rome Avenue, and help to reduce flooding at this intersection.

These proposed overflow connections were modeled as a part of this report, and no adverse impacts are anticipated.

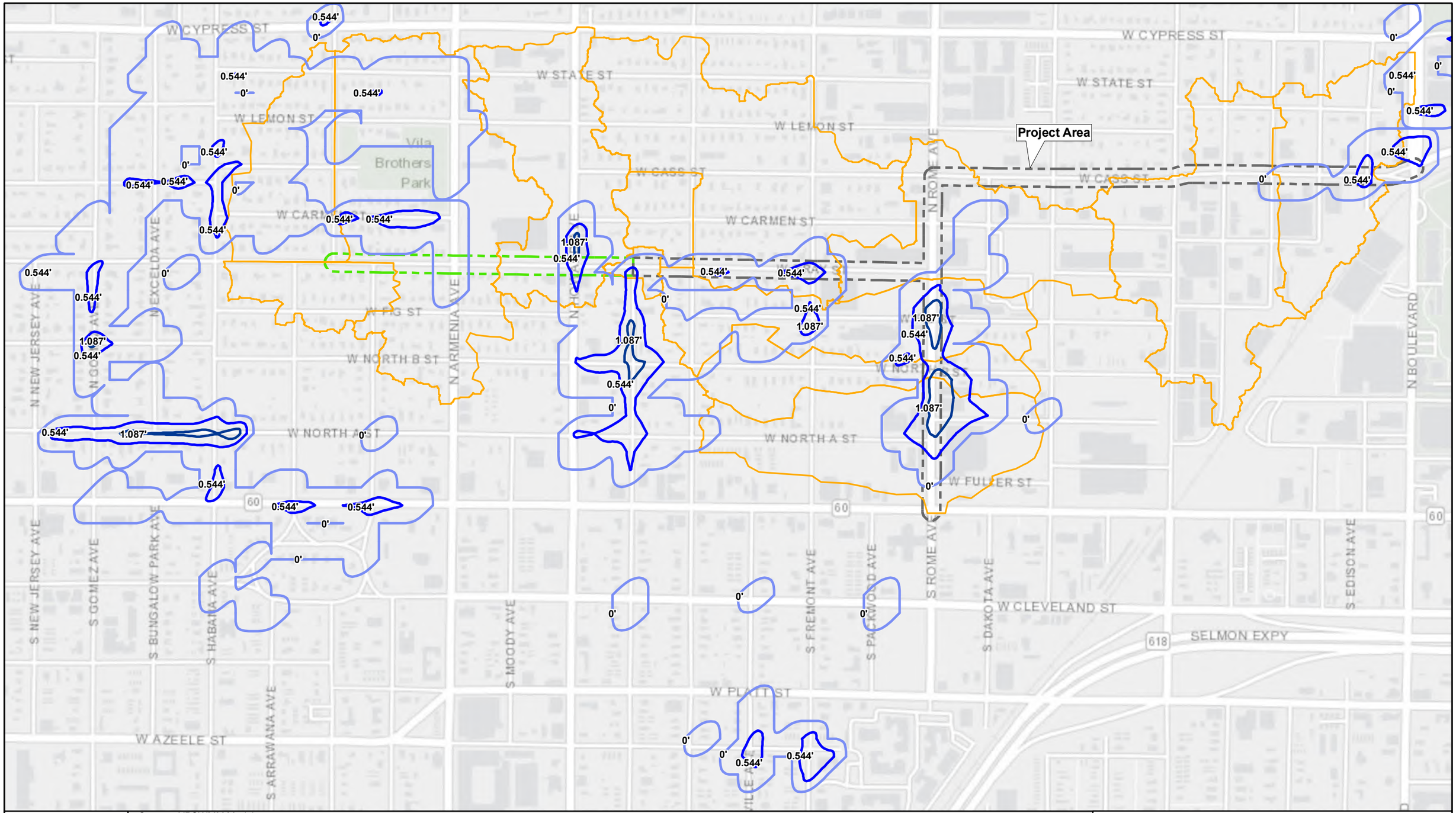
Due to inclusion of box culverts and inlets in the proposed conditions, the flooding condition is improved, and no significant flooding is observed. As previously mentioned, the conceptual stormwater models (existing and proposed) were developed by others for the City, using 'large sub-basin' concepts. Tetra Tech refined these conceptual models by further delineating the basins, as well as verifying and modifying the proposed conveyance systems. As shown in the flood depth figures, the existing and proposed flooding conditions are close to that of the conceptual modeling. **Tables 4 and 5** reiterate this fact, and actually show a slight reduction in most flooding conditions in the refined models. **Appendix B** depicts the proposed hydraulic grade line (HGL) profiles for the 25-year / 24-hour storm for W. Gray Street, N. Rome Avenue, and W. Cass Street. These HGL profiles are indicative towards flooding improvement and show that for even the 25-year 24-hour storm event, all grade lines stay within the proposed box culvert system, and therefore, no adverse impacts are anticipated.

Table 4. Proposed Box Culvert Locations and Dimensions

Link Name	Location	Box Culvert Dimensions		Max Flow (cfs)		
		Width (ft) x Height (ft)	Length (ft)	Mean Annual	5-year / 24-hour	25-year / 24-hour
CL-23	Cass Street	Dual 8 x 8	664.77	198.6	252.6	427.3
CL-31	Cass Street	Dual 8 x 8	491.92	189.0	240.9	405.6
CL-47	Cass Street	Dual 8 x 8	121.35	188.9	240.9	405.0
CL-56	Cass Street	Dual 8 x 8	601.17	169.9	216.6	357.8
CL-59	Cass Street	Dual 8 x 8	688.75	167.3	213.6	351.5
GL-06	Gray Street	10 x 7	110.85	89.3	116.1	177.4
GL-21	Gray Street	10 x 7	536.21	86.3	112.5	169.8
GL-50	Gray Street	10 x 7	1017.49	68.9	90.4	129.2
RL-08	Rome Avenue	Dual 8 x 8	537.92	161.0	205.9	337.2
RL-17	Rome Avenue	10 x 5	264.51	67.1	83.8	149.0
RL-25	Rome Avenue	10 x 5	283.67	56.6	70.3	123.8
RL-33	Rome Avenue	10 x 5	293.73	50.3	62.4	109.4
RL-38	Rome Avenue	10 x 5	297.46	41.8	51.6	89.6
RL-44	Rome Avenue	10 x 5	91.92	33.8	41.4	71.1

Table 5. Peak Stages at Nodes for Existing and Proposed Conditions

Tt Existing Node Name	Node Name	Location	Existing Condition (ft. NAVD)			Proposed Condition (ft. NAVD)		
			Mean Annual	5-Year / 24-Hour	25-Year / 24-Hour	Mean Annual	5-Year / 24-Hour	25-Year / 24-Hour
G-98	1010	Gray Street	19.52	20.14	22.17	19.44	19.66	21.80
G-75	1020	Gray Street	18.72	18.99	19.76	17.24	17.48	18.22
G-60	1030	Gray Street	18.61	18.86	19.24	16.84	17.09	17.72
G-50	1040	Gray Street	18.43	18.63	18.83	7.27	7.62	8.46
G-21	2010	Gray Street	16.61	16.85	17.25	6.04	6.49	7.77
G-01	2011	Gray Street	16.26	16.42	17.10	5.58	6.07	7.48
R-14	2020	Rome Avenue	16.23	16.37	17.10	5.54	6.03	7.46
R-20	2030	Rome Avenue	16.12	16.35	17.09	7.23	7.41	8.05
R-28	2040	Rome Avenue	16.11	16.34	17.09	7.76	7.95	8.60
R-33	2050	Rome Avenue	16.10	16.34	17.09	8.13	8.31	8.94
R-44	2060	Rome Avenue	15.53	15.88	16.94	8.81	8.94	9.42
2061	2061	Rome Avenue	15.51	15.87	16.87	9.18	9.29	9.68
R-03	2110	Cass Street	18.21	18.25	18.39	5.23	5.70	7.11
C-66	2120	Cass Street	18.39	18.42	18.55	4.67	5.12	6.54
N/A	2130	Cass Street	N/A	N/A	N/A	3.78	4.28	5.88
N/A	2140	Cass Street	N/A	N/A	N/A	3.92	4.47	6.04
N/A	2150	Cass Street	N/A	N/A	N/A	3.69	4.22	5.73
2190	2188	Cass Street	6.50	6.59	6.74	3.26	3.75	5.16



Source: XPSWMM Model

N

0 500

Feet

LEGEND

- Project Area
- Existing Stormwater to Remain
- Modified Existing Basin

Max Flood Depth

(FT/NAVD88)

- 0 - 0.543
- 0.544 - 1.086
- 1.087+

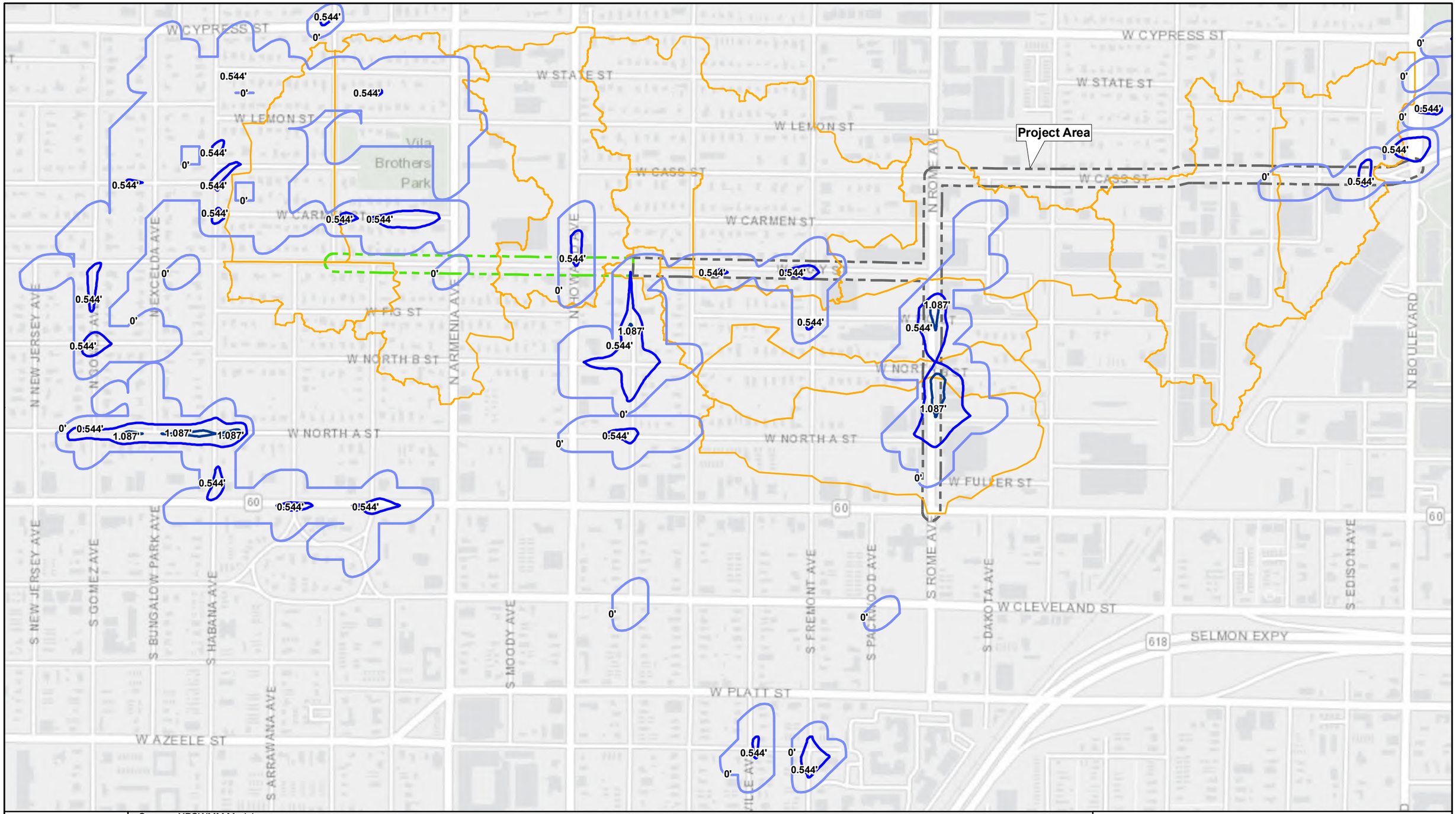
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL
STORMWATER IMPROVEMENTS

EXISTING FLOODING CONDITION
5-YEAR / 24 HOUR STORM EVENT

TETRA TECH

FIGURE 7A

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLex5yr24hr0F7a.mxd [betty.morris 12/30/2020]



N

0 500
Feet

LEGEND

Source: XPSWMM Model

- Project Area
- Existing Stormwater to Remain
- Modified Existing Basin

Mean Annual Flood Depth

(FT/NAV88)

- 0 - 0.543
- 0.544 - 1.086
- 1.087+

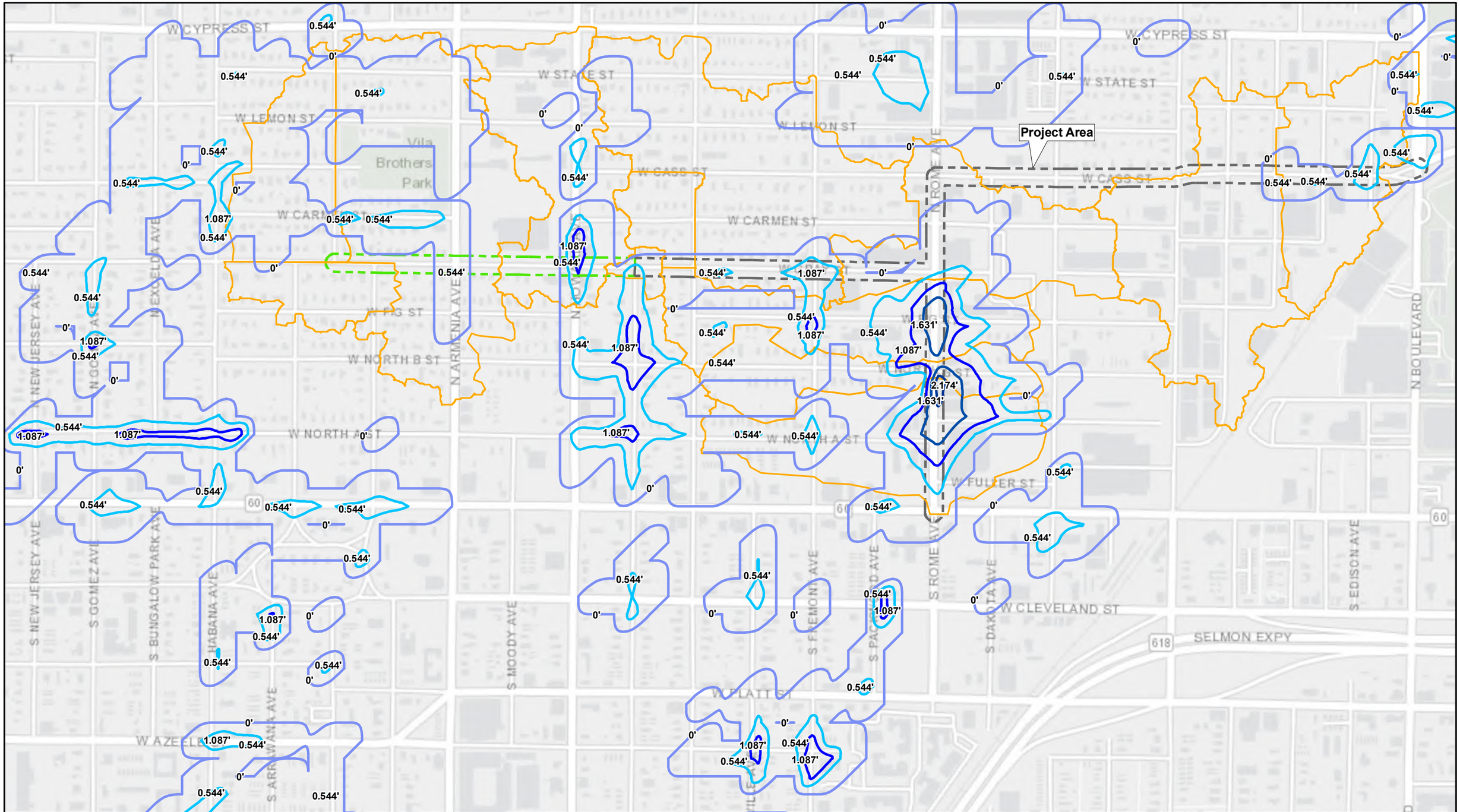
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

EXISTING FLOODING CONDITION
MEAN ANNUAL

TETRA TECH

FIGURE 7B

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLexMeanAnn0F7b.mxd [betty.morris 12/30/2020]



Source: XPSWMM Model

N

0 500

Feet

LEGEND

- Project Area
- Existing Stormwater to Remain
- Modified Existing Basin

Max Flood Depth

(FT/NAV88)

- 0 - 0.543
- 0.544 - 1.086
- 1.087 - 1.630
- 1.631 - 2.173
- 2.174+

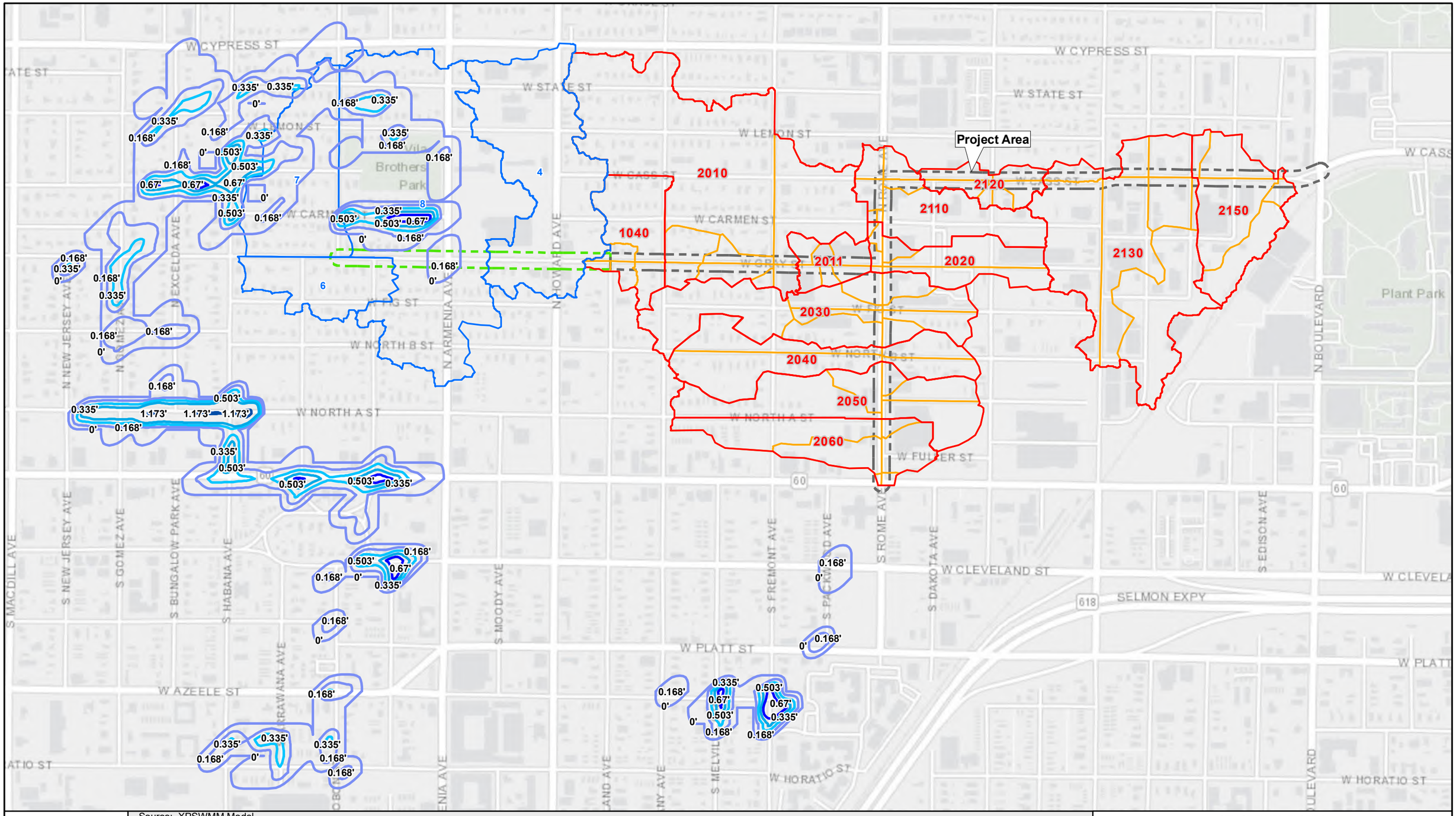
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

EXISTING FLOODING CONDITION
25-YEAR / 24 HOUR STORM EVENT

TETRA TECH

FIGURE 7C

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLex25yr24hr0F7c.mxd [betty.morris 12/30/2020]



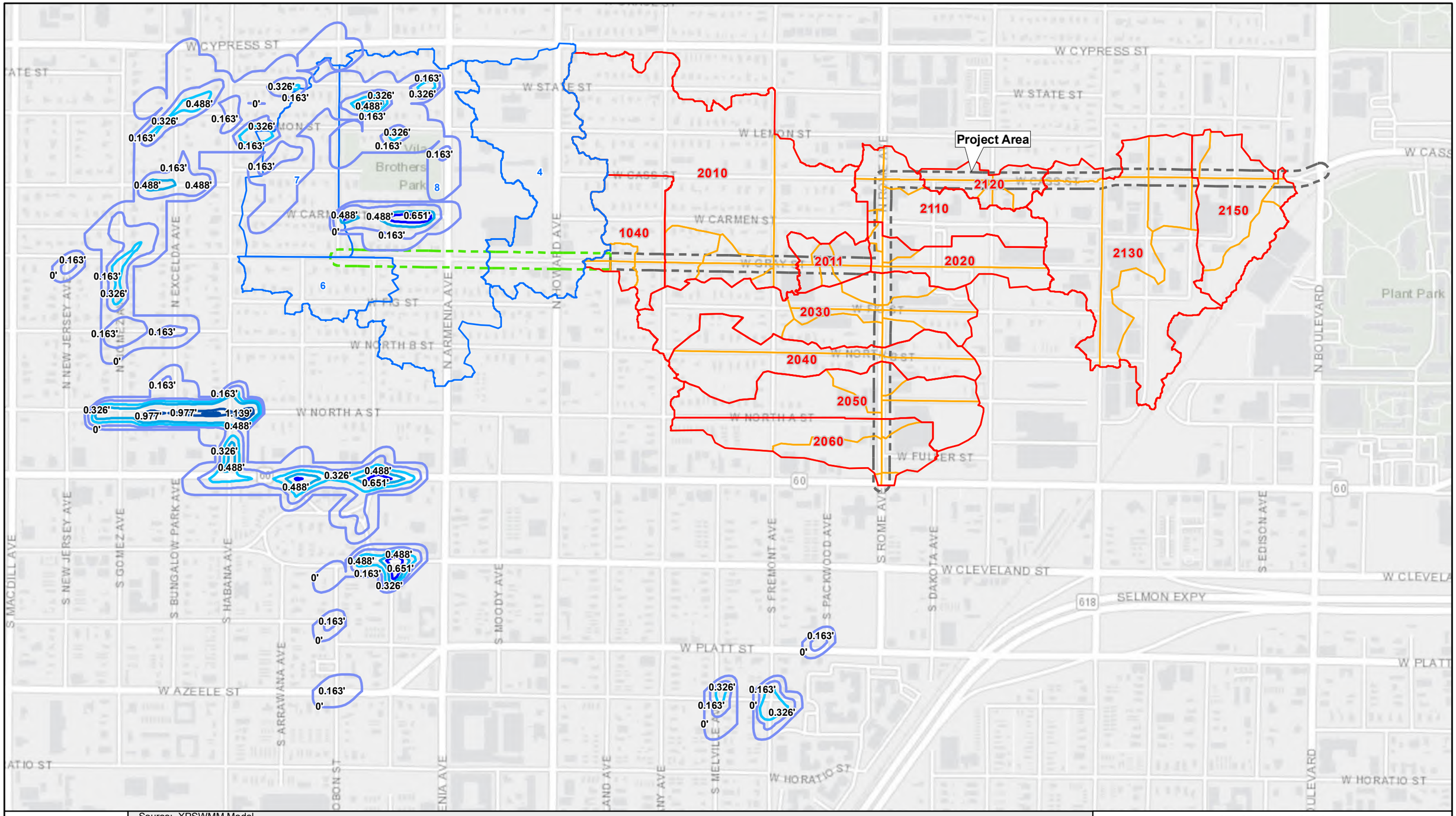
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL
STORMWATER IMPROVEMENTS

PROPOSED FLOODING CONDITION
5-YEAR / 24 HOUR STORM EVENT

TETRA TECH

FIGURE 8A

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLpro5yr24hr0F8a.mxd [betty.morris 12/30/2020]



Source: XPSWMM Model

N

0 550

Feet

LEGEND

- Project Area
- Existing Stormwater to Remain
- Catchment Basin
- Catchment Sub-Basin
- Modified Existing Basin

Mean Annual Flood Depth (FT/NAVD88)

- 0.000 - 0.195
- 0.196 - 0.392
- 0.393 - 0.588
- 0.589 - 0.785
- 0.786 - 1.173

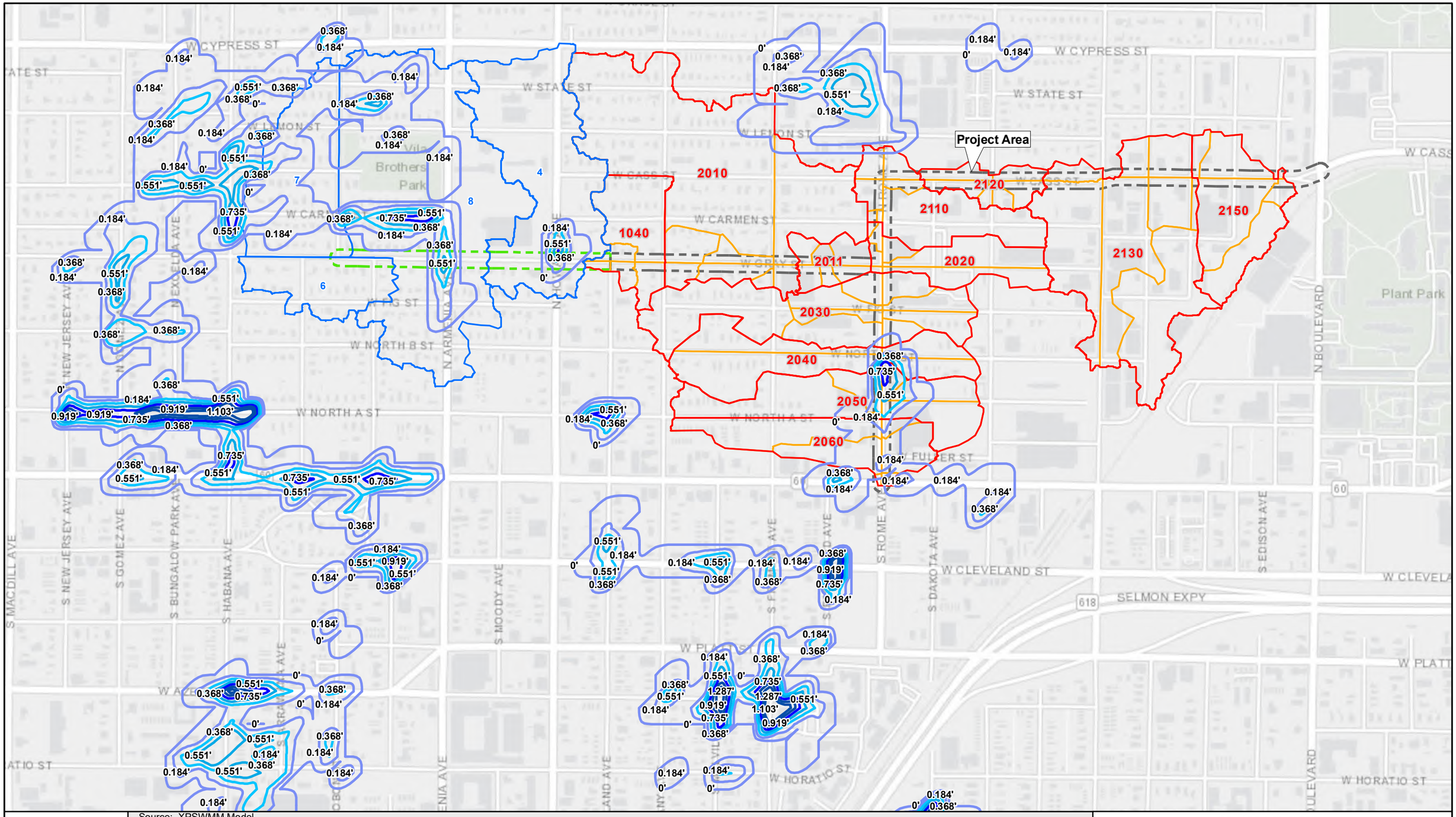
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS

PROPOSED FLOODING CONDITION
MEAN ANNUAL

TETRA TECH

FIGURE 8B

P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLproMeanAnn0F8b.mxd [betty.morris 12/30/2020]


Project Area
2010
2011
2020
2030
2040
2050
2060
2110
2120
2130
2150
1040
W CYPRESS ST
W STATE ST
W LEMON ST
W CASS ST
W CARMEN ST
W NORTH B ST
W NORTH A ST
W FULLER ST
W CLEVELAND ST
W HORATIO ST
W PLATT
SELMON EXPY
618
60
Plant Park
N BOULEVARD
S NEW JERSEY AVE
S GOMEZ AVE
S BUNGALOW PARK AVE
S HABANA AVE
S MACDILL AVE
S MOODY AVE
S ROME AVE
S DAKOTA AVE
S EDISON AVE
N ARMENIA AVE
N TAMPA ST
N EXCELSIOR AVE
Brothers Park
0.184'
0.368'
0.551'
0.735'
0.919'
1.103'
0.000 - 0.195
0.196 - 0.392
0.393 - 0.588
0.589 - 0.785
0.786 - 1.173
0
550
Feet
N
Source: XPSWMM Model
LEGEND
Project Area
Existing Stormwater to Remain
Catchment Basin
Catchment Sub-Basin
Modified Existing Basin
Max Flood Depth
(FT/NAVD88)
CITY OF TAMPA, FLORIDA
CYPRESS STREET OUTFALL REGIONAL STORMWATER IMPROVEMENTS
PROPOSED FLOODING CONDITION
25-YEAR / 24 HOUR STORM EVENT
TETRA TECH
FIGURE 8C
P:\IER\55595\200-55595-18001\GIS\maps\SWMemo\BLpro25yr24hr0F8c.mxd [betty.morris 12/30/2020]

3.0 WATER QUALITY

3.1 SUMMARY

This project is a retrofit design aimed at flood protection. As a part of this project, road-dieting and multi-modal transportation were implored. As a result, the typical roadway sections differ between the existing and proposed conditions. The comparison between the existing and proposed conditions are summarized in **Table 6**.

Table 6. Impervious and Semi-Impervious Areas Summary

Area	Existing Conditions (SY)	Proposed Conditions (SY)	Difference (SY)
Vehicular Use Area (VUA)	33,380	24,880	- 8,500
Sidewalk	5,240	8,780	+ 3,540
Parking (Impervious)	1,990	0	- 1,990
Parking (Pervious Pavement)	0	1,620	+1,620
Cycle Track/Bike Lanes	0	5,330	+ 5,330
Traffic Separator and Misc.	0	560	+ 560
Total	40,610	41,170	+ 560

Although the total impervious area for the project has increased slightly, there is an immense reduction in the project's Vehicular Use Area (VUA), which would incline to a reduction in the project's overall pollutant area.

As part of this retrofit and flood protection project, Best Management Practices (BMP), including low-impact development (LID), were employed to aid in the reduction of peak flowrates, and increase water quality by serving to achieve nutrient load reductions for discharges into the Hillsborough River.

3.2 TYPES OF PROPOSED TREATMENT BMP'S

3.2.1 Nutrient Separating Baffle Boxes

Nutrient separating baffle boxes, otherwise known as second generation baffle boxes, have chambers with partitions connected to a storm drain. Stormwater flows into the first section of the box through the inflow pipe, where most pollutants settle out. Water then overflows into the next section to allow further settling before the water ultimately overflows to the stormwater outflow pipe. Floating trays within the baffle box capture leaves, grass clippings, and litter to prevent them from dissolving in the stormwater. Bold and Gold® media is added to the baffle box to create a denitrification environment, which increases total nutrient removal. The use of this media can increase efficiencies and nutrient removals as summarized in **Table 7**.

The Suntree nutrient separating baffle box is recommended for this project. Model NSBB-5-10 accommodates pipe sizes from 12 inches to 30 inches, which fits the 24-inch stormwater pipes which are proposed at the Freemont and Willow locations. We are proposing a model NSBB-8-16 for the Westland location to accommodate the 54-inch stormwater pipe. The Florida Department of Environmental Protection approved nutrient removal efficiencies for a nutrient separating baffle box are 19.05% for TN and 15.5% for TP. To maximize water quality benefits, Tetra Tech recommends adding Bold and Gold® to the baffle boxes.

Table 7. Estimated Nutrient Reductions from Proposed Baffle Boxes

Location	Acres Treated	TN Existing Load (lbs/yr)	TN Efficiency	TN Reduction (lbs/yr)	TP Existing Load (lbs/yr)	TP Efficiency	TP Reduction (lbs/yr)	Inflow Pipe (in)	Outflow Pipe (in)
N. Westland Avenue	73.2	806.2	19.05%	154	159.3	15.50%	25	54	54
N. Westland Avenue plus Bold and Gold®	73.2	806.2	55.00%	443	159.3	65.00%	104	54	54
N. Freemont Avenue	28.8	356.5	19.05%	68	75.1	15.50%	12	24	24
N. Freemont Avenue plus Bold and Gold®	28.8	356.5	55.00%	196	75.1	65.00%	49	24	24
N. Willow Avenue	12.2	211.1	19.05%	40	30.4	15.50%	5	24	24
N. Willow Avenue plus Bold and Gold®	12.2	211.1	55.00%	116	30.4	65.00%	20	24	24

3.2.2 Pervious Pavement

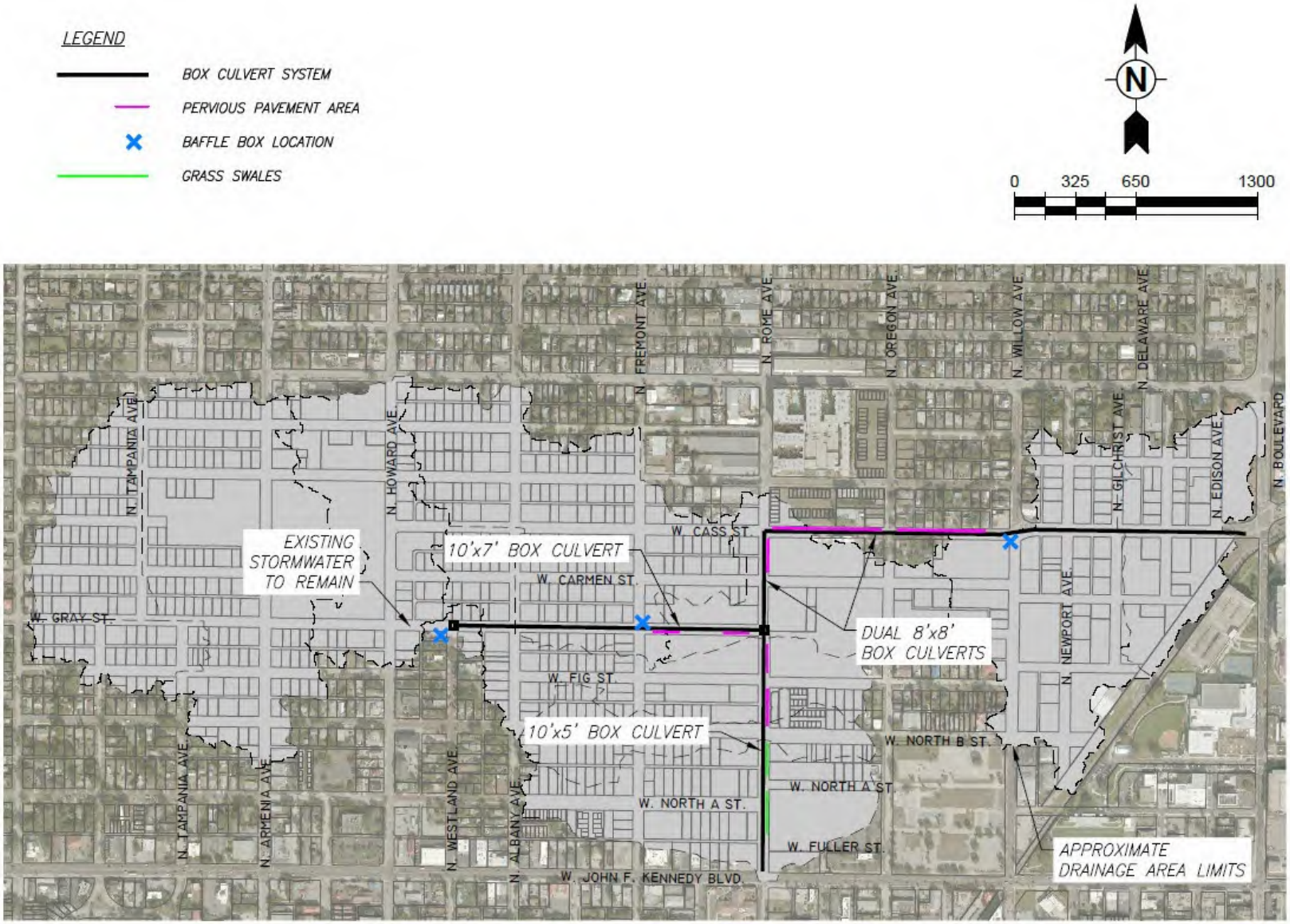
Pervious pavement is an asphalt with increased void space, which allows for surface water to percolate through the pavement rather than accumulate atop it. This provides a water quality benefit by reducing stormwater discharge to the Hillsborough River, as well as reducing pollutants in the stormwater runoff by allowing it to naturally filter into the ground.

This project proposes replacing all existing impervious parking area within the project limits, with new pervious pavement.

3.2.3 Grass Swales

This project proposes grass-lined swales along portions of N. Rome Avenue for additional treatment and nutrient removal. The swales provide a water quality benefit by reducing pollutants in the stormwater runoff by allowing it to attenuate and naturally filter into the ground.

Figure 9. Proposed Water Quality Improvements Map



4.0 CONCLUSION

The proposed drainage improvements associated with the Cypress Street Outfall Regional Stormwater Improvements project were designed to properly capture and convey stormwater runoff to reduce structural, yard, and street flooding for the design storm events. Existing and proposed H&H models were refined from conceptual models developed by others for the City, using the XP-SWMM Version 10.5 modeling software. Hydrologic and hydraulic parameters were updated to more accurately represent the project site. The proposed stormwater improvements include box culvert structures that run along the streets of W. Gray Street, N. Rome Avenue, and W. Cass Street. This new system will connect to the existing stormwater system on W. Cass Street, and ultimately discharge at the Cypress Street outfall into the Hillsborough River.

Appendix A

Geotechnical Engineering Services Report

Geotechnical Engineering Services Report

Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Florida

Prepared for: **Woodruff & Sons, Inc.**
6450 – 31st Street East
Bradenton, Florida 34203

Prepared by: **MC Squared, Inc.**
5808-A Breckenridge Parkway
Tampa, Florida 33603

MC² Project No. T041704.066
August 8, 2018



5808-A Breckenridge Parkway, Tampa, Florida 33610
Phone (813) 623-3399, Fax (813) 623-6636
www.mc2engineers.com

August 8, 2018

Mr. Matt Anderson, PE
Woodruff & Sons, Inc.
6450 – 31st Street East
Bradenton, Florida 34203

Subject: Geotechnical Engineering Services Report
Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Florida
MC² Proposal No. T041704.066

Dear Mr. Anderson:

MC Squared, Inc. (**MC²**) has completed our Geotechnical Engineering Services Report for the proposed improvements associated with the referenced project. This study was performed in general accordance with **MC²** Proposal No. T041704.066 dated September 25, 2017 (Revised October 17, 2017). These services included a subsurface exploration, laboratory testing, and our evaluation of the data and geotechnical recommendations for project design and construction.

We trust that this report will assist you in further design development and construction of the subject project. We appreciate the opportunity to be of service to you on this project. Should you have any questions and/or require further information, please do not hesitate to contact us.

Respectfully submitted,
MC Squared, Inc.

Bradley A. Crowson, EI
Associate Project Manager

Winston L. Stewart, PE
Vice President/Chief Engineer
Florida PE License No. 81643

Jeffery L. Hooks, PE
Project Engineer
Florida PE License No. 67882

5808-A Breckenridge Parkway, Tampa, Florida 33610
Phone (813) 623-3399, Fax (813) 623-6636
www.mc2engineers.com

TABLE OF CONTENTS

1 PROJECT INFORMATION 1
1.1 PROJECT AUTHORIZATION 1
1.2 PROJECT DESCRIPTION 1
1.3 SCOPE OF SERVICES 2
2 SITE CONDITIONS 3
2.1 SITE FEATURES 3
2.2 HILLSBOROUGH COUNTY SOIL SURVEY 3
2.3 TOPOGRAPHIC SURVEY 4
2.4 POTENTIOMETRIC INFORMATION 5
3 FIELD EXPLORATION PROGRAM 5
3.1 GENERAL 5
3.2 STANDARD PENETRATION TEST BORINGS 5
3.3 PAVEMENT CORE BORINGS 6
4 LABORATORY TESTING 7
5 SUBSURFACE CONDITIONS 8
5.1 SUBSURFACE CONDITIONS 8
5.2 GROUNDWATER CONDITIONS 10
5.3 PAVEMENT INFORMATION 11
6 EVALUATION AND CONCLUSIONS 11
7 RECOMMENDATIONS 14
7.1 GENERAL 14
7.2 CONSTRUCTION CONSIDERATIONS 15
7.2.1 Dewatering Considerations 15
7.2.2 Temporary Slopes 15
7.2.3 Excavations 16
7.2.4 Structural Fill and General Backfill 16
7.2.5 Compaction Criteria 17
7.2.6 Directional Drilling 18
7.2.7 Signalization Foundations 18
7.3 LATERAL EARTH PRESSURES 18
8 REPORT LIMITATIONS 20

APPENDIX

Summary of Pavement Cores – Table 9
Pavement Core Summary Reports – (10 Sheets)
Summary of Soil Parameters – Table 10 (3 Sheets)
Project Location Map (Sheet 1)
Boring Location Map (Sheet 2)
USDA Soil Survey and USGS Topographic Maps (Sheet 3)
Subsurface Boring Profiles (Sheets 4 through 6)
Report of Core Borings (Sheet 7)
Individual Soil Profiles (25 Sheets)
Test Procedures

1 PROJECT INFORMATION

1.1 Project Authorization

Authorization to proceed with this project was issued by **Woodruff & Sons, Inc. (Woodruff)** through a Professional Services Agreement dated May 21, 2018. Our services were performed in general accordance with **MC²** Proposal No. T041704.066.

1.2 Project Description

Project information was provided by Mr. Matt Anderson, PE of **Woodruff** and Mr. Thomas Cross, PE from **Tetra Tech** through e-mailed and verbal communications. Based on our understanding, the purpose of our services is to provide geotechnical data and information to aid in the design of the Cass Street/Rome Avenue/Gray Street Stormwater Line Design-Build Project to alleviate flooding in the area. The project is located entirely within the City of Tampa, Florida and consists of two (2) segments of reinforced concrete box (RCB) culverts with varying dimensions and configurations. The combined length of the two (2) segments is approximately 8,750-LF. Two (2) junction boxes have been assumed, one (1) each at the intersections of Cass Street and Rome Avenue and Rome Avenue and Gray Street. Other features of the project include water mains (36" and 8" diameter) that will run parallel to the RCB culverts, and signalization modifications including up to four (4) mast arms at the intersection of West Cass Street and North Willow Avenue. The project also includes the replacement of the impacted roadways and utilities and maintaining existing traffic throughout the project limits.



Figure 1: Project Alignment (Google Earth, photographed on January 11, 2017)

If any of this project description is incorrect or has changed, please inform **MC²** so that we may amend, if appropriate, the recommendations presented in this report.

1.3 Scope of Services

To achieve our assigned objectives, we performed the following services:

1. Reviewed printed literature and readily available published documents pertaining to the project site including topographic maps, aerial photographs and groundwater information. **MC²** has included summaries of our review of the United States Geological Services (USGS) Topographical maps, United States Department of Agriculture (USDA) Soil Survey and Southwest Florida Water Management District (SWFWMD) Potentiometric Surface Data.

2. Conducted a visual reconnaissance of the project site. Cleared utilities in the vicinity of the proposed boring locations through Sunshine811. Attained required permits through the City of Tampa (COT) in order to perform our field exploration.

3. Performed a total of ten (10) pavement cores with a subsequent hand auger to explore the thicknesses of the base course along the project alignment at locations approved by **Woodruff** and **Tetra Tech** personnel.

4. Performed a total of twenty-one (21) Standard Penetration Test (SPT) borings to depths ranging from 25 to 40-ft. below the ground surface (bgs) along the project alignment at locations approved by **Woodruff** and **Tetra Tech** personnel. Information regarding subsurface conditions are contained in **Section 5** and in the **Appendix**.

5. Visually examined recovered soil samples and performed laboratory tests on selected representative samples to develop the soil legend for the project using the American Association of State Highway and Transportation (AASHTO) classification system and Unified Soil Classification System (USCS), as appropriate. Shelby tubes were used to collect samples where cohesive material was encountered. Testing included natural moisture content, grain size analysis (-200 sieve), organic content, Atterberg Limits, corrosion and consolidation.

6. Prepared a summary of results, along with evaluations and recommendations for the proposed construction and design.

The scope of our services did not include an environmental assessment for determining the presence or absence of wetlands or hazardous or toxic materials in the soil, bedrock, groundwater, or air, on or below or around this site. Any statements in this report or on the boring logs regarding odors, colors, unusual or suspicious items or conditions are strictly for the information of our Client. Additionally, this was not a sinkhole investigation. Accordingly, our field exploration was not designed to address sinkhole-related issues. Any mention of geological characteristics in relation to karst conditions is for information purposes only.

2 SITE CONDITIONS

2.1 Site Features

The project site is located within the City of Tampa, Florida. The project alignment is along paved roadways with sidewalks along the majority of the roads and is generally clear of obstructions. Overhead trees and power lines are scattered along the project alignment. The project is lined primarily with residential homes and commercial businesses.



Figure 2: Intersection of W. Gray Street and Tampania Avenue (photographed July 2, 2018)

2.2 Hillsborough County Soil Survey

We reviewed the USDA Soil Conservation Service's *Soil Survey of Hillsborough County, Florida* for general information on the shallow soils in the vicinity of the site. The survey area data is Version 16 dated October 4, 2017, with aerial images photographed from December 19, 2013 to January 17, 2014. The USDA Soil Conservation Service Soil Survey outlines approximate areas dominated by a particular shallow soil type. Small areas of other soils may occur within the mapping unit.

The project area is within four (4) mapping units: Immokalee-Urban land complex (22), Myakka-Urban land complex (32), Tavares-Urban land complex, 0 to 5 percent slopes (55) and Urban land (56).

Immokalee-Urban land complex (22) has a parent material of sandy marine deposits with a typical profile of fine sand from zero to 80-in. bgs. The material is poorly drained and has a moderately high to high capacity to transmit water. The depth to water table is about 6 to 18 inches.

Myakka-Urban land complex (32) has a parent material of sandy marine deposits with a typical profile of fine sand from zero to 80-in. bgs. The material is poorly drained and has a moderately high to high capacity to transmit water. The depth to the groundwater table is about 6 to 18 inches.

Tavares-Urban land complex, 0 to 5 percent slopes (55) has a parent material of eolian or sandy marine deposits with a typical profile of fine sand from zero to 80-in. bgs. The material is moderately well drained and has a very high capacity to transmit water. The depth to the groundwater table is about 42 to 72 inches.

Urban land (56) is land that has been heavily impacted by development and construction. Because of this, general soil characteristics cannot be assigned due to the high variability throughout the area.

The USDA Soil Survey is not necessarily an exact representation of the soils on the site. The mapping is based on interpretation of aerial maps with scattered shallow borings for confirmation. Accordingly, borders between mapping units are approximate and the change may be transitional. Differences may also occur from the typical stratigraphy, and small areas of other similar and dissimilar soils may occur within the soil-mapping unit. Additionally, urban development and drainage features may also affect soil types encountered and groundwater table depths. As such, there may be differences in the mapped description and the boring descriptions obtained for this report. The survey is, however, a good basis for evaluating the shallow soil conditions of the area. The USDA Soil Map is contained in the **Appendix.** The following ***Table 1*** summarizes the soil survey data within the project area.

Table 1: Summary of USDA Soil Survey

Roadway Name	Approximate Station Limits*	USDA Soil Classifications	USDA SHW Depth (in)
W. Gray Street	80+00 to 90+00	Tavares-Urban land complex (55)	42 to 72
	90+00 to 106+00	Myakka-Urban land complex (32)	6 to 18
	106+00 to 115+00	Urban land (56)	-
N. Rome Avenue	9+50 to 30+00	Urban land (56)	-
W. Cass Street	40+00 to 47+00	Urban land (56)	-
	47+00 to 53+50	Myakka-Urban land complex (32)	6 to 18
	53+50 to 55+00	Urban land (56)	-
	55+00 to 60+00	Immokalee-Urban land complex (22)	6 to 18
	60+00 to 69+00	Urban land (56)	-

*Stationing is based on site plans provided by **Woodruff** dated April 11, 2017. Areas near station limits are prone to variation in the soil characteristics due to transitioning between mapping units.

2.3 Topographic Survey

We reviewed readily available published USGS historical topographic maps titled "Tampa Quadrangle Florida-Hillsborough Co. 7.5-Minute Series" for the project alignment. These indicated a gradual change in elevation along the project alignment where the site is generally sloped downwards going east as summarized in the following ***Table 2***. Based on our review of the

historical topographical maps, there appears to be no distinctive change in elevation over time that would require further investigation.

Table 2: Summary of USGS Topographic Maps

Roadway Name	Approximate Station Limits*	USGS Approximate Surface Elevation Range** (ft)
W. Gray Street	80+00 to 100+00	20 to 25
	100+00 to 114+00	15 to 20
N. Rome Avenue	9+50 to 31+29	15 to 20
W. Cass Street	40+00 to 63+00	15 to 20
	63+00 to 72+12	10 to 15

*Stationing is based on site plans provided by **Woodruff** dated April 11, 2017.
**Elevations are referenced to the NGVD 1929 datum

2.4 Potentiometric Information

The SWFWMD database for potentiometric information shows that the potentiometric surface in 2011 is at approximately 10-ft. in elevation along the project alignment. Artesian flow conditions were not encountered within the borings performed during the field exploration. The contractor should be prepared to handle potentiometric surface levels up to an elevation of 10-ft.

3 FIELD EXPLORATION PROGRAM

3.1 General

The field exploration program consisted of performing twenty-one (21) SPT borings, two (2) at the proposed junction boxes locations, fifteen (15) along the proposed culvert alignment approximately every 500-ft., and four (4) to support the design of the new signalization mast arms. Ten (10) pavement cores were also performed along the project corridor to determine the existing pavement conditions. The SPT borings were performed from July 2, 2018 to July 10, 2018; and, the pavement cores were performed from July 6, 2018 to July 9, 2018. The field exploration services were performed, observed and/or documented by **MC²'s** qualified staff geotechnical engineers and overseen by its Florida State licensed professional geotechnical engineers.

3.2 Standard Penetration Test Borings

The SPT borings were completed at the site in general accordance with ASTM D-1586 (Standard Test Method for Penetration Test and Split Barrel Sampling of Soils) using a track-mounted drill rig, automatic hammer and wet-rotary procedure. Representative soil samples were obtained using the split-barrel sampling procedure. In this procedure, a 2-in. outer-diameter split-barrel sampler is driven into the soil by a 140-lb hammer operating over a free-fall of 30-in. The number of blows required to drive the sampler through a 12-in. interval, after initial penetration of 6-in., is termed the Standard Penetration Resistance, or "N" value, and is indicated for each sample on the boring log. The "N" value provides an empirical assessment of the relative density

(cohesionless soils) or consistency (cohesive soils) of soils in-situ. The first 4 to 6-ft. in the borings were augered by hand in order to avoid encountering potentially unmarked utilities and to help in the determination of the SHWT.



Figure 3: Performing SPT Borings (photographed July 2, 2018)

During design, the N-values obtained using an automatic hammer should be corrected for overburden pressure, as the actual input driving energy is different between safety and automatic hammers. However, when using FB-Deep, the N-Values should not be corrected since the design methodology is based on uncorrected N-values. Based on the results of an **FDOT** study, a multiplier of 1.24 shall be applied when correcting N-values obtained using an automatic hammer on all projects. The corrected N-values shall be indicated as N_{ES}. The N-Values obtained in the field are represented on the **Boring Profiles** while the N_{ES}-Values are presented on the **Summary of Soil Parameters** in the **Appendix** of this report.

3.3 Pavement Core Borings

The pavement cores were performed using a 4-in. diameter core barrel that was advanced through the asphalt layer. This was followed by Hand-Auger (HA) borings through the base course and into the subbase. Information regarding these pavement cores, base course and subgrade materials is summarized in the **Appendix.** In addition, **Pavement Core Summary Reports** with photographs of the pavement cores are contained in the **Appendix**. Pavement Core CB-08 had to be removed from the core barrel in pieces.

4 LABORATORY TESTING

A representative set of soil samples were tested in the laboratory to assist in the classification and determination of engineering characteristics of the soils based on their mechanical and physical behavior. Laboratory testing was accomplished in general accordance with applicable AASHTO and ASTM procedures. Laboratory tests completed on soil samples retrieved for this project include:

- Twenty-three (23) moisture content determinations (ASTM D-2216/AASHTO T-265),
- Twenty-three (23) percent passing No. 200 sieve tests (ASTM D-1140/AASHTO T-11),
- Eleven (11) Atterberg limit determination tests (ASTM D-4318/AASHTO T-89/T-90),
- Three (3) organic content determination tests (ASTM D-2974/AASHTO T-267),
- Visual classification in general accordance with applicable procedures.

Results for each of these laboratory tests are summarized in the following ***Table 3*** and are presented on the individual **Soil Profile** logs provided in the **Appendix.**

Table 3: Summary of Laboratory Testing

Boring No. (Depth) (ft.)	Moisture Content (%)	Percent Passing –200 (%)	Organic Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS/ AASHTO Group
C-10 (0.5-1)	142.1	25.4	58.7	-	-	-	PT
CB-01 (6-8)	21.2	22.1	-	-	-	-	SC/A-2-7
CB-02 (2-4)	58.8	14.0	9.8	-	-	-	SM/A-2-4
CB-02 (28.5-30)	45.2	67.7	-	45	22	23	CL/A-7
CB-04 (13.5-15)	31.0	28.3	-	48	18	30	SC/A-2-7
CB-06 (23.5-25)	41.9	49.2	-	57	19	38	CH/A-7
CB-07 (8-10)	21.6	29.7	-	-	-	-	SC/A-2-7
CB-08 (13.5-15)	39.7	29.3	-	-	-	-	SC/A-2-7
CB-09 (28.5-30)	38.9	30.5	-	48	18	30	SC/A-2-7
CB-09 (33.5-35.5)	69.6	25.8	-	-	-	-	SC/A-2-7
CB-10 (6-8)	18.6	23.7	-	-	-	-	SC/A-2-4
CB-10 (8-10)	20.6	23.6	-	-	-	-	SC/A-2-7
CB-11 (4-6)	18.6	23.8	-	-	-	-	SC/A-2-4
CB-11 (6-8)	44.3	88.7	-	57	27	30	CH/A-7
CB-12 (23.5-25)	27.3	23.5	-	NP	NP	NP	SM/A-2-4
CB-13 (23.5-25)	28.6	31.2	-	35	18	17	SC/A-2-6
CB-13 (33.5-35)	28.2	17.8	-	-	-	-	SC/A-2-6
CB-15 (28.5-30)	31.5	33.6	-	NP	NP	NP	SM/A-2-4
JB-01 (8-10)	21.5	23.2	-	-	-	-	SC/A-2-4
JB-02 (2-3)	27.0	6.1	2.7	-	-	-	SP-SM/A-3
JB-02 (13.5-15)	41.6	38.0	-	52	17	35	SC/A-2-7
SB-03 (13.5-15)	36.9	29.1	-	50	20	30	SC
SB-03 (15.5-17.5)	25.9	19.0	-	30	24	6	SC
SB-04 (18.5-20.5)	90.6	46.2	-	82	26	56	CH

NP = Non-Plastic

In addition to the physical property tests performed, which are summarized in ***Table 3*** herein, one (1) one-dimensional, incremental loading consolidation test was conducted in accordance with

ASTM D-2435. Incremental loading up to 8-tsf was applied to the sample to gauge the amount of displacement for each load increment. The results of the consolidation test were used to help determine the estimated total and differential settlements of the box culvert.

In addition to the above laboratory testing, environmental corrosion tests were conducted on selected representative soil samples in accordance with the FDOT test designations FM 5-550, FM 5-551, FM 5-552 and FM 5-553.Environmental corrosion tests measure parameters such as pH, resistivity, sulfate content and chloride content. Test results obtained are presented in ***Table 4*** herein below. Based on the laboratory test results and the FDOT Structures Design Guidelines, January 2018, the subsurface soil conditions range from Slightly Aggressive to Moderately Aggressive. This classification was based on Section 1.3.2 and 1.3.3 of the Structures Design Guidelines. We recommend using the applicable provisions in the FDOT Structures Design Guidelines and FDOT Standard Specifications for corrosion protection.

Table 4: Summary of Environmental Corrosion Test Results

Sample ID and Depth (ft)	pH	Resistivity (ohms-cm)	Sulfates (ppm)	Chlorides (ppm)	Individual Environmental Classification*	
					Steel	Concrete
CB-01 (4-6)	8.27	3,610	7.6	2.9	Moderately Aggressive	Slightly Aggressive
CB-02 (8-10)	7.47	7,649	0.37	1.1	Slightly Aggressive	Slightly Aggressive
CB-03 (8-10)	7.68	5,020	1.1	5.2	Slightly Aggressive	Slightly Aggressive
CB-05 (13.5-15)	7.30	4,656	7.2	3.4	Moderately Aggressive	Slightly Aggressive
CB-06 (8-10)	7.51	6,556	1.3	4.8	Slightly Aggressive	Slightly Aggressive
CB-07 (6-8)	7.48	4,656	4.9	5.1	Moderately Aggressive	Slightly Aggressive
CB-10 (4-6)	7.34	1,339	0.44	49	Moderately Aggressive	Moderately Aggressive
CB-13 (13.5-15)	7.30	8,924	1.4	1.6	Slightly Aggressive	Slightly Aggressive
CB-14 (13.5-15)	7.43	3,780	8.6	6.2	Moderately Aggressive	Slightly Aggressive
JB-02 (15.5-17.5)	8.37	2,295	15	2.1	Moderately Aggressive	Moderately Aggressive
Notes:	*As per FDOT Structures Design Guidelines (Version 2018) Section 1.3.2, Table 1.3.2-1					
pH (FM-5-550); Resistivity (FM-5-551); Sulfates (FM-5-553); Chlorides (FM-5-552)						

5 SUBSURFACE CONDITIONS

5.1 Subsurface Conditions

The descriptions presented herein are of a generalized nature to highlight the major subsurface

stratification features and material characteristics. The soil profiles included in the **Appendix** should be reviewed for specific information at individual boring locations. These profiles include soil description, stratification, penetration resistances (N-values), and laboratory test results. The stratification shown on the boring profiles represents the conditions only at the actual boring location. Variations may occur and should be expected between boring locations. The soil's relative density or consistency is based on the recorded N-Value and is summarized in the following ***Table 5***.

Table 5: Relative Density Description vs. N-Value

Granular Materials-Relative Density	**Automatic Hammer SPT (Blows/FT)**
Very Loose	< 3
Loose	3 – 8
Medium	8 – 24
Dense	24 – 40
Very Dense	> 40
Silts and Clays Consistency	**Automatic Hammer SPT (Blows/FT)**
Very Soft	< 1
Soft	1 – 3
Firm	3 – 6
Stiff	6 – 12
Very Stiff	12 – 24
Hard	> 24
SPT Spoon Inside Diameter 1 3/8"	ASTM Standard Drop Safety Hammer
SPT Spoon Outside Diameter 2"	Average Hammer Drop Height 30"
	Hammer Weight 140-lbs

Proposed Junction Boxes (Borings JB-01 and JB-02)

In general, the subsurface conditions encountered at the junction box borings JB-01 and JB-02, performed at Stations 114+50 (Rome Avenue) and 40+75 (Cass Street) respectively, consisted of loose to medium dense, poorly-graded fine SAND to fine SAND with silt (SP-SM/A-3) from the surface to 8-ft. bgs. Loose to medium dense, clayey fine SAND (SC/A-2-4) was encountered from 8-ft. to 18-ft. bgs in JB-01 and from 8 to 10-ft bgs in JB-02. The SC/A-2-4 soil encountered in JB-02 was followed by very loose to medium dense clayey fine SAND (SC/A-2-7) from 10 to 18.5-ft. bgs. Firm, lean CLAY (CL/A-7) was encountered at JB-01 from 25 to 30-ft. bgs. Highly weathered to competent LIMESTONE was penetrated in JB-01 from depths of 18 to 25-ft. bgs and 30 to 40-ft. bgs and in JB-02 from 18.5 to 40-ft. bgs. A complete (100%) loss of circulation (LOC) occurred at 23-ft. bgs at boring JB-01 and a partial (50%) LOC occurred at 37-ft. bgs at boring JB-02. It is not uncommon to have LOC events in LIMESTONE because of its porous matrix as in the case at these borings. The borings were terminated in LIMESTONE at a depth of 40-ft. bgs.

Signalization Mast Arms (Borings SB-01 through SB-04)

The conditions encountered at the signalization mast arm borings consisted of loose to medium dense, poorly-graded fine SAND to fine SAND with silt (SP-SM) from the surface to depths ranging from 8 to 15-ft. bgs. Very loose to medium dense, clayey fine SAND (SC/A-2-7) and very soft, fat CLAY (CH/A-7) was encountered to depths ranging from 13.5 to 22-ft. bgs where highly weathered to competent LIMESTONE was encountered. Borings SB-01 and SB-02 were performed to a depth of 25-

ft. bgs while SB-03 and SB-04 were performed to a depth of 30-ft. bgs to delineate the very loose/soft soil conditions encountered from 10 to 20-ft. and 15 to 23-ft. bgs, respectively. All four (4) signalization borings were terminated in competent LIMESTONE.

Cass Street (Borings CB-04 through CB-07)

The subsurface conditions encountered at the borings performed along Cass Street generally consisted of very loose to dense, poorly-graded fine SAND to fine SAND with silt (SP-SM/A-3) from the surface to depths ranging from 8 to 20-ft. bgs. Loose to medium dense, clayey fine SAND (SC/A-2-7) and very soft to very stiff, plastic CLAY (CH/A-7) was encountered beneath the surficial sands in each boring except CB-05 until highly weathered to competent LIMESTONE was penetrated at a depth ranging from 8 to 29-ft. bgs. Boring CB-05 penetrated very loose to medium dense, poorly-graded fine SAND to fine SAND with silt (SP-SM/A-3) to a depth of 8.5-ft. bgs before transitioning into competent LIMESTONE to the boring termination depth of 30-ft. bgs. The borings were terminated at depths of 30 and 35-ft. bgs in competent LIMESTONE.

Gray Street (Borings CB-09 through CB-15)

The subsurface conditions encountered at the borings performed along Gray Street consisted of very loose to medium dense, poorly-graded fine SAND to fine SAND with silt (SP-SM/A-3) from the surface to depths ranging from 4 to 25-ft. bgs. Some of the borings had layers of clayey fine SAND (SC/A-2-4, A-2-7) in-between layers of the SP-SM/A-3 soil. Underlying the SP-SM/A-3 soils, very loose to medium dense, clayey fine SAND (SC/A-2-4, A-2-6 and A-2-7), very soft to stiff, plastic CLAY (CH/A-7) and loose, silty SAND (SM/A-2-4) were encountered until highly weathered to competent LIMESTONE was encountered, ranging from 15.5 to 37.5-ft. bgs. Weight of Hammer (WOH) conditions were encountered in CB-09 (28.5 to 30-ft. and 33.5 to 36.5-ft.), CB-10 (18.5 to 24-ft.), CB-11 (13.5 to 15.5-ft.) and CB-13 (28.5-29.5-ft. and 33.5 to 34.5-ft.). The borings were terminated in competent LIMESTONE at depths of 30, 32, 35, 37 and 45-ft. bgs. The borings were extended beyond their planned depths due to loose/soft soil conditions.

Rome Avenue (Borings CB-01 through CB-03 and CB-08)

The subsurface conditions encountered at the borings performed along Rome Avenue generally consisted of loose to medium dense, poorly-graded fine SAND to fine SAND with silt (SP-SM/A-3) from the surface to depths ranging from 8 to 25-ft. bgs. Loose to medium dense, clayey fine SAND (SC/A-2-7) was encountered from 6 to 10-ft. bgs in CB-01 and from 8 to 15-ft. bgs in CB-08. Soft, plastic CLAY (CH, A-7) was encountered in CB-08 from 15 to 19-ft. bgs. Soft, lean CLAY with sand (CL, A-7) was encountered in CB-02 from 25 to 35-ft. bgs. Highly weathered to competent LIMESTONE was encountered in the borings ranging from 13.5 to 35-ft. bgs. The borings were terminated at depths of 35 and 35.5-ft. bgs in competent LIMESTONE.

5.2 Groundwater Conditions

The depth to groundwater measured in the SPT borings ranged between 3.5 to 6-ft. bgs. A summary of the borings and the estimated SHWT depth is presented in ***Table 6***.

Table 6: Summary of Groundwater Information

Boring ID	Approximate Station and Offset (ft)	Depth to Groundwater (ft)	SHWT Depth (ft)
CB-01	11+00, 15 LT	4	2
CB-02	16+00, 10 LT	3 ½	2
CB-03	21+00, 5 LT	4	2
CB-04	46+00, 15 RT	4	3
CB-05	51+00, 10 RT	4	3
CB-06	59+00, 20 LT	6	3 ½
CB-07	64+00, 20 LT	6	3
CB-08	27+00, 10 LT	3 ½	2 ½
CB-09	80+00, 5 RT	4	2 ½
CB-10	84+00, 5 RT	3 ½	2
CB-11	89+00, 10 RT	5	2 ½
CB-12	94+00, 5 RT	6	3 ½
CB-13	98+00, 5 RT	5	2 ½
CB-14	103+00, 5 RT	4	2
CB-15	108+00, 10 LT	4	2
SB-01	53+50, 40 LT	4	2
SB-02	54+50, 35 LT	3 ½	2
SB-03	54+50, 20 RT	4	2
SB-04	53+50, 40 RT	3 ½	2
JB-01	114+50, 5 LT	5	3 ½
JB-02	40+75, 15 RT	3 ½	2 ½

The SHWT data is based upon our review of the SPT borings performed near the project alignment; USDA soil survey; and, hand-auger borings performed as a part of this project.

5.3 Pavement Information

Ten (10) pavement cores were performed along the project alignment and labelled C-01 through C-10. Pavement information along the project roadways is summarized in the **Pavement Core Summary** sheets in the **Appendix** and includes thickness of the asphalt and base course materials.

6 EVALUATION AND CONCLUSIONS

The following evaluations and conclusions have been developed based on the previously described project characteristics, our review of published data, our site reconnaissance and the results of our subsurface exploration and associated laboratory testing:

1. We compared the USDA soil survey information with the shallow subsurface information collected in our test borings. The data provided in the soil survey indicates SAND from zero to 80-in. bgs. Our test borings indicated that poorly-graded fine SAND to silty SAND (A3, A-2-4) was encountered in at least the first 6-ft. in the borings. The soil survey data generally appeared similar to the soil data collected from the borings performed, taking into account site development activities over the years.

2. Our review of the USGS topographic maps did not indicate any readily visible unusual changes nor anything that appeared out of the ordinary that would require any further clarification.

3. Artesian flow conditions were not encountered within the borings performed during the field exploration. However, the contractor should be prepared to handle potentiometric surface levels up to an elevation of 10-feet.

4. Groundwater was encountered in all of the SPT borings performed. The SHWT was estimated to range from 2 to 3 ½-ft. bgs (see ***Table 6*** for SHWT determinations at individual boring locations and in the **Appendix** for the encountered water table depths at the individual SPT boring locations). The contractor should be prepared to address groundwater conditions during construction. General groundwater control recommendations are provided in **Section 7.2.1 herein**.

5. Based on our review of the data collected from the SPT borings performed, it is our opinion that the subsurface soils are suitable for supporting the proposed culvert improvements. Some densification of these soils will likely be required, and/or structural fill used to support the trunk line. In addition, we noted the following:

   - LIMESTONE was encountered in all of the SPT borings. In some borings, the LIMESTONE was encountered as shallow as 13.5-ft. bgs, which may make it difficult to perform the required open-trench excavations. The **Individual Boring Logs** in the **Appendix** and ***Table 7*** of this report should be reviewed to anticipate locations where LIMESTONE may be encountered, so that the contractor comes prepared with the appropriate excavation equipment.

   - Significant amounts of Weight of Hammer (WOH) conditions were encountered in borings CB-05 (8 to 9.5-ft.), CB-06 (23.5 to 25.5-ft.), CB-08 (13.5 to 16-ft.), CB-09 (28.5 to 30-ft.), CB-10 (18.5 to 24-ft.), CB-11 (13.5 to 15.5-ft.) and CB-13 (28.5-29.5-ft. and 33.5 to 34.5-ft.). Depending on the depth of the culvert compared to the depth of the WOH material, more than 1-ft. of over-excavation and replacement of the weak soils with structural fill may be necessary in order to obtain compaction in the bedding layer beneath the culvert.

   - The possibility of other variations in subsurface conditions, other than what was encountered in the SPT borings may exist along the project alignment.

6. Although we anticipate limited over excavation and replacement of foundation bearing soils within the footprint of the proposed trunk line, the potential that variable amounts of unsuitable soils may be encountered during construction must be accounted for and planned, as indicated herein. Clean structural fill will be required to backfill against structures. See **Section 7.2** for further recommendations on structural fill and trench preparation.

7. ***Table 7*** below summarizes the encountered materials and conditions at the proposed approximate invert depths and elevations of the box culvert. This table should be used to anticipate what could be encountered at the bottom of the culvert excavation and develop what soil improvements will be needed, if any. We have included herein below, recommendations on how unsuitable soils should be treated, if encountered during construction. It should be noted that ***Table 7*** indicates the actual subsurface soil conditions that were encountered at the specific SPT boring locations. Based on our experience, variations in these subsurface conditions in-between the SPT boring locations are quite possible and should be anticipated.

Table 7: Summary of Expected Conditions at Bottom of Box Culvert

SPT Boring ID	Approximate Station and Offset	Approximate Invert Elevation of Box Culvert (ft)/(NAVD 88)	Expected Conditions	Notes
CB-01	11+00, 15 LT	7	Loose SP-SM/A-3	-
CB-02	16+00, 10 LT	5.5	Loose SP-SM/A-3	-
CB-03	21+00, 5 LT	3	Medium SP-SM/A-3	-
CB-04	46+00, 15 RT	0	Competent LS	-
CB-05	51+00, 10 RT	0	Competent LS	-
CB-06	59+00, 20 LT	-0.5	Medium SP-SM/A-3	-
CB-07	64+00, 20 LT	-1	Stiff CH/A-7	unsuitable
CB-08	27+00, 10 LT	0	Soft CH/A-7	unsuitable
CB-09	80+00, 5 RT	N/A to box (13)	Medium SP-SM/A-3	-
CB-10	84+00, 5 RT	8.5	Loose SC/A-2-7	-
CB-11	89+00, 10 RT	7.5	Very Soft CH/A-7	unsuitable
CB-12	94+00, 5 RT	4	Medium SP-SM/A-3	-
CB-13	98+00, 5 RT	3.5	Medium SP-SM/A-3	-
CB-14	103+00, 5 RT	2	Medium SC/A-2-6	-
CB-15	108+00, 10 LT	1	Medium SP-SM/A-3	-
SB-01	53+50, 40 LT	0	Weathered LS	-
SB-02	54+50, 35 LT	-0.5	Competent LS	-
SB-03	54+50, 20 RT	-0.5	Very Loose SC/A-2-7	-
SB-04	53+50, 40 RT	0	Very Soft CH/A-7	unsuitable
JB-01	114+50, 5 LT	0	Medium SC/A-2-4	-
JB-02	40+75, 15 RT	-1	Competent LS	-

LS = Limestone

- **Granular Soils:** Very loose to loose granular soils will require compacting in order to create a competent/level bed for supporting the box culvert. Granular soils include A-1, A-2 and A-3 soils. Soils should be compacted to 95% of its modified Proctor value while within +/- 2% of the optimum moisture content. Some materials, such as the A-2's, may be difficult to dry out to optimum moisture content or to compact as needed. If these materials prove too difficult, they should be over-excavated at least 1-ft. and backfilled in accordance with **Section 7.2.5** of this report and **FDOT Standard Indexes**.

- **Clays and Silts**: These soils behave very differently when saturated or dry. The in-situ material encountered during excavation will be saturated due to the anticipated

shallow groundwater table, but will need to be dry in order to create suitable working conditions. Soils classified as A-4, A-5, A-6 or A-7 will likely be very difficult to dry out and may have an ability to shrink and swell depending on its moisture content. Because of this, these materials should be over-excavated at least 1-ft. and backfilled with either clean fill, a lean concrete or course stone (No. 57) wrapped in a geotextile fabric.

- **Limestone:** This material, if adjacent to suitable soils should be over-excavated a minimum of 4-in. and backfilled in accordance with **Section 7.2.3** in order to provide a level bed for supporting the box culvert, as well as to prevent differential settlement.

8. We calculated the maximum allowable bearing capacity of each section of the box culvert to be 2,000 psf. Using this as the loading, the total estimated settlement of the box culvert was determined to be less than 1-in., and the anticipated differential settlements about half this amount. These estimated settlements were corroborated by the results of the consolidation testing, which showed the total settlement to be approximately ½-inch. Any differential settlement will likely occur at the joints of the individual box culvert sections, so due care should be exercised during construction. The values for bearing capacity and settlement assume that the recommendations in this report are followed.

9. We calculated the maximum allowable bearing capacity of each of the proposed junction boxes to be 2,500 psf. Using this as the loading and, the total estimated settlement of the junction boxes was determined to be less than 1-in., and the anticipated differential settlements about half this amount. Again, these estimated settlements were confirmed by the results of the consolidation testing. The majority of any settlement is expected to occur during construction. All connections to the junction boxes should be made after box construction is completed.

10. Once the box culvert and junction boxes are in place, clean fill should be used as backfill and compacted in 12-in. loose lifts up to 18-in. beneath the bottom of the base course of the roadway in accordance with **FDOT Standard Indexes** and the recommendations within this report.

Soil Parameters are presented in the **Appendix** to aid in the design of the signalization mast arms and junction boxes. Additionally, lateral earth pressures are discussed in **Section 7.3** for the design of the culvert excavations.

7 RECOMMENDATIONS

7.1 General

The following recommendations have been developed on the basis of the previously described project characteristics and subsurface conditions encountered. If there are any changes in these project criteria, including project locations on the site, a review must be made by **MC²** to

determine if any modifications to the recommendations would be required. The findings of such a review would be presented in a supplemental report.

Once final design plans and specifications are available, a general review by **MC²** is strongly recommended, as a means to check that the evaluations made in preparation of this report are correct and that recommendations are properly interpreted and implemented.

7.2 Construction Considerations

7.2.1 Dewatering Considerations

Surface water and groundwater control will likely be needed, depending on groundwater depths at the time of construction, to establish a stable excavation base. Dewatering equipment consisting of sump pumps and/or well points have been used successfully in the past. Dewatering must be conducted with care to avoid settlement of nearby structures, roads or utilities.

Depending upon the groundwater levels and the effectiveness of dewatering at the time of construction, seepage may enter the excavated areas from the bottom as well as the sides of the excavations. Such seepage will act to loosen soils and create difficult working conditions, and therefore groundwater levels should be determined immediately prior to construction. Groundwater levels should be kept at least 12-in. below the working area to facilitate proper material placing and compaction. In some instances, it may be necessary to lower the ground water even further, if adequate compaction and stability of the base of the excavation cannot be achieved with the groundwater lowered to only 12-in. below the base.

7.2.2 Temporary Slopes

Side slopes for temporary excavations may stand near one (1) horizontal to one (1) vertical (1H:1V) for short dry periods of time and a maximum excavation depth of four (4) feet, so long as the groundwater table is at least 1-ft. below the bottom of the excavation. Where restrictions do not permit slopes to be constructed as recommended above, the excavation should be shored in accordance with current OSHA requirements. In addition, any open cut excavations adjacent to existing structures should be evaluated by a geotechnical engineer on a case by case basis. During construction, excavated materials should not be stockpiled at the top of the slope within a horizontal distance equal to the excavation depth.

Excavation slopes should conform to OSHA, State of Florida and any other local regulations. The dewatering system chosen for use on this project should consider the nature of the permeable upper sands encountered at the project site. The contractor should also assess equipment loads and vibrations when considering slopes or excavations.

7.2.3 Excavations

We understand the trunk line will be predominantly installed using open-cut trench excavations along the project alignment. All open excavations, if applicable, should be observed by the geotechnical engineer or his representative to explore the extent of any fill and excessively loose, soft, or otherwise undesirable materials. Lateral Earth Pressures are presented in **Section 7.3** for use in design of the culvert trenches. In addition to this, **Soil Parameters** are presented in the **Appendix** of this report for use in the design of the signalization mast arms and junction boxes.

During excavation, any dense, hard or lumpy material, as well as any rock or boulders encountered below the bedding zone should be removed. The contractor should have specialized equipment, such as a ripper tooth, on site in the event that LIMESTONE is needed to be excavated. It is extremely unlikely that a need to blast the rock to advance any excavations will be needed. If any voids are encountered within LIMESTONE excavations, they should be filled in with either a fine gravel, compacted fill or lean concrete in order to provide a level platform to work upon.

If the exposed soils in the excavation appear suitable as load bearing materials, they should be prepared for construction by compaction as recommended in **Section 7.2.5**.

If loose soils or yielding soils are encountered in the bottom of the excavations, the unsuitable materials should be removed and the proposed bearing elevation re-established by backfilling after the undesirable material has been removed. This backfilling may be done with a very lean concrete or with a well compacted, suitable fill such as clean sand, gravel, or compacted No. 57 or No. 67 stone wrapped in a filter fabric.

7.2.4 Structural Fill and General Backfill

All materials to be used for general backfill or compacted, structural fill should be evaluated and, if necessary, tested by **MC²** prior to placement to determine if they are suitable for the intended use. Based on the borings performed, the majority of the shallow on site sandy materials encountered that will be excavated in order to install the box culvert (SP, SP-SM/A-3, A-2-4) are suitable for use as structural fill, and as general subgrade fill and backfill. Suitable fill materials should consist of fine to medium Sand with less than 12% passing the No. 200 sieve (SP, SP-SM/A-3, and some A-2-4) and be free of rubble, organics, clay, debris and other unsuitable material.

The non-organic clean fine SAND and slightly silty or clayey fine SAND (A-3 and A-2-4) encountered at the project site are considered suitable for backfill soils for roadway construction. A-2-4 soils should only be used above the SHWT in accordance with **FDOT Standard Index 505**.

Table 3 contains a summary of the laboratory test results performed indicating depths and locations of soils with percent passing the No. 200 sieve, as well as the boring profiles

contained in the **Appendix**. Soils not classified as SP or SP-SM should not be considered suitable for use as structural fill. As before, the data presented applies to the specific locations and depths from which the samples were collected and tested. Again, variations in the characteristics and properties of the soils could occur in other locations where no borings were performed.

7.2.5 Compaction Criteria

The subgrade soils should be firm and stable prior to placement of any utilities, junction boxes and culvert sections. The soils that will support the junction boxes and culvert sections should be proof-rolled, if accessible, and checked for heaving prior to placing the structures on top. Unstable soils should be treated as described in this report.

The bearing surface of the culvert should be compacted to a minimum of 95% of the modified Proctor (AASHTO T180) maximum dry density while within ±2% of the material's optimum moisture content. If these compaction requirements are not achievable then the material must be over-excavated at least 1-ft. and backfilled with either clean fill, lean concrete or course stone wrapped in a geotextile.

The upper 18-in. beneath the junction boxes should be compacted to at least 98% of the modified Proctor maximum dry density while within ±2% of the material's optimum moisture content. If these compaction requirements are not achievable then the material must be over-excavated at least 1-ft. and backfilled with either clean fill, lean concrete or course stone wrapped in a geotextile.

A minimum density of 92% of the modified Proctor maximum dry density while within ±2% of the material's optimum moisture content should be required for backfill around the culvert sections and junction boxes up to 3-ft. above the top of these structures. Heavy machinery should not be placed on top of these structures until at least 3-ft. of cover is in place.

Any fill between 3-ft. from the top of the box culvert and below 18-in. of the bottom of the base course should be compacted to a minimum density of 95% of the modified Proctor maximum dry density while within ±2% of the material's optimum moisture content.

Material within 18-in. of the bottom of the base material, or higher, should be compacted to 98% of the modified Proctor maximum dry density. Placement of stabilized subgrade, base course and asphalt should be in accordance with applicable FDOT Standard Indexes.

Soils suspected of containing organic materials should be tested and contain less than 5% organics before they can be considered for use as backfill or structural fill. Some contractors like to place a gravel working bed in wet areas. Fine gravel, such as No. 57 and No. 67 stone may be used, as long as the gravel is wrapped in a filter fabric (Mirafi N 140 or equivalent) to reduce the risk of fines filtering into the open voids in the gravel. The

gravel, where used, should be compacted and the compaction confirmed by visual observation.

7.2.6 Directional Drilling

If horizontal directional drilling (HDD) is utilized during construction, the materials that might be penetrated during HDD, dependent upon the location and depth, might be very loose/soft soils or weathered/competent LIMESTONE. Care will be required during the HDD to limit the hydraulic head associated with the drilling fluid to reduce the risk of fracout and heave.

7.2.7 Signalization Foundations

The approximate locations of the SPT borings are shown on the **Boring Location Maps** as well as on the **Report of Core Borings** in the **Appendix.** Due to past developmental activities (such as roadway construction, underground utilities excavations, etc.), the previously disturbed soils may not have been properly backfilled and compacted; and, as a result, the degree of compaction and composition of the soils may vary considerably within a small area. These conditions should be field-verified at the time of construction.

The soils encountered at the location of the borings are suitable for the installation of the proposed structures, provided the recommendations included in this report are followed. Based on our understanding, the signalization mast arms will be designed in accordance with FDOT Standard Indexes.

Based on the SPT N-values and soil types at various depths, we have estimated the strength and unit weight parameters for design of the pole structures. These parameters were obtained from the SPT borings performed at or near the specified locations. We used empirical correlations between the N_{ES}-Value and the types of soils to arrive at the internal friction angle, cohesion, dry and wet densities, etc. The results are contained in ***Table 10***, which is presented in the **Appendix**. The soil parameters shown are for the different soil strata encountered at the boring locations using the USCS soil classification system.

Once the final loads are known, the foundation system may be designed using the soil parameters provided in this report. The foundation designs should also consider torsional loads created by wind action.

7.3 Lateral Earth Pressures

Temporary shoring may be required for portions of the open-cut trench excavations and will be subjected to lateral earth pressures. Several earth pressure theories could be utilized, however, one of the most straightforward is the equivalent fluid pressure or Rankine Theory.

Walls, which are restrained at the top and bottom, will be subjected to at-rest soil pressures equivalent to a fluid density of 55 pounds per cubic foot (pcf). Walls, which are not restrained at

the top and where sufficient movement may mobilize active earth pressures, an equivalent fluid density of 36 pcf, can be used. At locations where the base of the walls extends below the groundwater table, soil pressures can be calculated using half (½) the equivalent fluid densities. However, hydrostatic and seepage forces must then be included. These equivalent fluid pressures do not include any surcharge effects for sloped backfill, point or area loads behind the walls and assume that adequate drainage provisions have been incorporated. Passive resistance could be neglected for a safer design (due to possible excavation or erosion in front of the wall at a future time). ***Table 8*** below provides a summary of the lateral earth pressure parameters for the three conditions described herein.

Table 8: Lateral Earth Pressure

Earth Pressure Condition	Coefficient of Earth Pressure (K)	Unsubmerged Fluid Density (1) (pcf)	Submerged Fluid Density (2) (pcf)
At-Rest (K_o)	0.50	55	24
Active (K_a)	0.33	36	16
Passive (K_p)	3.00	330	143

(1) These fluid densities are based on a clean sand backfill with an average internal friction angle of 30 degrees and a moist unit weight of 110 pcf.
(2) Hydrostatic and seepage forces should be added to the submerged fluid densities when calculating total forces acting on retaining walls.

8 REPORT LIMITATIONS

The evaluations and observations detailed herein are based on the available limited soil information obtained by **MC²** and information provided by **Woodruff** and **Tetra Tech** for the proposed project. If there are any revisions to the plans for this project or if deviations from the subsurface conditions noted in this report are encountered during construction, **MC²** should be notified immediately to determine if changes or additional testing are required for this project. In the event that **MC²** is not retained to perform these functions, **MC²** cannot be responsible for the impact of those conditions on the performance of the project.

The geotechnical engineer warrants that the findings or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

After the plans and specifications are more complete, the geotechnical engineer should be provided the opportunity to review the final design plans and specifications to assess that our findings have been properly incorporated into the design documents. At that time, it may be necessary to submit recommendations for supplementary information. This report has been prepared for the exclusive use of **Woodruff**, **Tetra Tech, and their client**.

APPENDIX

Summary of Pavement Cores – Table 9
Pavement Core Summary Reports – (10 Sheets)
Summary of Soil Parameters – Table 10 (3 Sheets)
Project Location Map (Sheet 1)
Boring Location Map (Sheet 2)
USDA Soil Survey and USGS Topographic Maps (Sheet 3)
Subsurface Boring Profiles (Sheets 4 through 6)
Report of Core Borings (Sheet 7)
Individual Soil Profiles (25 Sheets)
Test Procedures

Table 9 – Summary of Pavement Core Information

Boring ID	Roadway / Lane / Approximate Stationing & Offset	Asphalt Thickness (in)	Paver Thickness (in)	Base Material and Thickness (in)	Subbase Material	Water Table Depth (ft)
C-01	Cass Street / Outside EB Lane / Sta. 64+00, 15RT	4	3*	Shell – 7	A-3	GNE
C-02	Cass Street / Outside WB Lane / Sta. 57+50, 15LT	4 ¾	2 ¾*	Shell – 3	A-3	GNE
C-03	Cass Street / EB Lane / Sta. 51+00, 10RT	2	3*	Shell – 3	A-3	GNE
C-04	Cass Street / WB Lane / Sta. 43+00, 10LT	2	3*	Shell – 6	A-3	GNE
C-05	Gray Street / WB Lane / Sta. 109+00, 10LT	3	-	Shell – 5	A-3	GNE
C-06	Gray Street / EB Lane / Sta. 103+00, 10RT	3	-	Shell – 7	A-3	GNE
C-07	Gray Street / WB Lane / Sta. 99+00, 10TL	8	-	Black – 2 Shell – 6	A-3	GNE
C-08	Gray Street / EB Lane / Sta. 85+00, 10RT	8**	-	Black – 2	A-3	GNE
C-09	Rome Avenue / SB Lane / Sta. 13+00, 10LT	7	-	Black & Shell Mixed – 8	A-3	GNE
C-10	Rome Avenue / NB Lane / Sta. 22+00, 10RT	4	-	Limerock – 4	Organic Peat	GNE

*A thin layer of SAND with silt (A-3) was encountered between the paver and base course, possibly placed for leveling
**Core destroyed removing from core barrel
GNE = Groundwater Not Encountered within the borehole

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-01**
PROJECT NO.:	**T041704.066**	STREET:	**Cass Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**Outside EB**
DATE PERFORMED:	**7/9/18**	LOCATION:	**Station 64+00, 15' RT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	4	4	Asphalt
4	7	3	Paver
7	8	1	SAND with silt (A-3)
8	15	7	Shell Base
15	21	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-02**
PROJECT NO.:	**T041704.066**	STREET:	**Cass Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**Outside WB**
DATE PERFORMED:	**7/9/18**	LOCATION:	**Station 57+50, 15' LT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	4 ¾	4 ¾	Asphalt
4 ¾	7 ½	2 ¾	Paver
7 ½	10	2 ½	SAND with silt (A-3)
10	13	3	Shell Base
13	19	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-03**
PROJECT NO.:	**T041704.066**	STREET:	**Cass Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**EB**
DATE PERFORMED:	**7/9/18**	LOCATION:	**Station 51+00, 10' RT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	2	2	Asphalt
2	5	3	Paver
5	6	1	SAND with silt (A-3)
6	9	3	Shell Base
9	15	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-04**
PROJECT NO.:	**T041704.066**	STREET:	**Cass Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**WB**
DATE PERFORMED:	**7/9/18**	LOCATION:	**Station 43+00, 10' LT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	2	2	Asphalt
2	5	3	Paver
5	6	1	SAND with silt (A-3)
6	12	6	Shell Base
12	18	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-05**
PROJECT NO.:	**T041704.066**	STREET:	**Gray Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**WB**
DATE PERFORMED:	**7/6/18**	LOCATION:	**Station 109+00, 10' LT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	3	3	Asphalt
3	8	5	Shell Base
8	14	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-06**
PROJECT NO.:	**T041704.066**	STREET:	**Gray Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**EB**
DATE PERFORMED:	**7/6/18**	LOCATION:	**Station 103+00, 10' RT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	3	3	Asphalt
3	10	7	Shell Base
10	16	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-07**
PROJECT NO.:	**T041704.066**	STREET:	**Gray Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**WB**
DATE PERFORMED:	**7/6/18**	LOCATION:	**Station 99+00, 10' LT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	8	8	Asphalt
8	10	2	Black Base
10	16	6	Shell Base
16	22	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-08**
PROJECT NO.:	**T041704.066**	STREET:	**Gray Street**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**EB**
DATE PERFORMED:	**7/6/18**	LOCATION:	**Station 85+00, 10' RT**



*core destroyed removing from core barrel

PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	8	8	Asphalt
8	10	2	Black Base
10	16	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-09**
PROJECT NO.:	**T041704.066**	STREET:	**Rome Avenue**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**SB**
DATE PERFORMED:	**7/6/18**	LOCATION:	**Station 13+00, 10' LT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	7	7	Asphalt
7	15	8	Mixed Shell & Black Base
15	21	6	SAND with silt (A-3)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

PAVEMENT CORE SUMMARY

PROJECT NAME:	**Cypress Street Outfall**	CORE ID:	**C-10**
PROJECT NO.:	**T041704.066**	STREET:	**Rome Avenue**
CLIENT:	**Woodruff & Sons, Inc.**	LANE:	**NB**
DATE PERFORMED:	**7/6/18**	LOCATION:	**Station 22+00, 10' RT**



PAVEMENT AND SUBSURFACE CONDITIONS

Layer Depth (in)		Thickness (in)	Description
From	To		
0	4	4	Asphalt
4	8	4	Limerock Base
8	14	6	Organic PEAT (PT)

Water Table Depth (ft): GNE **Notes:** Borehole Terminated in Subbase Material

Table 10 (1 of 3)
Summary of Soil Parameters
Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Florida
MC² Project No. T041704.066

Boring ID	Depth range (ft)	SPT N_{ES}-Value Average	USCS Group	Approx. Soil Unit Weight* (pcf)		Soil Angle of Friction (degrees)	Cohesion (psf)	Earth Pressure Coefficient		Ultimate Shear Strength (psf)
				Saturated	Submerged			Active (K_a)	Passive (K_p)	
Signalization Borings										
SB-01	0-13.5	10	SP-SM	105.0	42.6	29	0	0.347	2.88	-
	13.5-17	9	SC, CL	120.0	57.6	0	900	1	1	-
	17-20	48	LS	135.0	72.6	0	0	1	1	8,000
	20-25	50+	LS	135.0	72.6	0	0	1	1	15,000
SB-02	0-8	14	SP-SM	110.0	47.6	30	0	0.333	3	-
	8-13.5	14	SC	110.0	47.6	0	1,400	1	1	-
	13.5-25	50+	LS	135.0	72.6	0	0	1	1	15,000

*Values are for level (non-sloping) backfill; no surcharge loads on backfill

**Hand-auger borings were performed in the top 4 to 6-ft. at all test boring locations to avoid utilities. We assumed that the soils within this area have similar relative density as the immediately underlying strata.

LS = Limestone, WOH = Weight of Hammer

Table 10 (2 of 3)
Summary of Soil Parameters
Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Florida
MC² Project No. T041704.066

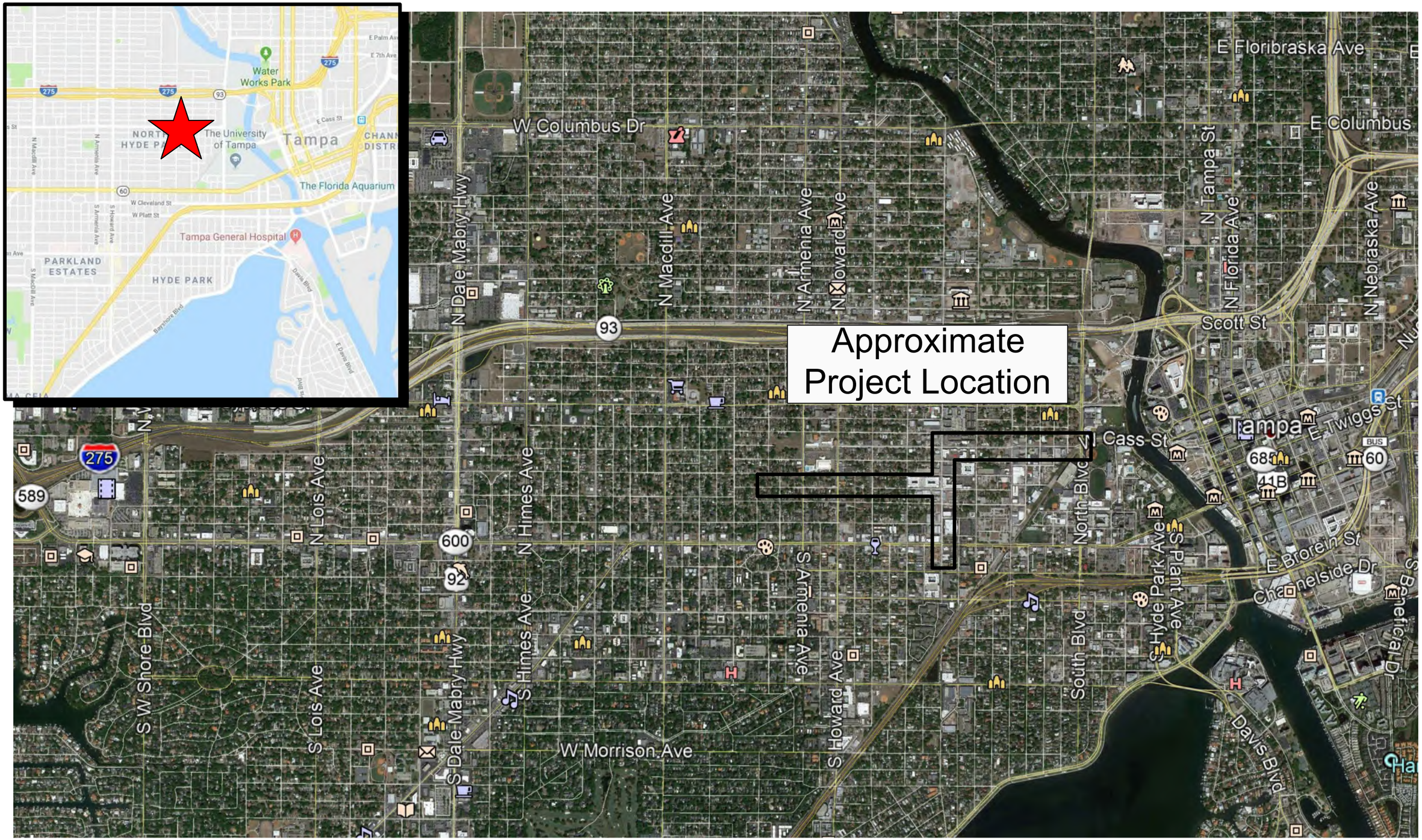
Boring ID	Depth range (ft)	SPT N_{ES}-Value Average	USCS Group	Approx. Soil Unit Weight* (pcf)		Soil Angle of Friction (degrees)	Cohesion (psf)	Earth Pressure Coefficient		Ultimate Shear Strength (psf)
				Saturated	Submerged			Active (K_a)	Passive (K_p)	
Signalization Borings										
SB-03	0-10	20	SP-SM	110.0	47.6	30	0	0.333	3	-
	10-18.5	2	SC	100.0	37.6	0	200	1	1	-
	18.5-25	13	LS	135.0	72.6	0	0	1	1	4,000
	25-30	50+	LS	135.0	72.6	0	0	1	1	15,000
SB-04	0-15	12	SP-SM	110.0	47.6	30	0	0.333	3	-
	15-22	WOH	CH	105.0	42.6	0	300	1	1	-
	22-24	42	LS	135.0	72.6	0	0	1	1	8,000
	24-30	10	LS	135.0	72.6	0	0	1	1	2,000

*Values are for level (non-sloping) backfill; no surcharge loads on backfill
**Hand-auger borings were performed in the top 4 to 6-ft. at all test boring locations to avoid utilities. We assumed that the soils within this area have similar relative density as the immediately underlying strata.
LS = Limestone, WOH = Weight of Hammer

Table 10 (3 of 3)
Summary of Soil Parameters
Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Florida
MC² Project No. T041704.066

Boring ID	Depth range (ft)	SPT N_{ES}-Value Average	USCS Group	Approx. Soil Unit Weight* (pcf)		Soil Angle of Friction (degrees)	Cohesion (psf)	Earth Pressure Coefficient		Ultimate Shear Strength (psf)
				Saturated	Submerged			Active (K_a)	Passive (K_p)	
Junction Box Borings										
JB-01	0-18	12	SP-SM, SC	110.0	47.6	30	0	0.333	3	-
	18-25	50+	LS	135.0	72.6	0	0	1	1	15,000
	25-30	6	CL	115.0	52.6	0	750	1	1	-
	30-40	50+	LS	135.0	72.6	0	0	1	1	15,000
JB-02	0-10	7	SP-SM, SC	105.0	42.6	29	0	0.347	2.88	-
	10-18.5	12	SC	115.0	47.6	0	1,200	1	1	-
	18.5-40	50+	LS	135.0	72.6	0	0	1	1	15,000

*Values are for level (non-sloping) backfill; no surcharge loads on backfill
**Hand-auger borings were performed in the top 4 to 6-ft. at all test boring locations to avoid utilities. We assumed that the soils within this area have similar relative density as the immediately underlying strata.
LS = Limestone, WOH = Weight of Hammer



Approximate Project Location

Source: Google Earth
Image Date: 3/15/2018

0′ .5 mi. 1 mi.

Graphic Scale (miles)

DATE	NAME	REVISION	APPROVED BY:

MC SQUARED, INC.
Geotechnical Consultants
5808 Breckenridge Parkway Suite - A
Tampa, FL 33610
Ph:813-623-3399 Fax:813-623-6636

MC² Geotechnical • Environmental Materials Testing

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

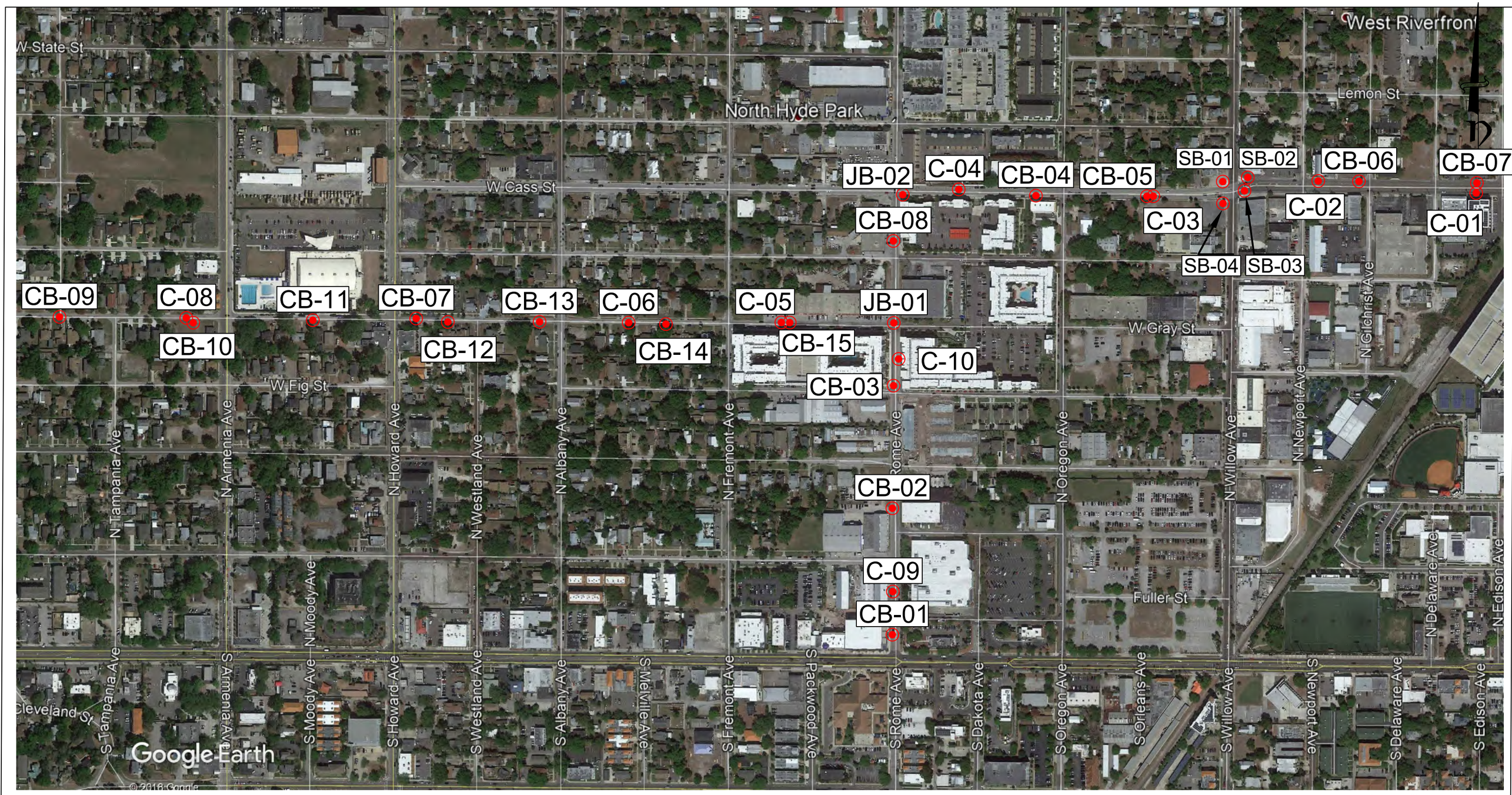
	NAME	DATE
DESIGNED BY:	TC	8/7/17
DRAWN BY:	KH	7/13/2018
CHECKED BY:	JH	7/16/2018
SUPERVISED BY:	WS	

PROJECT LOCATION MAP

Cypress Street Outfall Stormwater Improvements
City of Tampa, Hillsborough County, FL

MC² PROJ. NO.: T041704.066

SHEET NO.: 1



LEGEND:

- Approximate Boring Location

Source: Google Earth
Image Date: 3/15/2018

0′ 500′ 1000′

Graphic Scale (feet)

DATE	NAME	REVISION	APPROVED BY:

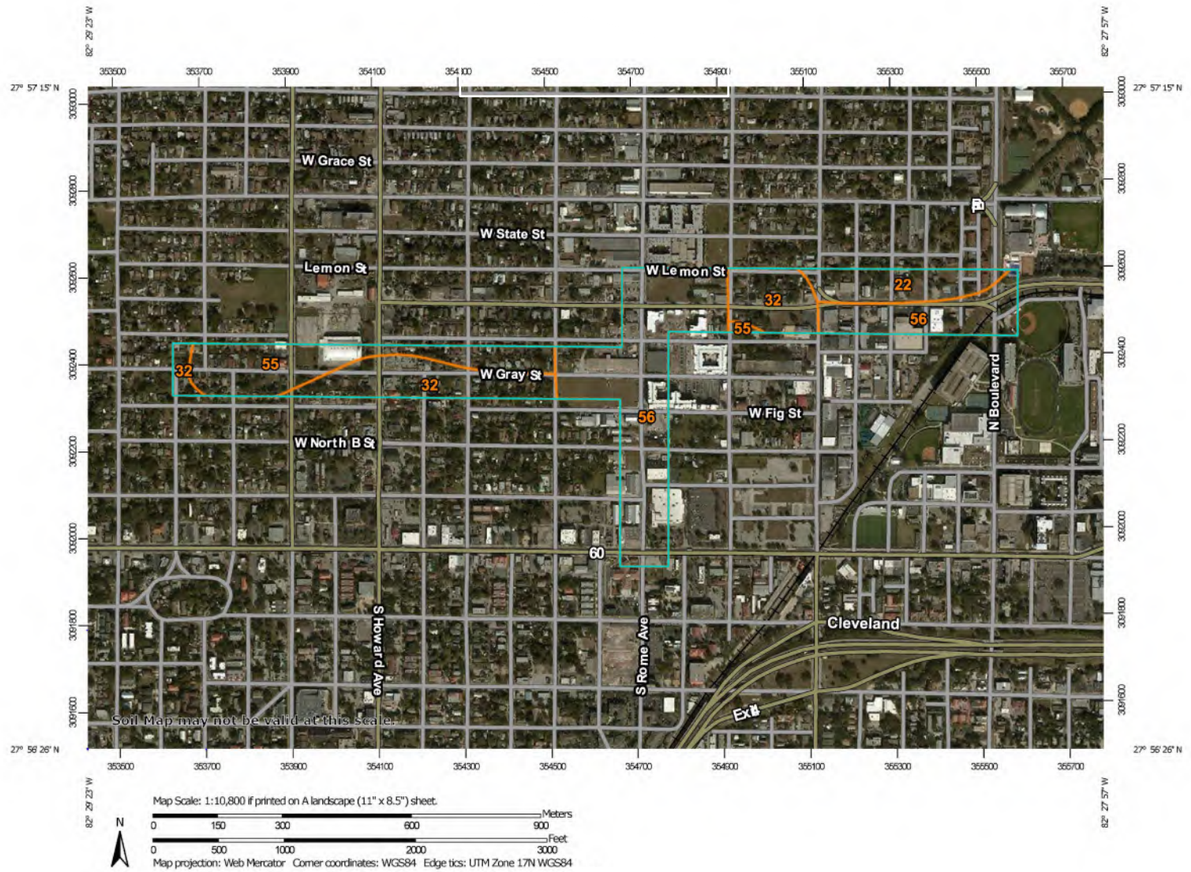
MC SQUARED, INC.
Geotechnical Consultants
5808 Breckenridge Parkway Suite - A
Tampa, FL 33610
Ph:813-623-3399 Fax:813-623-6636

GEOTECHNICAL • ENVIRONMENTAL MATERIALS TESTING

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

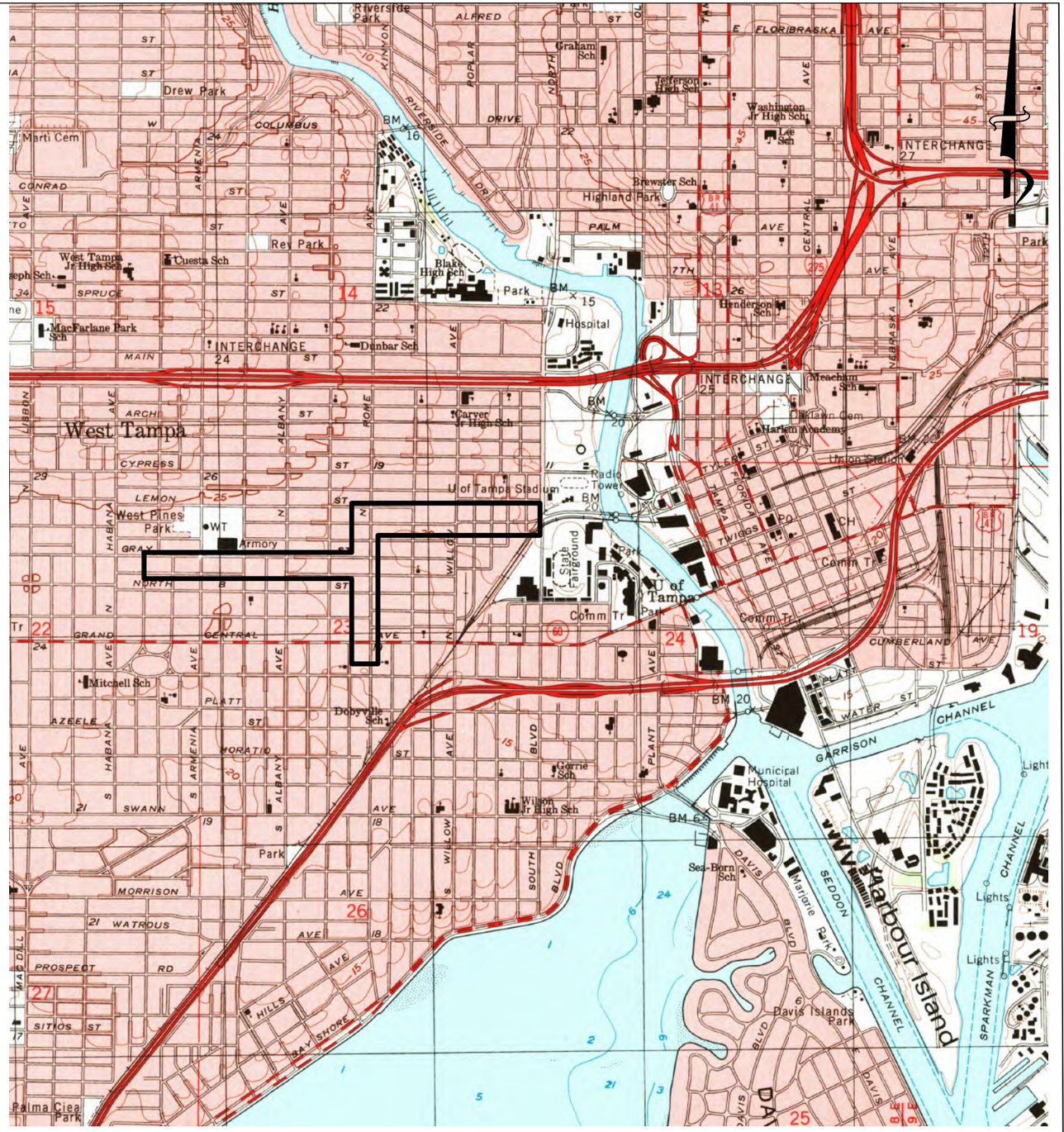
	NAME	DATE
DESIGNED BY:	TC	8/7/17
DRAWN BY:	KH	7/13/2018
CHECKED BY:	JH	7/16/2018
SUPERVISED BY:	WS	

BORING LOCATION MAP	MC² PROJ. NO.	SHEET NO.
Cypress Street Outfall Stormwater Improvements City of Tampa, Hillsborough County, FL	T041704.066	2



Hillsborough County, Florida			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
22	Immokalee-Urban land complex	7.8	9.8%
32	Myakka-Urban land complex	19.0	23.8%
55	Tavares-Urban land complex, 0 to 5 percent slopes	14.8	18.5%
56	Urban land	38.2	47.9%
Totals for Area of Interest (AOI)		**79.8**	**100.0%**

SOURCE: United States Department of Agriculture



SOURCE: United States Geological Survey

TAMPA QUADRANGLE, 1995 FLORIDA
7.5 - MINUTE SERIES, NAVD 1929

DATE	NAME	REVISION	APPROVED BY:

MC SQUARED, INC.
Geotechnical Consultants
5808 Breckenridge Parkway Suite - A
Tampa, FL 33610
Ph:813-623-3399 Fax:813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

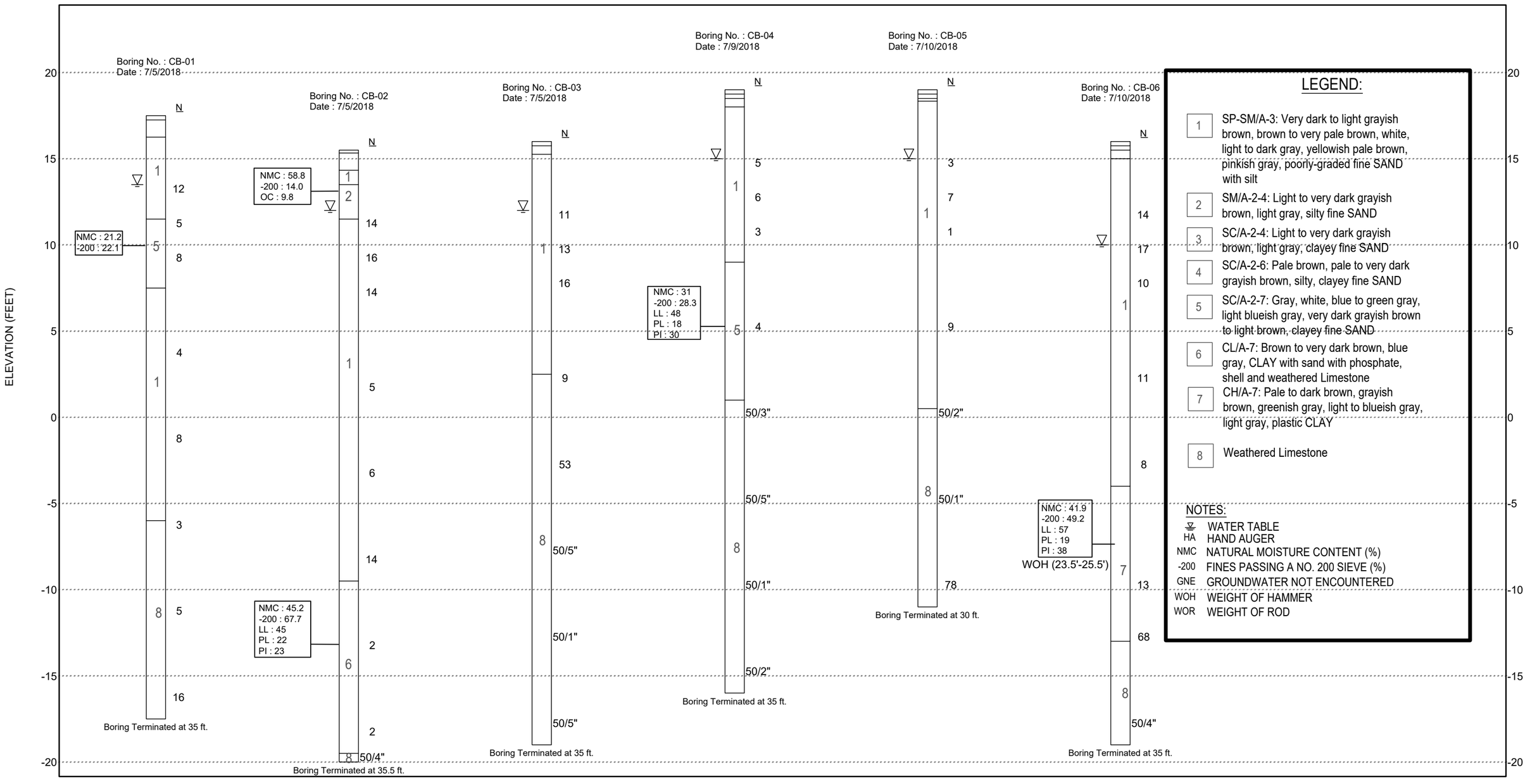
	NAME	DATE
DESIGNED BY:	TC	8/7/17
DRAWN BY:	KH	7/13/2018
CHECKED BY:	JH	7/16/2018
SUPERVISED BY:	WS	

USDA/USGS MAPS

Cypress Street Outfall Stormwater Improvements
City of Tampa, Hillsborough County, FL

MC² PROJ. NO. T041704.066

SHEET NO. 3



*N Values Drawn At Top Of Interval

DATE	NAME	REVISION	APPROVED BY

MC SQUARED INC.
Geotechnical Consultants
5808-A Breckenridge Parkway
Tampa, FL 33610
Ph : 813-623-3399 Fax : 813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

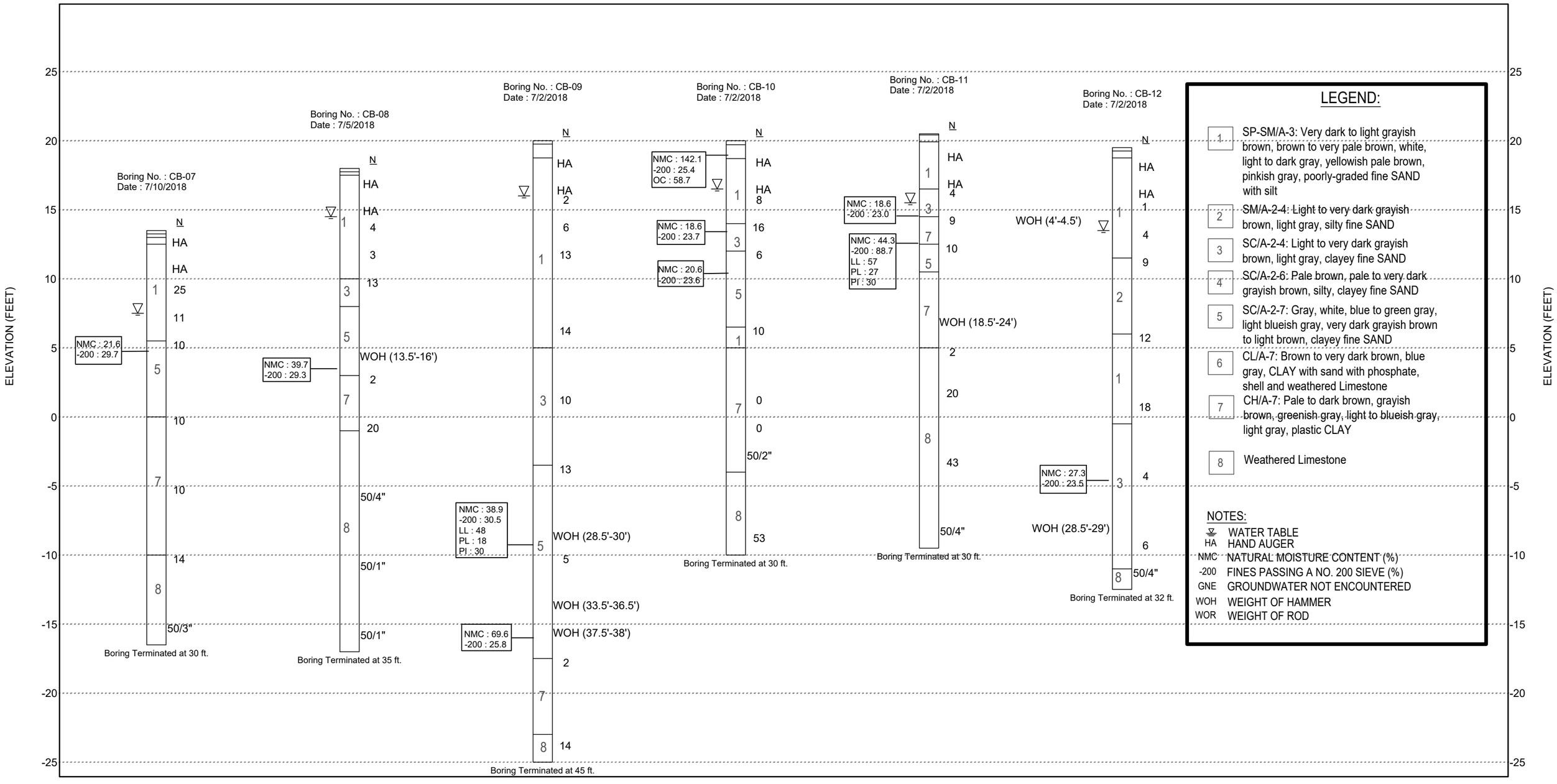
	NAME	DATE
DESIGNED BY:	TC	8/7/17
DRAWN BY:	KH	7/12/2018
CHECKED BY:	JH	7/13/2018
SUPERVISED BY:	WS	

SUBSURFACE BORING PROFILES

Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Hillsborough County, FL

MC² PROJ. NO. T041704.066

SHEET NO. 4



*N Values Drawn At Top Of Interval

DATE	NAME	REVISION	APPROVED BY

MC SQUARED INC.
Geotechnical Consultants
5808-A Breckenridge Parkway
Tampa, FL 33610
Ph : 813-623-3399 Fax : 813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

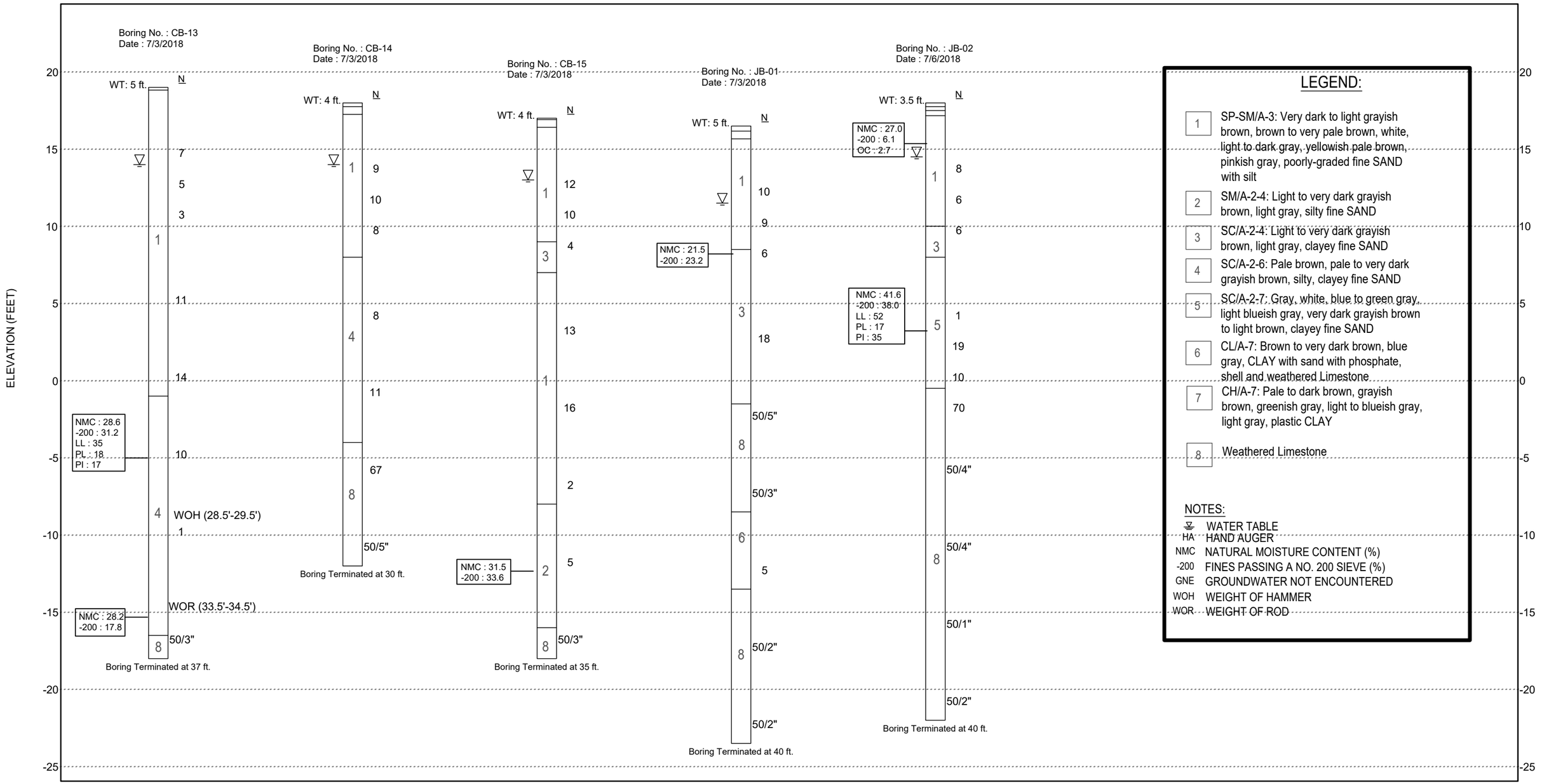
	NAME	DATE
DESIGNED BY:	TC	8/7/17
DRAWN BY:	KH	7/12/2018
CHECKED BY:	JH	7/13/2018
SUPERVISED BY:	WS	

SUBSURFACE BORING PROFILES

Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Hillsborough County, FL

MC² PROJ. NO. T041704.066

SHEET NO. 5



*N Values Drawn At Top Of Interval

DATE	NAME	REVISION	APPROVED BY

MC SQUARED INC.
Geotechnical Consultants
5808-A Breckenridge Parkway
Tampa, FL 33610
Ph : 813-623-3399 Fax : 813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

	NAME	DATE
DESIGNED BY:	TC	8/7/17
DRAWN BY:	KH	7/12/2018
CHECKED BY:	JH	7/13/2018
SUPERVISED BY:	WS	

SUBSURFACE BORING PROFILES

Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Hillsborough County, FL

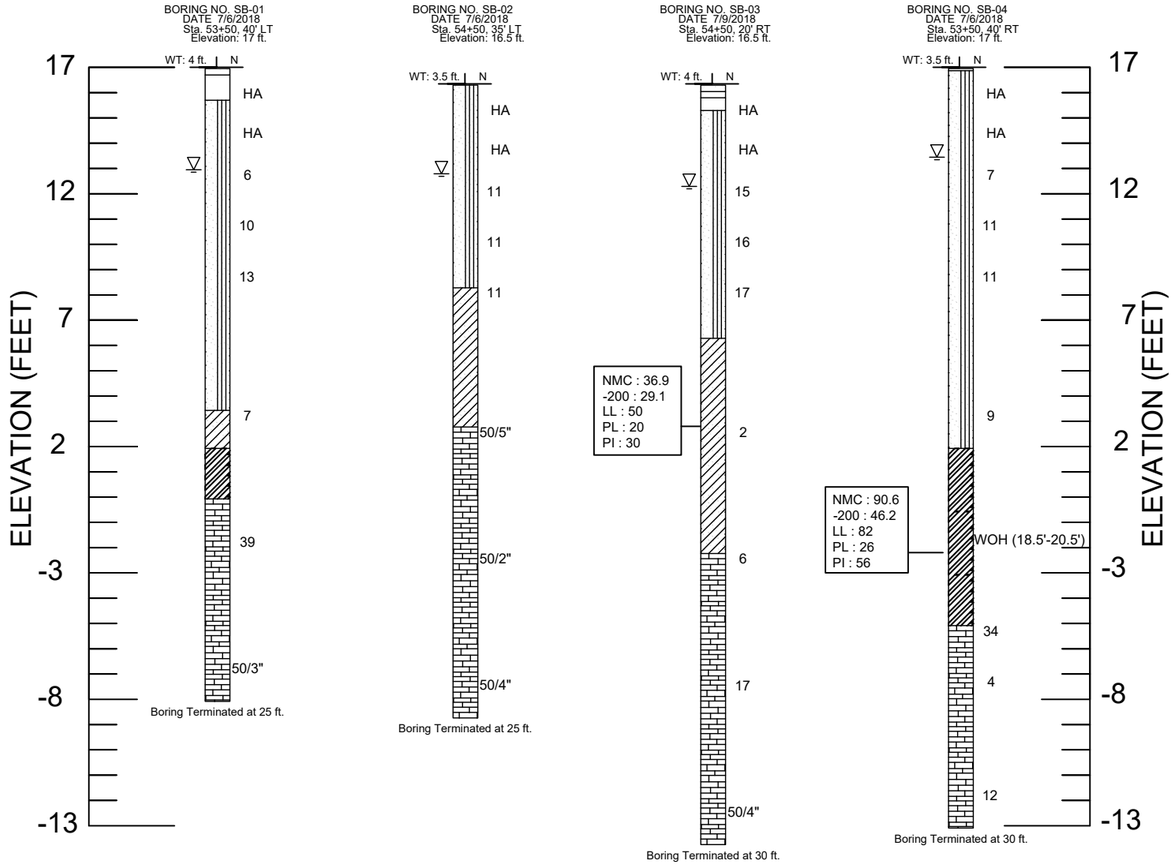
MC² PROJ. NO.: T041704.066

SHEET NO.: 6



LEGEND

Approximate Boring Location



LEGEND

- (CH) Fat Clay (A-7)
- (CL) Lean Clay (A-7)
- (SP-SM) Poorly Graded Sand With Silt (A-3)
- (SC) Clayey Sand (A-2-4, A-2-7)
- (WLS) Weathered Limestone

NOTES:

⏚	WATER TABLE
HA	HAND AUGER
NMC	NATURAL MOISTURE CONTENT (%)
-200	FINES PASSING A NO. 200 SIEVE (%)
GNE	GROUNDWATER NOT ENCOUNTERED

GRANULAR MATERIALS- RELATIVE DENSITY	SPT (BLOWS/FT)
VERY LOOSE	LESS THAN 3
LOOSE	3-8
MEDIUM DENSE	8-24
DENSE	24-40
VERY DENSE	GREATER THAN 40

SILTS AND CLAYS CONSISTENCY	SPT (BLOWS/FT)
VERY SOFT	LESS THAN 1
SOFT	1-3
FIRM	3-6
STIFF	6-12
VERY STIFF	12-24
HARD	GREATER THAN 24

SPT Spoon Inside Diameter 1 3/8" — ASTM Auto Hammer
SPT Spoon Outside Diameter 2" — Average Hammer Drop Height 30" — Hammer Weight 140 lbs

DATE	NAME	REVISION	APPROVED BY:

MC SQUARED, INC.
Geotechnical Consultants
5808-A Breckenridge Parkway
Tampa, FL 33610
Ph:813-623-3399 Fax:813-623-6636

FLORIDA ENGINEERING CERTIFICATE OF AUTHORIZATION No. 9191
Jeffery L. Hooks, P.E.
FLORIDA LICENSE No. 67882

	NAME	DATE
DESIGNED BY:	TC	09/01/2017
DRAWN BY:	KH	7/12/2018
CHECKED BY:	JH	7/13/2018
SUPERVISED BY:	WS	

Report of Core Borings

Cypress Street Outfall Regional Stormwater Improvements
City of Tampa, Hillsborough County, FL

MC² PROJ. NO.: T041704.066

SHEET NO.: 7

Soil Profile

BORING ID: CB-01

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/5/18 **COMPLETED** 7/5/18
GROUND ELEVATION 17.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 13.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 11+00, 15' LT (N. Rome Ave)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	17.5		3 inches of ASPHALT 12 inches of LIMEROCK base	HA 1		
0	16	SP-SM, (A-3)	Medium dense, very dark grayish brown, pale brown, light gray, poorly-graded fine SAND with silt ▽			
5	12			SS 2	4-5-7-6 (12)	
	10	SC, (A-2-7)	Loose, gray, clayey fine SAND	SS 3	4-2-3-3 (5)	
10	8			SS 4	3-3-5-3 (8)	
	6	SP-SM, (A-3)	Loose, gray to light gray, poorly-graded fine SAND with silt			
15	4			SS 5	3-2-2 (4)	
	2					
	0					
20	-2			SS 6	1-2-6 (8)	
	-4					
	-6		Weathered LIMESTONE			
25	-8			SS 7	2-2-1-5 (3)	
	-10					
30	-12	WLS		SS 8	0-1-4 (5)	
	-14					
	-16					
35				SS 9	3-6-10 (16)	

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

Bottom of hole at 35.0 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-02

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/5/18 **COMPLETED** 7/5/18
GROUND ELEVATION 15.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 3.5 ft / Elev 12.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 16+00, 10' LT (N. Rome Ave)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	15.5		2 inches of ASPHALT			
	14.5		12 inches of LIMEROCK base			
	14	SP-SM, (A-3)	Light gray, poorly-graded fine SAND with silt	HA 1		
	12	SM, (A-2-4) ▽	Very dark grayish brown, silty fine SAND			
5	10		Loose to medium dense, light to very dark grayish brown, pale brown, poorly-graded fine SAND with silt with shell and Limestone	SS 2	5-7-7-6 (14)	
	8			SS 3	5-7-9-11 (16)	
10	6			SS 4	5-6-8-10 (14)	
	4					
	2					
15	0	SP-SM, (A-3)		SS 5	3-2-3 (5)	
	-2					
20	-4			SS 6	2-3-3 (6)	
	-6					
	-8			SS 7	5-8-6 (14)	
25	-10		Soft, dark to very dark brown, CLAY with phosphate and shell			
	-12					
30	-14	CL, (A-7)		SS 8	1-1-1 (2)	
	-16					
	-18			SS 9	1-0-2 (2)	
35	-20	WLS	Weathered LIMESTONE	SS	50/4"	

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
□ FINES CONTENT (%) □
20 40 60 80

Bottom of hole at 35.5 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-03

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/5/18 **COMPLETED** 7/5/18
GROUND ELEVATION 16 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 12.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 21+00, 5' LT (N. Rome Ave)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	16		3 inches of ASPHALT			
			6 inches of LIMEROCK base			
	14	SP-SM, (A-3)	Medium dense, grayish to dark grayish brown, pale brown, poorly-graded fine SAND with silt	HA 1		
	12		▽			
5				SS 2	6-5-6-8 (11)	
	10			SS 3	7-6-7-8 (13)	
	8			SS 4	11-9-7-5 (16)	
10	6					
	4					
	2		Weathered LIMESTONE	SS 5	2-4-5 (9)	
15	0					
	-2					
	-4			SS 6	5-16-37 (53)	
20	-6					
	-8	WLS		SS 7	50/5"	
25	-10					
	-12			SS 8	50/1"	
30	-14					
	-16					
	-18			SS 9	50/5"	
35						

SPT N VALUE
ORGANIC CONTENT %
PL MC LL
FINES CONTENT (%)
20 40 60 80

Bottom of hole at 35.0 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-04

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/9/18 **COMPLETED** 7/9/18
GROUND ELEVATION 19 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 4.0 ft / Elev 15.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 46+00, 15' RT (W. Cass St)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	19		3 inches of ASPHALT			
	18		3 inches of PAVER			
			6 inches of SHELL and SAND base			
	16		Loose, light to very dark grayish brown, poorly-graded fine SAND with silt	HA 1		
5	14	SP-SM, (A-3)		SS 2	1-2-3-4 (5)	
	12			SS 3	1-2-4-3 (6)	
	10			SS 4	1-1-2-5 (3)	
10	8		Loose, gray, clayey fine SAND			
	6	SC, (A-2-7)				
15	4			SS 5	1-2-2 (4)	
	2					
	0		Weathered LIMESTONE	SS 6	50/3"	
20	-2					
	-4					
25	-6	WLS		SS 7	29-32-50/5"	
	-8					
	-10			SS 8	50/1"	
30	-12					
	-14					
35	-16			SS 9	50/2"	

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>
>>
>>
>>

Bottom of hole at 35.0 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-05

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/10/18 **COMPLETED** 7/10/18
GROUND ELEVATION 19 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 15.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 51+00, 10' RT (W. Cass St)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	19		3 inches of ASPHALT 3 inches of PAVER 2 inches of SHELL and SAND base	HA 1		
	18		Very loose to medium dense, light gray, poorly-graded fine SAND with silt			
	16		▽			
5	14			SS 2	1-1-2-3 (3)	
	12			SS 3	4-3-4-3 (7)	
	10	SP-SM, (A-3)		SS 4	0-1-0-2 (1)	
10	8					
	6					
	4			SS 5	4-4-5 (9)	
15	2					
	0		Weathered LIMESTONE	SS 6	40-50/2"	
20	-2					
	-4			SS 7	50/1"	
25	-6	WLS				
	-8					
	-10			SS 8	25-35-43 (78)	
30	-12		Bottom of hole at 30.0 feet.			
	-14					
	-16					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>
>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-06

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/10/18 **COMPLETED** 7/10/18
GROUND ELEVATION 16 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 6.0 ft / Elev 10.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 59+00, 15' RT (W. Cass St)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	16		3 inches of ASPHALT			
			3 inches of PAVER			
			6 inches of SHELL and SAND base			
	14	SP-SM, (A-3)	Loose to medium dense, light gray, white, grayish brown, poorly-graded fine SAND with silt	HA 1		
5	12			SS 2	4-5-9-10 (14)	
	10		▽	SS 3	7-7-10-9 (17)	
	8			SS 4	4-5-5-6 (10)	
10	6					
	4					
	2			SS 5	4-5-6 (11)	
15	0					
	-2			SS 6	5-4-4 (8)	
20	-4	CH, (A-7)	Very soft to very stiff, brown, plastic CLAY with weathered Limestone			
	-6					
	-8			SS 7	0-0-0 (0)	
25	-10		Weight of Hammer (23.5'-25.5')	SS 8	2-4-9-10 (13)	
	-12					
30	-14	WLS	Weathered LIMESTONE	SS 9	16-30-38 (68)	
	-16					
	-18			SS 10	50/4"	
35						

SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

Bottom of hole at 35.0 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-07

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/10/18 **COMPLETED** 7/10/18
GROUND ELEVATION 13.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 6.0 ft / Elev 7.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 64+00, 20' LT (W. Cass St)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	12		3 inches of ASPHALT 3 inches of PAVER 6 inches of SHELL and SAND base	HA 1		
	10	SP-SM, (A-3)	Medium dense to dense, gray to light gray, white, pale brown, poorly-graded fine SAND with silt			
5	8		▽	SS 2	6-12-13-13 (25)	
	6			SS 3	7-6-5-6 (11)	
	4	SC, (A-2-7)	Medium dense, blue gray, clayey fine SAND	SS 4	1-5-5-4 (10)	
10	2					
	0		Stiff, pale brown to brown, plastic CLAY	SS 5	1-3-7 (10)	
15	-2					
	-4	CH, (A-7)				
	-6			SS 6	16-2-8 (10)	
20	-8					
	-10		Weathered LIMESTONE	SS 7	17-10-4-7 (14)	
25	-12	WLS				
	-14					
	-16			SS 8	50/3"	
30			Bottom of hole at 30.0 feet.			
	-18					
	-20					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-08

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/5/18 **COMPLETED** 7/5/18
GROUND ELEVATION 18 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 3.5 ft / Elev 14.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 27+00, 10' LT (N. Rome Ave)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)
0	18		3 inches of ASPHALT 3 inches of LIMEROCK base		
	16	SP-SM, (A-3)	Loose, brown to very pale brown, light gray, poorly-graded fine SAND with silt	HA 1	
5	14			SS 2	2-2-2-1 (4)
	12			SS 3	1-2-1-2 (3)
10	10	SC, (A-2-4)	Medium dense, pale brown, clayey fine SAND	SS 4	4-7-6-6 (13)
	8	SC, (A-2-7)	Very loose, green gray, clayey fine SAND		
	6				
15	4			SS 5	0-0-0 (0)
	2		Weight of Hammer (13.5'-16') Very soft to soft, greenish gray, plastic CLAY	SS 6	0-0-2-2 (2)
	0	CH, (A-7)			
20	-2		Weathered LIMESTONE	SS 7	3-11-9 (20)
	-4				
	-6			SS 8	50/4"
25	-8				
	-10	WLS			
	-12			SS 9	50/1"
30	-14				
	-16			SS 10	50/1"
35					

RECOVERY % (RQD)

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
□ FINES CONTENT (%) □
20 40 60 80

Bottom of hole at 35.0 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-09

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/2/18 **COMPLETED** 7/2/18
GROUND ELEVATION 20 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 16.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 80+00, 5' RT (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	20		3 inches of ASPHALT			
			12 inches of LIMEROCK and SHELL base			
	18	SP-SM, (A-3)	Very loose to medium dense, gray, brown, grayish brown, poorly-graded fine SAND with silt	HA 1		
	16		▽			
5				SS 2	2-1-1-3 (2)	
	14			SS 3	1-1-4-5 (5)	
	12			SS 4	5-6-7-8 (13)	
10	10					
	8					
	6			SS 5	7-8-6 (14)	
15						
	4		Medium dense, gray, clayey fine SAND			
	2	SC, (A-2-4)		SS 6	6-5-5 (10)	
20	0					
	-2					
	-4		Very loose to medium dense, gray, clayey fine SAND	SS 7	7-5-8 (13)	
25						
	-6					
	-8					
30	-10	SC, (A-2-7)	Weight of Hammer (28.5'-30')	SS 8	0-0-0 (0)	
				SS 9	1-3-2 (5)	
	-12					
	-14					
35				SS 10	0-0-0-0 (0)	

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

(Continued Next Page)

Soil Profile

BORING ID: CB-09

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.

PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements

PROJECT NUMBER T041704.066

PROJECT LOCATION City of Tampa, Hillsborough County, FL

DEPTH (ft)	ELEV. (ft)	GRAPHIC LOG	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
35	-16		SC, (A-2-7)	Very loose to medium dense, gray, clayey fine SAND Weight of Hammer (33.5'-36.5')	SS 11	0-0-1-2 (1)	
	-18			Soft, greenish gray, brown, light yellowish brown, plastic CLAY Weight of Hammer (37.5'-38')	SS 12	0-1-1 (2)	
40	-20		CH, (A-7)				
	-22						
	-24		WLS	Weathered LIMESTONE	SS 13	24-9-5 (14)	
45	-26			Bottom of hole at 45.0 feet.			
	-28						
	-30						
	-32						
	-34						
	-36						
	-38						
	-40						
	-42						
	-44						
	-46						
	-48						
	-50						
	-52						
	-54						

● SPT N VALUE ●

⊕ ORGANIC CONTENT % ⊕

PL MC LL

☐ FINES CONTENT (%) ☐

20 40 60 80

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-10

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/2/18 **COMPLETED** 7/2/18
GROUND ELEVATION 20 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 3.5 ft / Elev 16.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 84+00, 5' RT (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0			3.5 inches of ASPHALT 12 inches of BLACK base			
	18	SP-SM, (A-3)	Loose, dark to yellowish pale brown, light brownish gray, poorly-graded fine SAND with silt	HA 1		
5	16			SS 2	3-3-5-3 (8)	
	14	SC, (A-2-4)	Medium dense, light brownish gray, clayey fine SAND	SS 3	4-8-8-11 (16)	
	12		Loose, light gray, clayey fine SAND	SS 4	1-3-3-5 (6)	
10	10	SC, (A-2-7)				
	8					
	6	SP-SM, (A-3)	Medium dense, light gray, poorly-graded fine SAND with silt	SS 5	4-5-5 (10)	
15						
	4	CH, (A-7)	Very soft, light gray, plastic CLAY			
	2					
20	0			SS 6	0-0-0-0 (0)	
	-2		Weight of Hammer (18.5'-24')	SS 7	0-0-0-0 (0)	
	-4			SS 8	1-0-0-50/2"	
25		WLS	Weathered LIMESTONE 100% Loss of Circulation at 25'			
	-6					
	-8					
30	-10			SS 9	22-26-27 (53)	
	-12		Bottom of hole at 30.0 feet.			
	-14					

SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
□ FINES CONTENT (%) □
20 40 60 80

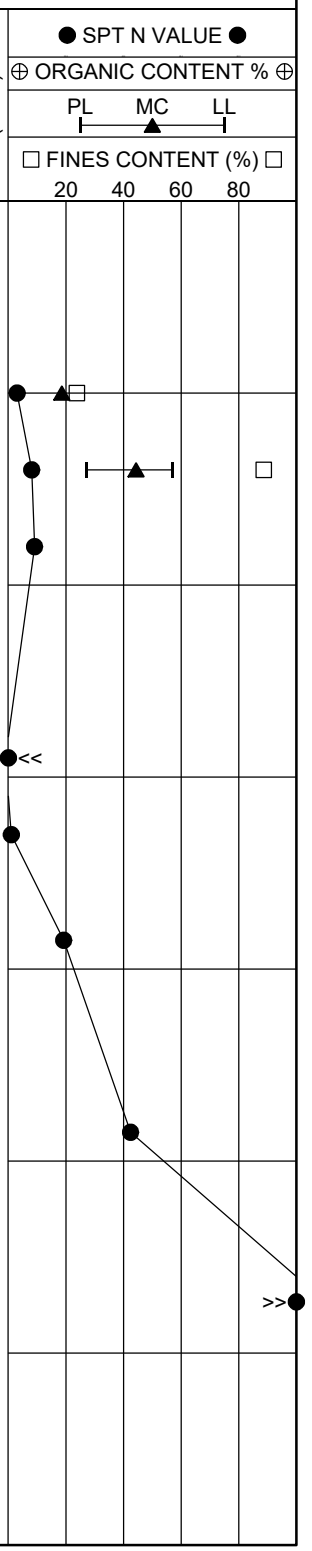
Soil Profile

BORING ID: CB-11

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/2/18 **COMPLETED** 7/2/18
GROUND ELEVATION 20.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 5.0 ft / Elev 15.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 89+00, 10' RT (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	20		1 inch of ASPHALT 6 inches of BLACK base			
	18	SP-SM, (A-3)	Pale to grayish brown, poorly-graded fine SAND with silt	HA 1		
5	16	SC, (A-2-4)	▽ Loose, gray, clayey fine SAND	SS 2	1-2-2-3 (4)	
	14	CH, (A-7)	Stiff, blueish gray, plastic CLAY	SS 3	3-4-5-5 (9)	
10	12	SC, (A-2-7)	Medium dense, light blueish gray, clayey fine SAND	SS 4	1-5-5-6 (10)	
	10	CH, (A-7)	Very soft, light blueish gray, plastic CLAY with weathered Limestone			
15	6		Weight of Hammer (13.5'-15.5')	SS 5	0-0-0-0 (0)	
	4	WLS	Weathered LIMESTONE	SS 6	1-1-1-3 (2)	
20	2		100% Loss of Circulation at 18.5'	SS 7	6-10-10 (20)	
	0					
	-2					
25	-4			SS 8	18-17-26 (43)	
	-6					
30	-8			SS 9	50/4"	
	-10		Bottom of hole at 30.0 feet.			
	-12					
	-14					



MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-12

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/2/18 **COMPLETED** 7/2/18
GROUND ELEVATION 19.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 6.0 ft / Elev 13.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 94+00, 5' RT (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	19.5		3 inches of ASPHALT			
	18		6 inches of LIMEROCK base			
			Very loose to loose, light gray, brown to grayish brown, poorly-graded fine SAND with silt	HA 1		
	16	SP-SM, (A-3)				
5			Weight of Hammer (4'-4.5')	SS 2	0-1-0-0 (1)	
	14		▽			
	12			SS 3	1-1-3-3 (4)	
			Medium dense, light gray, silty fine SAND	SS 4	3-5-4-6 (9)	
10	10					
	8	SM, (A-2-4)				
	6		Medium dense, light gray, light brownish gray, poorly-graded fine SAND with silt	SS 5	5-5-7 (12)	
15	4					
	2	SP-SM, (A-3)				
	0			SS 6	5-9-9 (18)	
20			Loose, light blueish gray, clayey fine SAND			
	-2					
	-4			SS 7	2-1-3 (4)	
25	-6	SC, (A-2-4)				
	-8					
	-10		Weight of Hammer (28.5'-29')	SS 8	0-2-4-0 (6)	
30						
	-12	WLS	Weathered LIMESTONE	SS 9	15-50/4"	
	-14		Bottom of hole at 32.0 feet.			

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-13

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/3/18 **COMPLETED** 7/3/18
GROUND ELEVATION 19 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 5.0 ft / Elev 14.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 98+00, 5' RT, (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	19		2 inches of ASPHALT			
			Loose to medium dense, light gray, grayish to pale brown, poorly-graded fine SAND with silt	HA 1		
5	14		▽	SS 2	2-3-4-5 (7)	
	12			SS 3	3-2-3-4 (5)	
	10			SS 4	1-2-1-4 (3)	
10		SP-SM, (A-3)				
	8					
	6			SS 5	1-4-7 (11)	
15	4					
	2					
	0			SS 6	5-7-7 (14)	
20			Very loose to medium dense, pale brown, pale to very dark grayish brown, silty, clayey fine SAND			
	-2					
	-4			SS 7	4-5-5 (10)	
25	-6					
	-8	SC, (A-2-6)				
	-10			SS 8	0-0-1-2 (1)	
30			Weight of Hammer (28.5'-29.5')			
	-12					
	-14		50% Loss of Circulation at 33'			
35	-16		Weight of Rod (33.5'-34.5')	SS 9	0-0-1-4 (1)	

SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

(Continued Next Page)

Soil Profile

BORING ID: CB-13

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.

PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements

PROJECT NUMBER T041704.066

PROJECT LOCATION City of Tampa, Hillsborough County, FL

DEPTH (ft)	ELEV. (ft)	GRAPHIC LOG	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
35							
	-18		WLS	Weathered LIMESTONE	SS 10	20-23-50/3"	
				Bottom of hole at 37.0 feet.			
	-20						
	-22						
	-24						
	-26						
	-28						
	-30						
	-32						
	-34						
	-36						
	-38						
	-40						
	-42						
	-44						
	-46						
	-48						
	-50						
	-52						
	-54						
	-56						

● SPT N VALUE ●

⊕ ORGANIC CONTENT % ⊕

PL MC LL

☐ FINES CONTENT (%) ☐

20 40 60 80

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-14

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/3/18 **COMPLETED** 7/3/18
GROUND ELEVATION 18 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 14.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 103+00, 5' RT, (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0			3 inches of ASPHALT			
			6 inches of LIMEROCK base			
	16		Medium dense, light to dark grayish brown, poorly-graded fine SAND with silt with shell and wood fragments	HA 1		
	14		▽			
5		SP-SM, (A-3)		SS 2	5-5-4-5 (9)	
	12			SS 3	4-5-5-6 (10)	
	10			SS 4	2-4-4-5 (8)	
10	8		Medium dense, gray, silty, clayey fine SAND			
	6					
	4			SS 5	4-5-3 (8)	
15		SC, (A-2-6)				
	2					
	0					
20	-2			SS 6	2-5-6 (11)	
	-4		Weathered LIMESTONE			
	-6			SS 7	26-33-34 (67)	
25						
	-8	WLS				
	-10					
				SS 8	23-50/5"	
30	-12		Bottom of hole at 30.0 feet.			
	-14					
	-16					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: CB-15

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/3/18 **COMPLETED** 7/3/18
GROUND ELEVATION 17 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 13.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 108+00, 10' LT, (W. Gray St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	17		1 inch of ASPHALT			
	16		6 inches of LIMEROCK base			
		SP-SM, (A-3)	Medium dense, light to dark brown, grayish brown, poorly-graded fine SAND with silt ▽	HA 1		
5	12			SS 2	4-5-7-5 (12)	
	10			SS 3	4-5-5-2 (10)	
	8	SC, (A-2-4)	Loose, gray, clayey fine SAND Weight of Hammer (8'-8.5')	SS 4	0-2-2-4 (4)	
10	6		Very loose to medium dense, gray to light gray, poorly-graded fine SAND with silt			
	4			SS 5	5-6-7 (13)	
15	2					
	0	SP-SM, (A-3)				
	-2			SS 6	6-7-9 (16)	
20	-4					
	-6			SS 7	1-1-1 (2)	
25	-8		Loose, dark grayish brown, silty fine SAND with shell fragments			
	-10					
	-12	SM, (A-2-4)		SS 8	1-1-4 (5)	
30	-14					
	-16					
		WLS	Weathered LIMESTONE	SS 9	50/3"	
35	-18					

SPT N VALUE
ORGANIC CONTENT %
PL MC LL
FINES CONTENT (%)
20 40 60 80
>>

Bottom of hole at 35.0 feet.

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: JB-01

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/3/18 **COMPLETED** 7/3/18
GROUND ELEVATION 16.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 5.0 ft / Elev 11.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 114+50, 5' LT (N. Rome Ave)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	16		4 inches of ASPHALT 6 inches of LIMEROCK base Medium dense, light gray, brown to pale brown, poorly-graded fine SAND with silt	HA 1		
5	12	SP-SM, (A-3)	▽	SS 2	5-5-5-6 (10)	
	10			SS 3	5-4-5-5 (9)	
	8		Loose to medium dense, white, gray to light gray, clayey fine SAND	SS 4	2-2-4-4 (6)	
10	6					
	4	SC, (A-2-4)				
15	2			SS 5	8-8-10 (18)	
	0					
	-2		Weathered LIMESTONE	SS 6	50/5"	
20	-4					
	-6	WLS	100% Loss of Circulation at 23'	SS 7	50/3"	
25	-8					
	-10		Firm, blue gray, CLAY with sand			
	-12	CL, (A-7)		SS 8	5-1-4 (5)	
30	-14		Weathered LIMESTONE			
	-16	WLS				
35	-18			SS 9	50/2"	

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>

>>

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

(Continued Next Page)

Soil Profile

BORING ID: JB-01

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.

PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements

PROJECT NUMBER T041704.066

PROJECT LOCATION City of Tampa, Hillsborough County, FL

DEPTH (ft)	ELEV. (ft)	GRAPHIC LOG	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	● SPT N VALUE ● / ⊕ ORGANIC CONTENT % ⊕ / PL MC LL / ☐ FINES CONTENT (%) ☐ (20 40 60 80)
35								
	-20		WLS	Weathered LIMESTONE				
	-22				SS 10	50/2"		>>
40	-24			Bottom of hole at 40.0 feet.				
	-26							
	-28							
	-30							
	-32							
	-34							
	-36							
	-38							
	-40							
	-42							
	-44							
	-46							
	-48							
	-50							
	-52							
	-54							
	-56							
	-58							

Soil Profile

BORING ID: JB-02

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/6/18 **COMPLETED** 7/9/18
GROUND ELEVATION 18 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 3.5 ft / Elev 14.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 40+75, 15' RT (W. Cass St)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0			3 inches of ASPHALT 3 inches of PAVER 4 inches of SHELL base	HA 1		
	16		Loose, brown, dark gray, poorly-graded fine SAND with silt Trace organics from 2-3 feet			
	14	SP-SM, (A-3)				
5				SS 2	3-3-5-5 (8)	
	12			SS 3	3-2-4-4 (6)	
	10					
		SC, (A-2-4)	Loose, light brown, clayey fine SAND	SS 4	1-2-4-6 (6)	
10	8					
	6		Very loose to medium dense, gray to grayish brown, clayey fine SAND with shell and Limestone fragments			
	4	SC, (A-2-7)		SS 5	1-1-0-0 (1)	
15				SS 6	6-13-6-3 (19)	
	2					
	0			SS 7	3-5-5-4 (10)	
20	-2		Weathered LIMESTONE	SS 8	25-42-28 (70)	
	-4					
	-6			SS 9	6-1-50/4"	>>
25						
	-8	WLS				
	-10		50% Loss of Circulation at 27'			
				SS 10	25-50/4"	>>
30	-12					
	-14					
	-16			SS 11	50/1"	>>
35						

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

(Continued Next Page)

Soil Profile

BORING ID: JB-02

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc. **PROJECT NAME** Cypress Street Outfall Regional Stormwater Improvements

PROJECT NUMBER T041704.066 **PROJECT LOCATION** City of Tampa, Hillsborough County, FL

DEPTH (ft)	ELEV. (ft)	GRAPHIC LOG	USCS/AASHTO Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)	● SPT N VALUE ● / ⊕ ORGANIC CONTENT % ⊕ / PL MC LL / ☐ FINES CONTENT (%) ☐ (20 40 60 80)
35	-18			Weathered LIMESTONE				
	-20		WLS					
40	-22				SS 12	2-13-50/2"		>>●
				Bottom of hole at 40.0 feet.				
	-24							
	-26							
	-28							
	-30							
	-32							
	-34							
	-36							
	-38							
	-40							
	-42							
	-44							
	-46							
	-48							
	-50							
	-52							
	-54							
	-56							

Soil Profile

BORING ID: SB-01

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/6/18 **COMPLETED** 7/6/18
GROUND ELEVATION 17 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 4.0 ft / Elev 13.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 53+50, 40' LT (W. Cass St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	16	SP-SM	Loose to medium dense, light gray, pinkish gray, poorly-graded fine SAND with silt	HA 1		
	14		▽			
5	12			SS 2	1-2-4-4 (6)	
	10			SS 3	3-5-5-7 (10)	
	8			SS 4	5-5-8-10 (13)	
10	6					
	4					
15	2	SC	Loose, blue gray, clayey fine SAND	SS 5	3-2-5 (7)	
	0	CH	Blue gray, plastic CLAY	ST 6		
	-2	WLS	Weathered LIMESTONE			
20	-4			SS 7	7-4-35 (39)	
	-6					
25	-8			SS 8	50/3"	
	-10		Bottom of hole at 25.0 feet.			
	-12					
	-14					
	-16					
	-18					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: SB-02

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/9/18 **COMPLETED** 7/9/18
GROUND ELEVATION 16.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 3.5 ft / Elev 13.0 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 54+50, 35' LT (W. Cass St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	16		3 inches of PAVER			
			12 inches of SHELL base			
	14		Medium dense, light to dark gray, poorly-graded fine SAND with silt	HA 1		
			▽			
5	12	SP-SM		SS 2	3-4-7-7 (11)	
	10			SS 3	5-5-6-8 (11)	
	8		Medium dense, gray, clayey fine SAND	SS 4	6-5-6-5 (11)	
10	6	SC				
	4					
	2		Weathered LIMESTONE	SS 5	50/5"	
15	0					
	-2	WLS		SS 6	8-50/2"	
20	-4					
	-6					
	-8			SS 7	50/4"	
25	-10		Bottom of hole at 25.0 feet.			
	-12					
	-14					
	-16					
	-18					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>
>>
>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

BORING ID: SB-03

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/9/18 **COMPLETED** 7/9/18
GROUND ELEVATION 16.5 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
AT TIME OF DRILLING 4.0 ft / Elev 12.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 54+50, 20' RT (W. Cass St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	16		3 inches of ASPHALT	HA 1		
			3 inches of PAVER			
			6 inches of SHELL base			
	14		Medium dense, gray to light gray, poorly-graded fine SAND with silt			
			▽			
5	12	SP-SM		SS 2	5-7-8-5 (15)	
	10			SS 3	4-7-9-12 (16)	
	8			SS 4	5-8-9-8 (17)	
10	6		Very loose, gray, clayey fine SAND			
	4					
	2	SC		SS 5	2-1-1 (2)	
15				ST 6		
	0					
	-2		Weathered LIMESTONE	SS 7	3-3-3 (6)	
20	-4					
	-6					
	-8	WLS		SS 8	1-9-8 (17)	
25	-10					
	-12			SS 9	13-16-50/4"	
30	-14		Bottom of hole at 30.0 feet.			
	-16					
	-18					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80

>>

MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

Soil Profile

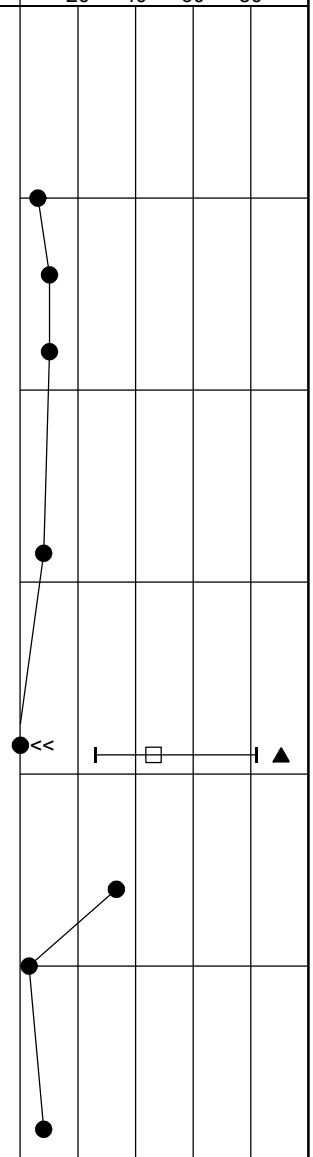
BORING ID: SB-04

MC² Geotechnical • Environmental Materials Testing

CLIENT Woodruff & Sons, Inc.
PROJECT NAME Cypress Street Outfall Regional Stormwater Improvements
PROJECT NUMBER T041704.066
PROJECT LOCATION City of Tampa, Hillsborough County, FL
DATE STARTED 7/6/18 **COMPLETED** 7/6/18
GROUND ELEVATION 17 ft **HOLE SIZE** 4 inches
DRILLING CONTRACTOR Independent Drilling
GROUND WATER LEVELS:
DRILLING METHOD Wet Rotary
▽ **AT TIME OF DRILLING** 3.5 ft / Elev 13.5 ft
LOGGED BY S. Nason **CHECKED BY** J. Hooks
AT END OF DRILLING ---
NOTES Sta. 53+50, 40' RT (W. Cass St.)
AFTER DRILLING ---

DEPTH (ft)	ELEV. (ft)	USCS Symbol	MATERIAL DESCRIPTION	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	RECOVERY % (RQD)
0	17		1 inch of ASPHALT	HA 1		
		SP-SM	Loose to medium dense, pale to grayish brown, light to pinkish gray, poorly-graded fine SAND with silt			
	16					
	14		▽			
5	12			SS 2	3-3-4-4 (7)	
	10			SS 3	4-5-6-6 (11)	
	8			SS 4	5-5-6-8 (11)	
10	6					
	4					
15	2			SS 5	4-5-4 (9)	
	0	CH	Very soft, dark to grayish brown, plastic CLAY			
	-2			SS 6	0-0-0 (0)	
20			Weight of Hammer (18.5'-20.5')			
	-4			ST 7		
	-6	WLS	Weathered LIMESTONE	SS 8	23-22-12-6 (34)	
25	-8			SS 9	1-1-3-9 (4)	
	-10					
	-12			SS 10	12-5-4 (9)	
30			Bottom of hole at 30.0 feet.			
	-14					
	-16					
	-18					

● SPT N VALUE ●
⊕ ORGANIC CONTENT % ⊕
PL MC LL
☐ FINES CONTENT (%) ☐
20 40 60 80



MC2 REPORT W ELEV. T17.066 CYPRESS ST OUTFALL.GPJ MC2.GDT 8/2/18

TEST PROCEDURES

The general field procedures employed by MC Squared, Inc. (**MC²**) are summarized in the American Society for Testing and Materials (ASTM) Standard D420 which is entitled "Investigating and Sampling Soil and Rock". This recommended practice lists recognized methods for determining soil and rock distribution and groundwater conditions. These methods include geophysical and in-situ methods as well as boring.

Standard Drilling Techniques

To obtain subsurface samples, boring are drilled using one of several alternate techniques depending upon the subsurface conditions. Some of these techniques are:

In Soils:

a) Continuous hollow stem augers.
b) Rotary boring using roller cone bits or drag bits, and water or drilling mud to flush the hole.
c) "Hand" augers.

In Rock:

a) Core drilling with diamond-faced, double or triple tube core barrels.
b) Core boring with roller cone bits.

Hollow Stem Augering: A hollow stem auger consists of a hollow steel tube with a continuous exterior spiral flange termed a flight. The auger is turned into the ground, returning the cuttings along the flights. The hollow center permits a variety of sampling and testing tools to be used without removing the auger.

Mud Rotary: In situations where unconsolidated materials are anticipated, the direct-rotary or “mud” rotary method may be used as a more effective method for obtaining soil samples. The fluid used, which is typically stored in an aluminum tub (also known as a “mudtub”), is a mix of water and bentonite, also known as a bentonite slurry or “mud”. This fluid circulates into the borehole and then returns to the mudtub using a pump system. A loss of circulation, partially or otherwise, may signify a void at that sample depth. The key advantage of using this drilling method is that it stabilizes the borehole wall while drilling in unconsolidated formations, due to the buildup of a filter cake on the wall.

Core Drilling: Soil drilling methods are not normally capable of penetrating through hard cemented soil, weathered rock, coarse gravel or boulders, thin rock seams, or the upper surface of sound, continuous rock. Material which cannot be penetrated by auger or rotary soil-drilling methods at a reasonable rate is designated as “refusal material”. Core drilling procedures are required to penetrate and sample refusal materials.

Prior to coring, casing may be set in the drilled hole through the overburden soils, to keep the hole from caving and to prevent excessive water loss. The refusal materials are then cored according to ASTM D-2113 using a diamond-studded bit fastened to the end of a hollow, double or triple tube core barrel. This device is rotated at high speeds, and the cuttings are brought to the surface by circulating water. Core samples of the material penetrated are protected and retained in the swivel-mounted inner tube. Upon completion of each drill run, the core barrel is brought to the surface, the core recovery is measured, and the core is placed, in sequence, in boxes for storage and transported to our laboratory.

Sampling and Testing in Boreholes
Several techniques are used to obtain samples and data in soils in the field; however the most common methods in this area are:

a) Standard Penetrating Testing
b) Undisturbed Sampling
c) Dynamic Cone Penetrometer Testing
d) Water Level Readings

The procedures utilized for this project are presented below.

Standard Penetration Testing: At regular intervals, the drilling tools are removed and soil samples obtained with a standard 2-inch diameter split tube sampler connected to an A or N-size rod. The sampler is first seated 6 inches to penetrate any loose cuttings, and then driven an additional 12 inches with blows of a 140-pound safety hammer falling 30 inches. Generally, the number of hammer blows required to drive the sampler the final 12 inches is designated the "penetration resistance" or "N" value, in blows per foot (bpf). The split barrel sampler is designed to retain the soil penetrated, so that it may be returned to the surface for observation. Representative portions of the soil samples obtained from each split barrel sample are placed in jars, sealed and transported to our laboratory.

The standard penetration test, when properly evaluated, provides an indication of the soil strength and compressibility. The tests are conducted according to ASTM Standard D1586. The depths and N-values of standard penetration tests are shown on the Boring Logs. Split barrel samples are suitable for visual observation and classification tests but are not sufficiently intact for quantitative laboratory testing.

Water Level Readings: Water level readings are normally taken in the boring and are recorded on the Boring Records. In sandy soils, these readings indicate the approximate location of the hydrostatic water level at the time of our field exploration. In clayey soils, the rate of water seepage into the boring is low and it is generally not possible to establish the location of the hydrostatic water level through short-term water level readings. Also, fluctuation in the water level should be expected with variations in precipitation, surface run-off, evaporation, and other factors. For long-term monitoring of water levels, it is necessary to install piezometers.

The water levels reported on the Boring Logs are determined by field crews immediately after the drilling tools are removed, and several hours after the boring are completed, if possible. The time lag is intended to permit stabilization of the groundwater level that may have been disrupted by the drilling operation.

Occasionally the boring will cave-in, preventing water level readings from being obtained or trapping drilling water above the cave-in zone.

BORING LOGS

The subsurface conditions encountered during drilling are reported on a field boring log prepared by the Driller. The log contains information concerning the boring method, samples attempted and recovered, indications of the presence of coarse gravel, cobbles, etc., and observations of groundwater. It also contains the driller's interpretation of the soil conditions between samples. Therefore, these boring records contain both factual and interpretive information. The field boring records are kept on file in our office.

After the drilling is completed a geotechnical professional classifies the soil samples and prepares the final Boring Logs, which are the basis for our evaluations and recommendations.

SOIL CLASSIFICATION

Soil classifications provide a general guide to the engineering properties of various soil types and enable the engineer to apply his past experience to current problems. In our investigations, samples obtained during drilling operations are examined in our laboratory and visually classified by an engineer. The soils are classified according to consistency (based on number of blows from standard penetration tests), color and texture. These classification descriptions are included on our Boring Logs.

The classification system discussed above is primarily qualitative and for detailed soil classification two laboratory tests are necessary; grain size tests and plasticity tests. Using these test results the soil can be classified according to the AASHTO or Unified Classification Systems (ASTM D-2487). Each of these classification systems and the in-place physical soil properties provides an index for estimating the soil's behavior. The soil classification and physical properties are presented in this report.

The following table presents criteria that are typically utilized in the classification and description of soil and rock samples for preparation of the Boring Logs.

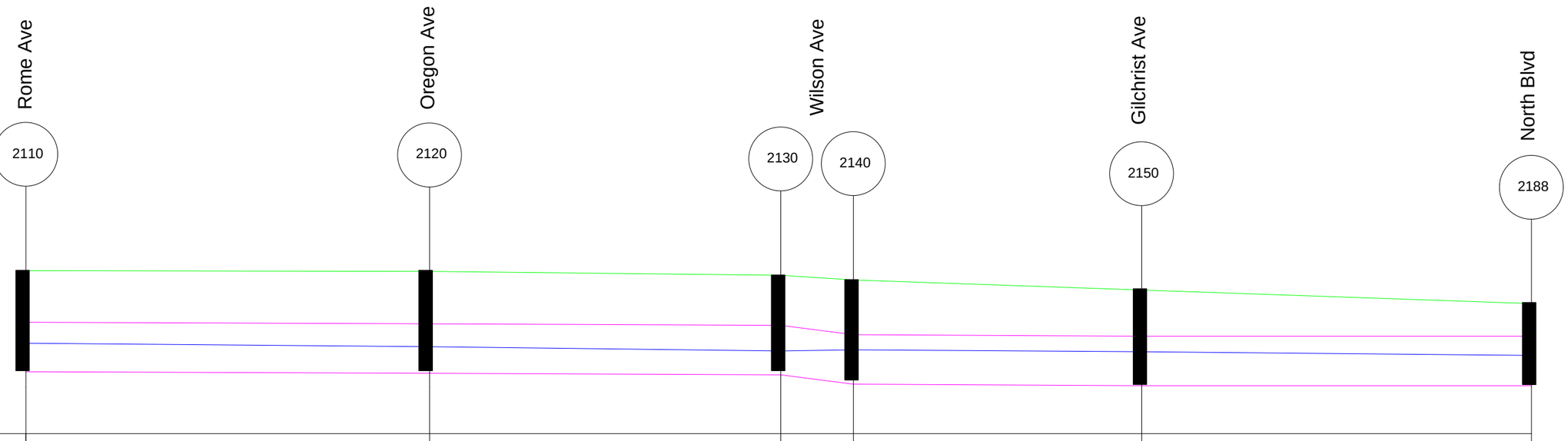
Relative Density of Cohesionless Soils From Standard Penetration Test		**Consistency of Cohesive Soils**	
Very Loose	≤ 4 bpf	Very Soft	≤ 2 bpf
Loose	5 - 10 bpf	Soft	3 - 4 bpf
Medium Dense	11 - 30 bpf	Firm	5 - 8 bpf
Dense	31 - 50 bpf	Stiff	9 - 15 bpf
Very Dense	> 50 bpf	Very Stiff	16 - 30 bpf
		Hard	30 – 50 bpf
(bpf = blows per foot, ASTM D 1586)		Very Hard	> 50 bpf

Relative Hardness of Rock		**Particle Size Identification**	
Very Soft	Very soft rock disintegrates or easily compresses to touch; can be hard to very hard soil.	Boulders	Larger than 12"
Soft	May be broken with fingers.	Cobbles	3" - 12"
Moderately Soft	May be scratched with a nail, corners and edges may be broken with fingers.	Gravel	
		Coarse	3/4" - 3"
		Fine	4.76mm - 3/4"
Moderately Hard	Light blow of hammer required to break samples.	Sand	
		Coarse	2.0 - 4.76 mm
		Medium	0.42 - 2.00 mm
		Fine	0.42 - 0.074 mm
Hard	Hard blow of hammer required to break sample.	Fines (Silt or Clay)	Smaller than 0.074 mm

Rock Continuity		**Relative Quality of Rocks**	
RECOVERY = $\frac{\text{Total Length of Core}}{\text{Length of Core Run}}$ x 100 %		**RQD** = $\frac{\text{Total core, counting only pieces > 4" long}}{\text{Length of Core Run}}$ x 100 %	
Description	Core Recovery %	Description	RQD %
Incompetent	Less than 40	Very Poor	0 - 25 %
Competent	40 - 70	Poor	25 - 50 %
Fairly Continuous	71 - 90	Fair	50 - 75 %
Continuous	91 - 100	Good	75 - 90 %
		Excellent	90 - 100 %

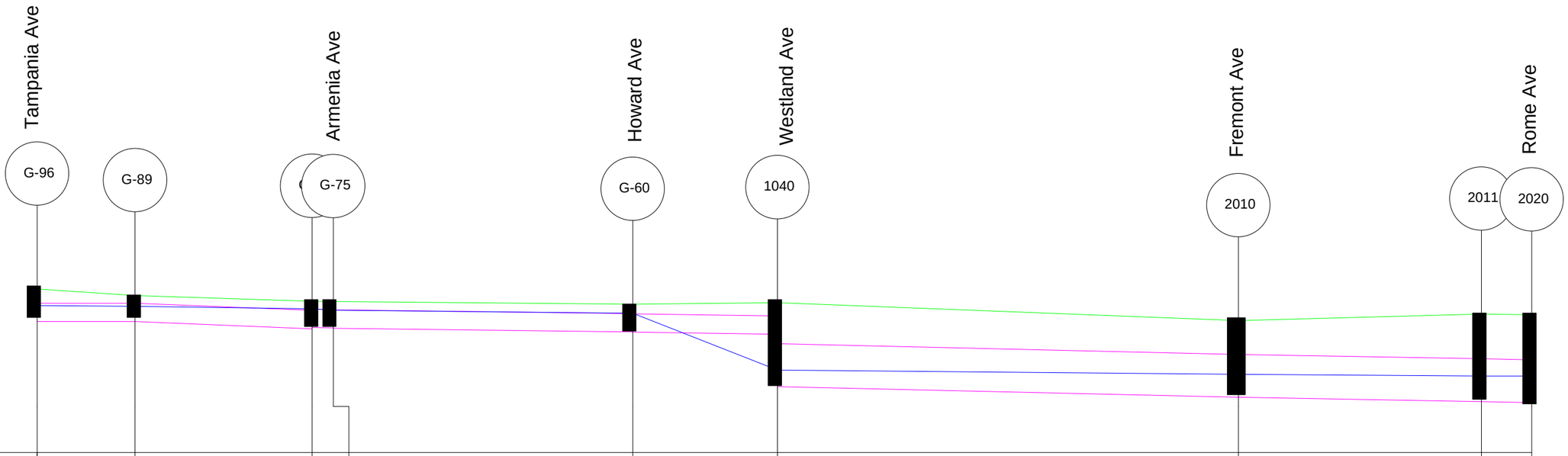
Appendix B

Proposed Hydraulic Grade Line (HGL) Profiles for the 25-year / 24-hour Storm Event



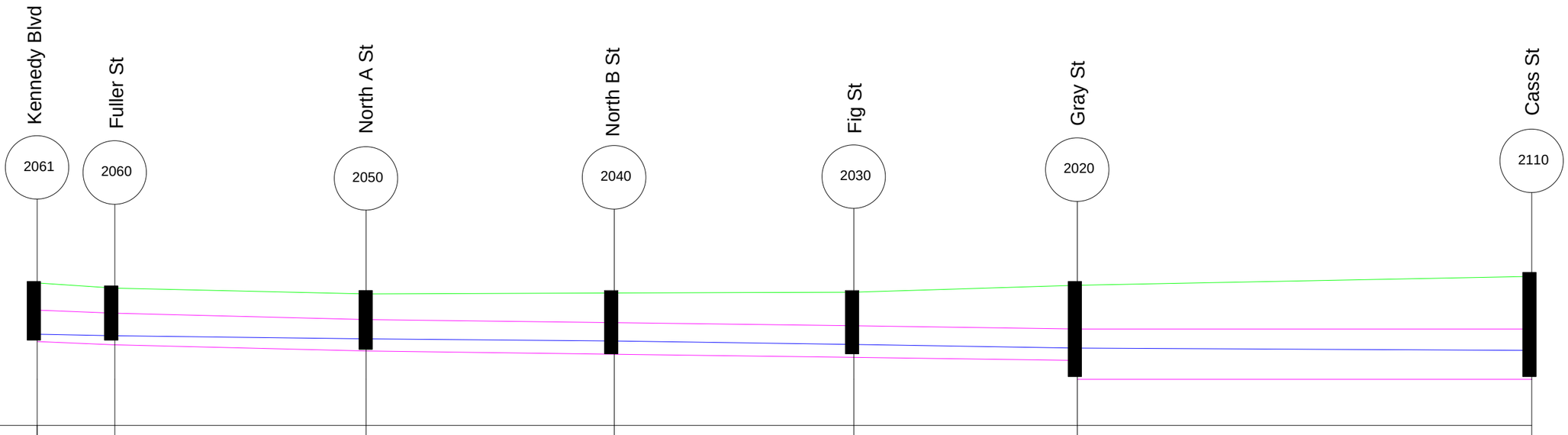
Datum RL 0.000

Water Elevation	7.110	6.540	6.540	5.875	5.875	6.035	6.035	5.725	5.725	5.155
Invert Elevation	2.500	2.250	2.250	2.000	2.000	0.500	0.500	0.250	0.250	0.250
Ground Surface	18.850	18.730		18.090		17.340		15.700		13.510



Datum RL 2.500

| | | |



Datum RL 2.500

Water Elevation	9.675	9.420	9.420	8.935	8.935	8.600	8.600	8.050	8.050	7.455	7.455	7.110	
Invert Elevation	8.500	8.000	8.000	7.000	7.000	6.500	6.500	6.000	6.000	5.500	2.500	2.500	
Ground Surface	17.820	17.000		16.070		16.240		16.360		17.460		18.850	

Appendix Q. Relevant As-built Plans

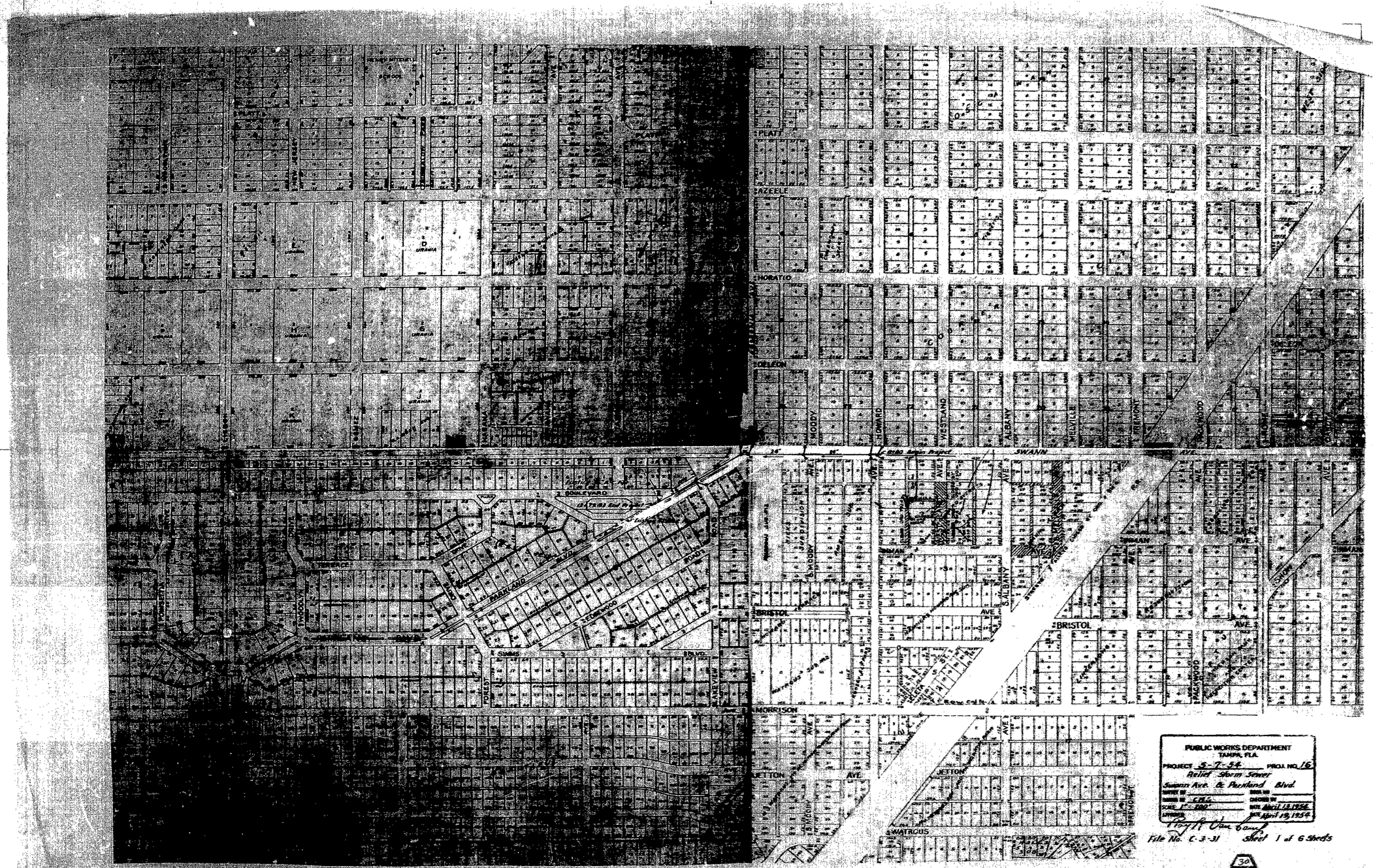
Q.1 Relief Storm Sewer – Swann Ave and Parkland Blvd

RELIEF STORM SEWER
SWANN AVE. AND PARKLAND BOULEVARD

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA FLORIDA
SCHEDULE S-7-54 PROJECT NO. 16.

File No. C-3-31

30
77


PLATT
AZEELE
HORATIO
DORCHESTER
MORRISON
JETTON
BRISTOL
SWANN
AVE.
MOODY
HOWARD
WESTLAND
S. ALBANY
MELVILLE
PIEDMONT
PALMWOOD
BOULEVARD
PARKLAND
CORNWOOD
SIMMS
BLVD.
POWELL
LAKEVIEW
SWATROSS
URANIA
PUBLIC WORKS DEPARTMENT
TAMPA, FLA.
PROJECT S-7-54 PROJ. NO. 16
Relief Storm Sewer
Swann Ave. & Parkland Blvd.
SCALE 1" = 200'
DATE April 13, 1954
DATE April 19, 1954
File No. C-3-31
Sheet 1 of 6 Sheets

PUBLIC WORKS DEPARTMENT
TAMPA, FLA.

PROJECT: 3-7-44 PROJ. NO. 16

Relief Storm Sewer
Swann Ave. & Parkland Blvd.

SURVEY BY: _____ DRAWN BY: _____

TRACED BY: C.M.S. CHECKED BY: _____

DATE: 10-20-43 / 12-27-43 DATE: April 13, 1944

AS BUILT DATE: April 19, 1944

Troy H. Cox Engr.

File No. C.S.-31 Sheet 2 of 6 Sheets

PARKLAND BLVD.

SWANN AVE.

ARMENIA AVE.

LAKEVIEW

Natural Sod Surface or Asphalt Blvd. with Lime Rock Base.
Contractor to replace destroyed surface with 6" Compacted Shell and 2" Type S Asphalt.

Std. Inlet E. Pipe E Sta. 9+16
Top El. 17.93
Invert El. 17.24
Bottom El. 13.91
15" R.C. Inlet Pipe
Inv. El @ Inlet 13.41
Inv. El @ M.H. 13.06

Concrete Collar Sta. 9+30
For details see Sheet No. 6

Std. Inlet E. Pipe E Sta. 9+24
Top El. 17.99
Invert El. 17.36
Bottom El. 13.93
15" R.C. Inlet Pipe
Inv. El @ Inlet 13.93
Inv. El @ M.H. 13.76
(Under gas line)

Std. Inlet E. Pipe E Sta. 10+40
Top El. 18.37
Invert El. 17.50
Bottom El. 14.05
15" R.C. Inlet Pipe
Inv. El @ Inlet 14.05
Inv. El @ M.H. 14.97 (Under water line)

Existing 24" Storm Sewer

Existing 18" Storm Sewer

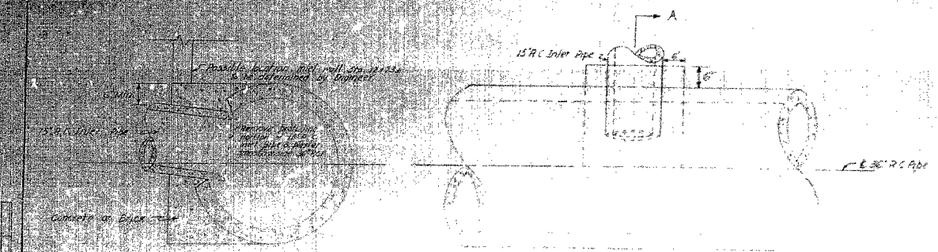
Existing Block with Lime Rock Base. Contractor to make a transverse surface with 6" Compacted Shell & Type S Asphalt Cont. as Inter. Asphalt Surface

Existing 6" Water Main

Existing 8" Water Main

Existing 8" Water Main

Existing 8



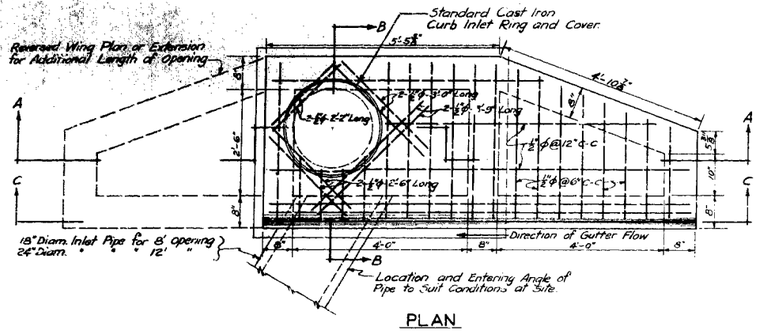
SECTION A-A

DETAIL OF COLLAR
Sta. 34+30 & Sta. 12 + 42

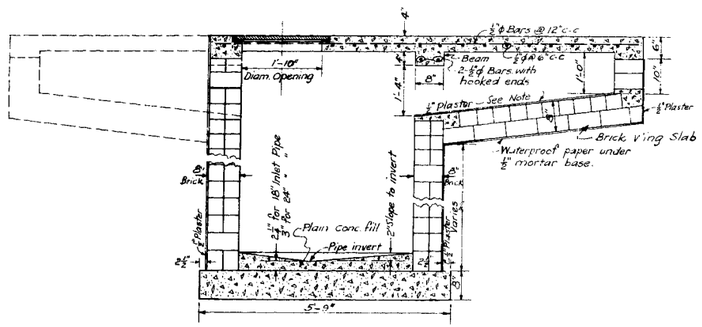
Scale ¾"=1'-0

GENERAL CONSTRUCTION NOTES

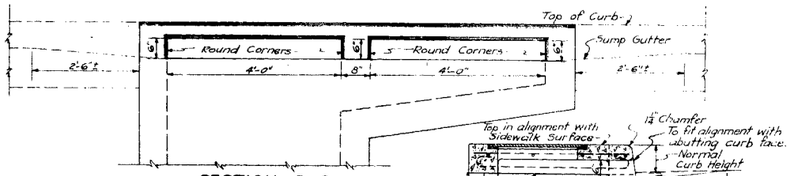
Manhole and inlet walls shall be built laid in Portland cement mortar and shall be plastered on the outside with 1:2 cm cement mortar to a minimum thickness before backfilling shall be as follows: for depth of invert less than 8' plaster to a minimum finish ceiling 8" for depth of invert more than 8' plaster to finish ceiling 12". Brick to be radially laid with walls shall be in stretcher courses, with every sixth course a header course. Height of each course shall not exceed 3". Concrete for bottom shall be poured to conform curves of pipe sizes and shall be of proportions of 1:2:4 by loose measurement.



PLAN

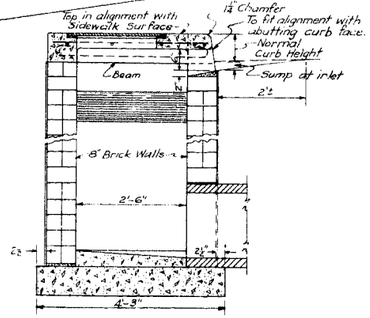


SECTION A-A



SECTION C-C

BAR SCHEDULE FOR TOP SLAB			
No.	SIZE	LOCATION	LENGTH
7	⅝"ϕ	Transverse Bars	3'-6"
1	"	Ditto	3'-4"
1	"	"	3'-2"
1	"	"	3'-0"
1	"	"	2'-10"
1	"	"	2'-8"
1	"	"	2'-6"
1	"	"	2'-4"
1	"	"	2'-2"
2	"	"	1'-0"
2	"	"	1'-4"
3	"	Longitudinal Bars	9'-10½"
1	"	Ditto	6'-3"
1	"	"	6'-9"
2	"	Diagonal Bars	3'-9"
2	"	Ditto	3'-0"
2	"	"	2'-6"
2	"	"	2'-2"

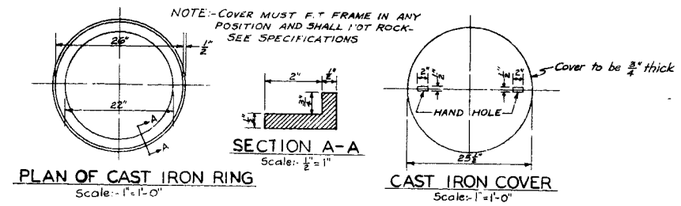


SECTION B-B

SPECIAL STORM WATER CURB INLET

Scale:- ¾" = 1'-0"

For General Construction Notes, See Sheet No. 4.

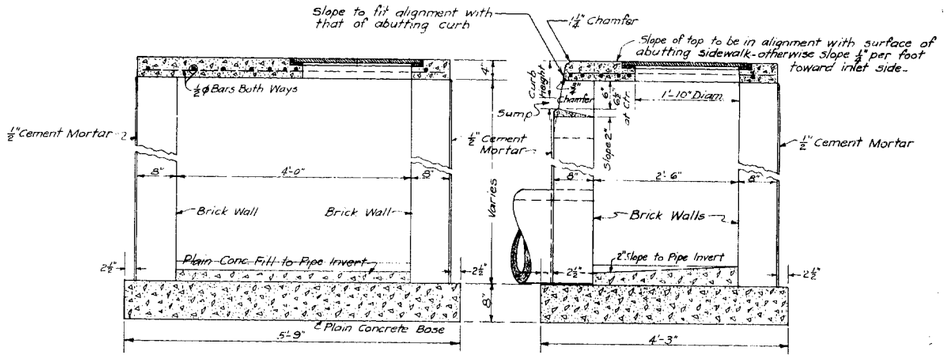


PLAN OF CAST IRON RING
Scale:- 1"=1'-0"

SECTION A-A
Scale:- ½"=1"

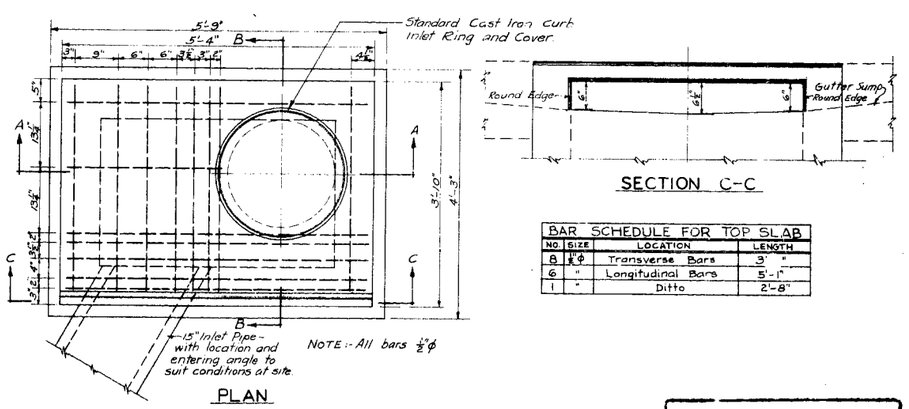
CAST IRON COVER
Scale:- 1"=1'-0"

STANDARD CAST IRON RING AND COVER —FOR CURB INLETS—



SECTION A-A

SECTION B-B



PLAN

SECTION C-C

BAR SCHEDULE FOR TOP SLAB			
NO.	SIZE	LOCATION	LENGTH
8	½"ϕ	Transverse Bars	3' "
6	"	Longitudinal Bars	5'-1"
1	"	Ditto	2'-8"

STANDARD STORM WATER CURB INLET

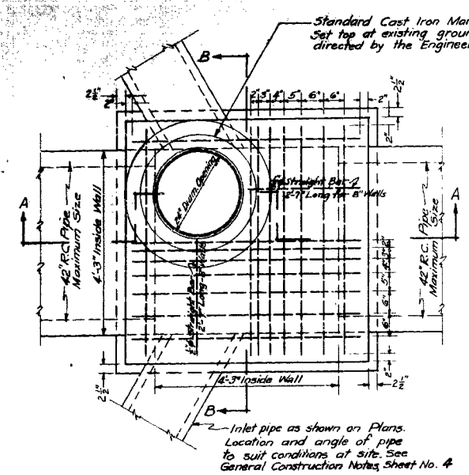
Scale:- 1"=1'-0"

For General Construction Notes, See Sheet No. 4.

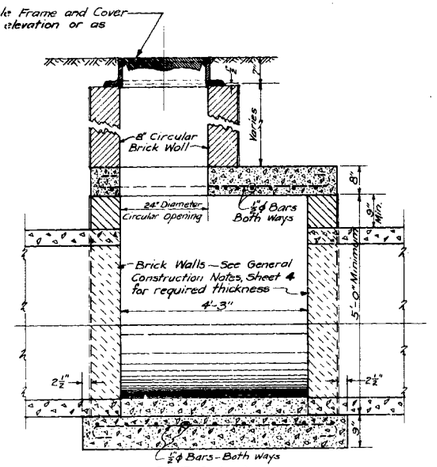
PUBLIC WORKS DEPARTMENT
TAMPA, FLA.
PROJECT S-7-34 PROJ. NO. 16
Relief Storm Sewer
Swann Ave. & Parkland Blvd.
SURVEY BY _____ BOOK NO. _____
DRAWN BY _____ CHECKED BY _____
CODE As Shown DATE April 19, 1934
APPROVED _____ DATE April 19, 1934
Chief Engineer

30/17

File No. C-3-31 Sheet 5 of 6 Sheets

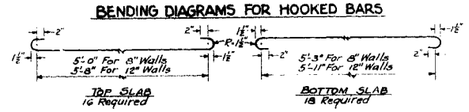


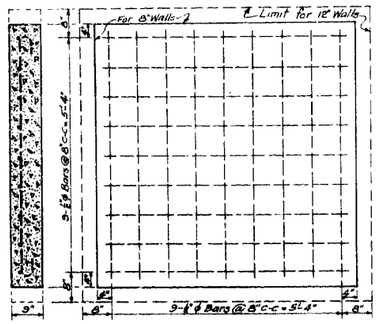
PLAN



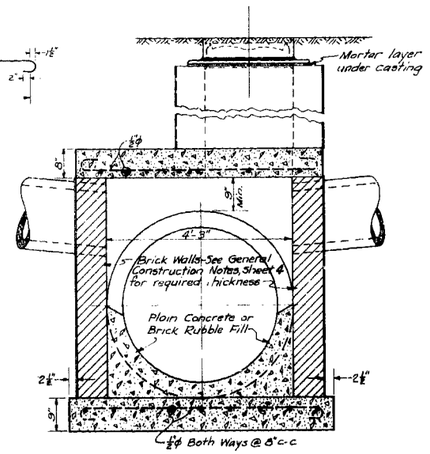
SECTION A-A

BENDING DIAGRAMS FOR HOOKED BARS





PLAN OF BOTTOM SLAB

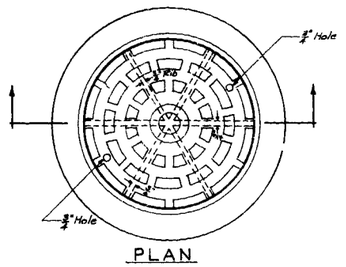


SECTION B-B

TYPE "BX-2" MANHOLE

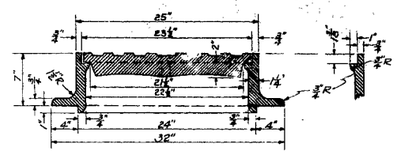
Scale:- ½" = 1'-0"

For General Construction Notes, See Sheet No. 4



PLAN

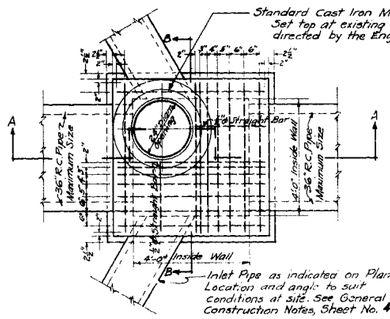
NOTE :- Cover must fit the frame in any position and shall not rock. See Specifications.



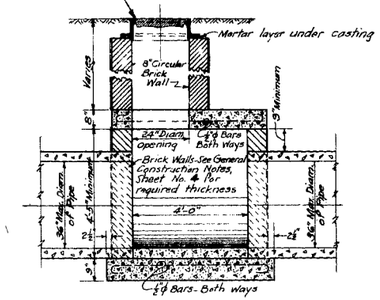
SECTION

STANDARD CAST IRON MANHOLE FRAME AND COVER

Scale:- 1½" = 1'-0"

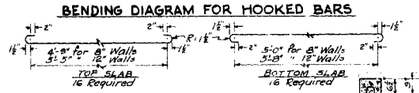


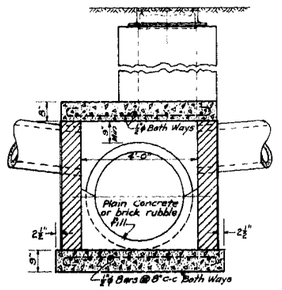
PLAN



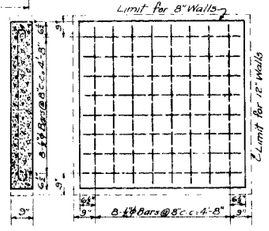
SECTION A-A

BENDING DIAGRAM FOR HOOKED BARS





SECTION B-B



PLAN OF BOTTOM SLAB

TYPE "BX-1" MANHOLE

Scale:- ½" = 1'-0"

For General Construction Notes, See Sheet No. 4

PUBLIC WORKS DEPARTMENT
TAMPA, FLA

PROJECT S-7-54 PROJ. NO. 16
Relief Storm Sewer
Swann Ave. & Parkland Blvd.

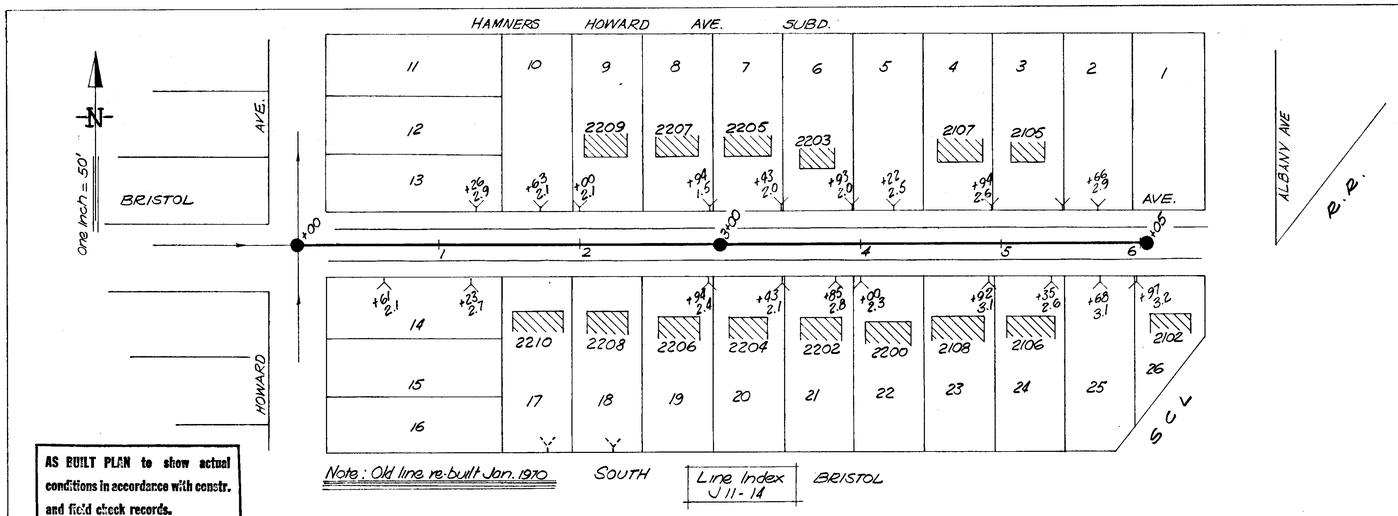
SURVEY BY _____ BOOK NO. _____
DRAWN BY _____ CHECKED BY _____
SCALE As Shown DATE April 12, 1954
APPROVED _____ DATE April 19, 1954

30
17

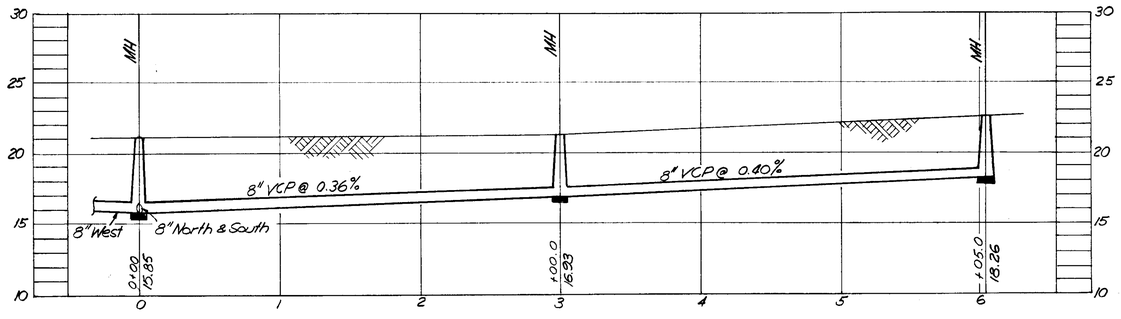
Roy R Van Landingham

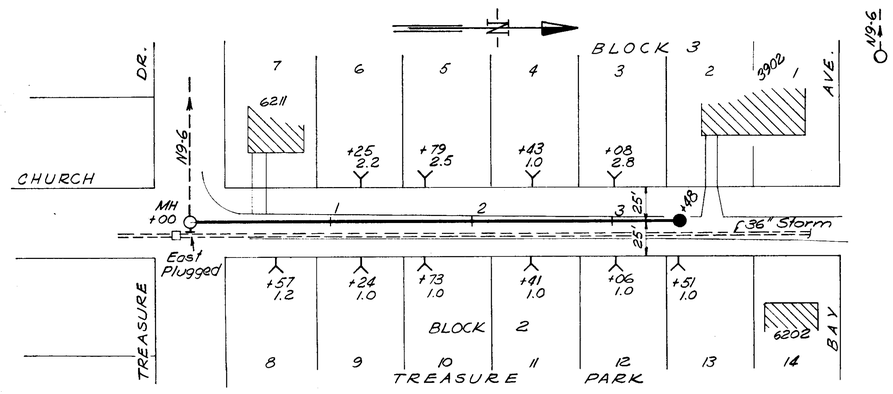
File No. C-3-41 Sheet 6 of 6 Sheets

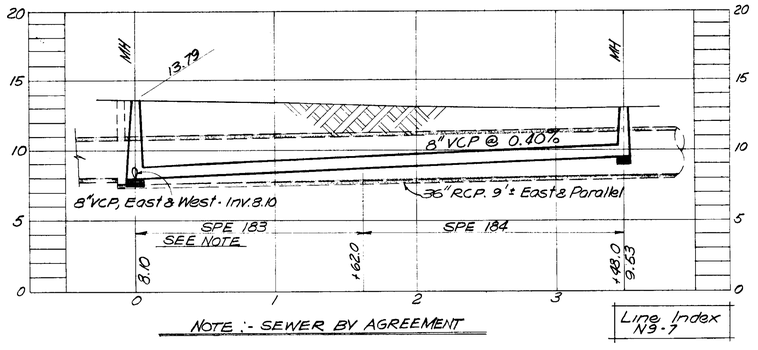
Q.2 City of Tampa Sewer Improvements



AS BUILT PLAN to show actual conditions in accordance with constr. and field check records.

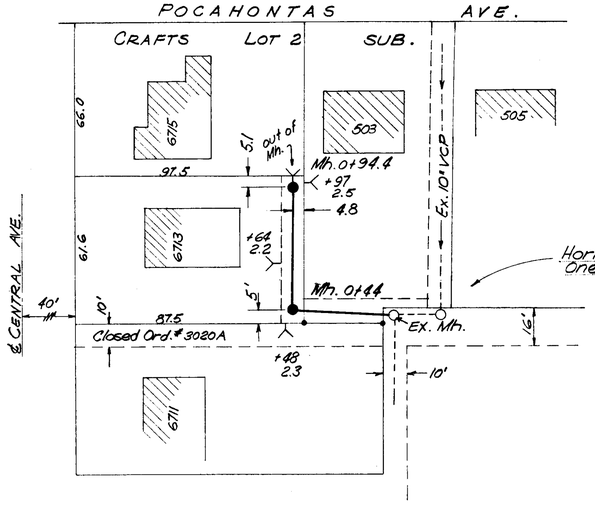




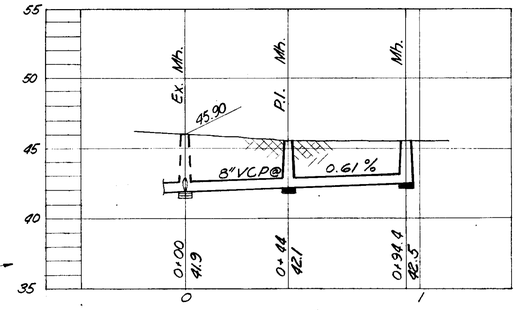


NOTE :- SEWER BY AGREEMENT

Line Index N9-7



Horiz. Scale One Inch = 30'



Line E12-42
SPE # 181 - WO # 2166

AS BUILT PLAN to show actual conditions in accordance with constr. and field check records.

SEWER LINE LOCATION	
SEC. MAP No.	LINE No.
J11	14
N9	7

SEWER LINE LOCATION	
SEC. MAP No.	LINE No.
E12	42

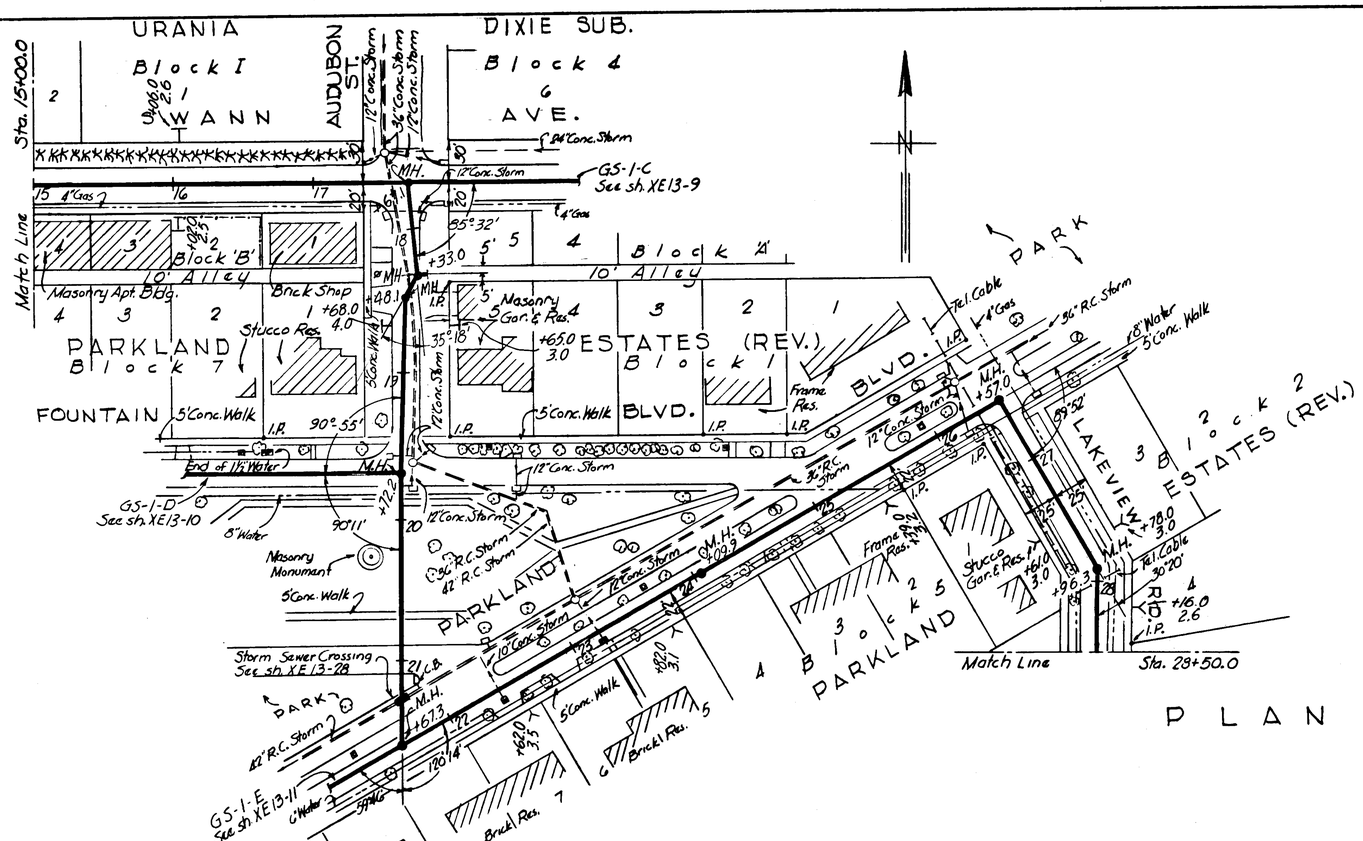
CITY OF TAMPA, FLORIDA
RENEWAL & REPLACEMENT
SEWER IMPROVEMENTS

J11-14 BRISTOL AVE. — HOWARD to ALBANY (W.O.2184)

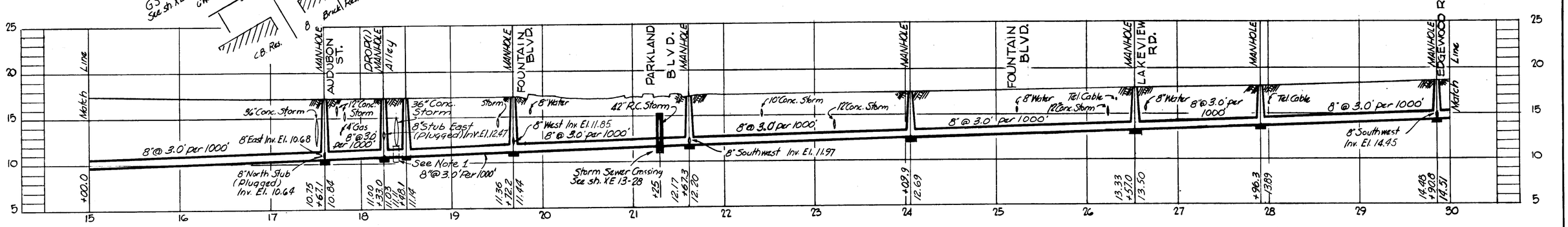
N9-7 CHURCH ST. — TREASURE DR. TO BAY AVE.

E12-42
EASEMENT: EAST OF CENTRAL AVE. & SOUTH OF POCHONTAS AVE. (SPE. 181) W.O.2166

23-27

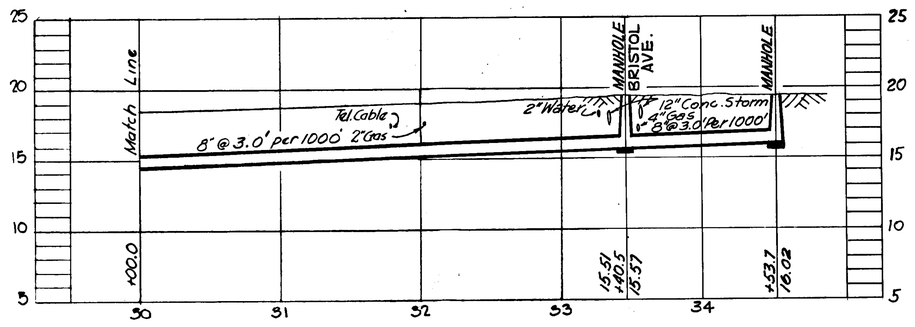


PLAN



PROFILE

GS-1



GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

NOTE:
1- 14'-4" Length of C.I. Pipe with encasement (Class D conc.)
2. All paving Asph. Block with Conc. Curb & Gutter.
3. All paving replaced with 1½" Cold Mix Pavement.

AS-BUILT PLAN
Revised to show actual conditions according to construction record as of (R.V.J. 5-3-56

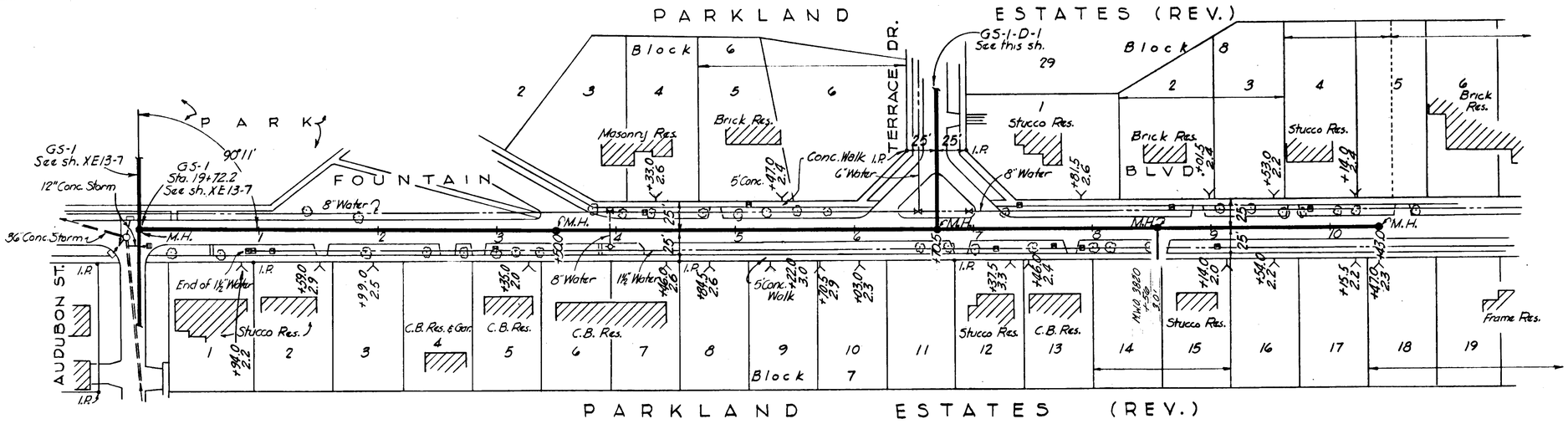
CITY OF TAMPA, FLORIDA
SEWER IMPROVEMENTS

DIVISION XE13

GS-1
STA. 15+00 TO STA. 32+16

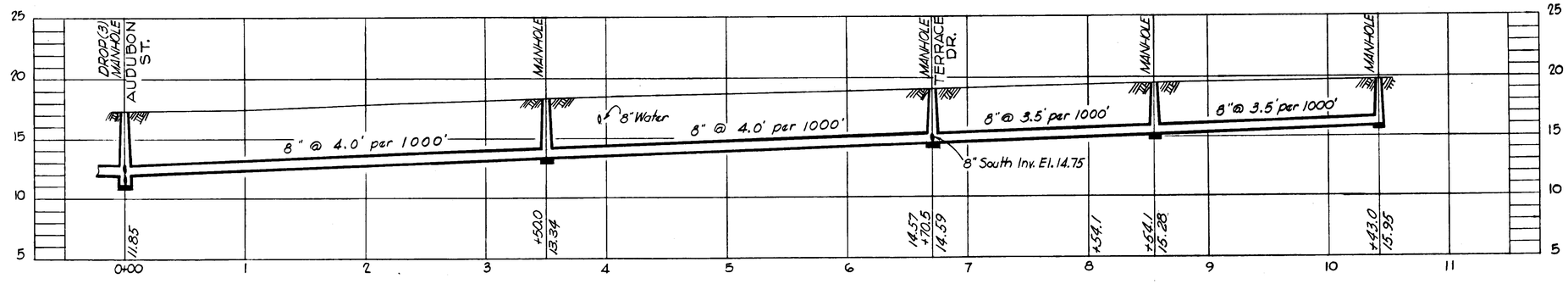
DES. C.M.T. DR. C.M.T. CKD. E.E.S. DATE: NOV. 1954	SCALE 50 0 50 100 1" = 50	SHEET XE13-7 OF 30

62-7

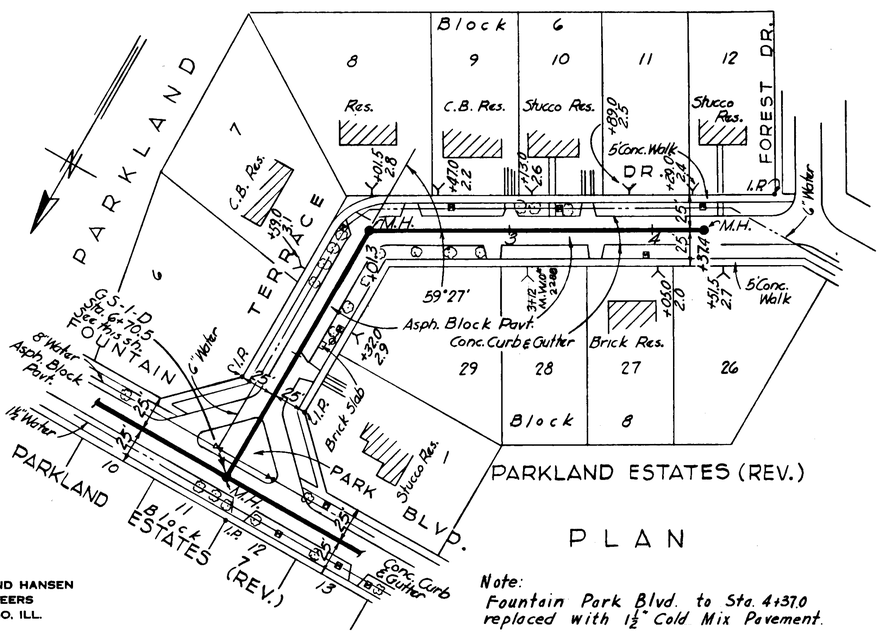


NOTE:

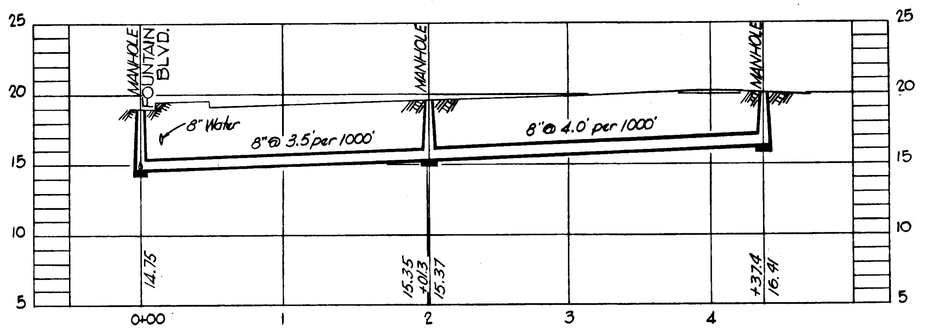
1. Asph. Block Pavt., Conc Curb & Gutter on Fountain Blvd. West to MacDill Ave.
2. ----- Property lines as indicated by Hillsborough County Tax Records.
3. Audubon to Sta. 10+42.0 replaced with 1½ Cold Mix Pavement.



PROFILE



Note:
Fountain Park Blvd. to Sta. 4+37.0 replaced with 1½" Cold Mix Pavement.



PROFILE
GS-I-D-1

AS-BUILT PLAN
Revised to show actual conditions according to construction records as of (R.V.J. 5-4-56)

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

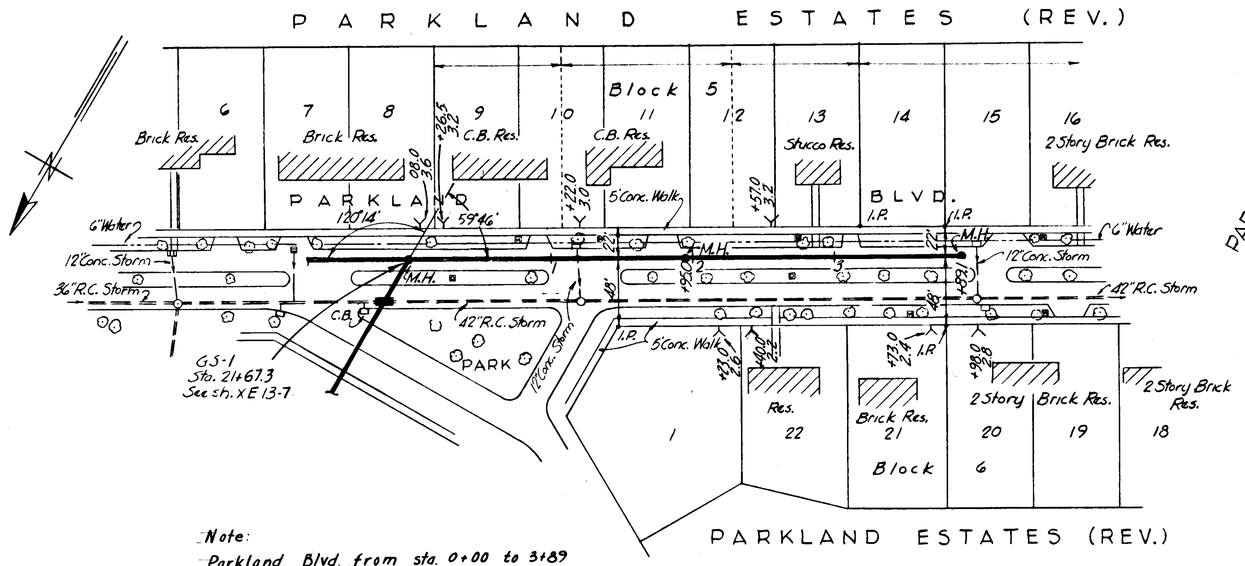
CITY OF TAMPA, FLORIDA
SEWER IMPROVEMENTS

DIVISION XE13

GS-I-D & GS-I-D-1

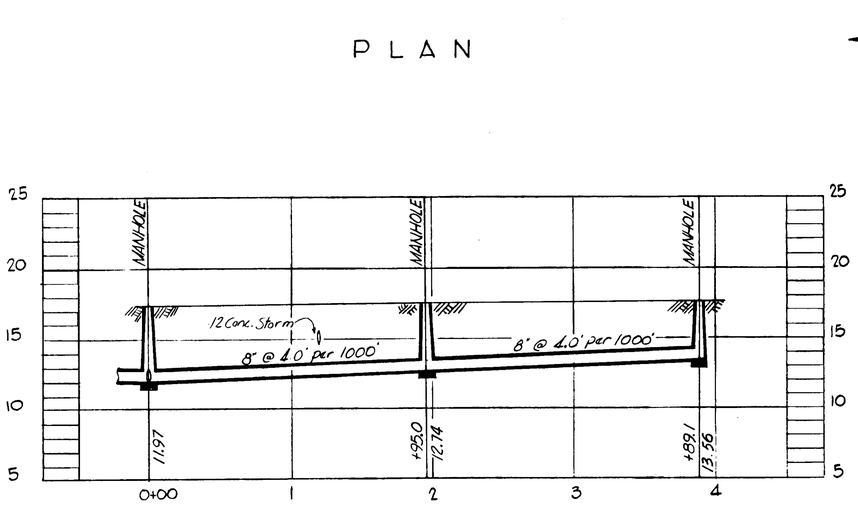
DES. C.M.T.	SCALE	SHEET
DR. C.M.T.	50 0 50 100 1"=50'	XE13-10
CKD. E.E.S.		OF 30
DATE: NOV. 1954		

62-10

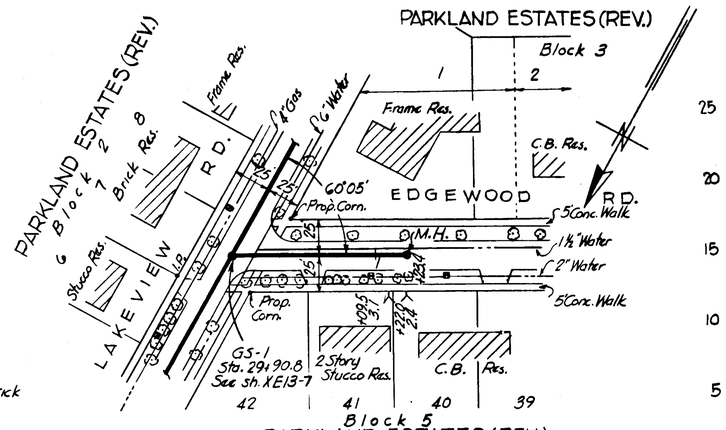


Note:
Parkland Blvd. from sta. 0+00 to 3+89 replaced with 1½" Cold Mix Pavement.

PLAN

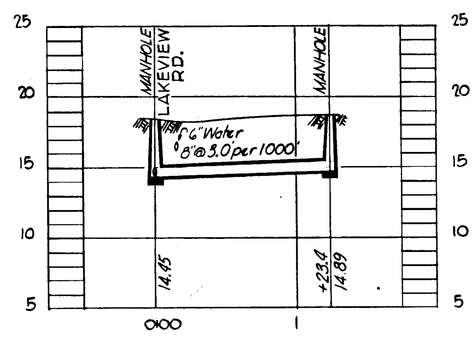


PROFILE
GS-1-E

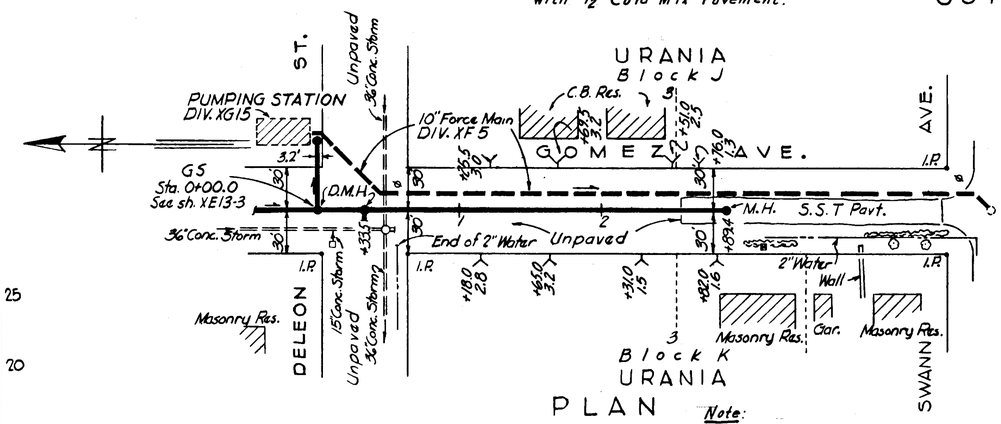


PLAN

Note:
Lakeview to Sta. 1+23.5 replaced with 1½" Cold Mix Pavement.

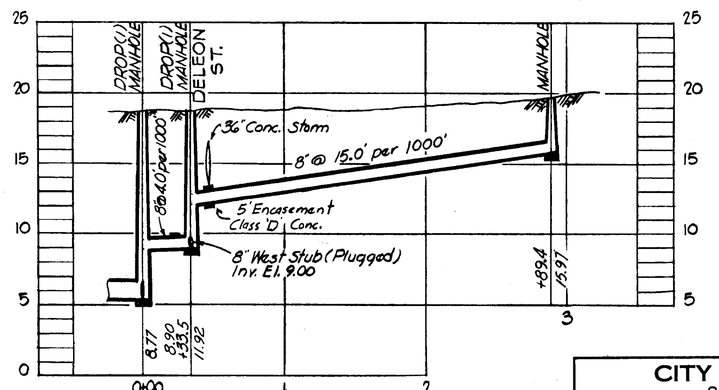


PROFILE
GS-1-F



PLAN

Note:
Gomez Ave. - Deleon to Sta. 2+89.4 replaced with Shell Pavement.



PROFILE
GS-13

NOTE:
1. All streets, excepting Deleon & Gomez, asphalt block pavt. with conc. curb & gutter.
2. ----- Property lines as indicated by Hillsborough County Tax Records.

AS-BUILT PLAN
Revised to show actual conditions according to construction records as of (R.V. J 5-4.56)

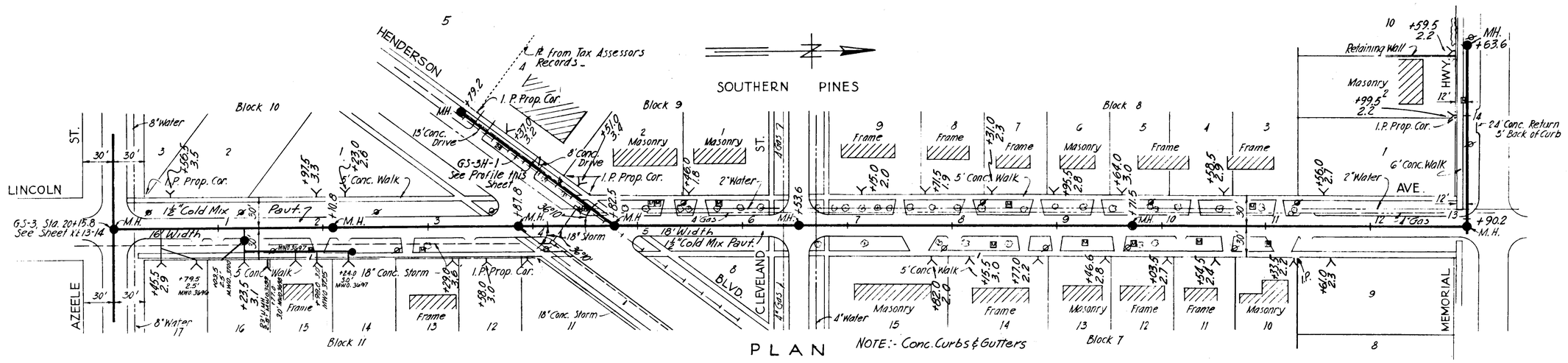
GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

CITY OF TAMPA, FLORIDA
SEWER IMPROVEMENTS
DIVISION XE13

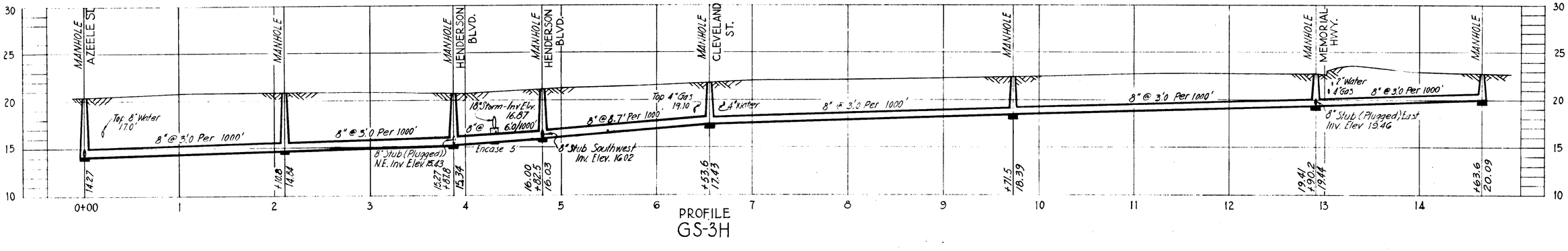
GS-1-E, GS-1-F & GS-13

DES. C.M.T.-E.E.S.	SCALE	SHEET
DR. C.M.T.	50 0 50 100 1" = 50'	XE13-11
CKD. E.E.S.		OF 30
DATE: DEC. 1954		

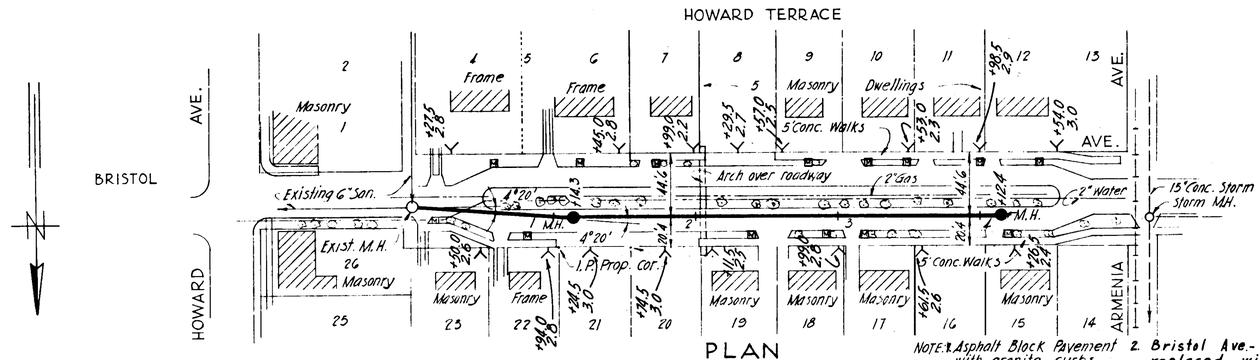
62-11



PLAN

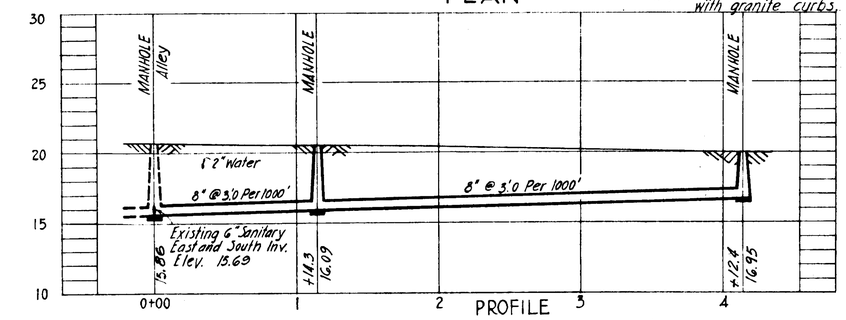


PROFILE
GS-3H

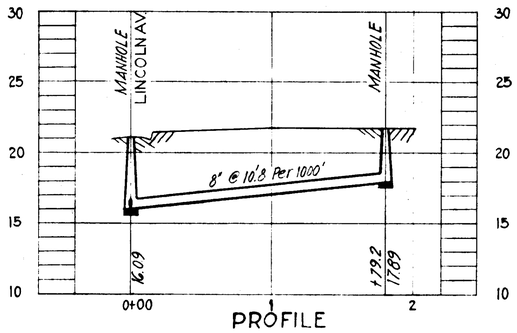


PLAN

NOTE: 1. Asphalt Block Pavement with granite curbs. 2. Bristol Ave.- Sta. 0+00 to Sta. 4+14.0 replaced with 1½" Cold Mix Pav't.



PROFILE
XHx-3



PROFILE
GS-3H-1

AS-BUILT PLAN
Revised to show actual conditions according to construction record as of (R.W.J. 5-16-56)

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

CITY OF TAMPA, FLORIDA
SEWER IMPROVEMENTS
DIVISION XE13

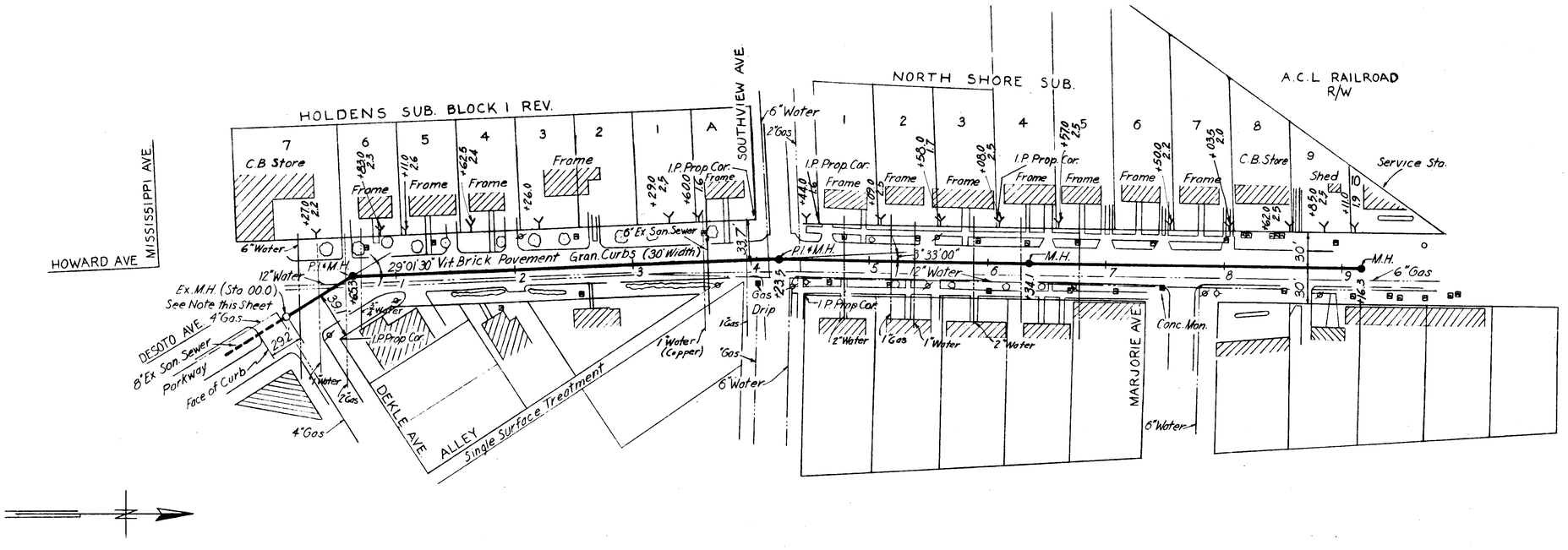
GS-3H, GS-3H-1 & XHx3

DES. C.M.T. & E.C.A.
DR. E.C.A.
CKD. E.E.S
DATE: NOV. 1954

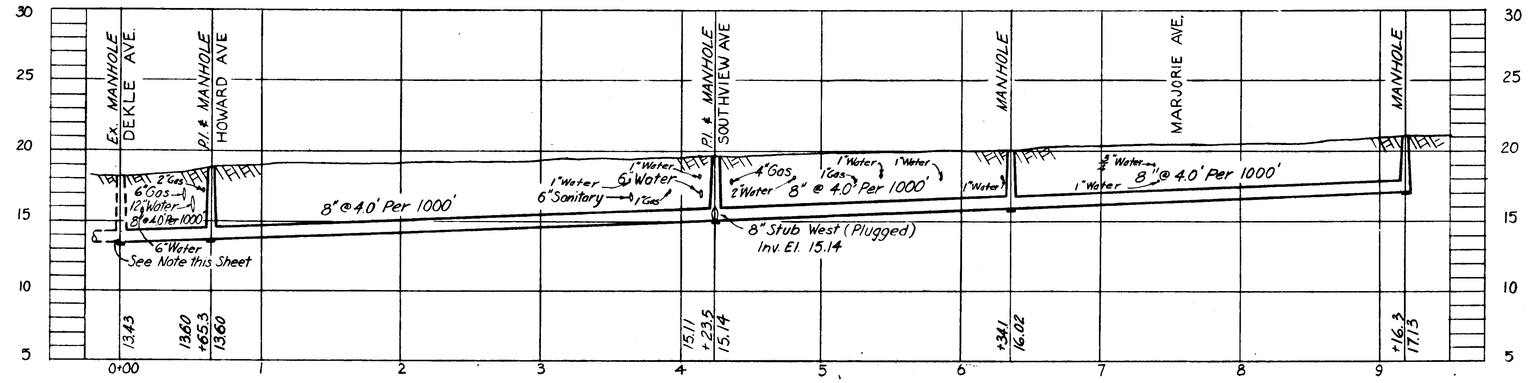
SCALE 50 0 50 100 1" = 50'

SHEET XE13-20 OF 30

62-20



PLAN



PROFILE
XH x 4

NOTE:
Ex. M.H. broken where required and new flow channel Northwest formed.
Property on Eastside of Howard Ave. is served by sewers in alleys east of Howard Ave.

GREELEY AND HANSEN
ENGINEERS
CHICAGO, ILL.

- AS-BUILT PLAN -
Revised to show actual conditions according to construction record as of
(A.F.L. 3-28-56)

CITY OF TAMPA, FLORIDA
SEWER IMPROVEMENTS
DIVISION XE12

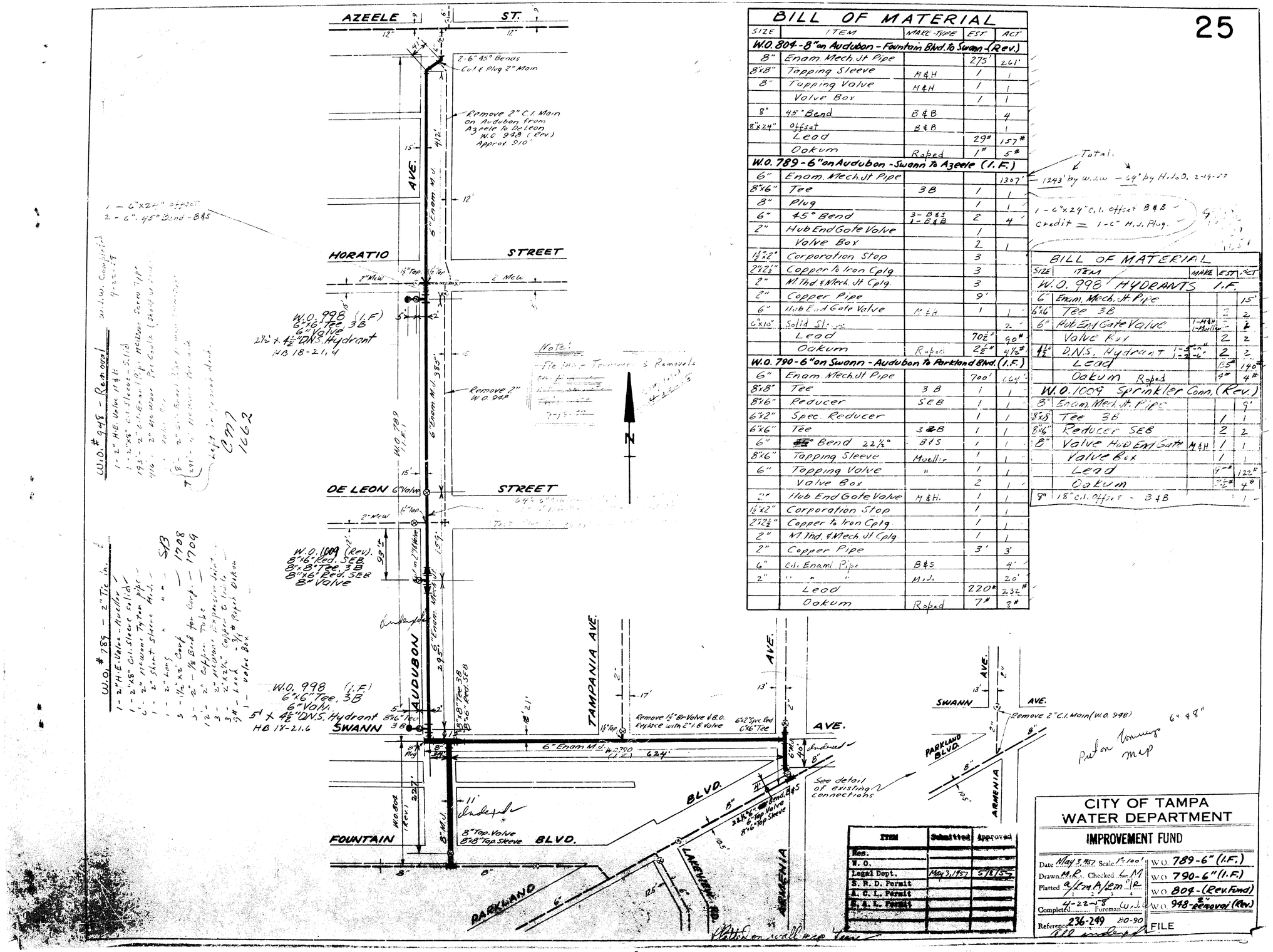
XH x 4

DES. M.R.
DR. M.R.
CKD. R.E.F.
DATE:
OCT. 1954

SCALE
50 0 50 100 1"= 50'

SHEET
XE12-43
OF 45

Q.3 City of Tampa Water Department Improvements (Audubon Ave)



BILL OF MATERIAL

SIZE	ITEM	MAKE-TYPE	EST.	ACT.
W.O. 804 - 8" on Audubon - Fountain Blvd. to Swann - (Rev.)				
8"	Enam. Mech. Jt Pipe		275'	261'
8"x8"	Tapping Sleeve	M&H	1	1
8"	Tapping Valve	M&H	1	1
	Valve Box		1	1
8"	45° Bend	B&B		4
8"x24"	Offset	B&B		1
	Lead		29#	157#
	Oakum	Roped	1"	5#
W.O. 789 - 6" on Audubon - Swann to Azeele (I.F.)				
6"	Enam. Mech. Jt Pipe			1307'
8"x6"	Tee	3B	1	1
8"	Plug		1	1
6"	45° Bend	3 - B&S 1 - B&B	2	4
2"	Hub End Gate Valve		1	
	Valve Box		2	1
1½"x2"	Corporation Stop		3	
2"x2½"	Copper to Iron Cplg		3	
2"	M. Thd & Mech. Jt Cplg.		3	
2"	Copper Pipe		9'	
6"	Hub End Gate Valve	M&H	1	1
6"x10"	Solid Sl.			2
	Lead		70½#	90#
	Oakum	Roped	2½#	4½#
W.O. 790 - 6" on Swann - Audubon to Parkland Blvd. (I.F.)				
6"	Enam. Mech. Jt Pipe		700'	664'
8"x8"	Tee	3B	1	1
8"x6"	Reducer	SEB	1	1
6"x2"	Spec. Reducer		1	1
6"x6"	Tee	3B	1	1
6"	45° Bend 22½°	B&S	1	1
8"x6"	Tapping Sleeve	Mueller	1	1
6"	Tapping Valve	"	1	1
	Valve Box		2	1
2"	Hub End Gate Valve	M&H	1	1
1½"x2"	Corporation Stop		1	1
2"x2½"	Copper to Iron Cplg		1	1
2"	M. Thd. & Mech. Jt Cplg		1	1
2"	Copper Pipe		3'	3'
6"	C.I. Enami. Pipe	B&S		4'
2"	" " "	M.J.		20'
	Lead		220#	232#
	Oakum	Roped	7"	3#

Total:
1243' by W.J.W. — 64' by H.J.O. 2-19-57
1 - 6"x24" C.I. offset B&B
credit = 1 - 6" M.J. Plug.

BILL OF MATERIAL

SIZE	ITEM	MAKE	EST.	ACT.
W.O. 998 HYDRANTS I.F.				
6"	Enam. Mech. Jt. Pipe			15'
6"x6"	Tee 3B		2	2
6"	Hub End Gate Valve	1-M&H 1-Mueller	2	2
	Valve Box		2	2
4½"	D.N.S. Hydrant	1-5'-6" 1-2'-6"	2	2
	Lead		135#	140#
	Oakum Roped		4"	4#
W.O. 1009 Sprinkler Conn. (Rev.)				
8"	Enam. Mech. Jt. Pipe			9'
8"x8	Tee 3B		1	1
8"x6"	Reducer SEB		2	2
8"	Valve Hub End Gate	M&H	1	1
	Valve Box		1	1
	Lead		7"-#	122#
	Oakum		1"-½	4#
8"	18" C.I. Offset - B&B			1

ITEM	Submitted	Approved
Res.		
W. O.		
Legal Dept.	May 3, 1957	5/6/57
S. R. D. Permit		
A. C. L. Permit		
F. A. L. Permit		

CITY OF TAMPA
WATER DEPARTMENT
IMPROVEMENT FUND

Date May 3, 1957 Scale 1" = 100'
Drawn M.P. Checked
Plotted 1 2 3 4
Completed Foreman
Reference 236-249 20-90

W.O. 789-6" (I.F.)
W.O. 790-6" (I.F.)
W.O. 804-2" (Rev. Fund)
W.O. 948-2" Removal (Rev.)
FILE

Q.4 Drainage for City Park at Fountain and Parkland Blvds

PARKLAND BLVD.

ALLEN PLACE

FOUNTAIN BLVD.

CITY PARK

Const Grate Inlet Type "E"
Top Elev. 16.45; Bot Elev. 14.19

15" R.C. Pipe @ 0.40%

Sta 0+63

Set F.L. at 15" = 13.97

1464.6
End of Survey.

Proj. Survey
0+00

30°42'

42" R.C.P.

Proj. Curb

℄ "A"

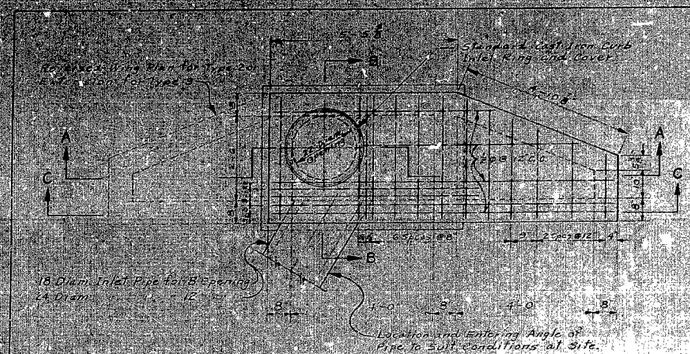
℄ "B"

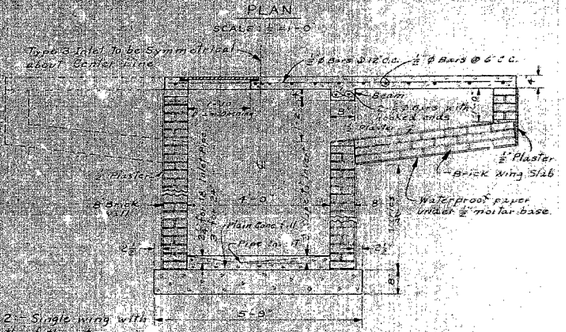
0+50

PI 0+39.5 = 0+00 on ℄ "A"

Existing 42" R.C. Pipe
on ℄ "B"

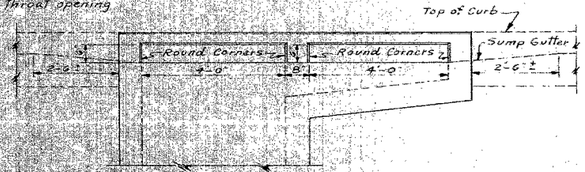
PUBLIC WORKS DEPARTMENT	CITY OF TAMPA, FLORIDA
DRAINAGE FOR CITY PARK AT FOUNTAIN & PARKLAND BLVDS.	
Scale 1"=20' Horiz. 2' Vert.	Block No. 1464-22
Drawn K.M.F.	Date 12-13-66
Designed K.M.F.	Date 12-13-66
Reviewed K.M.F.	Date 12-13-66
Approved	Date
NO 1 OF 2 SHEETS	FILE NO A-9-19





TYPE 2 - Single wing with 8' length of throat opening

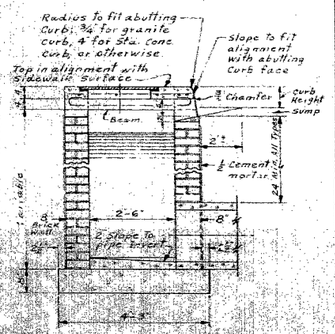
TYPE 3 - Double wing with 12' length of throat opening



BAR SCHEDULE FOR TOP SLAB

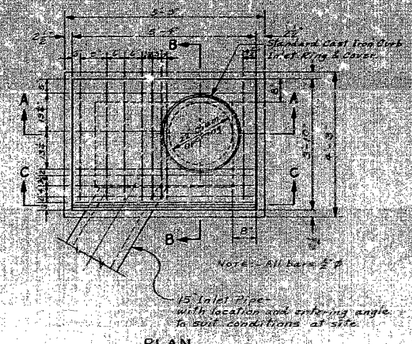
NO.	SIZE	LOCATION	LENGTH
B	½ ø	TRANSVERSE BARS - STRAIGHT	3'-6"
I	"	" " "	3'-4"
H	"	" " "	3'-0"
G	"	" " "	2'-9"
J	"	" " "	2'-5"
K	"	" " "	2'-0"
C	"	" " "	4'-1" Total
3	⅝ ø	W/HOOKED ENDS	3'-2"
2	⅝ ø	LONGITUDINAL BARS, STAT	2'-3"
2	"	" " "	5'-3"

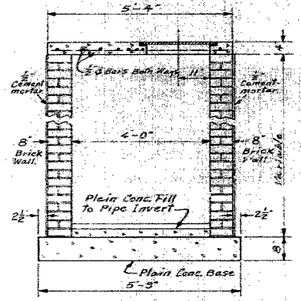
* Type 2 only - Reinforcement for additional wing of Type 3 to be same as shown for one for Type 2

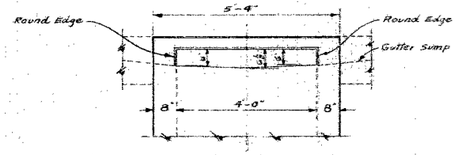


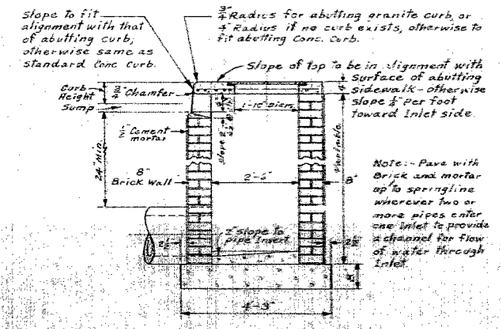
STANDARD STORM WATER CURB INLET-TYPES 2&3

For General Construction Notes, See Sheet No.____









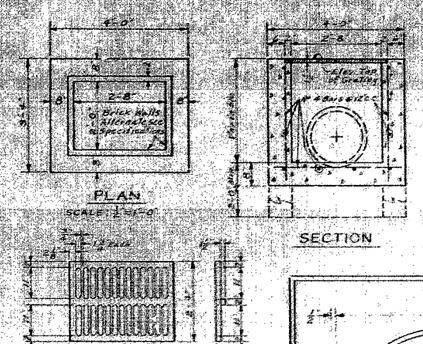
Note:- Pave with Brick and mortar up to springline wherever two or more pipes enter one inlet to provide a channel for flow of water through Inlet.

BAR SCHEDULE FOR TOP SLAB

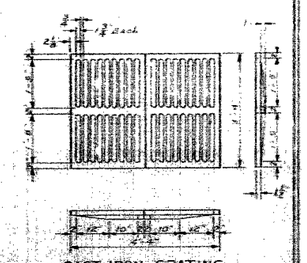
NO.	SIZE	LOCATION	LENGTH
B	½ ø	TRANSVERSE BARS	3'-6"
C	"	LONGITUDINAL BARS	5'-1"
I	"	" "	2'-8"

STANDARD STORM WATER CURB INLET-TYPE 1

For General Construction Notes, See Sheet No.____



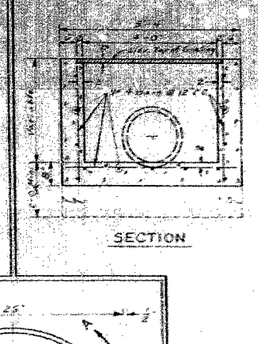
TYPE C GRATING INLET



TYPE E GRATING INLET

NOTE
COVER MUST FIT FRAME IN ANY POSITION AND SHALL NOT ROCK
See Specifications





TYPE D GRATING INLET

TYPE H GRATING INLET

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

DRAINAGE FOR CITY PARK AT FOUNTAIN & PARKLAND BLVDS.

Scale: As Noted	Book No.
Drawn: R.M.J.	Date: 12-12-66
Designed: R.M.J.	Date: 12-13-66
Reviewed	Date
Approved	Date

155
11

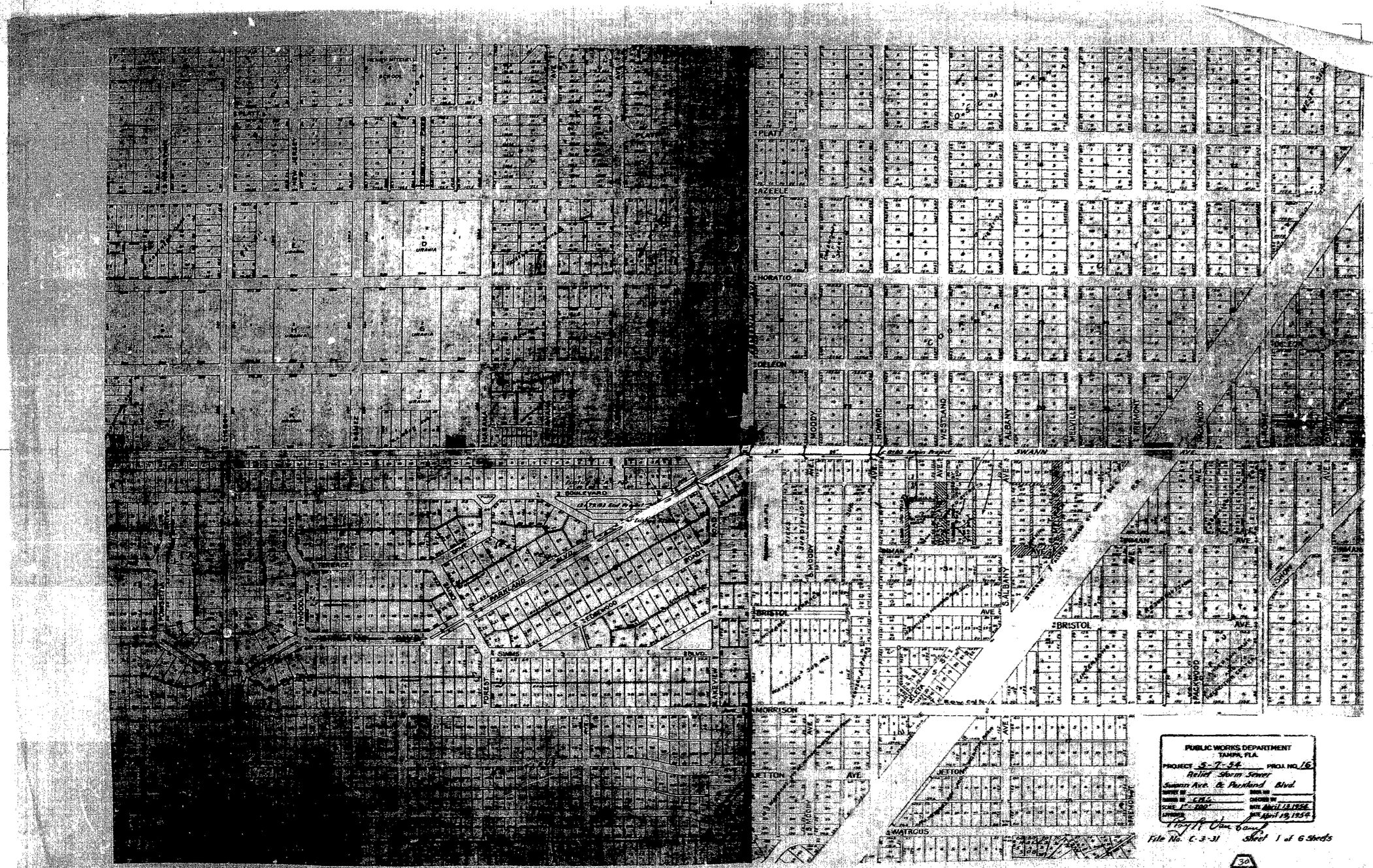
NO 2 OF 2 SHEETS | FILE NO. A-3-13

RELIEF STORM SEWER
SWANN AVE. AND PARKLAND BOULEVARD

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA FLORIDA
SCHEDULE S-7-54 PROJECT NO. 16.

File No. C-3-31

30
77


PLATT
AZEELE
HORATIO
DORCHESTER
MORRISON
JETTON
BRISTOL
SWANN
AVE.
MOODY
HOWARD
WESTLAND
S. ALBANY
MELVILLE
PIEDMONT
PALMWOOD
BOULEVARD
PARKLAND
CORNWOOD
SIMMS
BLVD.
POWELL
LAKEVIEW
SWATROSS
URANIA
PUBLIC WORKS DEPARTMENT
TAMPA, FLA.
PROJECT S-7-54 PROJ. NO. 16
Relief Storm Sewer
Swann Ave. & Parkland Blvd.
SCALE 1" = 200'
DATE April 13, 1954
DATE April 19, 1954
File No. C-3-31
Sheet 1 of 6 Sheets

PUBLIC WORKS DEPARTMENT
TAMPA, FLA.

PROJECT: 3-7-44 PROJ. NO. 16

Relief Storm Sewer
Swann Ave. & Parkland Blvd.

SURVEY BY: _____ DRAWN BY: _____

TRACED BY: C.M.S. CHECKED BY: _____

DATE: 10-20-43 / 12-27-43 DATE: April 13, 1944

AS BUILT DATE: April 19, 1944

Troy H. Cox Engr.

File No. C.S.-31 Sheet 2 of 6 Sheets

PARKLAND BLVD.

SWANN AVE.

ARMENIA AVE.

LAKEVIEW

Natural Sod Surface or Asphalt Blvd. with Lime Rock Base.
Contractor to replace destroyed surface with 6" Compacted Shell and 2" Type S Asphalt.

Std. Inlet E. Pipe E Sta. 9+16
Top El. 17.93
Invert El. 17.24
Bottom El. 13.91
15" R.C. Inlet Pipe
Inv. El @ Inlet 13.41
Inv. El @ M.H. 13.06

Concrete Collar Sta. 9+30
For details see Sheet No. 6

Std. Inlet E. Pipe E Sta. 9+24
Top El. 17.99
Invert El. 17.36
Bottom El. 13.93
15" R.C. Inlet Pipe
Inv. El @ Inlet 13.93
Inv. El @ M.H. 13.76
(Under gas line)

Std. Inlet E. Pipe E Sta. 10+40
Top El. 18.37
Invert El. 17.50
Bottom El. 14.05
15" R.C. Inlet Pipe
Inv. El @ Inlet 14.05
Inv. El @ M.H. 14.97 (Under water line)

Existing 24" Storm Sewer

Existing 18" Storm Sewer

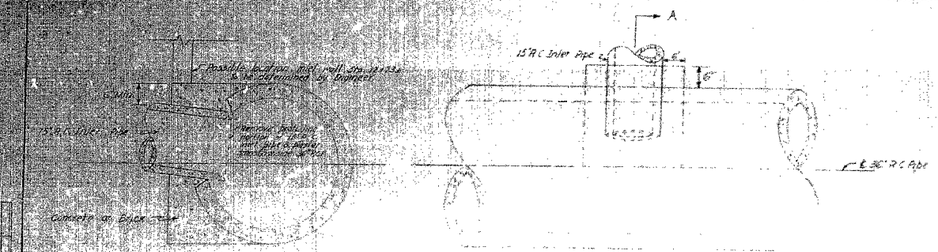
Existing Block with Lime Rock Base. Contractor to make a transverse surface with 6" Compacted Shell & Type S Asphalt Cont. as Inter. Asphalt Surface

Existing 6" Water Main

Existing 8" Water Main

Existing 8" Water Main

Existing 8



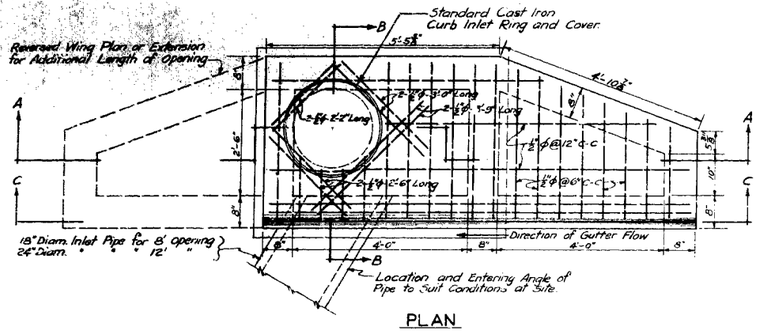
SECTION A-A

DETAIL OF COLLAR
Sta. 34+30 & Sta. 12 + 42

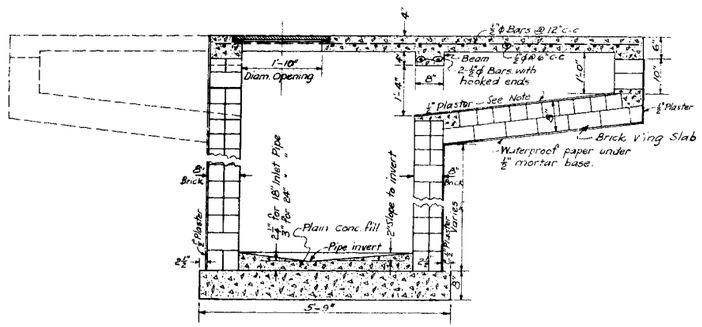
Scale ¾"=1'-0

GENERAL CONSTRUCTION NOTES

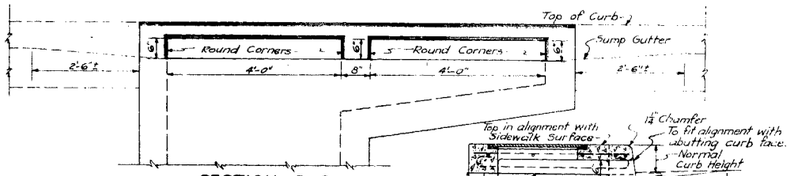
Manhole and inlet walls shall be built laid in Portland cement mortar and shall be plastered on the outside with 1:2 cm cement mortar to a minimum thickness before backfilling shall be as follows: for depth of invert less than 8' plaster to a minimum finish ceiling 8" for depth of invert more than 8' plaster to finish ceiling 12". Brick to be radially laid with walls shall be in stretcher courses, with every sixth course a header course. Height of each course shall not exceed 3". Concrete for bottom shall be poured to conform curves of pipe sizes and shall be of proportions of 1:2:4 by loose measurement.



PLAN

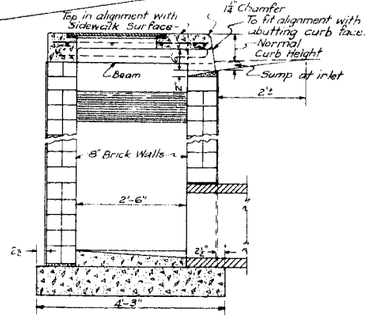


SECTION A-A



SECTION C-C

BAR SCHEDULE FOR TOP SLAB			
No.	SIZE	LOCATION	LENGTH
7	⅝"ϕ	Transverse Bars	3'-6"
1	"	Ditto	3'-4"
1	"	"	3'-2"
1	"	"	3'-0"
1	"	"	2'-10"
1	"	"	2'-8"
1	"	"	2'-6"
1	"	"	2'-4"
1	"	"	2'-2"
2	"	"	1'-0"
2	"	"	1'-4"
3	"	Longitudinal Bars	9'-10½"
1	"	Ditto	6'-3"
1	"	"	6'-9"
2	"	Diagonal Bars	3'-9"
2	"	Ditto	3'-0"
2	"	"	2'-6"
2	"	"	2'-2"

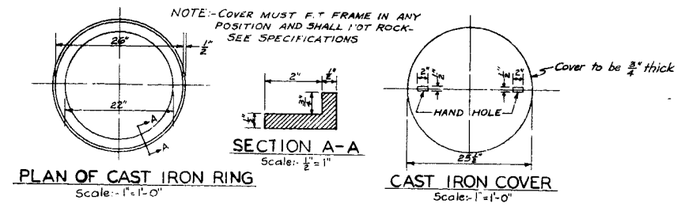


SECTION B-B

SPECIAL STORM WATER CURB INLET

Scale:- ¾" = 1'-0"

For General Construction Notes, See Sheet No. 4.

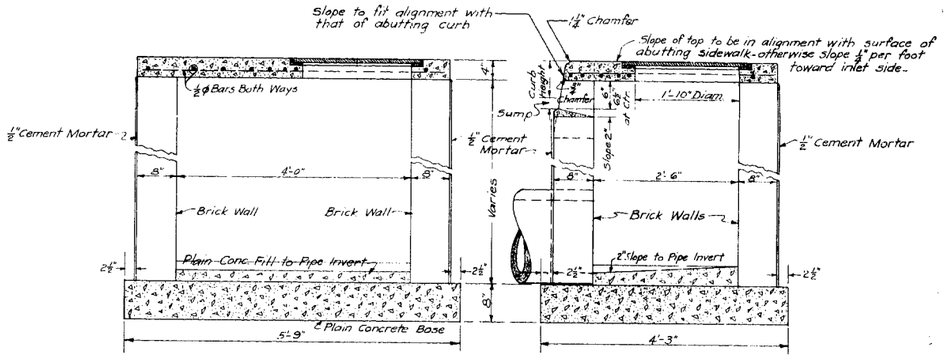


PLAN OF CAST IRON RING
Scale:- 1"=1'-0"

SECTION A-A
Scale:- ½"=1"

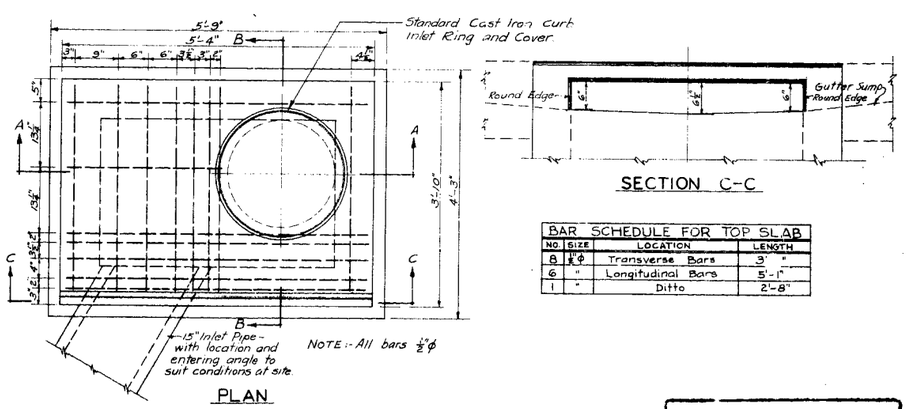
CAST IRON COVER
Scale:- 1"=1'-0"

STANDARD CAST IRON RING AND COVER —FOR CURB INLETS—



SECTION A-A

SECTION B-B



PLAN

SECTION C-C

BAR SCHEDULE FOR TOP SLAB			
NO.	SIZE	LOCATION	LENGTH
8	½"ϕ	Transverse Bars	3' "
6	"	Longitudinal Bars	5'-1"
1	"	Ditto	2'-8"

STANDARD STORM WATER CURB INLET

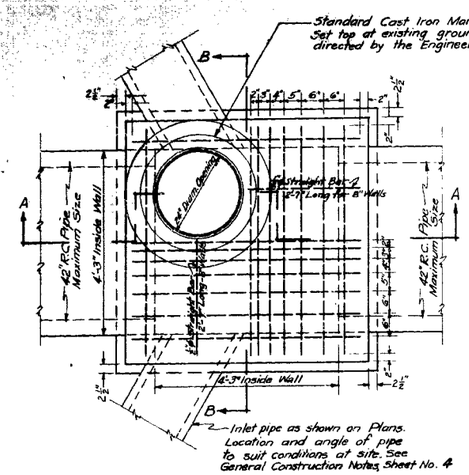
Scale:- 1"=1'-0"

For General Construction Notes, See Sheet No. 4.

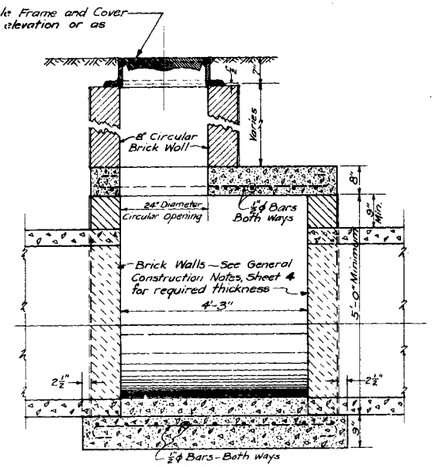
PUBLIC WORKS DEPARTMENT
TAMPA, FLA.
PROJECT S-7-34 PROJ. NO. 16
Relief Storm Sewer
Swann Ave. & Parkland Blvd.
SURVEY BY _____ BOOK NO. _____
DRAWN BY _____ CHECKED BY _____
CODE As Shown DATE April 19, 1934
APPROVED _____ DATE April 19, 1934
Chief Engineer

30/17

File No. C-3-31 Sheet 5 of 6 Sheets

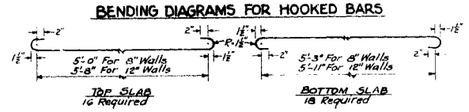


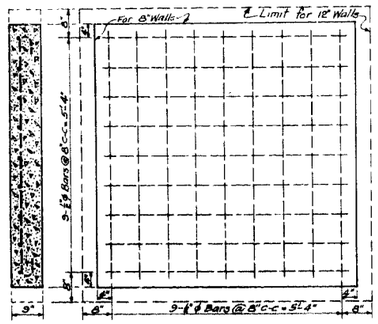
PLAN



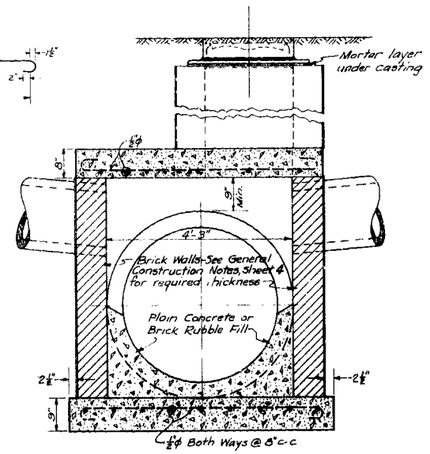
SECTION A-A

BENDING DIAGRAMS FOR HOOKED BARS





PLAN OF BOTTOM SLAB

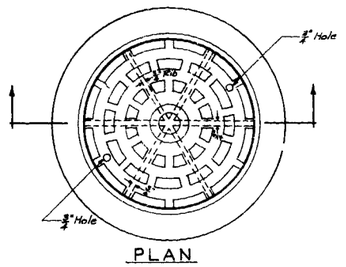


SECTION B-B

TYPE "BX-2" MANHOLE

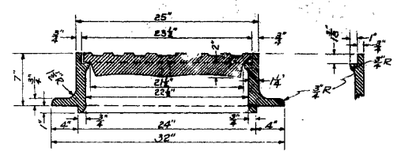
Scale:- ½" = 1'-0"

For General Construction Notes, See Sheet No. 4



PLAN

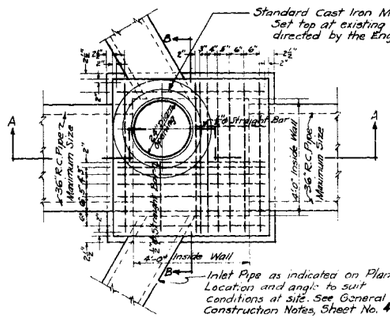
NOTE :- Cover must fit the frame in any position and shall not rock. See Specifications.



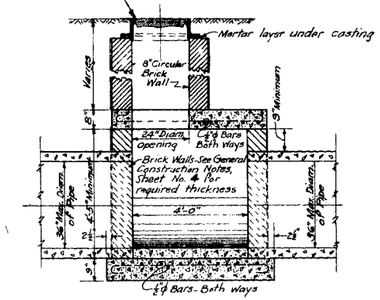
SECTION

STANDARD CAST IRON MANHOLE FRAME AND COVER

Scale:- 1½" = 1'-0"

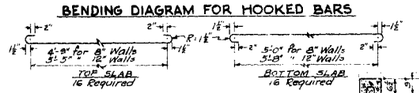


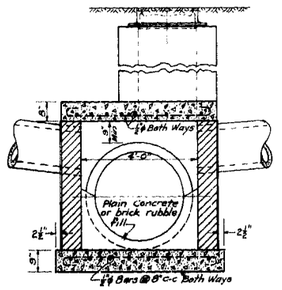
PLAN



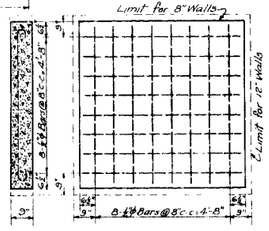
SECTION A-A

BENDING DIAGRAM FOR HOOKED BARS





SECTION B-B



PLAN OF BOTTOM SLAB

TYPE "BX-1" MANHOLE

Scale:- ½" = 1'-0"

For General Construction Notes, See Sheet No. 4

PUBLIC WORKS DEPARTMENT
TAMPA, FLA

PROJECT S-7-54 PROJ. NO. 16
Relief Storm Sewer
Swann Ave. & Parkland Blvd.

SURVEY BY _____ BOOK NO. _____
DRAWN BY _____ CHECKED BY _____
SCALE As Shown DATE April 12, 1954
APPROVED _____ DATE April 19, 1954

30
17

Roy R Van Landingham

File No. C-3-41 Sheet 6 of 6 Sheets

Q.5 Tampa Hillsborough Expressway Authority – Original Crosstown Plans

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2504		R/W-3
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1972

STATE ROAD NO. 449

SCALE 1" = 50'

SEC. 23, T29S, R18E

WEST SIDE PARK SUBDIVISION P.B.1 PG.35

WATROUS SUBDIVISION P.B.2 PG.9

L.A. R/W LINE ℄

STA. 156+52.33 ℄ RAMP "A"
STA. 256+52.33 ℄ CONST.
55' OFFSET
℄ SURVEY ℄ N 35°42'01.8"E

℄ CONST. ℄

S 35°42'01.8" W ℄

℄ SPUR TRACK ℄

CURVE NO. 2

STA 10+00 ℄ PLATT ST.
STA. 258+62.56 ℄ SURVEY
N 35°42'01.8"E
309.08

RAMP "B"

CURVE NO. 4

CURVE NO. 3

NOTE,
R/W AQUIRED UNDER
R/W PROJECT 10002-2510

END R/W PROJECT
10002-2504 STA 259+10.80
BEGIN R/W PROJECT 10002-2505
STA. 501+09.44

RAMP "A" ℄

P.I. NO.2 STA. 264+99.55 ℄ SURVEY R.R.
STA. 122+90.61 ℄ CLEVELAND ST.

P.I. NO.4 STA. 123+08.50

S.C.L. R.R. R/W ℄

CLEVELAND STREET

S 89°29'55" E ℄ SURVEY ℄

S 89°06'23" E

PLATT STREET

OREGON AVENUE

AZELEE STREET

ORLEANS STREET

WILLOW STREET

N 00°32'36" E

℄ DEED ℄ ASPHALT ℄

℄ DEED ℄ SHELL & ASPHALT ℄

℄ DEED ℄ & CONST. ℄

TO BE CLOSED

L.A. R/W & ℄ Line

L.A. R/W Line

R & R/W Line

℄ R/W LINE

ASPHALT END OF R & R/W LINE

EQUALITY
STA. 64+49.99 ℄ B-B =
STA. 17+34.88 ℄ PLATT =
STA. 25+24.00 ℄ WILLOW

STA. 266+44.54

STA. 7+71.37 ℄ RAMP "A"
STA. 20+00 ℄ WILLOW AVE.

NOTE,
R/W AQUIRED UNDER
R/W PROJECT
10002-2505

2 STY MASONRY & BAKERY

1 STY. MASONRY BAKERY

LOADING PLATFORM

1 STY. C.B. WAREHOUSE

1 STY. STUCCO RES.

1 STY. FR. RES.

METAL SHED

C.B. SHED

1 STY. C.B. & STUCCO RES.

2 STY. FR. APT.

1 STY. FR. & STUCCO RES.

1 STY. C.B. BUS.

CROSS ARM

CURVE NO.4 DATA

P.I. STA. 56+15.81
Δ = 38° 20' 39.8"
D = 14° 00' 00"
T = 142.30'
L = 273.89'
R = 409.26'
P.C. STA. 54+73.51
P.T. STA. 57+47.40

CURVE NO.3 DATA

P.I. STA. 160+97.99
Δ = 19° 00' 00"
D = 10° 00' 00"
T = 95.88'
L = 190.00'
R = 572.96'
P.C. STA. 160+02.11
P.T. STA. 161+92.11

CURVE NO.2 DATA

P.I. STA. 263+06.95
Δ = 55° 11' 35.2"
D = 4° 00' 00"
T = 748.72'
L = 1379.82'
R = 1432.39
P.C. STA. 255+58.23
P.T. STA. 269+38.05

③ Note: Parcel title to be acquired in fee simple unless denoted otherwise.

PARCEL No.	OWNERS NAME	AREA TAKEN	REMAINDER RIGHT	REMAINDER LEFT
100.1				
101.1				
102.1	JOE R. SUAREZ & GLADYS W.	3567 S.F.		
103.1	MOORE LEE WALKER & ORA WALKER	5658 "		
104.1	CHARLIE BURROUGHS	5658 "		
105.1	IDA MAE McMICHAEL	5658 "		
106.1	JACK V. FRY & RITA C. FRY	8488 "		
107.1	WILLIE B. JONES	4469 "		
108.1	EDWARD MONTGOMERY et al.	3632 "		
109.1	JAMES TUCKER & ALTHEA TUCKER	3564 "		
110.1	CHINA KITCHEN & WILLIE MAE (WIFE)	5202 "		
111.1	CATHERINE PILCHER	3018 "		
112.1	ANDREW WHIGHAM JR.	3734 "		
113.1	QUECO CORP. A FLORIDA CORP.	12,731 "		
114.1	JOSEPH CIMANO & SYLVIA CIMANO	7369 "		

PARCEL NO.	OWNERS NAME	AREA TAKEN	REMAINDER RIGHT	REMAINDER LEFT
115.1	LEE DAVIS & ETHEL DAVIS	4244 S.F.	4244 sf ④	
116.1	ISABELLA WILSON & CONNIE WILSON	7260 "		
117.1	HORACE McCRAY & MABLE McCRAY	2344 "		
118.1	MARTHA MOORE WALKER	88 "		

NO.	REVISION	BY	DATE
④	Fee simple note added.	JNC	1-8-74
③	Revised Parcel 115	JNC	1/28/74
②	Revised L.A., R/W, & ℄ Lines	JNC	11-6-73

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RECEIVED JAN 23 1976 R/W

RECEIVED JAN 23 1976 BY: PUB. WKS. DEPT.

RIGHT OF WAY MAP
INSERT NO 2

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE C.S.D. DATE 3-27-73 | TRACED C.S.D. DATE 3-27-73
CHECKED S. Mancil DATE 10-11-73 | SCALE 1" = 50'

MICROFILMED

129
178

H-16-2 R/W

H-16-2E

JAN 1 6 1976

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		1
By: JEG		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 9/73

AS BUILT

DEC. 30, 1975

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

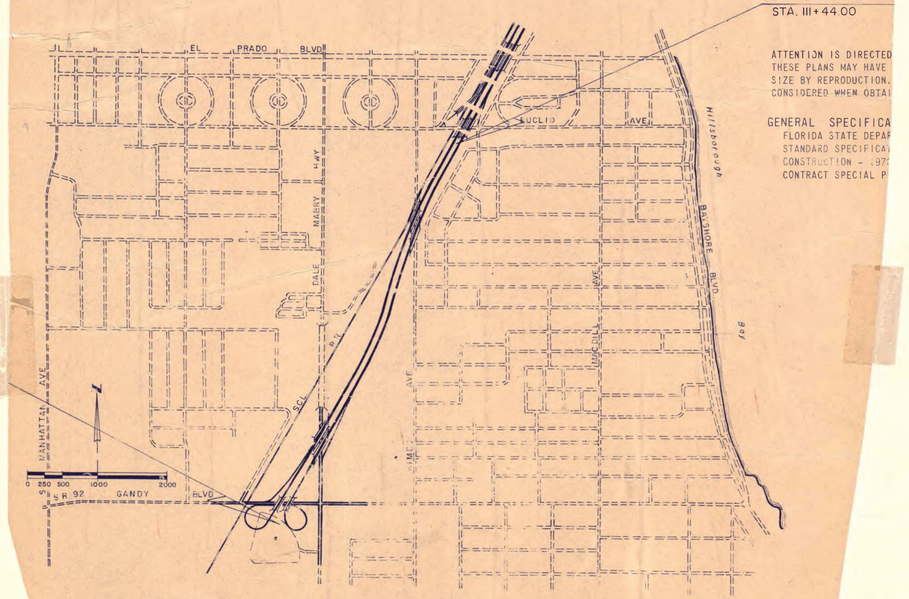
STATE JOB NO. 10002-3501-032

STATE ROAD NO. 449

END.
STATE JOB NO. 1000
STA. 111+44.00

ATTENTION IS DIRECTED
THESE PLANS MAY HAVE
SIZE BY REPRODUCTION.
CONSIDERED WHEN OBTAI

GENERAL SPECIFICA
FLORIDA STATE DEPAR
STANDARD SPECIFICA
CONSTRUCTION - 197
CONTRACT SPECIAL P



CONTRACT NO. 1

GANDY BLVD TO EUCLID AVE

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY

Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority

P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

In accordance with the City-Expressway Authority Joint Project Agreement, the following "as-built" drawings (sepias) for the Tampa-South Crosstown Expressway have been furnished the City of Tampa, (Attention: Mr. Dale Twachtman, Utilities Coordinator).

CONTRACT NUMBER 1 - State Job No. 10002-3501

Description	Drawing Number Sheet No.
Cover Sheet (Gandy Blvd. to Euclid Ave.)	1
Drainage Map	3
Miscellaneous Details	9
Typical Sections	10, 11 and 12
Plan and Profile	15 through 28
Interchange Layout (Gandy Blvd-Dale Mabry)	29
Cover Sheet Water Line Relocation	WL-1
Summary of Water Line Quantities	WL-2
Standard Details	WL-3 and 4
Plan and Profile	WL-5,6,7,7A,8 and 8A
Cover Sheet Sanitary Sewer Relocation	SS-1
Summary of Quantities	SS-2
Plan and Profile	SS-3
Miscellaneous Details	SS-4 and SS-5
Key Map	RW/1
Right-of-way Maps	RW/2 through RW/7

Total No. Mylar Sheets 28.

AS BUILT

DEC 30 1975

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		1
By: JEG		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 9/73

AS BUILT

DEC. 30, 1975

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002-3501-032

STATE ROAD NO. 449

THIS CONTRACT PLAN SET INCLUDES

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
LIGHTING PLANS
STRUCTURE PLANS
WATERLINE RELOCATION PLANS
SANITARY SEWER RELOCATION PLANS
RIGHT-OF-WAY PLANS

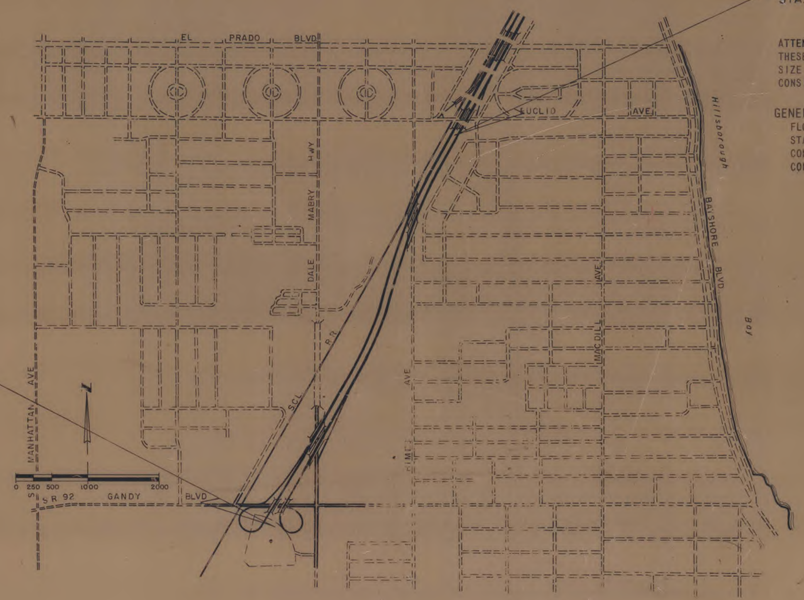
FOR INDEX OF OTHER PLANS SEE APPROPRIATE SHEETS

INDEX OF ROADWAY PLANS

Sheet No.	Sheet Description
1	KEY MAP
2-3	DRAINAGE MAP
4-6	CONTOUR GRADING AND BORROW PIT PLANS
7	BASE TRAVERSE CONTROL SHEET
8	SPIRAL STAKE-OUT AND TRAFFIC DIAGRAM
9	MISCELLANEOUS DETAILS
10-12	TYPICAL SECTIONS
13	SUMMARY OF QUANTITIES
14	MASS DIAGRAM
15-28	PLAN AND PROFILES
29	INTERCHANGE LAYOUT SHEET
30-49	DRAINAGE STRUCTURE SECTIONS
50-56	SPECIAL PROFILES
57	SOIL DATA
* 58-83, 85-105	CROSS SECTIONS * SHEET NO. 84 BLANK
106-123	DRAINAGE DETAILS
124-130	APPROACH SLAB DETAILS
131	PROJECT INFORMATION SIGN
132	BORROW AREA ONE

STANDARD DRAWINGS

Index No.	Drawings
194	STANDARD ABBREVIATIONS (2 SHEETS)
195	STANDARD SYMBOLS FOR KEY MAPS AND PLAN SHEETS (3 SHEETS)
200-B	STANDARD ENDWALLS FOR PIPE CULVERTS
1101-W	MISCELLANEOUS ROADWAY CONSTRUCTION DETAILS (2 SHEETS)
1129-G	U-ENDWALLS FOR PIPE CULVERTS (3 SHEETS)
1331-C	SUPPLEMENTARY DETAILS FOR INLET BOXES
1454-C	STANDARD ENDWALLS FOR PIPE CULVERTS
1455-C	FLARED END SECTION FOR PIPE CULVERTS (2 SHEETS)
1466-L	DETAILS OF RAILROAD CROSSINGS (4 SHEETS)
1915-K	DETAILS FOR MUNICIPAL CONSTRUCTION
2300-R	GUARDRAIL CONSTRUCTION (4 SHEETS)
2943-C	STANDARD DITCH BOTTOM INLETS, TYPES "F" & "G"
2416-A	STANDARD HEADWALL FOR DOUBLE 60" CONCRETE PIPE
5010-H	SUPERELEVATION DETAILS
5016-B	TURNOUT DETAILS
5043-B	INLETS, TYPES VA & VB
5046-D	STANDARD DITCH BOTTOM INLETS, TYPES C, D, E & H, SUPPLEMENTAL DETAILS
5047-G	MANHOLE & JUNCTION BOX, TYPES P & J, INLETS THROATS, TYPE 1,2,3,4,5 & 6 (2 SHEETS)
5048-B	INLET, TYPE "X"
5049-A	INLET, TYPE "Z"
5061-E	MISCELLANEOUS DRAINAGE DETAILS (2 SHEETS)
5072-G	DETAILS OF FENCING (2 SHEETS)
5073-L	STANDARD DETAILS FOR RAMP T...
5080-G	CURB, CURB AND GUTTER, TRA... SEIA'
5086-A	SHOULDER GUTTER INLET, TYP...
8011	SINGLE CONCRETE BOX CULVERT 5



BEGIN
STATE JOB NO. 10002-3501
STA. 50+35.86

END.
STATE JOB NO. 10002-3501
STA. 111+44.00

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GENERAL SPECIFICATIONS
FLORIDA STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.



LENGTH OF JOB		
	STATE JOB NO. 10002 - 3501	
	LIN. FT.	MILES
ROADWAY	5,161.46	0.977
BRIDGES	946.68	0.179
NET LENGTH	6,108.14	1.156
EXCEPTIONS	—0—	—0—
GROSS LENGTH	6,108.14	1.156

LOCATION OF BRIDGES			
STRUCTURE	BEGIN STA.	END STA.	LENGTH
GANDY BLVD	51+63.14	54+09.142	245.83'
DALE MABRY HWY	61+31.781	65+12.638	380.85'
HIMES AVE	97+65.196	100+85.185	319.99'

APPROVAL RECOMMENDED 2-26-74

BY William D. Lester

J. E. GREINER COMPANY, INC. / WATSON AND COMPANY

APPROVED 2-26-74

BY Bob Lasley
CHAIRMAN

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 1

GANDY BLVD TO EUCLID AVE

J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS
TAMPA FLORIDA

SUBMITTED _____ DATE _____

Contract No. 1

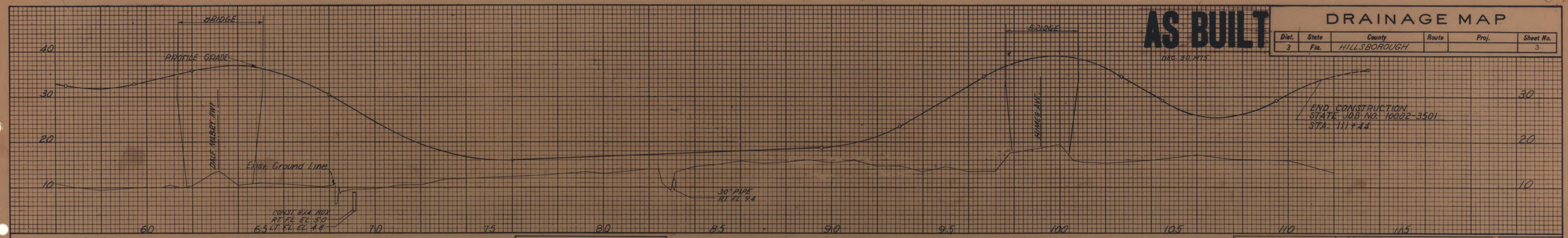
84
1

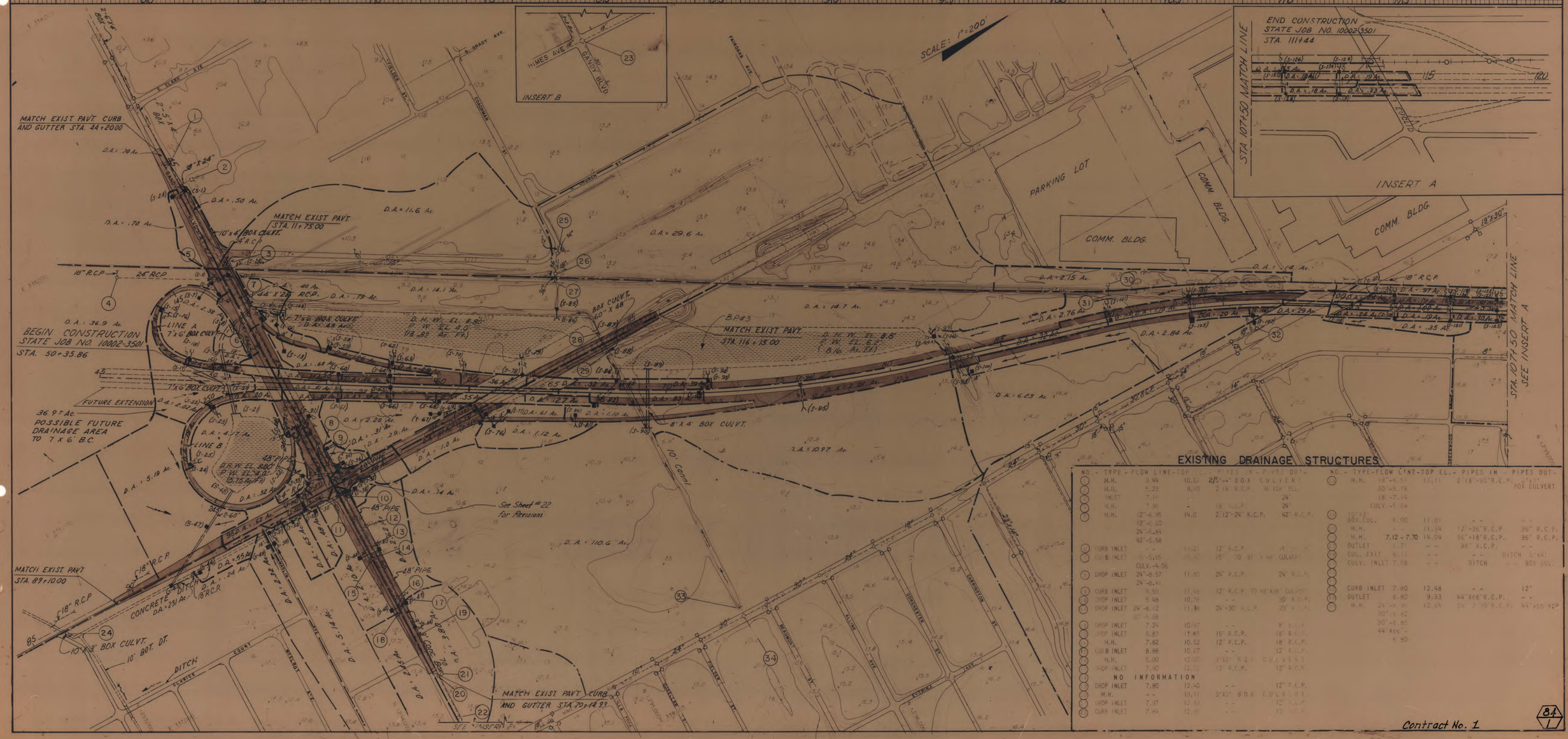
AS BUILT

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH			3

DRG. 30.MTS





EXISTING DRAINAGE STRUCTURES

NO.	TYPE	FLOW LINE-TOP	PIPES IN	PIPES OUT
	M.H.	3.44	10.5; 2[5'x4' BOX CULVERT	
	M.H.	5.23	9.10 2 18" R.C.P.	36" R.C.P.
	INLET	7.11		24" R.C.P.
	M.H.	7.36	-	18" R.C.P. 24" R.C.P.
	M.H.	12"-6.95	14.0 2-12"-24" R.C.P.	42" R.C.P.
		12"-6.80		
		24"-5.84		
		42"-5.56		
	CURB INLET	11.21	12" R.C.P.	15" R.C.P.
	CURB INLET	15'-5.65	10.01	15" TO 31"x45" CULVERT
		CULV.-4.06		
	DROP INLET	24"-8.57	11.60	24" R.C.P. 24" R.C.P.
		24"-8.41		
	CURB INLET	9.59	11.45	12" R.C.P. TO 45"x66" CULVERT
	DROP INLET	5.48	10.76	-- 30" R.C.P.
	DROP INLET	24"-8.12	11.38	24"30" R.C.P. 30" R.C.P.
		30"-8.86		
	DROP INLET	7.24	10.97	-- 8'x4'
	DROP INLET	5.87	11.65	15" R.C.P. 18" R.C.P.
	M.H.	7.82	10.52	12" R.C.P. 18" R.C.P.
	CURB INLET	8.88	10.07	-- 12" R.C.P.
	M.H.	5.00	12.00	3'X3' BOX CULVERT
	DROP INLET	7.90	12.02	12" R.C.P. 12" R.C.P.
	NO INFORMATION			
	DROP INLET	7.80	12.40	-- 12" R.C.P.
	M.H.	--	13.11	3'X3' BOX CULVERT
	DROP INLET	7.37	12.61	-- 12" R.C.P.
	CURB INLET	7.64	12.91	-- 12" R.C.P.

NO.	TYPE	FLOW LINE-TOP	PIPES IN	PIPES OUT
	M.H.	19"-6.51	12.11	2 18"x30" R.C.P. 8'x4' BOX CULVERT
		30"-5.76		
		18"-7.14		
		CULV.-5.64		
	INLET BOX CUL.	6.00	11.01	-- --
	M.H.	--	11.34	12"x26" R.C.P. 36" R.C.P.
	M.H.	7.12-7.70	14.04	36"x18" R.C.P. 36" R.C.P.
	OUTLET	6.71	--	36" R.C.P. --
	CUL. EXIT	6.11	--	-- -- DITCH 9'x4'
	CULV. INLET	7.58	--	DITCH -- BOX CUL.
	CURB INLET	7.60	12.48	-- 12"
	OUTLET	6.80	9.33	44"x66" R.C.P. --
	M.H.	24"-8.95	12.69	24" 2-30" R.C.P. 44"x66" RCP
		30"-6.52		
		30"-6.55		
		44"x66" -		
		K 50		

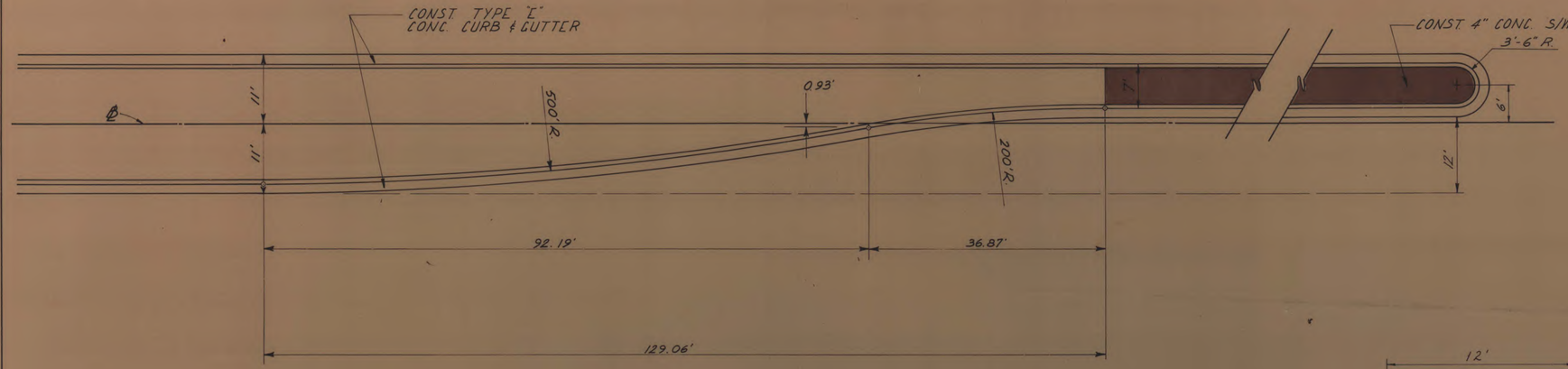
Contract No. 1

84/1

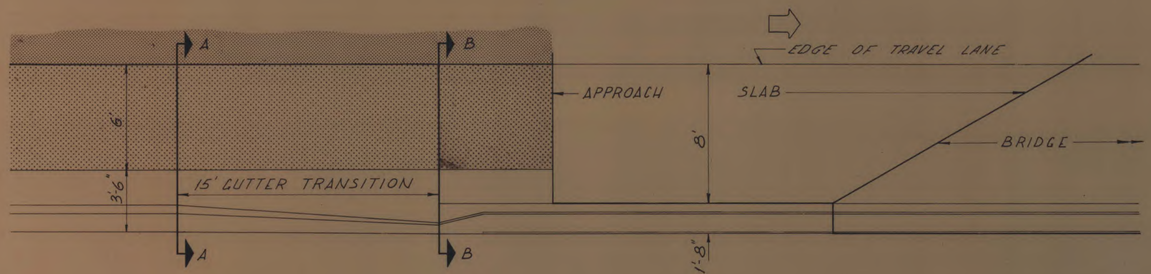
AS BUILT
DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		9
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 7-73

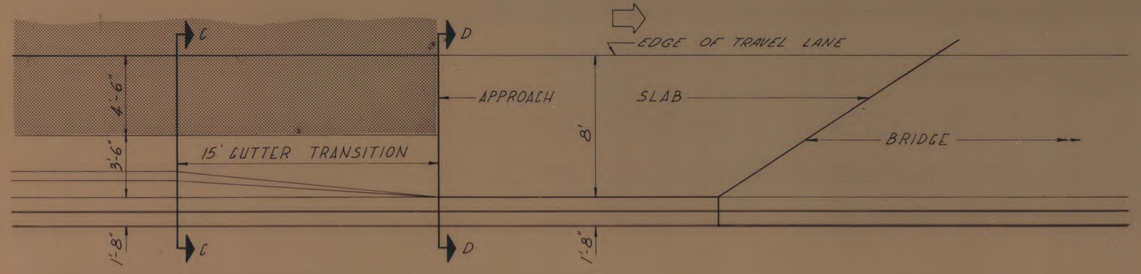
STATE JOB No. 10002-3501



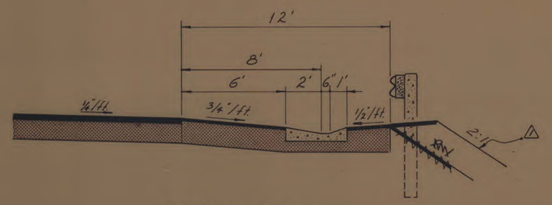
TYPICAL LEFT HAND TURN LANE AT GANDY BLVD. AND DALE MABRY HWY.



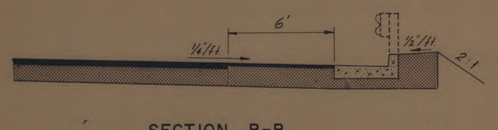
SHOULDER GUTTER TRANSITION AT DALE MABRY HWY.



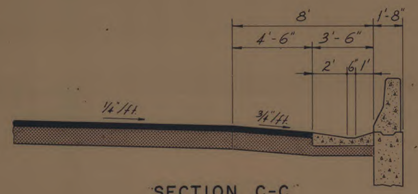
SHOULDER GUTTER TRANSITION AT HIMES AVE.



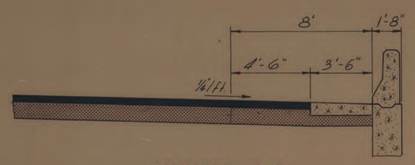
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

AS BUILT NOTES
Δ REVISED GUARDRAIL, PAVEMENT, & SLOPE

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE SKR DATE 6/73 TRACED DATE
CHECKED JB DATE 6/73 SCALE

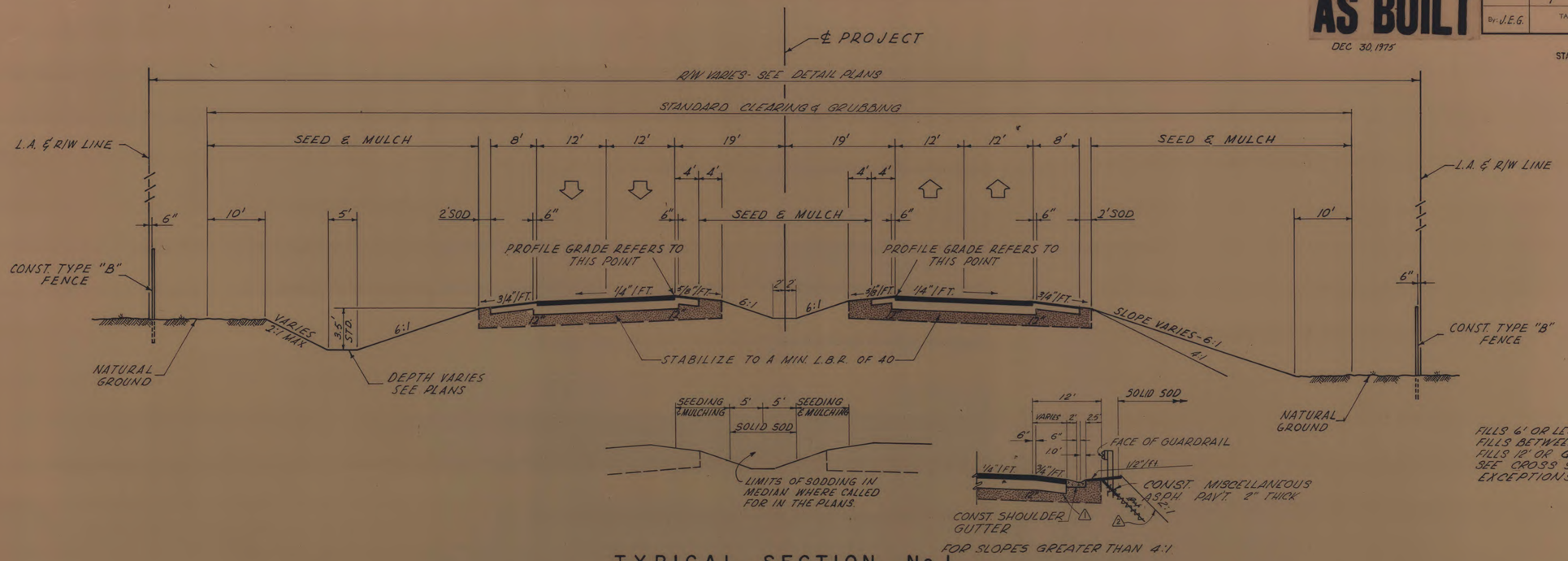
84
1

Contract No. 1

AS BUILT
DEC 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		10
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 7-73

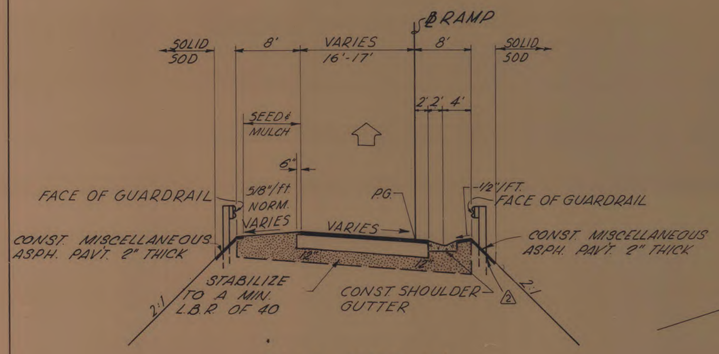
STATE JOB No. 10002-3501



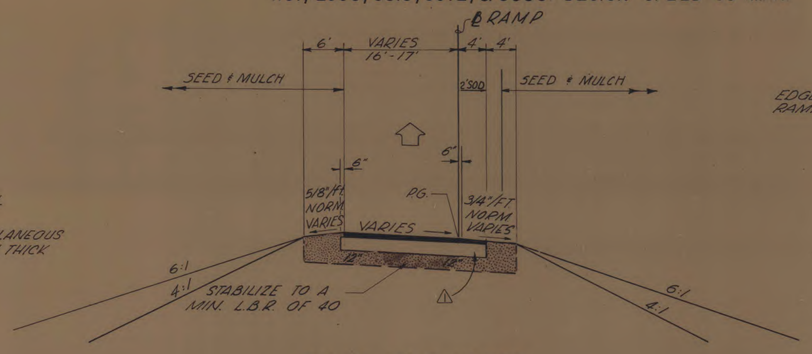
FILLS 6' OR LESS, USE 6:1 SLOPE
FILLS BETWEEN 6' & 12', USE 4:1 SLOPE
FILLS 12' OR GREATER USE 2:1 SLOPE
SEE CROSS SECTIONS FOR ANY EXCEPTIONS.

TYPICAL SECTION No. 1

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER AND TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO's. 1101, 2300, 5010, 5072, & 5080. DESIGN SPEED 50 M.P.H.



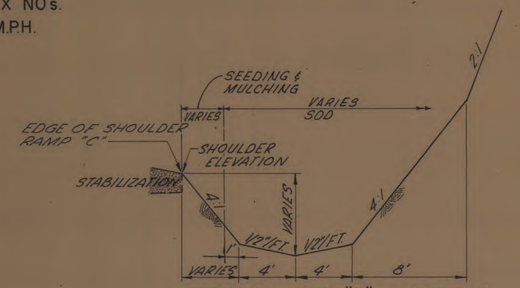
FILLS OVER 12'



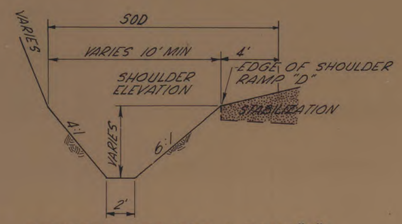
FILLS 12' & UNDER

TYPICAL RAMP SECTIONS

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER AND TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO's. 1101, 2300, 5010, 5072, & 5080. DESIGN SPEED 50 M.P.H.



BETWEEN RAMP "C" & PROJECT



BETWEEN PROJECT & RAMP "D"

TYPICAL DITCH SECTIONS

AS BUILT NOTES
⚠1 REVISED TYPICAL SECTION
⚠2 REVISED GUARDRAIL, PAVEMENT, & SLOPE

SHOULDER PAVEMENT
LIMEROCK BASE COURSE (5" THICK) PRIMED, ~~WITH TYPE S-I ASPHALTIC CONCRETE (1" THICK), AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK). ALT "C"~~ OR;
SAND-ASPHALT HOT MIX BASE COURSE 13" THICK) (800 LBS. STABILITY), WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK). ALT. "G"

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE GKP DATE 4-75 | TRACED DATE
CHECKED MNB DATE 5-75 | SCALE

84/1

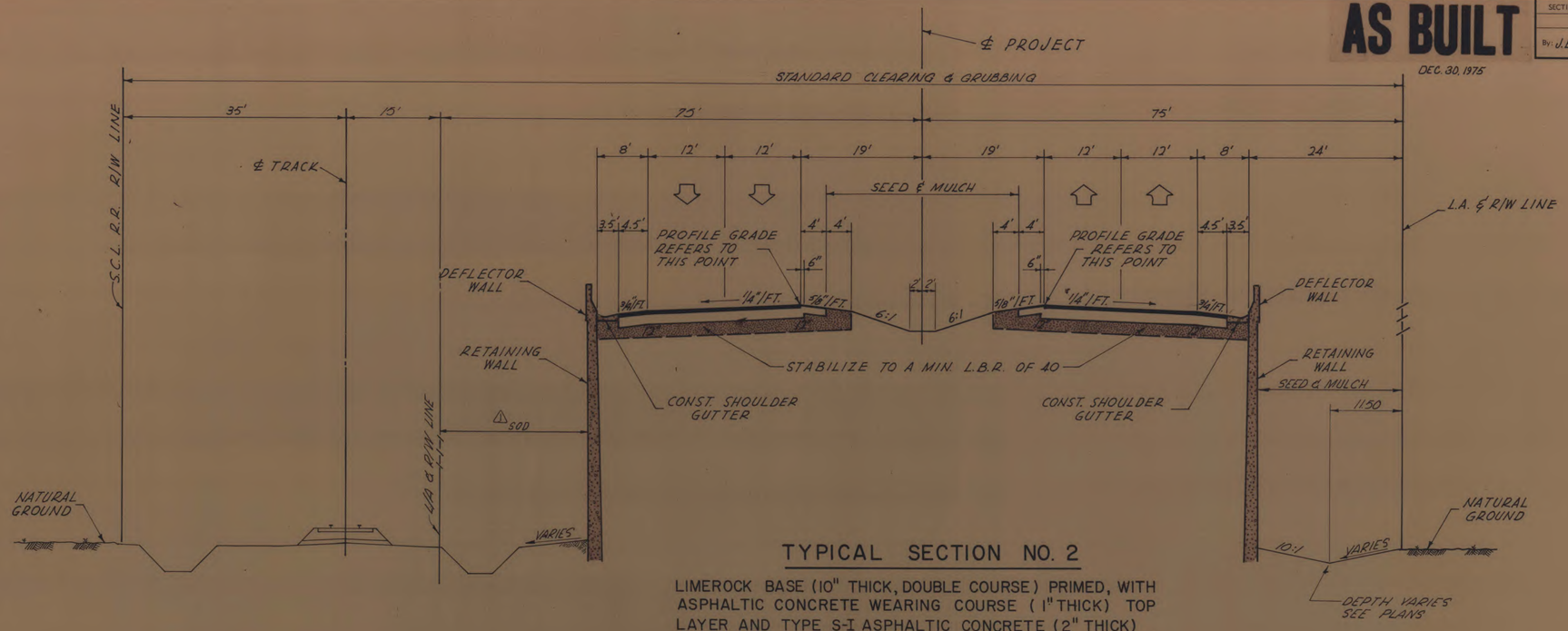
Contract No. 1.

AS BUILT

DEC. 30, 1975

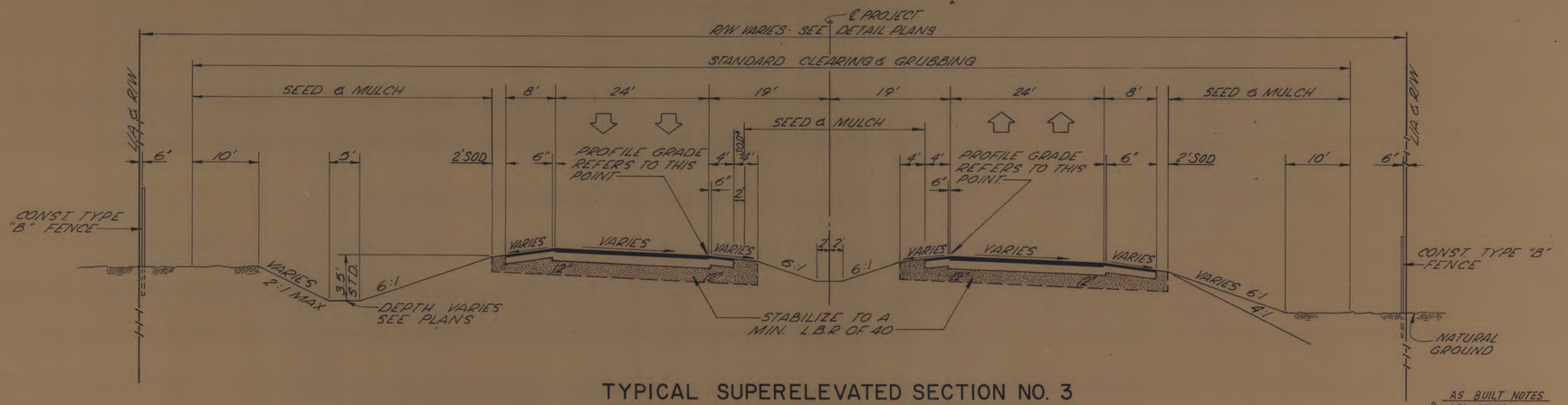
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		11
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 7-73

STATE JOB No. 10002-3501



TYPICAL SECTION NO. 2

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER AND TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO's. 1101, 2300, 5010, 5072, & 5080. DESIGN SPEED 50 M.P.H.



TYPICAL SUPERELEVATED SECTION NO. 3

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER AND TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO's. 1101, 2300, 5010, 5072, & 5080. DESIGN SPEED 50 M.P.H.

* SOD 2' ADJACENT TO PAVED SHOULDER IN SUPERELEVATION SECTIONS WHEN ROADWAY WATER DRAINS TO MEDIAN DITCH.

AS BUILT NOTES
⚠ SOD ADDED

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE SKP DATE 4-73 | TRACED DATE
CHECKED WJB DATE 5-73 | SCALE

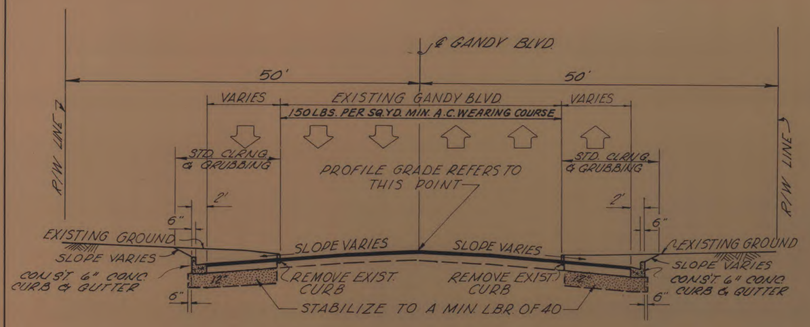
84
1

Contract No. 1.

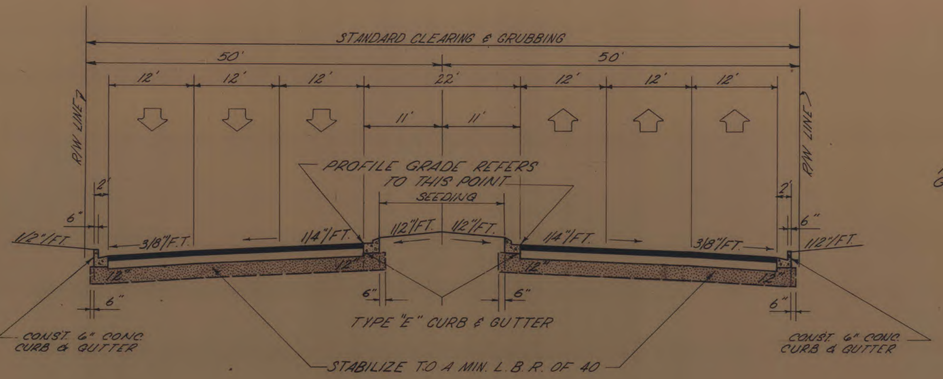
AS BUILT
DEC. 30, 1976

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		12
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 7-73

STATE JOB No. 10002-3501

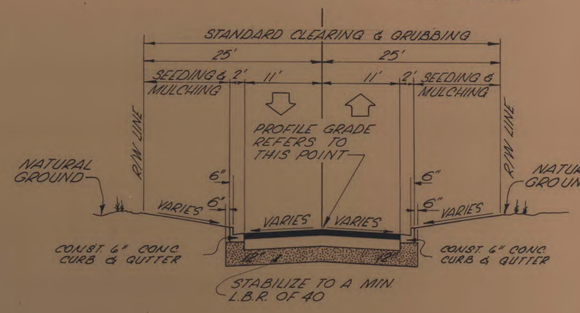


TYPICAL WIDENING & OVERLAY SECTION GANDY BLVD.*



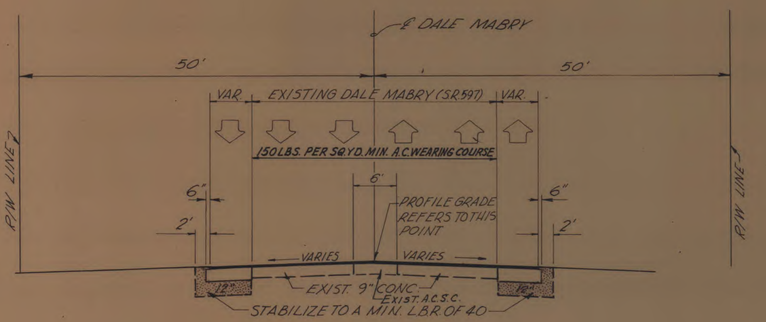
TYPICAL SIX LANE SECTION FOR GANDY & DALE MABRY

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER AND TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER. (ALTERNATES 1, 2 OR 3).
FOR ADDITIONAL DETAILS, SEE INDEX NO's. 1101, 2300, 5010, 5072, & 5080. DESIGN SPEED 50 M.P.H.

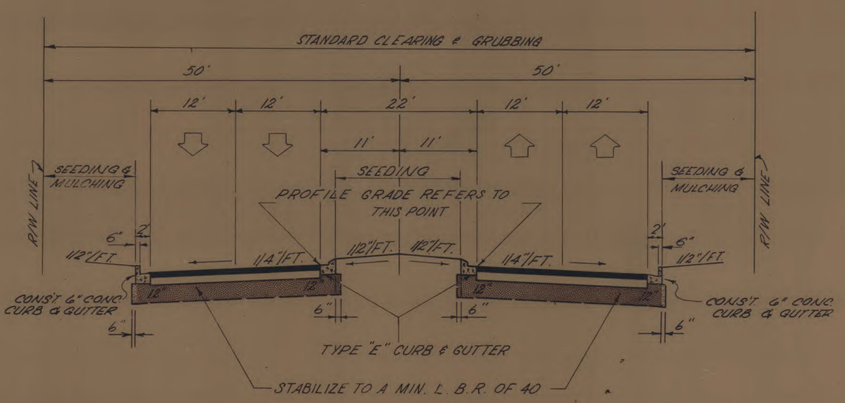


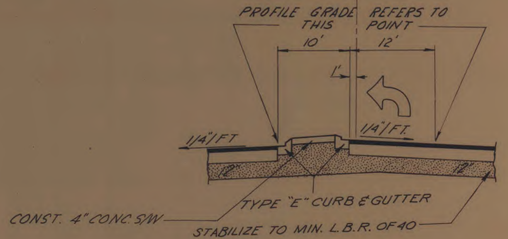
TYPICAL SECTION MARLIN AVE.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE, EACH LAYER 1½" THICK) DESIGN SPEED 30 M.P.H.

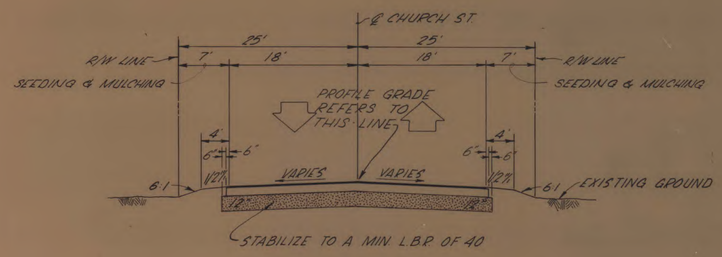


TYPICAL WIDENING & OVERLAY SECTION DALE MABRY *





TYPICAL LEFT HAND TURN LANE FOR DALE MABRY & GANDY BLVD.



TYPICAL SECTION CHURCH ST.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE, EACH LAYER 1½" THICK) DESIGN SPEED 35 M.P.H.

* TOP 1" OF WIDENING AND FULL THICKNESS OF OVERLAY SHALL BE OF ASPHALTIC CONCRETE WEARING COURSE. (ALTERNATES 1, 2 OR 3).

TYPICAL WIDENING
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER.

TYPICAL SECTION DALE MABRY

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER AND TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER. (ALTERNATES 1, 2 OR 3).
FOR ADDITIONAL DETAILS, SEE INDEX NO's. 1101, 2300, 5010, 5072, & 5080. DESIGN SPEED 50 M.P.H.

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE SKC DATE 4/73 | TRACED ____ DATE ____
CHECKED [illegible] DATE 5/73 | SCALE ____ | B4 1

Contract No. 1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
1	1		75
BY J.E.C.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-75

STATE JOB No. 10002-8501

AS BUILT

DEC 30 1975

SCALE 1"=50'

BEGIN BRIDGE STA 61+31.78

CURVE NO. "2-C"
PI STA 358+18.01
Δ= 8°-00'-00.0"
D= 4°-00'-00.0"
T= 100.16
L= 200.00'
R= 1,432.39

SEE SHEET NO 9 FOR GUTTER TRANSITION (S-70)

STA 63+22.21 ℄ PROJECT
STA 105+93.87 ℄ DALE MABRY

STA 67+63.54
As Built Location
.495'
Actual Location
N 295,513.954
E 336,621.081
Plan Location
N 295,513,459
E 336,623,345

MATCH LINE STA 71+50.00 ℄ PROJECT

CURVE NO. "1"
PI STA 461+74.22
Δ= 25°-03'-40.9
D= 18°-28'-57"
T= 98.80
L= 135.60
R= 310.0

CURVE NO. "3-D"
PI STA 468+84.20
Δ=10°-30'-375"
D= 1°-30'-000"
T= 351.33
L= 700.69
R= 3819.72

END BRIDGE STA 65+12.64

SEE SHEET NO. 29 FOR CONSTRUCTION DETAILS OF INTERCHANGE LAYOUT OF GANDY & DALE MABRY

SUPERELEVATION TRANSITION
BEGIN SE STA 65+63.34 - 4% RT.
END SE STA 68+13.54 - 0.03% RT.
BEGIN SE STA 67+23.54 - 4% RT.
END SE STA 67+73.54 - 0.03% RT.

PVC STA 55+50.00 EL 32.80
PVI STA 59+00.00 EL 31.00
PVC STA 60+50.00 EL 32.80
PVC STA 63+00.00 EL 36.80
PVI STA 67+00.00 EL 39.40
PVC STA 71+00.00 EL 44.40

+1.20000%
-1.20000%

500' V.C.
600' V.C.

SEE SPECIAL PROFILE SHEET No. 53 FOR CONTINUATION OF PROFILE GRADE 19' LT & RT OF ℄ PROJECT

55+00 BEGIN SP GR
V. DT. RT. EL. 10.6
-2.0%
SPEC. GRADE "V" DT. RT.

D.P.I. DT. LINE "D"
EL. 10.60
+1.00%
+0.10%
SPEC. GRADE DT. RT. LINE "D"
DT. RT. LINE "D" - 3' BELOW SHOULDER
20" Water Line

+70 D.P.I. LT. LINE "D"
EL. 12.3
+80 D.P.I. LT. LINE "D"
EL. 11.56
SP DT. LT. LINE "D"
+0.80%
+00 D.P.I. LT. LINE "D"
EL. 13.00
+1.20%
+00 D.P.I. LT. LINE "D"
EL. 16.6
+0.50%

PROFILE GRADE 19' LT & RT. ℄ PROJECT
Existing Ground
CONST. 8'x4' BOX CULVT.
F.L. 5.0 RT.
F.L. 4.8 LT.

(S-80)
(S-90)

GENERAL NOTES
1. B.M. DATUM USC & GS
2. ALL EXISTING DRAINAGE STRUCTURES WITHIN L.A. R/W LINES ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
3. UTILITIES ARE TO BE ADJUSTED BY OTHERS AS DIRECTED BY THE ENGINEER
4. FOR LIMITED ACCESS LINE & RIGHT-OF-WAY GEOMETRY, SEE RIGHT-OF-WAY MAP.
5. BUILDINGS TO BE MOVED BY OTHERS.

UTILITY OWNERS
1. TAMPA ELECTRIC CO.
2. PEOPLE'S GAS CO.
3. GENERAL TELEPHONE CO.
4. CITY OF TAMPA WATER DEPT.
5. CITY OF TAMPA FIRE DEPT.
6. CITY OF TAMPA SANITARY SEWER

SECTION	CONTRACT	SOUTH HOOKERHAM EXPRESSWAY	SHEET NO.
By: J.E.G.	1	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	16
			Date: 7-73

AS BUILT

DEC 30, 1975

STATE JOB No. 10002-3501

SCALE: 1" = 50'

CURVE No. 1
P.I. STA. 74+82.21
Δ = 14°17'55.6"
D = 1°00'00"
T = 718.67
L = 1,429.88'
R = 5,729.58
S.E. = 0.03"/FT

MATCH LINE STA 71+50.00 ℄ PROJECT

MATCH LINE STA 86+50.00 ℄ PROJECT

℄ SCL RR

L/A & R/W LINE
CONST TYPE "B" FENCE

CONST 1725.0' OF GUARDRAIL

CONST 28½" OF 15" CMP

CONST 70' OF 18" PIPE

CONST 33' OF 30" PIPE

CONST 89' OF 30" PIPE

CONST 87' OF 18" PIPE

CONST 84' OF 30" PIPE

⚠ DELETED

⚠ DELETED

(S-92) CONST'T SHOULDER GUTTER

(S-93)

(S-94) ℄ PROJECT

(S-95)

(S-96)

(S-97)

(S-98)

(S-99)

(S-100)

SHOULDER PAV'T

SHOULDER PAV'T

SHOULDER PAV'T

CURVE # 1

CURVE # 2-D

LINE "D"

50:1 TAPER

N 19°29'16"E

N 15°41'30"E

PT STA 81+13.42

PT. STA 422+33.57 LINE "D"

STA 417+00.00 LINE "D"

CONST TYPE "B" FENCE
R/W & L/A LINE

CONST TYPE "B" FENCE
L/A & R/W LINE

E 336750

E 337000

E 337250

E 337500

N 1296750

N 1296000

N 1296250

N 1297000

N 1297250

SUPERELEVATION TRANSITION

RT RDWY { BEGIN SE STA 81+43.42 -0.03/FT.
END SE STA 83+93.42 -1¼/FT.

LT RDWY { BEGIN SE STA 81+83.42 -0.03/FT
END SE STA 82+33.42 -1¼/FT.

AS BUILT NOTES
⚠ DELETD PAVED DITCH

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS		
	AREAS CHECKED		

600' V.C.

EL 20.50

+0.50%

SP. DT. LT. LINE "D"

PVI STA 76+00.00
EL 16.00'

(S-94)

+0.10%

SPEC. GRADE DT. RT.
5' BOT.

+40 BEGIN SPEC. DT. RT
AT EXIST. GROUND
EL 11.35±

PVI STA 74+00.00
EL 13.50

+00 END SPEC. DT. AT
EXIST. GROUND
EL 11.6±

+0.2000%

PROFILE GRADE 19' LT & RT
℄ PROJECT

Existing Ground

(S-97)

+0.05%

SPEC. GRADE DT. LT.

+0.10%

EL 8.10

+30 BEGIN SPEC. DT. RT.
EL 13.43

+15 BEGIN SPEC. DT. LT.
EL 8.45

75' BEGIN LT. EL. 8.0

+80 DT. EL. LT. EL. 12.54

PAVED DT. LT. STD. BOT
& SIDE SLOPES

SPEC. DT. LT. BOT. VARIES
SIDE SLOPES VARY. MAX. 2:1

25
20
15
10

75 80 85 Contract No. 1

84
17

AS BUILT

DEC 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
By: J.E.G.	1	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	17
			Date: 7-73

STATE JOB No. 10002-3501

SUPERELEVATION TRANSITION

RT. RDWY: BEGIN S.E. STA. 88+38.86 - 4%/FT.
END S.E. STA. 89+38.86 - 0.04/FT.
LT RDWY: BEGIN S.E. STA. 86+78.86 - 4%/FT.
END S.E. STA. 89+78.86 - 0.04/FT.

SUPERELEVATION TRANSITION

RT. RDWY: BEGIN S.E. STA. 98+52.12 - 0.04/FT.
END S.E. STA. 99+52.12 - 4%/FT.
LT. RDWY: BEGIN S.E. STA. 98+12.12 - 0.04/FT.
END S.E. STA. 101+12.12 - 4%/FT.

SCALE 1"=50'

MATCH LINE STA 89+50.00 ℄ PROJECT

MATCH LINE STA 101+50.00 ℄ PROJECT

℄ PROJECT

EXIST. S.C.L. RD R/W

PT STA 98+72.42

STA 99+30.87 ℄ PROJECT
STA 99+90.41 ℄ HIMES AVE.

END BRIDGE STA 100+85.19

L/A & R/W LINE

CONST. TYPE 'B' FENCE

CONST. 265' OF 15" C.M.P.

CONST. 20.1 OF 6" C.I.P. CONSTITUTE 6" C.I.P.

CONST'T SHOULDER GUTTER

CONST. 42.5' OF 6" C.I.P.

CONST. RETAINING WALL

BEGIN BRIDGE STA 97+53.70

CONST. 11.2' OF 6" C.I.P.

CONST. 10.5' OF 6" C.I.P.

CONST. 75' OF GUARDRAIL

CONST. 300.0' OF GUARDRAIL

CONSTRUCT "94" OF GUARDRAIL

CONST. 65' OF 18" PIPE

CONST. 99' OF 15" PIPE

CURVE No. 2

CONST. 55' OF CONC. SPILLWAY

CONST. 175' OF GUARDRAIL

CONST. SHOULDER GUTTER

CONST. 950.0' OF GUARDRAIL

CONST. 38' OF 15" C.M.P.

CONST. 40' OF 6" C.I. PIPE

CONST. 32' OF 15" PIPE

CONST. TYPE 'B' FENCE

L/A & R/W LINE

℄ SURVEY HIMES AVE.

CONST. 178.0' OF 24" PIPE

CONST. 105.5' OF 6" C.I.P.

CONST. RETAINING WALL

CONST'T SHOULDER GUTTER

8" WM

8" JUTE CABLE TOLL

18" R.C.P.

16" WM

N 29°-59'-53" E

N 00°-35'-03" E

N 15°-41'-58" E

N 1297250

N 1297500

N 1297750

N 1298000

E 337,250

E 337,500

E 337,750

E 338,000

C.B. Gar.

1 Sty. Asb. Fr. Res.

Carport

1 Sty. C.B. Res.

1 Sty. Fr. Res.

1 Sty. Fr. Res.

1 Sty. C.B. Res.

Fr. Bldg.

Shed

Sign

CURVE No 2
P.I. STA. 93+97.98
Δ = 14°-17'-33.6"
D = 1°-30'-00"
T = 479.12'
L = 953.25'
R = 3819.72'
S.E. = 0.04/FT.

PC STA. 89+18.86

AS BUILT NOTES
△ CONSTRUCTED 94 FT OF GUARDRAIL

STA 89+30 TO STA. 97+65
50ft MED. DITCH

400' V.C.

600' V.C.

P.V.I. STA. 89+50.00
EL. 18.70

P.V.I. STA. 93+50.00
EL. 25.28

P.V.I. STA. 91+50.00
EL. 19.10'

P.V.I. STA. 96+70.00
EL. 34.64

P.V.I. STA. 99+70.00
EL. 43.60'

PROFILE GRADE 19' LT & RT. ℄ PROJECT

+2.08%

+3.00%

+0.20000%

+0.10%

+0.05% TRANSITION LT. OF ROADSIDE DT. TO R.R. DT.
SPEC. GRADE DT. LT.

+00 END DT. LT.
MATCH PROP. R.R. DT.
(N.I.C.) EL. 12.94

SPEC. GRADE DT. RT.

+00 END SPEC. DT. RT.
EL. 14.2'

Existing Ground

TD. S-108

+0.20%

SPEC. GRADE "V" DT. RT.

+00 DT. P.I. RT.
EL. 14.84'

(S-102)

18.89 19.25 19.78 20.49 21.38 22.44 23.67

18.10 18.70 19.10 19.40 19.70 20.00 20.30 20.60 20.90 21.20 21.50 21.80 22.10 22.40 22.70 23.00 23.30 23.60 23.90 24.20 24.50 24.80 25.10 25.28

35.49 36.71 37.88 38.40 38.87 39.09 39.06 38.72 38.26 37.48

45 40 35 30 25 20 15 10

90 95 100

Contract No. 1

84
17

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO	TEMPLATE		
	AREAS		
	AREAS CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO	TEMPLATE		
	AREAS		
	AREAS CHECKED		

AS BUILT

DEC 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		18
By: JEG		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

STATE JOB No. 10002-3501

FINAL SURVEY — SURVEYED, PLOTTED, TRACED, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO

ORIGINAL SURVEY — SURVEYED, PLOTTED, TRACED, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO

MATCH LINE STA 101+5000 & PROJECT

E 337,750

N 0°-35'-03" E

EXIST R/W

18" R.C.P.

1 Sty. C.B. Res.

Car Port

1 Sty. Mas. Res.

SCALE 1"=50'

EXIST S.C.L.R.R. R/W

* Note: See Drainage Section for Concrete Ditch Details

SHOULDER PAV'T

(S-110) CONST. 25.2 S.Y. CONC. DITCH PAVE-3"

(S-116) CONST. 8' OF DBL 6" C.I.P.

(S-117) CONST. 8' OF 15" PIPE

CONST. 20.8 S.Y. CONC. DITCH PAVE-3"

105 (S-119)

(S-120) CONST. 9' OF 6" C.I.P.

CONST. 9' OF 15" PIPE (S-123)

(S-122) CONST. 20.8 S.Y. CONC. DITCH PAVE-3"

CONST. 10' OF 15" PIPE (S-126)

CONST. 10' OF 8" V.C.P.

CONST. 10' OF 6" C.I.P. (S-127)

CONST. 20.9 S.Y. CONC. DITCH PAVE-3"

110 (S-129A)

CONST. 9' OF 15" P.

CONST. 9' OF 8" V.C.P.

CONST. 9' OF 6" C.I.P.

CONST. 12' OF 6" C.I.P. (S-129B) (S-130)

CONST. 8' OF 15" PIPE

CONST. 8' OF 8" RCP

CONST. 8' OF 6" C.I.P.

℄ S.C.L.R.R. N 29°-59'-53" E

CONST. RETAINING WALL

CONST. SHOULDER BUTTER

℄ PROJECT

CONST. 48' OF 18" PIPE (S-124)

N 29°-59'-53" E

CONST. 96' OF 15" PIPE

CONST. 200' GUARDRAIL

CONST. 96' OF 15" PIPE

CONST. 96' OF 15" PIPE

CONST. 47' OF 15" PIPE

CONST. RETAINING WALL

CONST. SHOULDER BUTTER

18" RCP

(S-118) (S-121) (S-125) (S-128) (S-131)

℄ & P/W LINE

END JOB
END CONSTRUCTION
STATE JOB NO 10002-3501
STA 111+44.00

E 338,000

N 1,295,000

I Sty. Fr. Res.

I Sty. Fr. Res.

I Sty. Fr. Res.

I Sty. Fr. Res.

I Sty. Fr. Res.

N 1,294,500

E 338,250

N 1,294,000

E 338,500

N 1,293,500

E 338,750

N 1,293,000

STA 101+30 TO STA 111+44
SOD MED. DITCH

300' V.C.

PVI STA 104+50.00
EL 29.20'

27.85'

26.80'

26.05'

25.60'

25.45'

25.60'

26.05'

26.80'

27.85'

PVRC STA 109+50.00
EL 29.20'

PVI STA 111+50.00
EL 35.20'

END JOB
END CONSTRUCTION
STATE JOB NO 10002-3501
STA 111+44.00

+0.3600%

-3.0000%

+3.0000%

PROFILE GRADE 10' LT. & RT. & PROJECT

37.48'

36.46'

35.18'

600' V.C.

PVI STA 102+70.00
EL 32.60'

PVI STA 107+00.00
EL 21.70'

30.62'

31.87'

32.96'

33.88'

34.64'

35.23'

35.64'

400' V.C.

PVT STA 113+50.00
EL 35.52'

+0.20%

-0.28%

SPEC. GRADE "V" DT. RT.

Existing Ground

+100 DT. PI. RT.
EL 16.10

40
35
30
25
20
15
10

105 110 115

Contract No. 1

84
1

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		19
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

DEC. 30, 1975

STATE JOB No. 10002-3501

FINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

CLARK AVE

5'x4' Box Culvert

5'x4' Box Culvert

18" RCP

(ORIGINAL END OF PROTECT) MATCH EXISTING EQV'T. STA. 43+00. Scale 1"=20'.

AS BUILT END OF PROTECT STA. 43+92

MATCH EXISTING CURB AND GUTTER STA 44+20.00

8" Water Main

CONST. 6" CONC. CURB & GUTTER

Taper to Existing Curb

Obl. 5'x4' Box Culvert (To Remain)

40 41 42 ℄ CANDY BLVD. 43 44 45

S 89°-28'-55" E →

20'

OVERLAY

END CONSTR. STA. 48+00.00

(B.T. 3")

(B.T. 2½")

(B.T. 2" JUTE)

(B.T. 6 WAY)

Existing 12" W.M.

PP

MATCH LINE STA 46+0.00 & GANDY BLVD

AS BUILT NOTES

⚠ OVERLAY TERMINATED AT STA. 43+92

ORIGINAL SURVEY	DATE
NOTE BOOK	BY
NO.	SURVEYED
	PLOTTED
	TEMPLATE
	AREAS
	AREAS CHECKED

FOR PROFILE GRADE ℄ CANDY BLVD SEE SPECIAL PROFILE SHEET No. 55

20 15 10 5 0

Existing Ground

El. 9.89'

+0.3800%

PROFILE GRADE CANDY BLVD

+00.00

El. 10.65'

Obl. 5'x4' Box Culvert

Obl. 5'x4' Box Culvert

Approximate Elev. 6 Way Tele. Duct

12" Water Main

Obl. 5'x4' Box Culvert

20 15 10 5 0

40 41 42 43 44 45 46

Contract No. 1

84
17

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		20
By J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 7-73

STATE JOB No. 10002-3501

FINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / NOTE BOOK / AREAS / AREAS CHECKED / NO

ORIGINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / NOTE BOOK / AREAS / AREAS CHECKED / NO

Scale 1" = 20'

MATCH LINE STA. 46+00.00 ℄ GANDY BLVD.

MATCH LINE STA. 52+00.00 ℄ GANDY BLVD.

18"ø C.P.

C.B.

45' TRANSITION FROM EXIST. DBL 5'x4' BOX CULVERT TO PROP. 10'x4' BOX CULVERT

CONSTRUCT 6' CONC. CURB & GUTTER

CONST. 615'5" OF 10'x4' BOX CULVERT

224 Box Culvert (To be Removed)

CONST. 3' OF 15" PIPE

CONST. 62'-0" OF 15" PIPE

(B.T. 3'-P)

(B.T. 26'-LT.)

(B.T. 2" JUTE) (S-2A)

(B.T. 6 WAY)

CONST. 6" CONC. CURB & GUTTER

Sign

WM

PP

M.H.

U.P.

F.H.

(B.T. 15"ø C.)

(B.T. 34'-LT.)

STA. 49+13.85 ℄ GANDY BLVD.
STA. 10+00.00 ℄ CHURCH ST.

STA. 50+00.00 ℄ GANDY BLVD.
STA. 50+57.60 ℄ TRAVERSE

RETURN No. 5

30" Sign Poles

50' R

19.50' +16.16

+81.64

19.50' +69.78

CONST. 32'-0" OF 24" PIPE

55' R

℄ CHURCH ST. N 29°-59'-53" E

15.01' +90.18

(8" Water Main)

RETURN No. 4 (S-2B)

30' R

45° C.P.

℄ R.R. TRAVERSE N 29°-59'-53" E

3' CURB TRANS.

CONST. 6" CONC. CURB & GUTTER

℄ 10'x4' BOX CULVERT

CONST. TYPE 'E' CONC. CURB & GUTTER

CONST. 16'-0" OF 24" PIPE

(S-5)

3'x3' Box Culvert

45°

47'

+18.60

CONST. TYPE 'E' CONC. CURB & GUTTER

A

11'

11'

+78.00

+87.21

+94.48

2R 172.67

1.50%

CONST. 4' CONC. S/W

2.87%

+105.52

150'

150'

536'

℄ GANDY BLVD. S 89°-28'-55" E

12"ø C.P.

To Pond

2-4'x3' Existing 12" W.M.

CONST. 16'-0" OF 53"x34" ELLIP. PIPE

CONST. 12'-0" OF 24" PIPE

CONST. 72'-0" OF 54" PIPE

(S-6)

(B.T. 15"ø L.)

(B.T. 3'-P)

CONST. RR CROSSING TYPE 'E' FOR ADDITIONAL DETAILS SEE INDEX No. 1466

CONST. 4' CONC. S/W

CONST. 6" CONC. CURB & GUTTER

CURVE NO. 4-A

1436.62'

+89.84

+17.46

3' CURB TRANS.

CONST. 18" PIPE

6"

17'

LINE A-A

A

(B-7)

FOR PROFILE GRADE SEE SPECIAL PROFILE SHEET No. 55

Existing Ground

Approximate Elev. G.Way Tele. Duct

12" Water Main

Exist. 061 5'x4' Box Culvert

CONST. 15" PIPE S. EL. 5.80

CONST. 10'x4' BOX CULVERT

18" RCP

Existing 061 5'x4' Box Culvert

CONST. 24" PIPE S. EL. 5.0

42" RCP

CONST. 42" PIPE S. EL. 4.3

Approximate Elev. G.Way Tele. Duct

12" Water Main

Existing 4'x3' Box Culvert

20 15 10 5 0

46 47 48 49 50 51 52

Contract No. 1

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		21
By: U.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

AS BUILT

DEC. 30, 1975

STATE JOB No. 10002-3501

FINAL SURVEY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	AREAS
NO.	AREAS CHECKED

MATCH LINE STA. 32+00.00 & GANDY BLVD

MATCH LINE STA. 38+00.00 & GANDY BLVD

CONST. 205' OF 7'×6' CONC. BOX CULVERT

CONST. 32' OF 18" PIPE

CONST. 30' OF 15" PIPE

CONST. 104' OF 18" PIPE

CONST. 6" CONC. CURB & GUTTER

CONST. 4' CONC. S/W

CONST. 10'×4' CONC. BOX CULVERT

CONST. 120' 7'×6' CONC. BOX CULVERT

CONST. 625' OF GUARDRAIL

CONST. TYPE 'E' CURB & GUTTER

EXIST. DBL. 4'×3' CONC. BOX CULVERT TO BE CRUSHED & FILLED

Existing 8'×3' Box Culvert

CONST. 104' OF 15" PIPE

CONST. 4" CONC. S/W

CONST. 6" CONC. CURB & GUTTER

CONST. 30' OF 15" PIPE

CONST. 44' OF 15" PIPE

CONST. 123' OF 18" PIPE

Existing 12" W.M.

12" R.C.P.

DRIVEWAY

LINE 'C'

LINE 'A'

LINE 'B'

℄ GANDY BLVD.

℄ PROJECT

CURVE 'C'

CURVE NO. 'A-A'

CURVE NO. 'A-B'

S 89°-28'-55"E

N 29°-39'-59"E

N 33°-59'-53"E

P.C. STA 351+08.79

T.S. STA 141+55.66

STA. 55+01.32 ℄ GANDY BLVD

STA. 152+56.46 LINE 'A'

STA. 55+74.36 ℄ GANDY BLVD

STA. 52+93.12 ℄ PROJECT

S.T. STA 232+23.51

T.S. STA 238+06.92

P.C. STA. 57+50.00

EL. 12.00'

200' V.C.

11.97'

11.96'

(S-12) (S-13) (S-14) (S-29) (S-31)

FOR PROFILE GRADE -11.00' LT. & RT. ℄ GANDY BLVD. & EDGE OF TRAVEL SEE SPECIAL PROFILE SHEET No. 55

+00.00

EL. 12.50

0.2000%

PROFILE GRADE GANDY BLVD

Existing Ground

24" C.M.P.

Approximate Dist. of Way Tele. Duct

12" Water Main

Dbl. 3'×4' Box Culvert

F.L. 4.0

CONST. 7'×6' BOX CULVERT

F.L. 2.0

CONST. 10'×4' BOX CULVERT

Contract No. 1

84/1

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		22
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

STATE JOB No. 10002-3501

FINAL SURVEY — SURVEYED PLOTTED NOTE BOOK TEMPLATE AREAS AREAS CHECKED — NO — BY — DATE

ORIGINAL SURVEY — SURVEYED PLOTTED NOTE BOOK TEMPLATE AREAS AREAS CHECKED — NO — BY — DATE

MATCH LINE STA. 58+00.00 & GANDY BLVD.

MATCH LINE STA. 64+00.00 & GANDY BLVD.

Scale 1"=20'

EXIST. STORM LINE

JUNCTION BOX

206' DRIVEWAY

CONST. 6" CONC. CURB & GUTTER

CONST. 27' OF 15" PIPE

CONST. TYPE "E" CURB & GUTTER

RETURN No. 3

EXIST. 12' 6" VCP

CONST. 34' OF 18" PIPE

ADDED 119' 15" RCP

CONST. 4' CONC. S/W

CONST. 36' OF 15" PIPE

RETURN No. 1

CONST. 286' OF 48" PIPE

Driveway

E DALE MABRY AVE.

CONSTRUCTED 48" PIPE

STA. 60+76.25 ℄ GANDY BLVD.
STA. 100+00.00 ℄ DALE MABRY
65° Δ

℄ GANDY BLVD.
S 89°28'33" E

CONST. 4" CONC. S/W

CONST. TYPE "E" CURB & GUTTER

CONST. 6" CONC. CURB & GUTTER

RETURN No. 2

CONST. TYPE "E" CURB & GUTTER FP

CONST. 4" CONC. S/W

CONST. TYPE "E" CURB & GUTTER

CONST. 4" CONC. S/W

CONST. 44' OF 30" PIPE

CONST. 30" PIPE

CONST. 48" PIPE

59 60 61 62 63

240 199 101

AS BUILT NOTES
⚠ ADDED 119' 15" R.C.P. (12' OF 6" VCP INCLUDED IN COST OF 15" PIPE)

⚠ RELOCATED SYSTEM FROM S-34 TO S-36

200' V.C.

300' V.C.

22' V.C.

+0.7714 %

-1.0000 %

-1.0000 %

PVI STA 59+50.00
EL. 12.57

PVI STA 60+39.25
EL. 13.26

PVI STA 60+76.25
EL. 13.61

PVI STA 61+75.00
EL. 12.61

PVI STA 58+30.00
EL. 11.80

PVI STA 63+25.00
EL. 11.12

PROFILE GRADE CANDY BLVD.

Existing Ground

CONST 18" PIPE NW

CONST 18" PIPE N

CONST 48" PIPE

FL. 2.95

FL. 7.0

FL. 7.0

FL. 3.1

15" RCP

Dbl 4'x3' Box Culvert

12" Water Main

Approximate Elev. & Way, Tele. Duct

24" RCP

8" Water Main

3'x3' Box Culvert

8" Gas Main

100' SPECIAL GUTTER PROFILE LT. & RIGHT

58 59 60 61 62 63 64

Contract No. 1

84/1

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		2.3
By J.E.C.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 7-73

STATE JOB No. 10002-2501

Scale 1"=20'

MATCH LINE STA 640000 & GANDY BLVD

(S-41) Driveway — CONST. 6" CONC. CURB & GUTTER — Driveway — Driveway — CONST. 261' OF 48" PIPE — (S-43) — CONST. 102' OF 48" PIPE — Driveway — 2W 2W — Existing 8" W.M. — (S-44) — 2W 2W — Driveway

8" Gas Main — 3'x3' Box Culvert — EXISTING BOX CULVERT TO BE CRUSHED & FILLED — 2W 2W — (8"G.M.) — 3'x3' Box Culvert

CONST TYPE 'E' CURB & GUTTER — CONST. 24" OF 24" PIPE — 11' 11' — 36' — 36' — 65 — 67 — ℄ GANDY BLVD — S 89°-28'-55" E — 68 — 69 — 70 — OVERLAY — 20'

CONST. 24" OF 24" PIPE — Existing 6" W.M. — 2"Gas Main

(S-40) — CONST. 6" CONC. CURB & GUTTER — Driveway — Driveway — Driveway — 1W 1W — 1W 1W — (S-42) — 11W 7W — 2W 1W — STA. 68+00 — Driveway — Existing 12" W.M. — 2W — Driveway — 1W 1W — 7W — 2W — (8'T. 3" P) — (8'T. 2½") — (8'T. 2½") — (8'T. 6 WAY)

75.00

AS BUILT NOTES
△ OVERLAY EXTENDED TO STA. 70+57

△ ORIGINAL END OF PROJECT. MATCH EXIST. PAVT. AND CURB & GUTTER STA. 70+14.93

AS BUILT END OF PROJECT STA. 70+57

FINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO — BY — DATE

300' V.C.

11.38' — 11.37' — 11.37' — 11.39'

20 — 15 — 10 — 5 — 0

PVT. STA 64+75.00 — EL. 11.65'

PROFILE GRADE GANDY BLVD. — +0.2000% — EL. 12.23'

(S-41) — Approximate Elev. 6 Way Tele. Duct — 12" Water Main — 8" Gas Main — 2" Gas Main — (S-43) — 2" Water Main — 8" Gas Main — (S-44) — Existing Ground — Approximate Elev. 6 Way Tele. Duct

CONST 24" PIPE S. — CONST. 48" PIPE — 3'x3' Box Culvert — CONST. 24" PIPE S. — CONST. 48" PIPE — 3'x3' Box Culvert

F.L. 3.6 — F.L. 4.3 — F.L. 2.0 — F.L. 4.8 — F.L. 4.2

+0.00 EL. 10.98 — +08.00 EL. 10.86 (LOW) — +25.00 EL. 10.98 — +50.00 EL. 10.34 — P.C. SHIFTS HOOD TO ℄ GANDY BLVD

100' SPECIAL GUTTER PROFILE LEFT & RIGHT

64 — 65 — 66 — 67 — 68 — 69 — 70

ORIGINAL SURVEY — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — NOTE BOOK — NO — BY — DATE

Contract No. 1

84
1

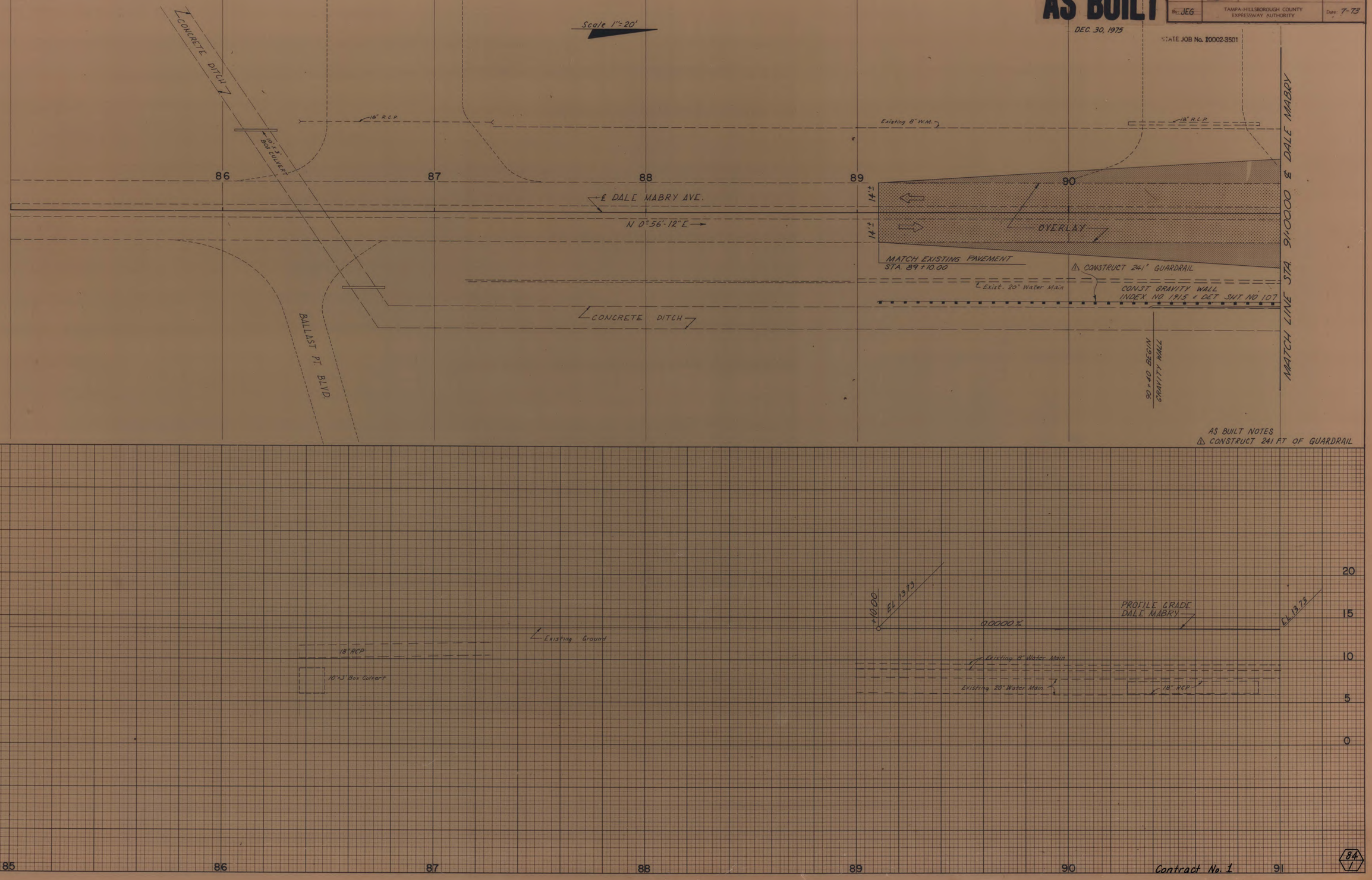
AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		24
By: JEG		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

STATE JOB No. 10002-3501

Scale 1"=20'



AS BUILT NOTES
⚠ CONSTRUCT 241 FT OF GUARDRAIL

FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		25
BY: U.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

STATE JOB No. 10002-3501

SCALE: 1" = 20'

MATCH LINE STA 91+00.00 & DALE MABRY

MATCH LINE STA 97+00.00 & DALE MABRY

LINE "B"

243

CONST. 6" CONC. CURB & GUTTER

Existing 8" W.M.

CONST. 2 LINES 488' EACH OF 60" PIPE

P.O.T. STA 96+25.60 & DALE MABRY P.O.T. STA 20+00.00 & MARLIN AVE

CONST. 4" CONC. S/W

92 93 94 95 96

CONST. TYPE "E" CURB & GUTTER

END OVERLAY

E DALE MABRY AVE. N 0°56'12"E

Existing 20" Water Main

CONST. GRAVITY WALL INDEX NO. 1915

E MARLIN AVE S 89°48'08"E

CONST. 24" PIPE

(S-51)

LIMITS

CONCRETE DITCH (REMOVED)

CONST. 6" CONC. CURB & GUTTER

Exist. Conc Ditch

(S-45)

CONST. 132' OF 18" PIPE

(S-46)

STA. 91+55

CONST. 4' CONC. PAVT. 3" THK. INDEX NO 1101

FOR PROFILE OF MARLIN AVE., SEE SHEET NO. 54

30' R

CONST. 6" CONC. CURB & GUTTER

CONST. 40' OF 24" PIPE (S-50)

10' CURB TRANS. (S-49)

CONST. 22' OF 15" PIPE

10' CURB TRANS.

MATCH EXISTING PAVT. & GUTTER

+10.00

20 15 10 5 0

EL. 13.73

0.0000%

TOP OF GRAVITY WALL (S-45)

Existing 8" Water Main

Existing Ground (S-46)

Existing 20" Water Main

CONST. 18" PIPE

EL. 4.8

CONST. 60" PIPES

FLOW

P.C. STA 94+00.00 EL 13.73

-0.2400%

EL 13.14

+50.00

EL 12.38

(S-48) NO. V.C.

CONST. CONC. "V" DITCH P.T.

+0.3000%

P.T. SHIFTS 11' LT. AHEAD

-0.2400%

PROFILE GRADE DALE MABRY

EL 12.78

(S-51)

Existing 8" Water Main

Existing 20" Water Main

EL. 5.5

CONST. 22" PIPE

END DITCH EL. 11.26

91 92 93 94 95 96 97

Contract No. 1

84/1

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO. / BY / DATE

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO. / BY / DATE

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		26
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-13

STATE JOB No. 10002-3501

Scale 1"=20'

MATCH LINE STA 97+00.00 & DALE MABRY

MATCH LINE STA 103+00.00 & DALE MABRY

LINE 'B'

CONST. 225' OF GUARDRAIL

CONST. 30" PIPE

CONST. 64' OF 30" PIPE

CONST. 6" CONC. CURB & GUTTER

CONST TYPE 'E' CURB & GUTTER

CONST 4" CONC S/W

CONST. 74' OF 30" PIPE

CONST 15' OF 30" PIPE

CONST. 60' OF 24" PIPE

CONST. 122' OF 24" PIPE

CONST. 39' OF 18" PIPE

RETURN No. 2

CONST. 48" PIPE

LINE 'A' 90° R

CONST. 4' CONC S/W

CANDY BLVD

10 x 3 Box Culvert

ADD 19' OF 15" R.C.P.

CONST. 18" PIPE

RETURN No. 3

CONST. 15" PIPE

POT STA 100+00.00 DALE MABRY

POT STA. 60+74.25 CANDY

℄ DALE MABRY AVE.

CONST. 4" CONC S/W

CONST. 6" CONC. CURB & GUTTER

CONST TYPE 'E' CURB & GUTTER

CONST. 6" CONC. CURB & GUTTER

CONST. 18" PIPE

CONST. 15" PIPE

RETURN No. 1

Driveway

Existing 8" W.M.

Existing 20" W.M.

AS BUILT NOTES

1. RELOCATE SYSTEM FROM S-52 TO S-57
2. ADDED 119' OF 15" R.C.P.
3. RELOCATED SYSTEM FROM S-34 TO S-36

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

120' V.C.

100' V.C.

Existing Ground

PROFILE GRADE DALE MABRY

-0.2400%

+1.0000%

+1.0000%

-0.6263%

PVC STA 98+15.00 EL 12.50

PVT STA 98+35.00 EL 12.96

PVC STA 99+89.00 EL 13.50

PVT STA 100+00.00 EL 13.61

PVC STA 100+60.00 EL 13.01

PVT STA 101+00.00 EL 12.51

PVC STA 101+82.00 EL 12.82

PVT STA 102+50.00 EL 13.39

PVT STA 103+00.00 EL 13.78

12.48 12.50 12.57 12.67 12.82 12.81 12.71 12.70 12.73 13.44 13.55 13.58

24" RCP

Existing 8" Water Main

Existing 20" Water Main

CONST 24" PIPE

CONST 18" PIPE

CONST 15" PIPE

CONST 48" PIPE

10 x 3 Box Culvert

3 x 4 Box Culvert

FL 78

FL 76

FL 52

FL 50

(S-54) - FL 4.75

(S-55) - FL 4.7

(S-56) - FL 4.5

FL 79

FL 78

FL 9.1

FL 8.3

FL 8.45

22' V.C.

97 98 99 100 101 102 103

Contract No. 1

84

AS BUILT

DEC. 30, 1975

STATE JOB No 10002-3501

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		27
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-78

FINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, AREAS, AREAS CHECKED, BY, DATE, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, AREAS, AREAS CHECKED, BY, DATE, NO.

MATCH LINE STA 103+00.00 & DALE MABRY

MATCH LINE STA. 109+00.00 & DALE MABRY

CONST. 15" CMP

(S-67)

Scale 1"=20'

(S-69)

CONST. 60' OF 18" PIPE

CONST. 144' OF 18" PIPE

CONST. TYPE "E" CURB & GUTTER

CONST'T 6" CONC CURB & GUTTER

104 105 106 107 108

℄ CONST & CONL S/W

℄ DALE MABRY N 0°-56'-12"E

CONST. 6" CONC CURB & GUTTER

Existing 20" Water Main

30"-14" CMP

24"-14" CMP

18" RCP

460 461

STA 459+33.29 LINE "D"
35' RT STA 104+74.95
℄ DALE MABRY

P.C. STA 461+05.32

CONST. TYPE "E" CURB & GUTTER

CONST. 28' OF 15" PIPE (S-72)

CONST. 68' OF 18" PIPE

CONST. 80' OF 18" PIPE (S-76)

462 LINE "D"

N 29°-59'-53"E

P.T. STA. 462+40.92

℄ PROJECT N 29°-59'-53"E

62 63

CONST. 232' OF 30" PIPE

CONST. 70' OF 18" PIPE

CONST. 4" CONC S/W Existing 30" Water Main

CONST. 6" CONC CURB & GUTTER

18" RCP

(S-77)

STA 108+35.87 ℄ DALE MABRY
STA 63+22.21 ℄ PROJECT

LINE "C"

N 33°-59'-53"E

PROFILE

P.C. STA 103+00
EL 13.70

P.T. STA 103+50
EL 13.55

100' V.C.

Existing Ground

PROFILE GRADE DALE MABRY

-0.3000%

20"-14" CMP

24"-18" CMP

18" RCP

CONST 18" PIPE

CONST 15" CMP W

FL 7.0

FL 6.8

P.C. STA 107+50.00
EL 14.85

150' V.C.

P.T. STA 109+00.00
EL 14.40

+0.7500%

(S-72) A

"D-1"

CONST 18" PIPE E

CONST 30" PIPE

FL 6.3

FL 4.7

FL 4.5

P.T. STA 107+50.00
EL 14.25

103 104 105 106 107 108 109

Contract No. 1

84

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
By: J.E.G.	1	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 7-73

STATE JOB No. 10002-3501

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
AREAS CHECKED		
NO		

Scale 1"=20'

MATCH LINE STA. 109+00.00 & DALE MABRY

363

364

110

111

112

113

114

64

65

CONST. 30" PIPE

CONST. TYPE "B" FENCE

CONST. 6" CONC. CURB & GUTTER

CONST. GUARDRAIL

(S-78)

CONST. 30" PIPE

℄ 2 N 33° 58' 53" E

CONST. TYPE "E" CONC. CURB & GUTTER

CONST. 800' OF GUARDRAIL

CONST. 6" CONC. CURB & GUTTER

Existing 20" Water Main

18" RCP

N 39° 55' 53" E ℄ PROJECT

STA 64+82.68 LINE "2" 43' LT.

STA 64+82.68 ℄ PROJECT

MATCH LINE STA. 115+00.00 & DALE MABRY

REMOVE TO EXISTING STRUCTURE APPROX STA. 112+75.00

MATCH EXIST. PAVT. STA. 116+15.00

Existing 20" W.M.

(S-87)

CONST. 12' OF 5'x4' BOX CULVERT

℄ DALE MABRY

N 0° 56' 12" E

2 P.I. ℄ BT.

CONST. 4' CONC. S/W.

OVERLAY

CONST. GUARDRAIL

(S-88)

24"x14" CMP

CONST. 12' OF 5'x4' BOX CULVERT

8"RCP

Existing 20" Water Main

CONST. TYPE "B" FENCE

MATCH LINE STA. 115+00.00 & DALE MABRY

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
AREAS CHECKED		
NO		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
AREAS CHECKED		
NO		

+0.7300%

(S-78)

Existing 20" Water Main

18" RCP

CONST. 30" PIPE

FL. 4.0

CONST. 24" PIPE NW TO S-77A

P.C. STA. 110+00.00 ℄ DALE MABRY

EL. 14.75

℄ WITH SHIFT 14.85

18" RCP

18" RCP

℄ Existing 20" Water Main

P.I. STA. 114+00.00

EL. 16.00

℄ WITH SHIFT 16.28

350' V.C.

P.V.I. STA. 114+25.00

EL. 24.98

+5.0000%

EL. 28.73

Existing Ground

EL. 28.73

+5.0000%

EL. 33.23

Existing Ground

PROFILE GRADE DALE MABRY

109 110 111 112 113 114 115 116

Contract No. 1

84

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	1		29
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 7-73

STATE JOB No. 10002-3501

CURVE NO. "1-C"
P.I. STA. 352+43.00
Δ = 48°-31'-12.0"
D = 19°-05'-54.9"
R = 300.0'
L = 254.05
T = 135.20
S.E. = SEE PROFILE

Scale 1"=50'

N. 1,294,500

E. 335,500

E. 336,500

℄ CHURCH ST.
N 29°-59'-53"E

MATCH EXIST. PAV'T. STA. 11+75.00 ℄ CHURCH ST.

FOR INTERSECTION DETAILS SEE SHEET No. 20

RETURN No. 5

30' SIGN POLES

RETURN No. 4

CONST. 24" PIPE

CONST. 10'x4' BOX CULVERT

DBL. 4'x3' BOX CULVT.

DBL. 3'x4' Box Culvert

CONST. 7'x6' BOX CULVT.

S 89°-28'-55" E

CONST. 18" PIPE

CONST. 15" PIPE

CONST. 8" PIPE

CONST. 24" PIPE

CONST. 96" OF 18" PIPE

TYPE "B" FENCE

STA. 4+13.85 ℄ GANDY BLVD
STA. 10+00.00 ℄ CHURCH ST.

STA. 50+00.00 ℄ GANDY BLVD
STA. 50+57.60 TRAVERSE

FOR RAILROAD CROSSING DETAILS SEE SHEET No. 20

CONST. 10' BOX ST. DITCH W/2:1 SIDE SLOPES

CONST. SHOULDER GUTTER

CONST. 32' OF 15" C.M.P.

CONST. 300.0' OF GUARDRAIL

CONST. 324' OF 15" C.M.P.

CONST. 5250' OF GUARDRAIL

BEGIN CONSTRUCTION STATE JOB NO. 10002-3501 STA. 501+35.86

℄ PROJECT

N 29°-59'-53" E

CONST. TYPE "B" FENCE

CURVE "1-A"
P.I. STA. NONE
Δ = 236°-31'-12.1"
D = 38°-11'-49.9"
R = 150.00
LC = 419.21
LS1 = 200.00
S ANG 1 = 38°-11'-49.9"
T S1L = 136.58
T S1S = 69.62
LS2 = 200.00
S ANG 2 = 38°-11'-49.9"
T S2L = 136.58
T S2S = 69.62
S.E. SEE PROFILE

CURVE "1-B"
P.I. STA. NONE
Δ = 289°-20'-03.2"
D = 24°-54'-40.4"
R = 230.00
LC = 972.59
LS1 = 225.00
S ANG 1 = 28°-01'-30.4"
T S1L = 151.92
T S1S = 76.75
LS2 = 225.00
S ANG 2 = 28°-01'-30.4"
T S2L = 151.92
T S2S = 76.75
S.E. SEE PROFILE

CONST. 435' OF GUARDRAIL

CONST. SHOULDER PAV'T.

CONST. 18" PIPE

CONST. 581.5' OF GUARDRAIL

STA. 55+51.64 ℄ GANDY BLVD.
STA. 52+93.12 ℄ PROJECT

CONST. 165' OF GUARDRAIL

CONST. 225' OF GUARDRAIL

STA. 55+91.32 ℄ GANDY BLVD.
STA. 152+36.22 LINE "1"

CONST. 15" PIPE

CONST. 18" PIPE

CONST. 48" PIPE

CONST. 30" PIPE

CONST. 225' GUARDRAIL

CONST. 2 LINES 480' EACH OF 60" PIPE

STA. 60+71.25 ℄ GANDY BLVD.
STA. 100+00.00 ℄ DALE MABRY

CONST. 18" PIPE

FOR INTERSECTION DETAILS SEE SHEET Nos. 22 & 26

CONST. 24" PIPE

CONST. 24" PIPE

CONST. 15" PIPE

CONST. 48" PIPE

CONST. 24" PIPE

CONST. 15" PIPE

CONST. 18" PIPE

CONST. 24" PIPE

CONST. 15" PIPE

CONST. 24" PIPE

CONST. 24" PIPE

CONST. 24

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		R/W-1
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-8-73

AS BUILT

DEC. 30, 1975

CURVE DATA

℄ PROJECT

CURVE NO. 1
P.I. STA. 74+82.21
Δ = 14°17'-55.6" LT.
D = 1°00'-00"
T = 718.67'
L = 1,429.88'
R = 5,729.58'
P.C. STA. 67+63.54
P.T. STA. 81+93.42

CURVE NO. 2
P.I. STA. 93+97.98
Δ = 14°17'-55.6" RT.
D = 1°30'-00"
T = 479.12'
L = 953.25'
R = 3,819.72'
P.C. STA. 89+18.86
P.T. STA. 98+72.1

℄ HIMES AVE.

CURVE NO. "H-1"
P.I. STA. 53+36.70
Δ = 5°56'54" RT.
D = 2°30'00"
R = 2,291.83'
L = 237.94'
T = 119.07'
P.C. STA. 52+17.62
P.R.C. STA. 54+55.56

CURVE NO. "H-2"
P.I. STA. 55+74.63
Δ = 5°56'54" LT.
D = 2°30'00"
R = 2,291.83'
L = 237.94'
T = 119.07'
P.R.C. STA. 54+55.56
P.T. STA. 56+93.50

℄ RAMP "A"

CURVE NO. I-A
P.I. STA. NONE
Δ = 236° 31' 12.1"
R = 150.00'
D = 38° 11' 50"
Lc = 419.21'
Ls1 = 200.00'
Ss1 = 38°11'50"
Ts1 = 136.58'
Ts1s = 69.62'
Ls2 = 200.00'
Ss2 = 38°11'50"
Ts2L = 136.58'
Ts2s = 69.62'

℄ RAMP "B"

CURVE NO. I-B
P.I. STA. NONE
Δ = 298° 20' 03.2"
D = 24° 54' 40.4"
R = 230.00'
Lc = 972.59'
Ls1 = 225.00'
Ss1 = 28° 01' 30.4"
Ts1 = 151.92'
Ts1s = 76.75'
Ls2 = 225.00'
Ss2 = 28° 01' 30.4"
Ts2L = 151.92'
Ts2s = 76.75'

LINE "A" (RELOCATED S.C.L. R.R.)

CURVE NO. 1
P.I. STA. 88+50.06
Δ = 5°18' 18.4" LT.
D = 1°00' 00"
R = 5,729.65'
Lc = 480.52'
T1 = 290.45'
T2 = 290.45'
La = 50.00'
Sa = 0°15' 00"
Ts = 33.33'
Ts1 = 16.67'
La = 50.00'
Sa = 0°15'00"
Ts = 33.33'
Ts2 = 16.67'

CURVE NO. 2
P.I. STA. 95+52.70
Δ = 5°18' 18.4" RT.
D = 1°00' 00"
R = 5,729.65'
Lc = 480.52'
T1 = 290.45'
T2 = 290.45'
La = 50.00'
Sa = 0°15' 00"
Ts = 33.33'
Ts1 = 16.67'
La = 50.00'
Sa = 0°15'00"
Ts = 33.33'
Ts2 = 16.67'

℄ RAMP "C"

CURVE NO. I-C
P.I. STA. 352+43.00
Δ = 48°-31'-12" LT.
D = 19°-05'-54.9"
R = 300.00'
Lc = 254.05'
T = 135.20'
P.C. STA. 351+07.79
P.T. STA. 353+61.84

CURVE NO. 2-C
P.I. STA. 358+18.01
Δ = 8°-00'-00" LT.
D = 4°-00'-00"
R = 1432.39'
Lc = 200.00'
T = 100.16'
P.C. STA. 357+17.84
P.T. STA. 359+17.84

℄ RAMP "D"

CURVE NO. I-D
P.I. STA. 461+74.22
Δ = 25°-03'-40.9" RT.
D = 18°-28'-57"
R = 310.00'
Lc = 135.60'
T = 68.90'
P.C. STA. 461+05.32
P.T. STA. 462+40.92

CURVE NO. 2-D
P.I. STA. 468+84.20
Δ = 10°-30'-37.5" LT.
D = 1°-30'-00"
R = 3819.72'
Lc = 700.69'
T = 351.33'
P.C. STA. 465+32.87
P.T. STA. 472+33.57

SCALE: 1" = 200'

T30S, R18E

STATE ROAD 449

SEE SHEET 2 · SEE SHEET 3 · SEE SHEET 4 · SEE SHEET 5 · SEE SHEET 6 · SEE SHEET 7

PROPERTY ACQUIRED UNDER SECTION 10002-2511 CONTRACT 9-B

℄ PROJECT & ℄ CONSTRUCTION

℄ SURVEY

℄ RAMP "A" · ℄ RAMP "B" · ℄ RAMP "C" · ℄ RAMP "D"

RELOCATED S.C.L. R.R. ℄ LINE "A"

EXIST. R.R. R/W LINE · EXIST. R/W LINE · L/A R/W LINE · END L/A LINE · CONST. EASEMENT · R/W LINE

TA 99+81.22 · TA 112+67.00 · TA 111+61.02

S.C.L. R.R. · (U.S. 92) · S.R. 685 · S.R. 600 (U.S. 92)

P.O.T. STA. 64+82.68 ℄ PROJECT
P.O.T. STA. 364+82.68 ℄ RAMP "C" 43' LT.

P.O.T. STA. 52+61.45 ℄ GANDY BLVD.
T.S. STA. 141+65.66 ℄ RAMP "A" 59' RT.

P.O.T. STA. 51+91.54 ℄ PROJECT
P.O.T. STA. 361+51.54 ℄ RAMP "A" 43' LT.

P.O.C. STA. 77+00.00 ℄ PROJECT
P.O.T. STA. 477+00.00 ℄ RAMP "D" 61' RT.

P.O.T. STA. 47+24.73 ℄ PROJECT
P.O.T. STA. 347+24.73 ℄ RAMP "B" 38' RT.

BEGIN R/W PROJECT SECTION 10002-2501 STA. 47+24.73 ℄ CONST.

EQUALITY
END R/W PROJECT SECTION 10002-2501 STA. 112+81.44 ℄ CONST.
BEGIN R/W PROJECT SECTION 10002-2502 STA. 112+67.00 ℄ SURVEY

INSERT "A" · MATCH LINE

COACHMAN ST. · FIELDER ST. · GRADY AVE. · PLAYGROUND · S. CLARK AVE. · GANDY BLVD. S.R. 600 (U.S. 92) · CHURCH ST. · PORT TAMPA · DALE MABRY · HIMES AVE. · OAKELLAR ST. · VILLA ROSA AVE. · BEAUMONT ST. · ALLINE ST. · DORCHESTER ST. · CARRINGTON ST. · AIR OAKS AVE. · LAWN AVE. · HARBOR VIEW ROAD · KNIGHTS AVE. · WALLCRAFT AVE. · TAMPA AVE. · DREXEL · GREENWOOD DRIVE · EUCLID AVE. · TO TAMPA

CITY OF TAMPA FLORIDA

NOTE: HORIZONTAL CONTROL DATUM IS BASED ON U.S.C.& G.S. GRID COORDINATE SYSTEM N.A.D. 1927.

UTILITY OWNERS

TELEPHONE LINES, CABLES AND POLES	GENERAL TELEPHONE COMPANY 519 ZACK ST. TAMPA, FLORIDA
POWER LINES, CABLES AND POLES	TAMPA ELECTRIC COMPANY TAMPA, FLORIDA.
WATER SYSTEM, SANITARY SEWER SYSTEM, FIRE ALARM SYSTEM	CITY OF TAMPA, TAMPA, FLA.
NATURAL GAS SYSTEM	PEOPLES GAS COMPANY 215 S. TAMPA ST. TAMPA, FLA.

RIGHT-OF-WAY MAPS ARE FOR CONTRACTOR'S INFORMATION ONLY

NO.	REVISION	BY	DATE
1	Added Sheet 7 and R/W LINES J.E.G.	K.E.W.	9-5-73

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

KEY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE DATE 11-10-71 · TRACED W. J. M. DATE 2-2-73
CHECKED A. J. M. DATE 2-3-73 · SCALE 1" = 200'

Contract No. 1 SHEET NO. 1 OF 7 (84/1)

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		R/W-2
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-8-73

STATE ROAD 449

AS BUILT

DEC. 30, 1975

SCALE: 1" = 50'

T30S, R18E

AL-MAR SUBDIVISION
P.B. 29 PAGE 29 P.R.H.C.F. Filed: SEPT. 20, 1948

CHURCH ST.

S.C.L. R.R.

EXIST. R/W LINE

EXIST R.R. R/W LINE

TRAILER PARK

B RAMP "C"

P.T. STA. 353+61.84

EQUALITY: P.O.T. STA. 52+28.60 ℄ GANDY BLVD. = P.C. STA. 351+07.79 ℄ RAMP "C"

N 51°-59'-53" E

℄ PROJECT & ℄ CONSTRUCTION

N 29°-59'-53" E

EQUALITY: STA. 55+54.36 ℄ PROJECT = POT. STA. 195+51.48 ℄ RAMP "A" 43 LT

MATCH LINE TO SHEET 3

S.R. 685 (U.S. 92)

S.R. 600

ALUM. CURB SERVICE SHED

FR. FUEL OIL PUMP SHED

1 STY. C.B. COMM.

1 STY. MOTEL

2 STY. C.B. MOTEL

1 STY. FR. COMM.

1 STY. C.B. COMM.

EXIST. R/W LINE

GANDY BLVD.
S.R. 600 (U.S. 92)

℄ GANDY BLVD.

S89°-28'-55"E

STA. 53+50.56

60°31'-12"

END L/A LINE

L/A R/W LINE

80.97

197.81'

Existing R/W Line?

CONSTRUCTION LIMIT OF

N 76°-48'-05"W 122.22'

R/W LINE

128.1

378.80'

516.93'

994.72'

1209.19'

477.79'

EQUALITY: STA. 52+93.12 ℄ PROJECT = STA. 55+74.36 ℄ GANDY BLVD.

EQUALITY: STA. 60+74.25 ℄ GANDY BLVD = STA. 100+00.00 ℄ DALE MABRY

STA. 52+35.69

S.C. STA. 145+65.66

S.T. STA. 149+84.87

EQUALITY: P.O.T. STA. 52+6.45 ℄ GANDY BLVD. = T.S. STA. 141+65.66 ℄ RAMP "A"

EQUALITY: P.O.T. STA. 52+29.51 ℄ PROJECT = ST STA. 252+29.51 ℄ RAMP "D"

EQUALITY: P.O.T. STA. 58+08.83 ℄ PROJECT = T.S STA. 238+06.92 ℄ RAMP "B"

S.C. STA. 240+31.92

℄ RAMP "A"

℄ RAMP "B"

C.S. STA. 250+04.51

C.S. STA. 147+84.87

1-A

1-B

PLAYGROUND

1 STY. C.B. COMM.

100.1 -R

100.2 -R

100.3 -R

15' R/W EASEMENT TO TAMPA ELECTRIC CO O.R.B. 1657 PG. 441

LIMITS OF CONSTRUCTION

466.24'

N 75°-11'-51"W

N 29°-59'-53"E

BEGIN R/W PROJECT SECTION 10002-2501 STA. 47+24.46 ℄ CONST.

N 00°-56'-12"E 630.00'

N 75°-11'-51"W 747.99'

INSERT "A"

DRIVE-IN THEATRE

L/A R/W LINE

747.99'

1214.23'

SEE INSERT "A"

TO SHEET 7

N 00°-56'-12"E 630.00'

MATCH LINE

EXIST. R/W LINE

L/A R/W LINE

DALE MABRY HWY.

℄ DALE MABRY

ALLISON BUSINESS SITES
FILED: JUNE 8 1948 P.B. 29 PG. 22 P.R.H.C.F.

MARLIN AVENUE

LEGEND

POWER POLE	
TELEPHONE POLE	
COMBINATION POLE	
LIGHT STANDARD	
GUY WIRE & ANCHOR PIN	
BURIED ELECTRIC POWER CABLE	E
ELECTRIC DUCT	E
BURIED TELEPHONE CABLE	T
TELEPHONE DUCT	T
WATER MAIN	W
GAS MAIN	G
DRIP POT	
VALVE	
FIRE HYDRANT	
AIR VALVE	
BLOW-OFF	
SANITARY SEWER	S
STORM SEWER	
MANHOLE	
STREET NAME FROM PLAT	
PUBLIC RECORDS HILLSBOROUGH COUNTY FLA.	P.R.H.C.F.
PROPERTY LINE	R
IRON PIPE	I.P. O
IRON ROD	I.R. O
CONCRETE MONUMENT	C.M. O
FIELD DIMENSION	(F)
DEED DIMENSION	(D)
CALCULATED DIMENSION	(C)

PARCEL NUMBER	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
100.1-R	P. J. SONES, Et al	12.29 Ac.	*	*
128-1	LONE STAR INDUSTRIES	1520 S.F.	177,529.44 S.F.	—

* NOTE: REMAINDER NOT SHOWN WHEN OWNERSHIP ENCOMPASSES PROPERTIES TOO LARGE TO BE SHOWN AT THIS SCALE.

NOTE: PARCEL TITLE TO BE ACQUIRED IN FEE SIMPLE UNLESS OTHERWISE DENOTED.

CURVE DATA

℄ RAMP "A" CURVE 1-A			℄ RAMP "B" CURVE 1-B	
P.I. STA.	NONE		P.I. STA.	NONE
Δ	= 236°-31'-12.1"		Δ	= 298°-20'-03.2"
D	= 38°-11'-50"		D	= 24°-54'-40.4"
R	= 150.00'		R	= 230.00'
Lc	= 419.21'	Ls = 200.00'	Lc	= 972.59'
Ls1	= 200.00'	Ls2 = 38°-11'-50"	Ls1	= 225.00'
S.Δ1	= 38°-11'-50"	TsL = 136.58'	S.Δ1	= 28°-01'-30.4"
TsL	= 136.58'	Ts2 = 69.62'	TsIL	= 151.92'
Ts2	= 69.62'		Ts1S	= 76.75'
			Ls	= 225.00'
			S.Δ2	= 28°-01'-30.4"
			TsL	= 151.92'
			Ts2	= 76.75'

RIGHT-OF-WAY MAPS ARE FOR CONTRACTOR'S INFORMATION ONLY

NO.	REVISION	BY	DATE
2	Added Note J.E.G.	W.J.M.	1-7-74
1	Removed Parcel 104.1 (Shown on Sheet 7 J.E.G.	K.E.W.	9-5-73

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W. J. M. DATE 11-2-71 TRACED F. J. R. DATE 5-2-73
CHECKED K.E.W. DATE 5-4-73 SCALE 1" = 50'

Contract No. 1

SHEET NO. 2 OF 84

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		R/W-3
By: J.E.G	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 3-8-73

STATE ROAD 449

AS BUILT

DEC. 30, 1975

PARCEL NUMBER	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
101.1-R	ROBERT H. GIERTSEN, et ux	3.31 Ac.	—	—
102.1-R	LEE & POMEROY, INC.	4.44 Ac.	1.43 Ac.	—
103.1-R	(SHOWN ON SHEET 7)			
105.1-R	JACK L. RODRIGUEZ, et al	3.81 Ac.	—	—
106.1-R	HONEY, INCORPORATED	0.69 Ac.	—	—
107.1-R	JOHN O. WEIDENKOPF	1.17 Ac.	*	—
108.1-R	PHILIP MILITELLO, et ux	20673 S. F.	9327 S.F.	—
109.1-R	ANTHONY T. FRISCO, et al	1.64 Ac.	4300 S.F.	—
113.1-R	LENOLA M. WEBBER	TEMP. CONST. EASMT.	—	—
114.1-R	JOHN A. STEVENS, Et ux	TEMP. CONST. EASMT.	—	—
127.1	JOHN A. STEVENS, Et ux	41 Sq. Ft.	19959 S.F.	—

+ NOTE: REMAINDER NOT SHOWN WHEN OWNERSHIP ENCOMPASSES PROPERTIES TOO LARGE TO BE SHOWN AT THIS SCALE.

NOTE: PARCEL TITLE TO BE ACQUIRED IN FEE SIMPLE UNLESS OTHERWISE DENOTED.

SCALE: 1" = 50'

T30S, R18E

S.C.L. R.R.

MATCH LINE TO SHEET 4

MATCH LINE TO SHEET 2

END L/A LINE

L/A R/W LINE

EXIST R.R. R/W LINE

EXIST. R/W LINE

LIMITS OF CONSTRUCTION

℄ PROJECT & ℄ CONSTRUCTION

GANDY BLVD. SR. 600 (U.S. 92)

℄ GANDY BLVD.

℄ DALE MABRY HWY.

AL-MAR SUB. PB 29, P 29 - Filed Sept 20, 1948

S.R. 600 S.R. 685 (U.S. 92)

℄ RAMP "C"

℄ RAMP "D"

EQUALITY: P.O.T. STA. 52+28.60 ℄ GANDY BLVD. = P.C. STA. 351+07.79 ℄ RAMP "C" 59' LT.

EQUALITY: STA. 52+93.12 ℄ PROJECT = STA. 55+74.36 ℄ GANDY BLVD.

EQUALITY: STA. 60+74.25 ℄ GANDY BLVD. = STA. 100+00.00 ℄ DALE MABRY

EQUALITY: P.O.T. STA. 64+82.68 ℄ PROJECT = P.O.T. STA. 364+82.68 ℄ RAMP "C" 43' LT.

EQUALITY: STA. 62+22.21 ℄ PROJECT = STA. 108+35.87 ℄ DALE MABRY

EQUALITY: P.O.T. STA. 104+74.95 ℄ DALE MABRY = P.O.T. STA. 459+38.29 ℄ RAMP "D" 35' RT.

P.C. STA. 352+43.00

P.I. STA. 358+18.01

P.T. STA. 353+61.84

P.C. STA. 357+17.84

P.T. STA. 359+17.84

P.C. STA. 461+05.32

P.I. STA. 461+74.22

P.T. STA. 462+40.92

P.C. STA. 465+32.87

STA. 53+50.56

STA. 62+19.27

STA. 64+25.14

TEMPORARY CONSTRUCTION EASEMENT

EASEMENT TO HONEY INC. O.R.B. 1864, P. 1

EASEMENT TO THE PENINSULA STATE BANK O.R.B. 2203, P. 1931

TRAILER PARK

RIGHT-OF-WAY MAPS ARE FOR CONTRACTOR'S INFORMATION ONLY

CURVE DATA

CURVE NO. 1-C	CURVE NO. 2-C	CURVE NO. 1-D
P.I. STA. 352+43.00	P.I. STA. 358+18.01	P.I. STA. 461+74.22
Δ = 48° 31'-12" LT.	Δ = 8° 00'-00" LT.	Δ = 25° 03'-40.9" RT.
D = 19° 05'-54.9"	D = 4° 00'-00"	D = 18° 28'-57"
R = 300.00'	R = 1432.39'	R = 310.00'
Lc = 254.05'	Lc = 200.00'	Lc = 135.60'
T = 135.20'	T = 100.16'	T = 68.90'
P.C. STA. 351+07.79	P.C. STA. 357+17.84	P.C. STA. 461+05.32
P.T. STA. 353+61.84	P.T. STA. 359+17.84	P.T. STA. 462+40.92

LEGEND

POWER POLE	
TELEPHONE POLE	
COMBINATION POLE	
LIGHT STANDARD	
GUY WIRE & ANCHOR PIN	
BURIED ELECTRIC POWER CABLE	—ELE—
ELECTRIC DUCT	—ELE DUCTS—
BURIED TELEPHONE CABLE	—TELE—
TELEPHONE DUCT	—TEL DUCTS—
WATER MAIN	—8"W—
GAS MAIN	—G—
DRIP POT	
VALVE	
FIRE HYDRANT	
AIR VALVE	
BLOW-OFF	
SANITARY SEWER	—8"SAN—
STORM SEWER	—12"S—
MANHOLE	
STREET NAME FROM PLAT	W
PUBLIC RECORDS	P.R.M. F.
PROPERTY LINE	
IRON PIPE	I.P. O
IRON ROD	I.R. O
CONCRETE MONUMENT	C.M. O
FIELD DIMENSION	(F)
DEED DIMENSION	(D)
CALCULATED DIMENSION	(C)

NO.	REVISION	BY	DATE
4	Added Note	J.E.G.	W.J.M.	1-7-74
3	Revised Parcel 114.1-R Added (127.)	J.E.G.	F.J.R.	10-5-73
2	Removed Parcel 103.1 (Shown on Sheet 7.)	J.E.G.	K.E.W.	9-5-73
1	Revised Building Ties Parcels 102.1 & 114.1	J.E.G.	F.J.R.	6-14-73

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS
TAMPA, FLORIDA

MADE _____ DATE 11-3-71 | TRACED F.J.R. DATE 5-3-73
CHECKED K.E.W. DATE 5-4-73 | SCALE 1" = 50'

Contract No. 1

SHEET NO. 3 OF 7

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		RW-4
By: J.E.G		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-8-73

STATE ROAD 449

AS BUILT

DEC. 30, 1975

SCALE: 1" = 50'

T30S, R18E

S.C.L. R.R.

DALE MABRY HWY. S.R. 600 -- S.R. 685 (U.S. 92)

EXIST. R.R. R/W LINE

N29°59'53"E 1232.59'

L/A R/W LINE

EXIST. R/W LINE N00°56'12"E

L/A R/W LINE 300.60'

N29°59'53"E L/A R/W LINE 108.82'

12.69' N00°56'12"E

202.24'

82.61'

N89°43'19"W 107.67'

60.57'

N07°35'30"W 59.06'

202.03'

81.03'

N09°28'06"E 60.78'

60.42'

L/A R/W LINE

N89°43'19"W 250.85'

57.31'

203.25'

413.88'

213.03'

173.46'

386.19'

STA. 67+63.54 P.C.

STA. 68+77.67

STA. 68+09.12

N29°59'53"E

1°00'00" CURVE LT.

℄ PROJECT & ℄ CONSTRUCTION

70

75

80

LIMITS OF CONSTRUCTION

MATCH LINE P.T. STA. 81+93.42

SEE SHEET 5

CONTRACT 9B

SECTION 10002-2511

EQUALITY:
P.O.T. STA. 77+00.00 ℄ PROJECT =
P.O.T. STA. 477+00.00 ℄ RAMP D 61' RT.

+00.00 61.00'

+00.00 150.00'

+00.00 75.00'

P.T. STA 472+33.57

1°30'-00" CURVE LT.

℄ RAMP "D"

470

475

+33.57 75.00'

+37.92 57.00'

N19°29'16"E

N21°44'53"E 306.27'

N15°54'26"E 923.92'

N19°29'16"E 466.43'

N21°33'08"E 280.61'

N26°21'07"E 144.86'

N00°51'13"E 67.37'

76.35'

221.21'

N32°15'34"E 70.73'

N89°43'19"W 811.40'

285.40'

EXISTING R/W LINE

MATCH LINE SHEET 3

ACQUIRED UNDER SECTION 10002-2511 CONTRACT 9B

L/A R/W LINE

+39.17 338.42

E336,250

E336,500

E336,750

E337,000

E337,250

N1,294,000

N1,294,250

N1,294,500

N1,294,750

N1,295,000

N1,295,250

N1,295,500

N1,295,750

N1,296,000

N1,296,250

N1,296,500

N1,296,750

120

150'

TEL. UNDERGROUND MARKER

109.1-R

106.1-R

106.2-R

115.1-R

101-R

102-R

112.1-R

112.2-R

112.3-R

① P.C. STA. 67+63.54

CURVE DATA

CURVE NO. 1

P.I. STA. 74+82.21
Δ = 14°17'-55.6" LT.
D = 1°-00'-00"
T = 718.67'
L = 1,429.88'
R = 5,729.58'
P.C. STA. 67+63.54
P.T. STA. 81+93.42

CURVE NO. 2-D

P.I. STA. 468+84.20
Δ = 10° 30'-37.5" LT.
D = 1° 30'-00"
R = 3819.72'
Lc = 700.69'
T = 351.33'
P.C. STA. 465+32.87
P.T. STA. 472+33.57

SEE INSERT "A" SHEET 3

PARCEL NUMBER	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
110.1-R	JACK L. RODRIGUEZ, et ux	2999 S.F.	—	—
112.1-R	CHARLES E. MENDEZ, Jr.	1188 S.F.	*	*
115.1-R	CITY OF TAMPA	0.67 Ac.	*	—

* NOTE: REMAINDER NOT SHOWN WHEN OWNERSHIP ENCOMPASSES PROPERTIES TOO LARGE TO BE SHOWN AT THIS SCALE.

NOTE: PARCEL TITLE TO BE ACQUIRED IN FEE SIMPLE UNLESS OTHERWISE DENOTED.

LEGEND

POWER POLE
TELEPHONE POLE
COMBINATION POLE
LIGHT STANDARD
GUY WIRE & ANCHOR PIN
BURIED ELECTRIC POWER CABLE
ELECTRIC DUCT
BURIED TELEPHONE CABLE
TELEPHONE DUCT
WATER MAIN
GAS MAIN
DRIP POT
HOUSE
FIRE HYDRANT
AIR VALVE
BLOW-OFF
SANITARY SEWER
STORM SEWER
MANHOLE
STREET NAME FROM PLAT
PUBLIC RECORDS HILLSBOROUGH COUNTY FLA. P.R.H.C.F.
PROPERTY LINE
IRON PIPE
IRON ROD
CONCRETE MONUMENT
FIELD DIMENSION
DEED DIMENSION
CALCULATED DIMENSION

RIGHT-OF-WAY MAPS ARE FOR CONTRACTOR'S INFORMATION ONLY

NO.	REVISION	BY	DATE
1	ADDED NOTE	J.E.G. W.J.M.	1-7-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M. DATE 11-5-71 TRACED F.J.R. DATE 5-3-73
CHECKED K.E.W. DATE 5-4-73 SCALE 1" = 50'

Contract No. 1

SHEET NO. 4 OF 7 84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		R/W-5
By: J.E.G		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-8-73

STATE ROAD 449

AS BUILT

DEC. 30, 1975.

SCALE: 1" = 50'

T30S, R18E

LINE "A" (RELOCATED S.C.L. R.R.)

CURVE NO. 1

P.I. STA. 88+50.06
Δ = 5°18' 18.4" LT.
D = 1°00' 00"
R = 5,729.65'
L_c = 480.52'
T_1 = 290.45'
T_2 = 290.45'
L_s = 50.00'
S_{A1} = 0°15' 00"
T_{R_1} = 33.33'
T_{R_2} = 16.67'
L_{S_1} = 50.00'
S_{A2} = 0°15' 00"
T_{R_3} = 33.33'
T_{R_4} = 16.67'

CURVE NO. 2

P.I. STA. 95+52.70
Δ = 5°18' 18.4" RT.
D = 1°00' 00"
R = 5,729.65'
L_c = 480.52'
T_1 = 290.45'
T_2 = 290.45'
L_s = 50.00'
S_{A1} = 0°15' 00"
T_{R_1} = 33.33'
T_{R_2} = 16.67'
L_{S_1} = 50.00'
S_{A2} = 0°15' 00"
T_{R_3} = 33.33'
T_{R_4} = 16.67'

CURVE DATA

CURVE NO. 2

P.I. STA. 93+97.98
Δ = 14° 17' 55.6" RT.
D = 1° 30' 00"
T = 479.12'
L = 953.25'
R = 3,819.72'
P.C. STA. 89+18.86
P.T. STA. 98+72.12

LEGEND

POWER POLE
TELEPHONE POLE
COMBINATION POLE
LIGHT STANDARD
GUY WIRE & ANCHOR PIN
BURIED ELECTRIC POWER CABLE — E — E —
ELECTRIC DUCT — E — E — E — E —
BURIED TELEPHONE CABLE — T — T — T —
TELEPHONE DUCT — T — T — T — T —
WATER MAIN — 8"W — 8"W —
GAS MAIN — G — G —
DRIP POT
VALVE
FIRE HYDRANT
AIR VALVE
BLOW-OFF
SANITARY SEWER — 8"SAN — 8"SAN —
STORM SEWER — 18"S S — 18"S S —
MANHOLE
STREET NAME FROM PLAT
PUBLIC RECORDS HILLSBOROUGH COUNTY FLA. P.R.H.C.F.
PROPERTY LINE
IRON PIPE I.P.O
IRON ROD I.R.O
CONCRETE MONUMENT C.M.O
FIELD DIMENSION (F)
DEED DIMENSION (D)
CALCULATED DIMENSION (C)

N1,297,000 N1,297,250 N1,297,500 N1,297,750 N1,298,000 N1,298,250 N1,298,750

E337,000 E337,250 E337,500 E337,750

T.S. STA. 85+59.62
S.C. STA. 86+09.62
EXIST. R.R. R/W LINE
① 1°00' 00" CURVE LT.
Tan. Brng. N26°03'20"E
C.S. STA. 90+90.13
Δ = 1°06' 45"
L = 111.55'
R = 5744.65'
T.S. STA. 92+62.25
Tan. Brng. N24°56'35"E
S.T. STA. 91+40.13
RELOCATED S.C.L. R.R. (LINE "A")
S.C. STA. 93+12.25
Tan. Brng. N24°56'35"E
Δ = 4°48' 16"
L = 479.25'
R = 5714.65'
② 1°00' 00" CURVE RT.
L/A R/W LINE
N29°59'53"E 1232.59'
N15°41'58"E 601.72'
N24°43'50"E 222.12'
EXISTING R.R. R/W (TO BE RELOCATED)
PARK
BALL
STY. SHED
LIMITS OF CONSTRUCTION
P.T. STA. 81+93.42
MATCH LINE SEE SHEET 4
N15°41'58"E
℄ PROJECT & ℄ CONSTRUCTION
② 1°30' 00" CURVE RT.
P.C. STA. 89+18.86
EXIST. R.R. R/W LINE
ACQUIRED UNDER SECTION 10002-2511 CONTRACT 9B
N15°54'26"E 923.92'
L/A R/W LINE
N18°33'29"E 365.99'
N23°21'27"E 248.61'
S00°33'39"W 75.97'
MATCH LINE SEE SHEET 6

INSERT "A"
280.61' N21°33'08"E
N19°29'16"E 466.43'
306.27' N21°44'53"E
N15°54'26"E 923.92'
N18°33'29"E 365.99'
248.61' N23°21'27"E
S00°53'39"W 75.97'
SCALE: 1"=200'
N89°53'19"W 2656.60'
COACHMAN ST.
80' R/W
4"x4" Conc. Mon. Iron Rod S.E. Cor. N.E. SEC. 4-30-18
S00°33'39"W 1193.02'
N87°32'01"E 60.10'
EXIST. R/W LINE
S00°47'24"W 1260.00'
1263.41' HIMES AVE.
90° 90°
SEC. 4, T30S, R18E
SEC. 3, T30S, R18E
SEE INSERT "A"

EXIST. R/W LINE
1193.02'
SECTION LINE
S00°33'39"W
SEC. 4, T30S, R18E
SEC. 3, T30S, R18E
INLET 10'-9.5" P. CURLET
HIMES AVE.
SUBDIVISION FILED AUG. 6, 1924
WALLCRAFT AVE. *
FIRST AVE. * LYNWOOD P.B. 10 PAGE 46
3' Utility Easement
5' Utility Easement
25 146.50' 146.18'
24 145.86'
23 145.54'
22 145.22'
44 43 42 41 40 39 38 37
⑨ ⑬

RIGHT-OF-WAY MAPS ARE FOR CONTRACTOR'S INFORMATION ONLY

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M. DATE 11-8-71 TRACED F.J.R. DATE 5-3-73
CHECKED K.E.W. DATE 5-4-73 SCALE 1" = 50'

Contract No. 1 SHEET NO. 5 OF 7 84/1

AS BUILT

DEC. 30, 1975.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		6/14-6
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-8-73

STATE ROAD 449

HIMES AVE. CURVE DATA

CURVE NO. "H-1"	CURVE NO. "H-2"
P.I. STA. 53+36.70	P.I. STA. 55+74.63
Δ = 5°56'54" RT.	Δ = 5°56'54" LT.
D = 2°30'00"	D = 2°30'00"
R = 2,291.83'	R = 2,291.83'
L = 237.94'	L = 237.94'
T = 119.07'	T = 119.07'
P.C. STA. 52+17.62	P.R.C. STA. 54+55.56
P.R.C. STA. 54+55.56	P.T. STA. 56+93.50

LINE "A" (RELOCATED S.C.L. R.R.)

CURVE NO. 1	CURVE NO. 2
P.I. STA. 88+50.06	P.I. STA. 95+52.70
Δ = 5°18'18.4" LT.	Δ = 5°18'18.4" RT.
D = 1°00'00"	D = 1°00'00"
R = 5,729.65'	R = 5,729.65'
L_C = 480.52'	L_C = 480.52'
T_1 = 290.45'	T_2 = 290.45'
L_{S_1} = 50.00'	L_{S_2} = 50.00'
S_{A_1} = 0°15'00"	S_{A_2} = 0°15'00"
$T_{S_{H_1}}$ = 33.33'	$T_{S_{H_2}}$ = 33.33'
$T_{S_{E_1}}$ = 16.67'	$T_{S_{E_2}}$ = 16.67'
L_{S_1} = 50.00'	L_{S_2} = 50.00'
S_{A_1} = 0°15'00"	S_{A_2} = 0°15'00"
$T_{S_{H_1}}$ = 33.33'	$T_{S_{H_2}}$ = 33.33'
$T_{S_{E_1}}$ = 16.67'	$T_{S_{E_2}}$ = 16.67'

PARCEL NUMBER	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
III.1-R	CHARLES J. BICKIMER JR., ET. AL.	5300.00 S.F.	—	—

REMAINDER NOT SHOWN WHEN OWNERSHIP ENCOMPASSES PROPERTIES TOO LARGE TO BE SHOWN AT THIS SCALE.

NOTE: PARCEL TITLE TO BE ACQUIRED IN FEE SIMPLE UNLESS OTHERWISE DENOTED.

SCALE: 1" = 50'

R18E

T29S T30S

EQUALITY:
STA. 99+20.87 ℄ PROJECT =
STA. 52+50.41 ℄ HIMES AVE. CONST.

EQUALITY:
END R/W PROJECT SECTION 10002-2501 STA. 112+81.44 ℄ CONST.
BEGIN R/W PROJECT SECTION 10002-2502 STA. 112+67.00 ℄ SURVEY

ACQUIRED UNDER ℄ PROJECT & ℄ CONSTRUCTION SECTION 10002-2511 CONTRACT 9B

EUCLID AVE.

DREXEL AVE.

FIRST AVE.

50 AVE.

LYNWOOD SUBDIVISION Filed AUG. 6, 1924 P.B. 10 PAGE 46

EXIST. R.R. R/W LINE

RELOCATED S.C.L. R.R. (LINE "A")

EXISTING R/W LINE

L/A R/W LINE

℄ SURVEY

HIMES AVE. R/W LINE

MATCH LINE SEE SHEET 5

STA. 111+61.02

STA. 99+93.32

STA. 98+93.53

P.T. STA. 98+72.12

P.R.C. STA. 54+55.56

C.S. STA. 97+92.76

S.T. STA. 98+42.76

CITY OF TAMPA EASEMENT D.B. 1953 PG. 475

(PROJECT CROSSES OVER HIMES AVE.)

LEGEND

POWER POLE	
TELEPHONE POLE	
COMBINATION POLE	
LIGHT STANDARD	
GUY WIRE & ANCHOR PIN	
BURIED ELECTRIC POWER CABLE	
ELECTRIC DUCT	
BURIED TELEPHONE CABLE	
TELEPHONE DUCT	
WATER MAIN	
GAS MAIN	
DRIP POT	
VALVE	
FIRE HYDRANT	
AIR VALVE	
BLOW-OFF	
SANITARY SEWER	
STORM SEWER	
MANHOLE	
STREET NAME FROM PLAT	
PUBLIC RECORDS HILLSBOROUGH COUNTY FLA.	P.R.H.C.F.
PROPERTY LINE	
IRON PIPE	I.P.
IRON ROD	I.R.
CONCRETE MONUMENT	C.M.
FIELD DIMENSION	(F)
DEED DIMENSION	(D)
CALCULATED DIMENSION	(C)

RIGHT-OF-WAY MAPS ARE FOR CONTRACTOR'S INFORMATION ONLY

NO	REVISION	BY	DATE
2	ADDED NOTE	J.E.G.	W.J.M. 1-7-74
1	REVISED PARCEL III.1-R	J.E.G.	3-26-73

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M. DATE 11-6-72 | TRACED W.J.M. DATE 11-8-72
CHECKED K.E.W. DATE 3-23-73 | SCALE 1" = 50'

Contract No. 1

SHEET NO. 6 OF 7

84/1

AS BUILT

DEC. 30, 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2501		R/W-7
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9-3-73

EXIST. R/W LINE — MATCH LINE TO SHEET 2 — EXIST. R/W LINE — STATE ROAD 449

℄ DALE MABRY HWY. — S.R. 600 — S.R. 685 (U.S. 92)

N00°56'12"E — N00°57'32"E

380.37' — S02°34'24"W 350.14' — S00°56'12"W 380.55' — LIMITS OF CONST. — TEMPORARY CONST. EASEMENT — R/W LINE — EXIST. R/W LINE

N89°03'48"W 15.00' — 10.00' — 50.00' — +00.00 — +50.00 — +70.00 — 20.00' — 120.00' — S00°56'12"W — 30.51' — 5.00' — 5.00' — 120.00'

N00°56'12"E 300.00' — EXIST. R/W LINE — LIMITS OF CONST. — 288.49' — 300' — R/W LINE — CONST. EASEMENT 280.00' — R/W LINE — TEMPORARY S00°56'12"W — 10.00' — N89°28'55"W — 10.00'

TNG. BRNG. S44°03'59"W — 104.1-R — 104.2-R — 104.3-R — 116.1 — 117.1 — 118.1 — 119.1 — 120.1

Δ = 46°27'06" Lc = 30.00' R = 37.00'

LEASED TO DONALD J. FLEISHKER & TAMPA SOUTH MANAGEMENT CORP.

Δ = 90°26'27" Lc = 39.69' R = 25.15' — 103.1-R — 103.2-R — 103.3-R — 103.4-R

TNG BRNG S89°32'55"E — 412.71 — 612.5' — 612.38' — 612.26'

LOT "A"

CLARICE GANDY BLVD. PARK 2ND. ADDITION P.B. 31, P. 25 P. R. H. C. F. FILED: FEB. 5, 1953

COURT — CLARICE AVE. — McELROY AVE. — MARLIN AVE. — EXIST. R/W LINE — EXIST. R/W LINE

ALLISON BUSINESS SITES P.B. 29, P. 22 P. R. H. C. F. FILED: JUNE 8, 1948

GANDY BLVD. — S.R. 600 — S.R. 685 (U.S. 92)

AL-MAR SUBDIVISION P.B. 29, P29 P. R. H. C. F. FILED: SEPT. 20, 1948

S89°28'55"E 347.18' — S89°28'55"E 263.27' — S89°28'55"E 199.80' — S89°28'55"E 278.22' — N89°28'55"W 142.09' — S89°28'55"E 53.00' — S89°28'55"E 110.00' — N89°28'55"W 100.00' — S89°28'55"E 100.00' — N89°28'55"W 100.00' — S89°28'55"E 100.00' — N89°28'55"W 100.00' — S89°28'55"E 100.00' — N89°28'55"W 100.00' — S89°28'55"E 100.00' — N89°28'55"W 100.00' — S89°28'55"E 100.00'

300' S00°56'12"W — 300' S00°56'12"W — 300' S00°56'12"W —

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		1
BY: WACO		TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	DATE: 1974

THIS CONTRACT PLAN SET INCLUDES:
ROADWAY PLANS
SIGNING PLANS
LIGHTING PLANS
STRUCTURE PLANS
SANITARY SEWER RELOCATION PLANS

FOR INDEX OF PLANS, SEE APPROPRIATE PLAN SET.

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

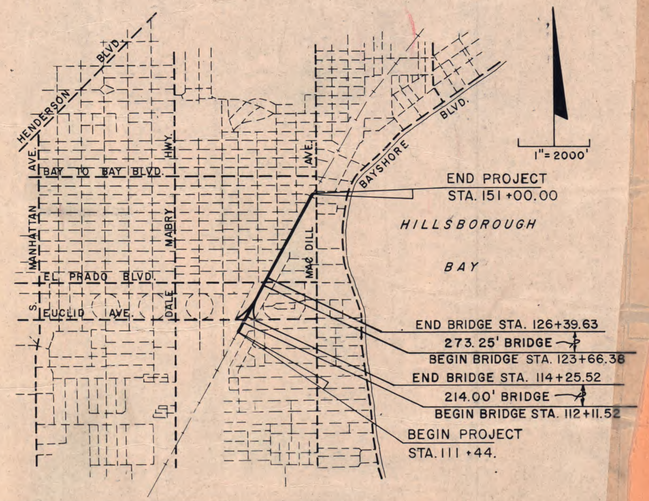
— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002-3502-032

STATE ROAD NO. 449



LENGTH OF PROJECT		
	LIN. FT.	MILES
ROADWAY	3,468.75	0.657
BRIDGES	487.25	0.092
NET LENGTH	3,956.00	0.749
EXCEPTIONS	0.00	0.000
GROSS LENGTH	3,956.00	0.749

CONTRACT NO. 2

EUCLID AVENUE TO MAC DILL AVENUE

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P. O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 2 - State Job No. 10002-3502

Description	Drawing Number Sheet No.
Cover Sheet Euclid Avenue to Mac Dill	1
Drainage	2
Control Map	3
Typical Railway section and details flexible pavement	4
Miscellaneous Details	5
Drainage Details Inlet Type BW	6
Summary of Quantities	7
Plan and Profile	8 through 11
Layout Interchange at Euclid Avenue	12
Plan and Profile Ramp A Details	13
Plan and Profile Ramp B Details	14
Plan and Profiles Ramp A and Intersection Returns	15
Plan and Profiles Ramp B Intersection Returns	16
Plan and Profile	17 through 22
Double 5'x4' Box Culvert under expressway (Sta. 119+86.78)	23 and 24
Cover Sheet - Sanitary Sewer Relocation	~~25~~ SS-1
Summary of Quantities	SS-2
Plan and Profile	SS-3
Miscellaneous Details	SS-4 & S-5

Total No. Mylar Sheets 24.

AS BUILT

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		1
BY: WACO		TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	DATE: 1974

THIS CONTRACT PLAN SET INCLUDES:
- ROADWAY PLANS
- SIGNING PLANS
- LIGHTING PLANS
- STRUCTURE PLANS
- SANITARY SEWER RELOCATION PLANS

FOR INDEX OF PLANS, SEE APPROPRIATE PLAN SET.

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

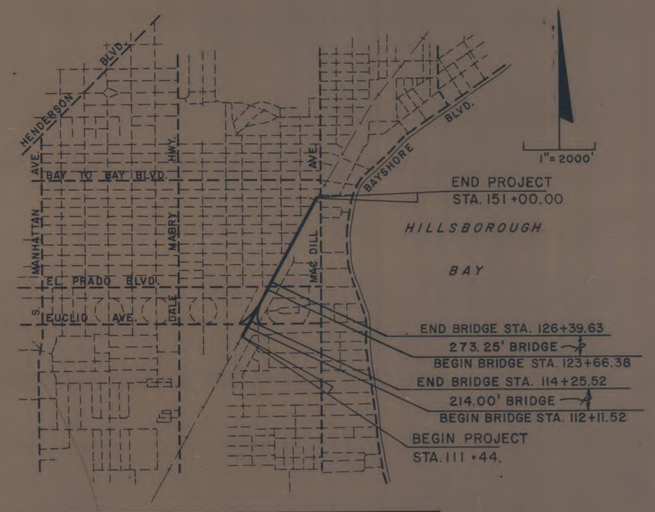
HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002-3502-032

STATE ROAD NO. 449

SHEET NO.	TITLE
1	Key Map
2	Drainage Map
3	Control Map
4	Typical Sections
5	Miscellaneous Details
6	Drainage Details (Inlet Type BW)
7	Summary of Quantities
8 - 10	Plan and Profiles (Mainline)
11	Concordia Ave. Relocation
12 - 16	Interchange Details and Profiles
17 - 22	Drainage Structures
23 - 24	Special Box Culvert Details
25	Soil Classification Sheet
26 - 49	Roadway Cross-Sections
50-55C, 5G-59	Approach Slabs and Special Details
60	Borrow Area 1
R/W-1 - R/W-2	Right of Way Maps

INDEX NO.	STANDARD DRAWING
194	Standard Abreviations (2 Sheets)
195	Standard Symbols for Key Maps and Plan Sheets (3 Sheets)
1101-W	Miscellaneous Roadway Construction Details (2 Sheets)
1129-G	U-Endwalls for Pipe Culverts (3 Sheets)
2300-R	Guardrail Construction (4 Sheets)
5010-H	Superelevation Details
5016-B	Turnout Details
5047-G	Inlet, Manhole and Junction Box Types P and J (2 Sheets)
5049-A	Inlet Type Z
5072-G	Details of Fencing (2 Sheets)
5073-L	Standard Details for Ramp Terminals (3 Sheets)
5080-G	Curb, Curb and Gutter and Traffic Separator (2 Sheets)
5086-A	Shoulder Gutter Inlet Type Y
5061-E	Miscellaneous Drainage Details (2 Sheets)
5046-D	Standard Ditch Bottom Inlets





LENGTH OF PROJECT		
	LIN. FT.	MILES
ROADWAY	3,468.75	0.657
BRIDGES	487.25	0.092
NET LENGTH	3,956.00	0.749
EXCEPTIONS	0.00	0.000
GROSS LENGTH	3,956.00	0.749

AS BUILT
APR 21 1976

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

APPROVAL RECOMMENDED 2-25-74

BY James C. Sawyer
J.E. GREINER CO. INC. - WATSON AND COMPANY

APPROVED 2-26-74

BY Bob Lester
CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 2

EUCLID AVENUE TO MAC DILL AVENUE

WATSON AND COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

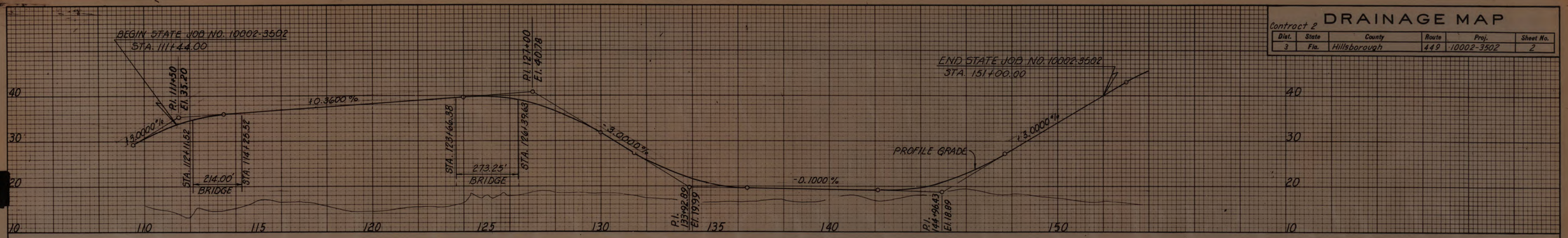
SUBMITTED Robert D. Crow DATE 2-11-74

84
1

DRAINAGE MAP

Contract 2

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	Hillsborough	449	10002-3502	2



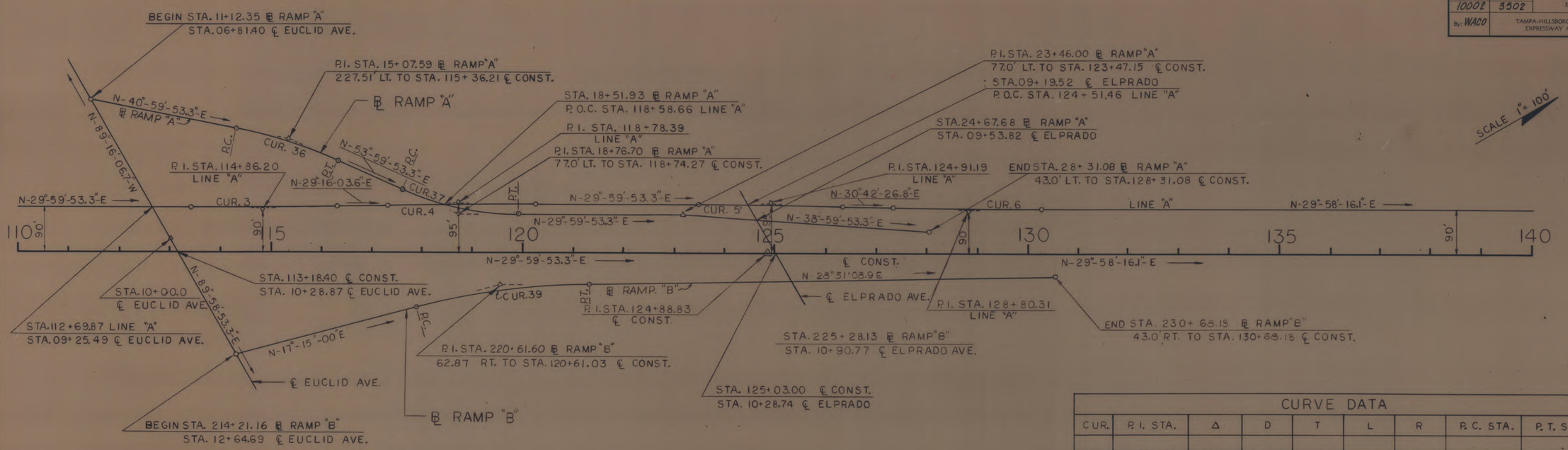


AS BUILT
APR 21 1976

34
1

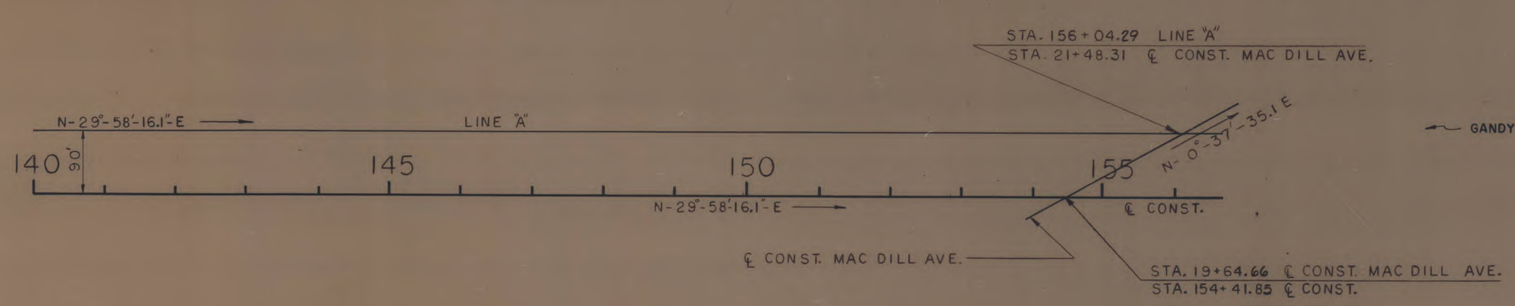
Contract No. 2.

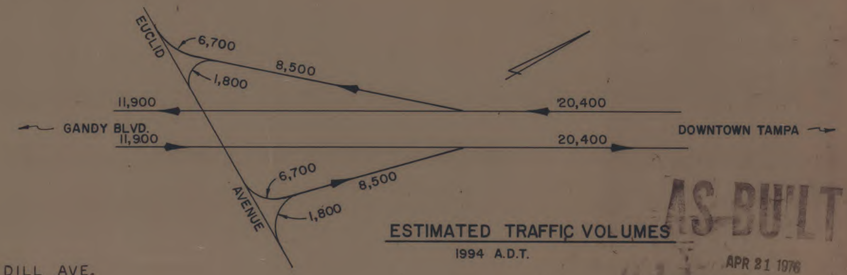
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		3
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974



CURVE DATA

CUR.	P.I. STA.	Δ	D	T	L	R	P.C. STA.	P.T. STA.
37	18+76.70	24°00'00"	10°00'00"	121.79'	240.0'	572.96'	17+54.91	19+94.91
36	15+07.59	13°00'00"	6°00'00"	108.80'	216.67'	954.93'	13+98.79	16+15.46
39	220+61.60	11°36'39"	5°00'00"	116.42'	232.05'	1145.92	219+45.18	221+77.23
3	114+86.20	00°43'49"	00°15'00"	146.10'	292.19	22918.35	113+40.10	116+32.29
4	118+78.39	00°43'49"	00°15'00"	146.10'	292.19	22918.35	117+32.29	120+24.48
5	124+91.19	00°42'33"	00°15'00"	141.86'	288.72	22918.35	123+49.33	126+33.05
6	128+80.31	00°44'07"	00°15'00"	147.26'	294.52	22918.35	127+33.05	130+27.57





AS-BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

CONTROL MAP

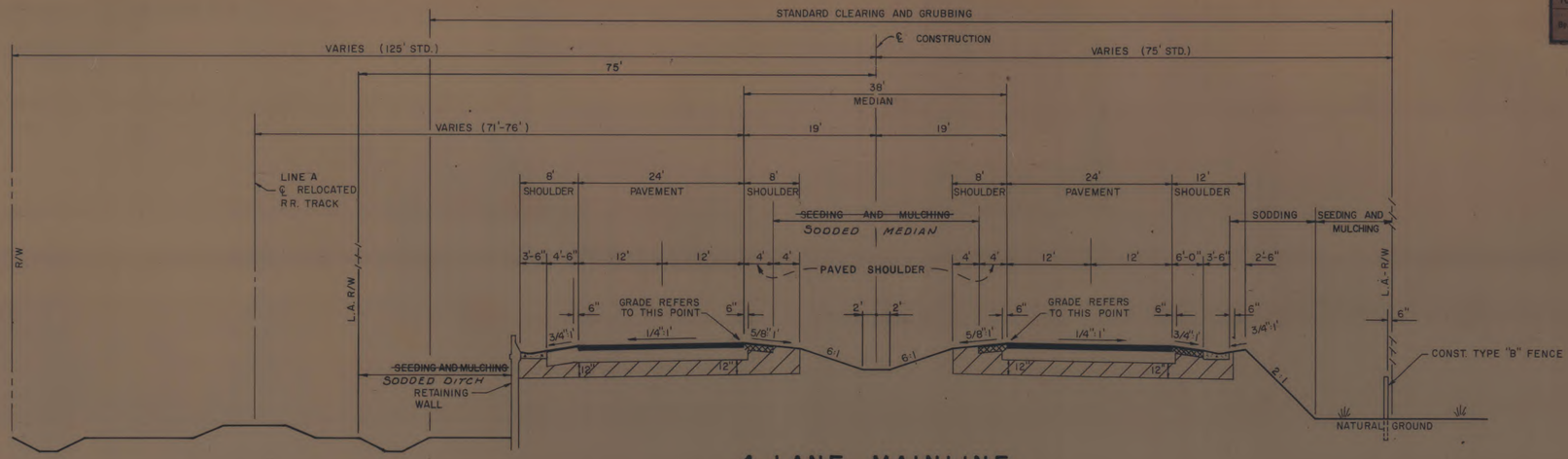
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE VIJAY DATE
CHECKED D.M. DATE
TRACED J.R.S. DATE
SCALE 1"= 100'

84
1

Contract No. 2.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		4
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

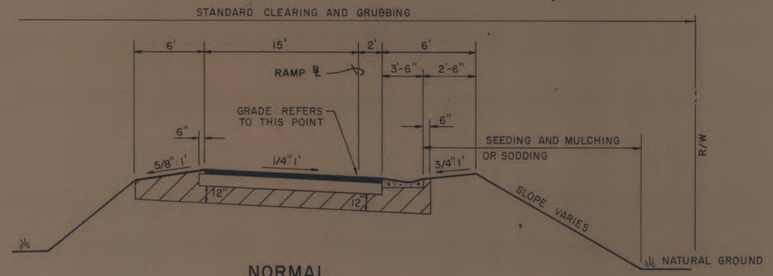


4 LANE MAINLINE

DESIGN SPEED 50 M.P.H.

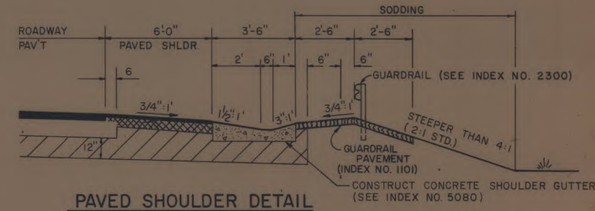
LEGEND

- 1" ASPHALTIC CONCRETE WEARING COURSE (SHOULDERS) SEE NOTE 1.
- 3" ASPHALTIC CONCRETE PAVEMENT: TYPE S-1 ASPHALTIC CONCRETE BASE COURSE (2" THICK, SINGLE COURSE) WITH ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER.
- 10" LIMEROCK BASE (DOUBLE COURSE) PRIMED FOR MAINLINE AND RAMPS
- 12" STABILIZED ROADBED (MINIMUM L.B.R. 40)
- 5" PAVED SHOULDER BASE MATERIAL (LIMEROCK OR SAND-ASPHALT HOT MIX).

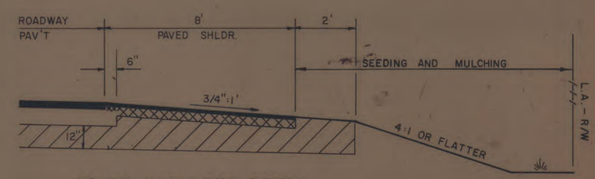


NORMAL

NOTE: FILL SLOPES VARY TO MEET RIGHT OF WAY AND OTHER REQUIREMENTS SEE ROADWAY CROSS SECTIONS.
ALL SLOPES STEEPER THAN 4:1 TO BE SODDED.
ALL SLOPES FLATTER THAN 4:1 TO BE SEEDED AND MULCHED.



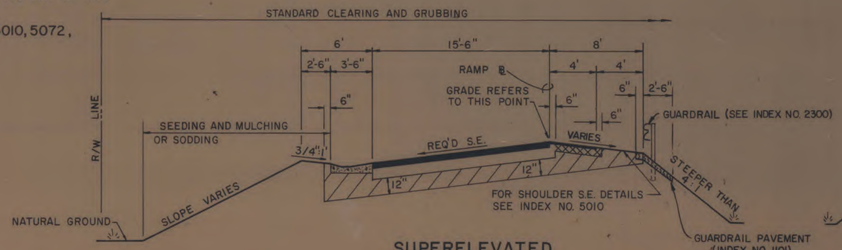
PAVED SHOULDER DETAIL
WITH GUTTER AND GUARDRAIL



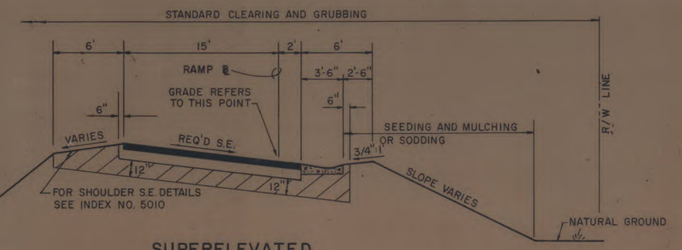
PAVED SHOULDER DETAIL

GENERAL NOTES

1. For Limits Of Shoulder Pavement See Detail Plans.
   Shoulder Pavement Alternates
   F. Limerock Base (5" Thick) Primed With Type S-I Asphaltic Concrete Base Course (1" Thick), and A.C. Wearing Course (1" Thick)
   G. Sand-Asphalt Hot Mix Base (5" Thick) 800 lb Stability, with A.C. Wearing Course (1" Thick)
2. When Width Of Shoulder To Be Constructed Adjacent To Curb And Gutter Or Shoulder Gutter Is Less Than 6', The Shoulder Pavement Shall Be Identical To The Adjacent Roadway Pavement.
3. Sodding Will Be Placed As Shown On Sodding Tabulation And In Detail Plan.
4. Limits Of Selective Clearing And Grubbing As Directed By The Engineer. Special Care Will Be Taken To Preserve Trees Not In The Actual Path Of Construction.
5. For Additional Detail See Index Nos. 1101, 2300, 5010, 5072, and 5080.
6. For Fill Slopes See Roadway Cross-Sections.



SUPERELEVATED



SUPERELEVATED

RAMPS

DESIGN SPEED 0 TO 35 M.P.H.

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL ROADWAY SECTIONS & DETAILS FLEXIBLE PAVEMENT

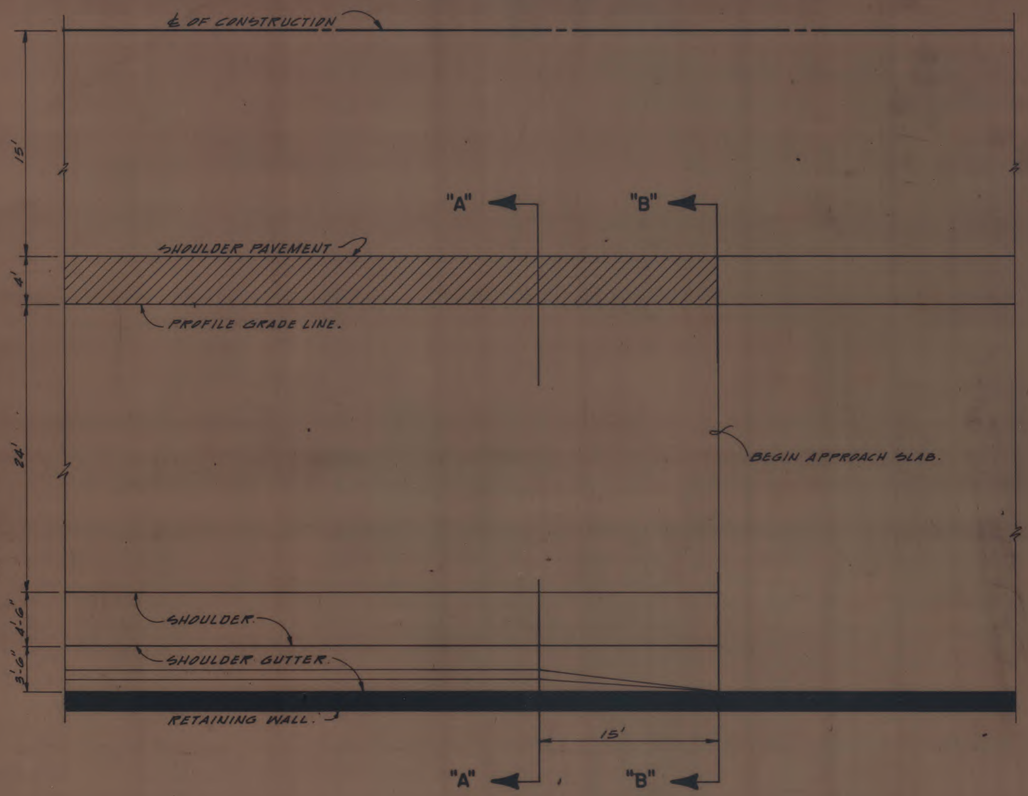
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE R.D.C. DATE 9/72 TRACED C.M. DATE 9/72
CHECKED J.C. DATE 2/72 SCALE

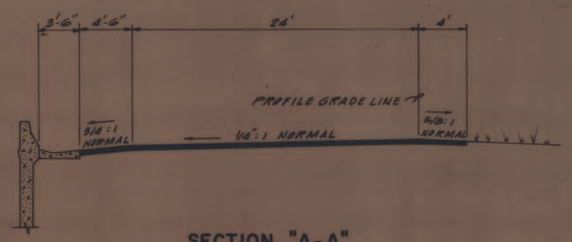
64
1

Contract No. 2.

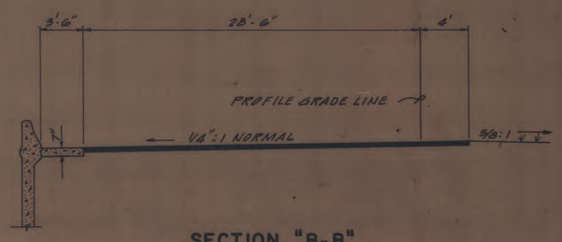
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		5
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974



PLAN

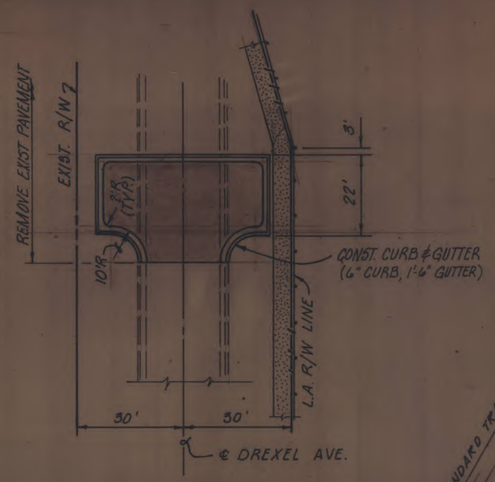


SECTION "A-A"
RETAINING WALL.



SECTION "B-B"
APPROACH SLAB

15' TRANSITION — RETAINING WALL TO APPROACH SLAB



CUL-DE-SAC DETAILS

PAVEMENT TO BE LIMEROCK BASE (9" THICK, DOUBLE COURSE) WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) SURFACE

TRANSITION DETAIL

RETAINING WALL SECTION TO SHOULDER GUTTER SECTION.

AS BUILT

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

MISCELLANEOUS DETAILS

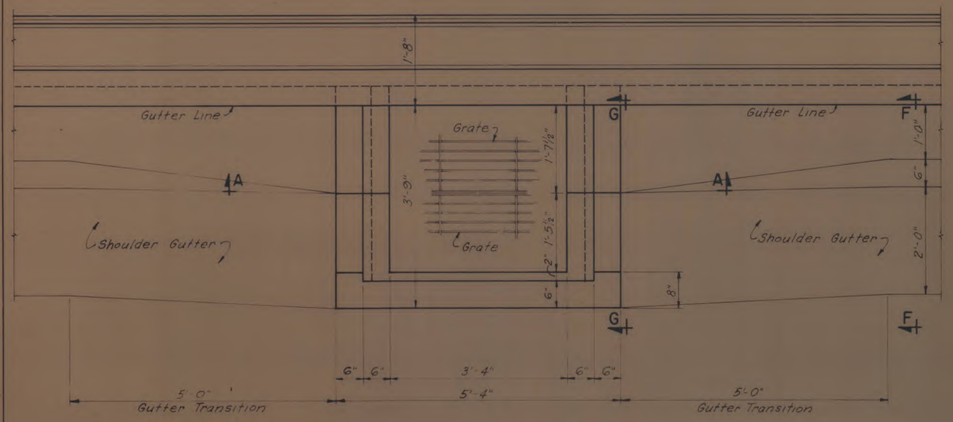
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H.	DATE 1973	TRACED E.J.	DATE 1973
CHECKED J.N.C.	DATE 1973	SCALE N.T.S.	

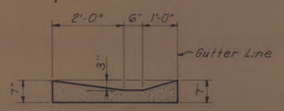
84

Contract No. 2.

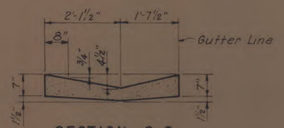
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		6
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974



PLAN

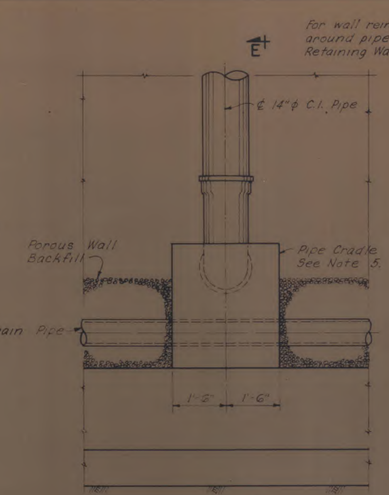


SECTION F-F

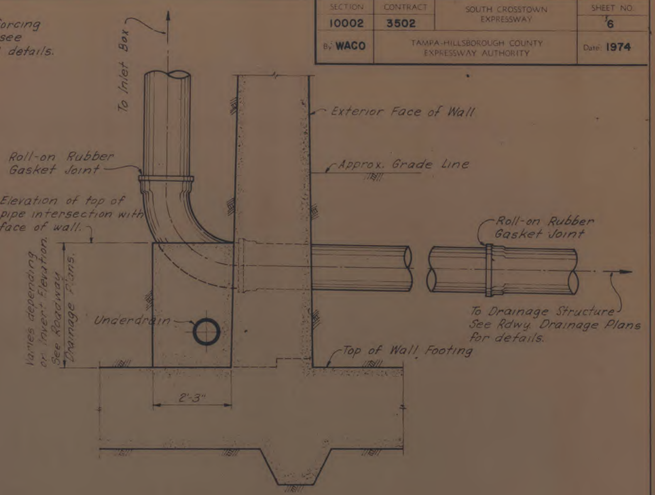


SECTION G-G

DETAILS OF SHOULDER GUTTER TRANSITION



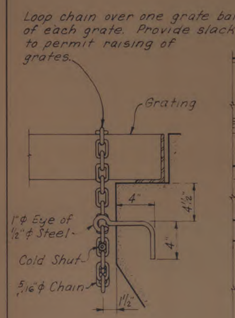
ELEVATION



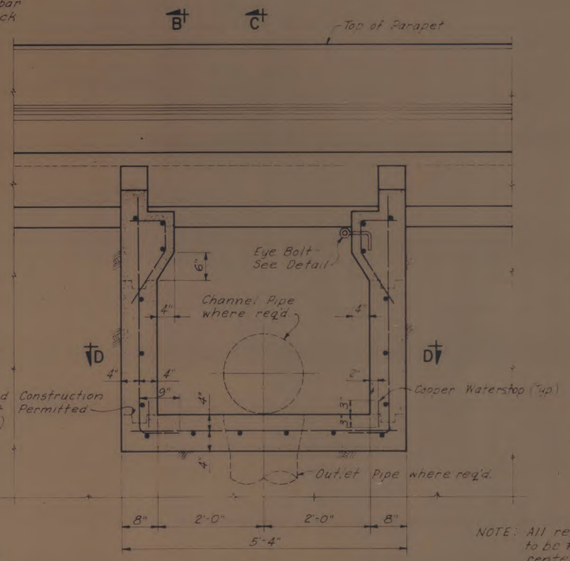
SECTION E-E

PIPE CRADLE DETAILS

Loop chain over one grate bar of each grate. Provide slack to permit raising of grates.



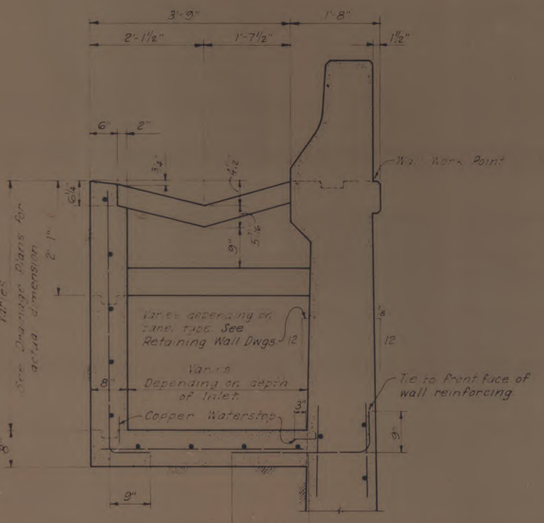
EYE BOLT AND CHAIN DETAIL FOR SECURING OF INLET GRATES



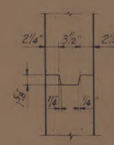
NOTE: All reinforcing steel to be #4 bars @ 1'-0" centers. See sections for leg dimensions.

B C

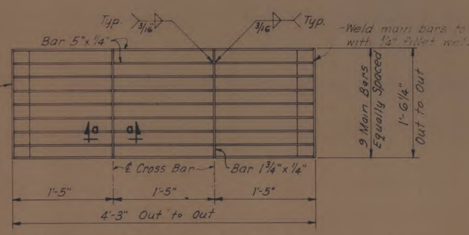
SECTION A-A



SECTION B-B

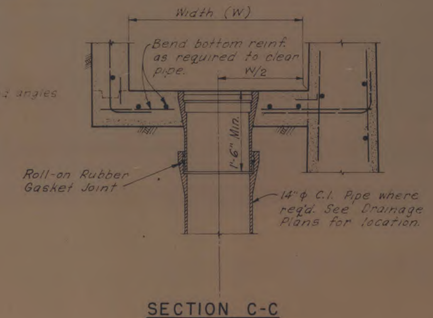


CONSTRUCTION JOINT KEY DETAIL

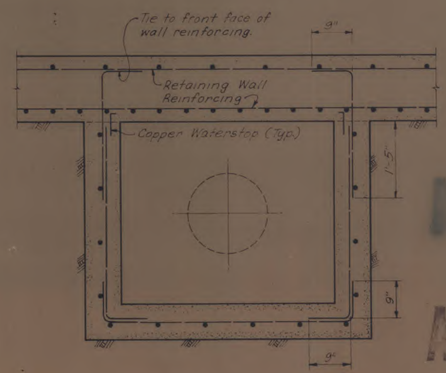


section a-a

STEEL GRATING DETAILS
(2 Required)



SECTION C-C



SECTION D-D

NOTES

1. Concrete for Box to be Class II.
2. All reinforcing to have a minimum of 2" concrete cover unless otherwise noted.
3. Copper waterstop shall be continuous 24 oz. copper strip, 6" wide.
4. All items necessary for the completion of each box, including grates and reinforcing embedded in retaining wall, etc., shall be included in the Contract Unit Price bid for each inlet.
5. Pipe Cradle to be Class I. Concrete accurately shaped so as to fit contour of pipe surface, extending as shown from top of pipe intersection with face of wall to top of footing.
6. All exposed edges to be tooled to ¼" radius.

AS BUILT

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

DRAINAGE DETAILS
INLET TYPE BW

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE R.M.W.	DATE 10-72	TRACED R.M.W.	DATE 10-72
CHECKED L.H.S.	DATE 10-72	SCALE None	

STANDARD DRAWING NO. 21

AS BUILT
APR 21 1976

Contract No. 2.

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		7
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

SUMMARY OF ROADWAY QUANTITIES

	ITEM NO.	ITEM	ASBUILT QUANTITY	UNIT	QUANTITY
	101-1	MOBILIZATION	1	LUMP SUM	1
	102-1	MAINTENANCE OF TRAFFIC	1	LUMP SUM	1
	102-4	CALCIUM CHLORIDE FOR DUST CONTROL	0	TON	30
	104-1	ARTIFICIAL COVERINGS	0	SQ. YD.	730
	104-2	MULCHING (TEMPORARY)	0	SQ. YD.	3,650
	104-3	SODDING (TEMPORARY)	1,920	SQ. YD.	1,460
	104-4	MOWING	0	ACRE	4
	104-5	SANDBAGGING	10	CU. YD.	20
	104-6	SLOPE DRAINS (TEMPORARY)	0	LIN. FT.	120
	110-1	CLEARING AND GRUBBING	1	LUMP SUM	1
	120-4	SUBSOIL EXCAVATION	34,726	CU. YD.	11,100
	120-6	EMBANKMENT	218,834	CU. YD.	200,089
	120-8	FINAL DRESSING	1	LUMP SUM	1
	160-4	TYPE B STABILIZATION	35,984	SQ. YD.	35,996
	200-1-8	LIMEROCK BASE (5" THICK)		SQ. YD.	5,237
Shld ALT F	300-1-1B	BITUMINOUS MATERIAL (PRIME COAT)		GAL	786
	300-1-3B	BITUMINOUS MATERIAL (TACK COAT)		GAL	524
	300-1-13B	BITUMINOUS MATERIAL (PLANT MIX)(A.C. 20)		GAL	4,006
	331-1-1	TYPE S-1 ASPHALTIC CONCRETE (1" THICK)		SQ. YD.	5,237
Shld ALT G	300-1-3C	BITUMINOUS MATERIAL (TACK COAT)	0	GAL	524
	300-1-13C	BITUMINOUS MATERIAL (PLANT MIX)(A.C. 20)	19,173	GAL	20,027
	335-1-61	SAND-ASPHALT HOT MIX (5" THICK) (800 LB. STABILITY)	5,396	SQ. YD.	5,237
	200-1-3	LIMEROCK BASE (10" THICK) [DOUBLE COURSE]	24,139	SQ. YD.	23,494
	200-1-7	LIMEROCK BASE (9" THICK) [DOUBLE COURSE]	997	SQ. YD.	829
	300-1-1A	BITUMINOUS MATERIAL (PRIME COAT)	2,780	GAL.	3,648
	300-1-3A	BITUMINOUS MATERIAL (TACK COAT)	764	GAL.	5,428
	300-1-13A	BITUMINOUS MATERIAL (PLANT MIX)(A.C. 20)	66,182	GAL.	48,047
	331-1-5	TYPE S-I ASPHALTIC CONCRETE (2" THICK)	26,709	SQ. YD.	24,937
	338-70-1	ASPHALTIC CONCRETE WEARING COURSE (1" THICK)	38,679	SQ. YD.	29,345
	339-70	MISCELLANEOUS ASPHALT PAVEMENT [PAVEMENT UNDER GUARDRAIL]	224.4	TON	200
	360-1	CONCRETE APPROACH SLABS	9	EACH	9
	400-1-2	CLASS I CONCRETE (ENDWALLS)	26.36	CU. YD.	24
	400-2-1	CLASS II CONCRETE (CULVERTS)	224	CU. YD.	224
	415-1-1	REINFORCING STEEL (ROADWAY)	33,439	POUND	33,097
	425-1-1	INLETS (CURB)	4	EACH	4
	425-1-2	INLETS (DITCH BOTTOM)	7	EACH	6
	425-1-3	INLETS (SPECIAL) [RETAINING WALL]	13	EACH	13
	425-2	MANHOLES	2	EACH	2
	425-74	SHOULDER GUTTER INLETS	8	EACH	8
	430-1-22	CONCRETE PIPE CULVERT (15") [STORM SEWER]	794	LIN. FT.	785
	430-1-23	CONCRETE PIPE CULVERT (18") [STORM SEWER]	194	LIN. FT.	190
	430-1-24	CONCRETE PIPE CULVERT (24") [STORM SEWER]	64	LIN. FT.	64
	430-15-6	CAST IRON PIPE CULVERT (14") (STANDARD)	159	LIN. FT.	159
ALT.	430-2-22	CORRUGATED STEEL PIPE CULVERT (15") [GUTTER DRAIN]	145	LIN. FT.	145
	430-8-22	CORRUGATED ALUMINUM PIPE CULVERT (15") [GUTTER DRAIN]		LIN. FT.	145
	460-71	ENDWALL GRATE	942	POUND	731
	520-1-1	CONCRETE CURB AND GUTTER (6" CURB, 15' GUTTER)	1094.8	LIN. FT.	1,016
	520-2-1	CONCRETE CURB (TYPE A)	186.2	LIN. FT.	187
	520-3	CONCRETE VALLEY GUTTER	0	LIN. FT.	76
	520-6	CONCRETE SHOULDER GUTTER	5328.3	LIN. FT.	5,279
	522-1	CONCRETE SIDEWALK, 4" THICK	592	SQ. YD.	451
	522-2	CONCRETE SIDEWALK, 6" THICK	32	SQ. YD.	100
	536-1-1	GUARDRAIL (ROADWAY)	4216.3	LIN. FT.	3,600
	524-1-1	CONCRETE DITCH PAVEMENT (3" THICK)	279	SQ. YD.	20
	536-6	END ANCHORAGE ASSEMBLIES, TYPE II	16	EACH	14
	544-75	VEHICULAR IMPACT ATTENUATOR [HYDRO-CELL]	1	EACH	1
	550-2	FENCING, TYPE B	4,935.6	LIN. FT.	4,625
	550-3-2	CORNER POST ASSEMBLIES (TYPE B FENCE)	16	EACH	13
	550-4-2	PULL AND END POST ASSEMBLIES (TYPE B FENCE)	19	EACH	10
	550-70-2	FENCE GATES (TYPE B FENCE)	5	EACH	4
	570-2	SEEDING AND MULCHING	25,362	SQ. YD.	61,000
	570-3	GRASS SEED (PERMANENT TYPE)	545	POUND	1,260
	570-4	MULCH MATERIAL	17.7	TON	40
	570-5	FERTILIZER	6.3	TON	7
	570-9	WATER FOR GRASSING	61.5	M. GALS.	91
	570-10	GRASS SEED (QUICK-GROWING TYPE)	163	POUND	189
	575-1	SODDING	32,623	SQ. YD.	11,875
	110-5	PLUGGING WELLS (S.A.-1)	2	EACH	2
	110-3	REMOVAL OF EXISTING STR. (S.A.-2)	1	LUMP SUM	1
	300-1-13A	BITUMINOUS MATERIAL AC-20 (S.A.-3)	1081	GAL	1081
	331-32-9A	TYPE S-1 ASPH. 1" (S.A.-3)	1184	SQ. YD.	1184
	W.M.-1	4" CAST IRON PIPE (S.A.-4)	406	LIN. FT.	406
	W.M.-2	CAST IRON FITTINGS (S.A.-4)	676	POUND	676
	W.M.-3	THRUST BLOCKS (S.A.-4)	8	EACH	6

SUMMARY OF GUARDRAIL

STATION TO STATION	RT. ROADWAY LT.	RT. ROADWAY RT.	LT. ROADWAY LT.	LT. ROADWAY RT.	TOTAL
111+00 — 112+11.52	112.5				~~112.5~~ 158.8 (1)
114+25.52 — 115+45				112.5	~~112.5~~ 158.7 (1)
115+00 — 119+50		450.0			~~450.0~~ 455.9
122+50 — 123+66.38	112.5				~~112.5~~ 158.7 (1)
126+39.63 — 129+10				275.0	~~275.0~~ 294.5 (1)
127+50 — 128+62.50	112.5				~~112.5~~ 117.5
133+00 — 136+50		350.0			~~350.0~~ 354.9
133+00 — 138+50			550.0		~~550.0~~ 554.3
143+02.50 — 143+65	62.5				~~62.5~~ 104.7
143+50 — 146+00			250.0		~~250.0~~ 254.0
RAMP "A"					
12+60 — 16+35	375.0				~~375.0~~ 378.5
13+12.50 — 16+00		287.5			~~287.5~~ 291.5
RAMP "B"					
216+00 — 221+50		550.0			~~550.0~~ 555
RAMP "B" RETURN #2					77.4
TOTAL LINEAL FEET					~~3,600~~ 4216.3

(1) DID NOT ALLOW FOR BACKRAIL ON ESTIMATE.
Note Figures ON Right are As Builts

SUMMARY OF SODDING

STATION TO STATION		LT.	MED.	RT.	TOTAL	ASBUILT
114+50 — 119+00	114+50 - 119+00 RT			2,106	2,106	2151
126+39.63 — 134+00	126+40 - 151+00 Med		507		507	7967
133+00 — 136+00	133+00 - 136+00 RT			462	462	2136
133+00 — 138+00	125+00 - 151+00 LT	799			799	7480
143+00 — 143+50	143+00 143+50 LT			78	78	157
144+00 — 146+00		382			382	
145+00 — 151+00			400		400	
RAMP "A"						
13+00 — 16+41.50		1,816			1,816	1363
13+62.79 — 16+41.50				942	942	972
RAMP "B"						
216+00 — 222+00				2,883	2,883	2992
CONTINGENCY					1,500	192
111+44 TO 112+38	LT. DITCH					320
111+44 To 112+19	MED.					195
114+19 TO 123+22	MED					2978
112+73 TO 118+80	LT. WEST OF R.R.					1582
113+08 TO 123+31	LT. EAST OF R.R.					2138
TOTAL SQUARE YARDS					11,875	32,623

NOTE, EXTRA SODDING DUE MOSTLY TO MEDIAN & AREA AROUND R.R. TO ELIMINATE EROSION & FOR BETTER AESTHETICS.

SUMMARY OF EARTHWORK

* ROADWAY EXC. A-2, A-3 MATERIAL	4,318 C.Y.
SUBSOIL EXC. A-2, A-3 MATERIAL	7,070 C.Y.
Ø SUBSOIL EXC. A-8 MATERIAL	4,030 C.Y.
TOTAL SUBSOIL EXC.	11,100 C.Y.
EMBANKMENT	200,089 C.Y.

*THERE IS NO DIRECT PAY FOR ROADWAY EXCAVATION. ANY SUITABLE MATERIAL MAY BE USED IN THE EMBANKMENT AT THE OPTION OF THE CONTRACTOR.

Ø A-8 MATERIAL TO BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY HIM UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

GENERAL NOTES:

ITEM NO. 120-6 ANY BORROW EXCAVATION REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR FROM AREAS PROVIDED BY HIM AND/OR BORROW AREA ONE AS SHOWN ON SHEET NUMBER 60 AND THE COST OF FURNISHING SUCH MATERIAL IS TO BE INCLUDED IN THE PRICE FOR EMBANKMENT.

ITEM NO'S 104-1 THROUGH 104-6 ARE ESTIMATED QUANTITIES FOR PREVENTION, CONTROL, AND ABATEMENT OF SOIL EROSION AND WATER POLLUTION. TO BE USED AT LOCATIONS DESIGNATED BY THE ENGINEER.

ITEM NO. 524-1-1 INCLUDES 7 S.Y. FOR CONTINGENCIES TO BE USED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

NOTES:

1. FOR BRIDGE ITEMS & QUANTITIES, SEE BRIDGE PLANS.
2. FOR RETAINING WALL ITEMS & QUANTITIES, SEE BRIDGE PLANS.
3. FOR HIGHWAY SIGN ITEMS & QUANTITIES, SEE ROADWAY SIGNING PLANS.
4. FOR LIGHTING ITEMS & QUANTITIES, SEE LIGHTING PLANS.
5. GUARDRAIL STATIONS ARE APPROXIMATELY ONLY AND ARE TO BE ADJUSTED IN THE FIELD BY THE ENGINEER, IF NECESSARY.
6. FOR SANITARY SEWER RELOCATION ITEMS & QUANTITIES SEE SANITARY SEWER RELOCATION PLANS.

ITEM NO. 570-2 INCLUDES 12,165 SQ.YD'S FOR TEMPORARY GRASSING.
ITEM NO. 570-3 INCLUDES 250 LB'S FOR TEMPORARY GRASSING.

ITEM NO. 570-5 INCLUDES 1.1 TONS FOR TEMPORARY GRASSING.
ITEM NO. 570-9 INCLUDES 28.24 M. GAL'S FOR TEMPORARY GRASSING.
ITEM NO. 570-10 INCLUDES 38 LB'S FOR TEMPORARY GRASSING.
ITEM NO. 575-1 INCLUDES 1,500 S.Y FOR CONTINGENCIES TO BE USED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

SUMMARY OF QUANTITIES

J. E. GREINER COMPANY - WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE R.D.C. DATE 2/74 | TRACED C.M. DATE 2/74
CHECKED R.D.C. DATE 2/74 | SCALE

Contract No. 2.

84
7

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		8
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

STA. 111+12.35 ℄ RAMP "A" = STA. 6+81.40 ℄ EUCLID AVE.

FOR ADDITIONAL DETAILS OF RAMP "A" SEE SH. NO. 13

P.T. 4' LT. STA. 11+80.63 ℄ RAMP "A"

(TO REMAIN)

(CONSTRUCTED 10' GATE)

N 40° 30' 53.3" E

60 L.F. FENCE ADDED

P.C. STA. 13+98.79 ℄ RAMP "A"

P.T. STA. 16+15.40 ℄ RAMP "A"

℄ RAMP "A"

P.T. 19' RT. STA. 12+57.90 ℄ RAMP "A"

END TAPER 15' RT. STA. 13+82.91 ℄ RAMP "A"

P.C.C. STA. 7+84.50 ℄ EUCLID AVE.

P.C. 24' LT. STA. 7+93.04 ℄ EUCLID AVE.

BEGIN RAMP BRIDGE STA. 16+41.50 ℄ RAMP "A"

Fence Constructed as Shown

P.C. STA. 17+54.91 ℄ RAMP "A"

8' LT. FENCE ADDED

N 53° 30' 53.3" E

115

120

CONST. CONC. BOX CULVERT (SEE SHEET NO. 23 & 24)

S.C.L. R/W LINE

L.A. R/W LINE

CONST. TYPE "B" FENCE

Exist. S.C.L. R.R.

P.T. STA. 19+94.91 RAMP "A"

P.I. STA. 23+46.00 ℄ RAMP "A"

BEGIN BRIDGE STA. 112+11.52

END BRIDGE STA. 114+25.52

CONST. RETAINING WALL 2-L

CONST. SHOULDER GUTTER

CONST. Vehicular Impact Attenuator (Hydro-Cell) (See Sheet Nos. 55, 55A, 55B and 55C)

CONST. RETAINING WALL 1-L

CONSTRUCTED 158.8 L.F. OF GUARDRAIL

CONSTRUCTED 158.7 L.F. GUARDRAIL

CONST. GUARDRAIL

CONST. RETAINING WALL 1-R

℄ CONST.

STA. 221+50 BEGIN WALL

CONSTRUCTED 158.7 L.F. GUARDRAIL

STA. 113+18.40 ℄ CONST. = STA. 10+28.87 EUCLID AVE.

STA. 115+00 END WALL

50' TRANS TO 12' SHLDR.

PLUG EXISTING ARTESIAN WELL

CONST. SHLDR GUTTER

CONSTRUCTED 455.9 L.F. CONST. GUARDRAIL

N 17° 15' 00" E

D.P.I. 11.0

NO. SE 13' RT. STA. 220+16.25 ℄ CONST.

15' LT. STA. 220+17.66 ℄ RAMP "B"

PLUG EXISTING ARTESIAN WELL

CONSTRUCTED DITCH PAVEMENT

PC STA 219+45.18 ℄ RAMP "B"

P.T. STA. 221+72.3 ℄ RAMP "B"

CONSTRUCTED DITCH CONST. PAVEMENT

RETAINING WALL 2-R

BEGIN BRIDGE STA. 123+66.38 ℄ CONST.

BEGIN STATE JOB NO. 10002-3502 STA. 111+44.00

FOR ADDITIONAL DETAILS OF RAMP "B" SEE SH. NO. 14

Sta. 214+21.16 ℄ RAMP B = Sta. 12+64.69 ℄ EUCLID AVE.

℄ RAMP "B"

CONST. CUL-DE-SAC SEE SHEET NO. 5

CONST. SIDEWALK

CONST. 5' B.W. DITCH W/6:1 S.S. @ 0.24% GRADE

CONST. TYPE "B" FENCE

L.A. R/W LINE

DREXEL AVE.

Scale: 1" = 50'

CONSTRUCTED 77.4 L.F. GUARDRAIL

Note, For breakdown of Guardrail See Summary Sheet #7

Note, MOVED CUL-DE-SAC SOUTH AS SHOWN AND EXTENDED SIDEWALK, SEE SHEET No. 16. ALSO 146.3 L.F. OF 6" CURB & 1.5' GUTTER CONSTRUCTED ON DREXEL STREET.

B.M. No. 59A
Sq. Cut On Curb
N. Side Euclid
108' W. Of ℄ Survey
El. 18.81

Note, Bridge end Guardrail was under estimated on Summary Sheet but shown correct on Plans.

GENERAL NOTES:
1. Grades shown are finished grades.
2. Utilities to be adjusted by others, as directed by the Engineer.
3. B.M. Datum U.S.C. & G.S.
4. Buildings to be removed by others.
5. All exist railroad tracks within construction limits to be removed by others.

UTILITY OWNERS
1. Tampa Electric Co.
2. Peoples Gas System
3. General Telephone Co.
4. City of Tampa Water Dept.
5. City of Tampa Sanitary Sewer Dept.
6. Western Union

NO	REVISON	NAME	DATE
1	Added 2 Plugging Existing Wells	D.M.	12-18-74

214.00 BRIDGE

BEGIN BRIDGE STA. 112+11.52

END BRIDGE STA. 114+25.52

BEGIN STATE JOB NO. 10002-3502 STA. 111+44.00

P.V.I. 111+50 El 35.20

+3.0000 %

+0.3600 %

PROFILE GRADE LINE

P.V.C. STA. 109+50.00

P.V.T. STA. 113+50.00

P.V.C. STA. 124+00.00

2770

2920 3062 3187 3296 3388 3464 3523 3566 3592 3970

400' V.C.

Existing Ground Line

CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF EMBANKMENT TO THIS LINE AND COORDINATION OF PLACEMENT WITH CONTRACTOR FOR ADJACENT CONSTRUCTION

Lt. D.P.I. (+25) El. 11.0

-0.15 %

Lt. D.P.I. (490) El. 10.0

CONST. 4' F.B. DITCH (LT.)

40 35 30 25 20 15

16.0 17.0

9 110 1 2 3 4 115 6 7 8 9 120 1 2 3 4

AS BUILT
APR 21 1976

84
1

Contract No. 2.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3602		9
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

EL PRADO BLVD.

CONCORDIA AVE.

6'x3' Box Culvert

VASCONIA ST.

SEVILLA ST.

CORONA ST.

LEONA ST.

DREXEL AVE.

P.I. STA. 23+46.00 ℄ RAMP "A"

℄ RAMP "A"

℄ RAMP "B"

BT (100 Pr.)

BT (200 Pr.)

BT (400 Pr.)

CONSTRUCTED 73.6 S.Y. CONC. SW.

CONST. CONC. SIDEWALK

CONST. APR. SLAB

CONST. GUARDRAIL

CONSTRUCTED 296.5' GUARDRAIL

CONST. RETAINING WALL 3-L

CONST. RETAINING WALL 3-R

DITCH PAVT.

CONST. SHOULDER GUTTER

CONST. 10' GATE

EXIST. S.C.L. R.R.

S.C.L. R/W LINE

L.A. R/W LINE

CONST. TYPE "B" FENCE

℄ CONST.

N 33°59'53.3"E

N 29°59'53.3"E

N 28°31'08.9"E

N 29°58'16.1"E

P.I. STA. 28+31.08 END ℄ RAMP "A"
43' LT. STA. 128+31.08 ℄ CONST.

NOTE, CONSTRUCTED DITCH PAVT. AT OUTLETS TO PREVENT EROSION OF RR EMB.

STA. 133+00.00 END RETAINING WALL

STA. 134+97.33 END SHOULDER GUTTER

50' TRANS. TO 12' SHLDR.

50' TRANS. TO 10' SHLDR.

BEGIN BRIDGE STA. 123+66.38 ℄ CONST.

END BRIDGE STA. 126+39.63 ℄ CONST.

P.I. STA. 124+88.83 ℄ CONST.

STA. 125+03.00 ℄ CONST. = STA. 10+37.42 ℄ EL PRADO

P.I. STA. 230+68.13 END ℄ RAMP "B"
43' RT. STA. 130+68.13 ℄ CONST.

STA. 133+00.00 END RETAINING WALL

STA. 134+97.33 END SHOULDER GUTTER

1 ST. CONC. RES.

1 ST. BRICK RES.

S-12 S-13 S-14 S-15 S-16 S-17 S-18 S-19 S-20

B.M. No. 57A
Sq. Cut In Conc. @ X-Walk
S. Edge Of El Prado
147' W. Of ℄ Survey
EL. 16.28

B.M. No. 55A
131' Lt. Sta. 131+30
Sq. Cut On S. Curb
Opposite Driveway
3303 Sevilla St.
EL. 15.99

B.M. No. 54A
100' Rt. Sta. 137+26
Sq. Cut On End Of Curb
3302 Drexel Ave.
EL. 16.82

273.25' BRIDGE

BEGIN BRIDGE STA. 123+66.38

END BRIDGE STA. 126+39.63

10.3600% P.V.I. 127+00 El. 40.78

P.V.C. 124+00.00

600' V.C.

P.V.T. 130+00.00

-3.0000 %

P.V.C. 131+42.89

500' V.C.

P.V.T. 136+42.89

-0.1000 %

-0.2 %

-0.1 %

PROFILE GRADE LINE

Existing Ground Line

RT. D.P.I. (100) El. 17.0

CONST. "V" BOTTOM DITCH (RT.)

El. 16.2

El. 16.0

CONST. TRANS.

P.V.I. 133+92.89 El. 19.99

RT. D.P.I. (100) El. 15.6

CONST. 5' F.B. DITCH (RT.)

| | | |

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		10
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

SAN LUIS ST.

OBISPO ST.

SAN PEDRO ST.

TACON ST.

MAC DILL AVE.

1ST. CONC. RES.

1ST. FRAME RES.

1ST. CONC. BRICK WAREHOUSE

1ST. CONC. BUSINESS

1 Sty. Conc. Blk.

140 145 150

GAR.

S.C.L. R/W LINE

Exist. S.C.L. R.R.

BT (100 Pr.)

BT (200 Pr.)

BT (300 Pr.)

CONSTRUCTED CONC. DITCH PAVT AT OUTLETS TO PREVENT EROSION OF R.R. EMB.

STA. 145+02.67
BEGIN SHOULDER GUTTER

50' TRANS.

S-22

50' TRANS.

STA. 146+00.00
BEGIN RETAINING WALL

S-25

10' GATE

CONST. SHOULDER GUTTER

CONST. RETAINING WALL 4-L

CONST. TYPE "B" FENCE

L.A. R/W LINE

CONST. GUARDRAIL

℄ CONST.

S-21

S-23

N 29° 58' 16" E

CONST. GUARDRAIL

CONST. SHOULDER GUTTER

CONST. RETAINING WALL 4-R

CONST. TYPE "B" FENCE

L.A. R/W LINE

10' GATE

S-24

Exist. R.R. Siding To Remain

CONSTRUCTED FENCE & DELETED 10' GATE

S-26

CONSTRUCTED 404 L.F. GUARDRAIL To PROTECT CHILDRENS PLAY GROUND

See Index 5061

Const. Conc. Spillway

SCHOOL PLAY GROUND

STA. 143+5.
BEGIN RETAINING WALL
BEGIN SHOULDER GUTTER

END STATE JOB NO. 10002-3502
STA. 151+00

Scale: 1" = 50'

B.M. No. 53A
165' Lt. Sta. 144+34
Sq. Cut On N. Curb
3203 Tacon St.
EL. 18.12

B.M. No. 52A
168' Lt. Sta. 146+86
Sq. Cut On S. Curb
W. Side Driveway
3200 Obispo St.
EL. 17.43

B.M. No. 51A
Sq. Cut On Curb
S.E. Cor. Mason St. & Mac Dill Ave.
EL. 16.21

END STATE JOB NO. 10002-3502
STA. 151+00.00
ELEV. 37.00

550' V.C.

19.16 19.26 19.50 19.88 20.40 21.07 21.88 22.82 23.91 25.14 26.51

PVC. 142+21.43 19.16

PVI. 144+96.43 El. 18.89

+3.0000%

-0.1000%

PROFILE GRADE LINE

Existing Ground Line

CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF EMBANKMENT TO THIS LINE AND COORDINATION OF PLACEMENT WITH CONTRACTOR FOR ADJACENT CONSTRUCTION.

600' V.C.

45.50

19.48

16.4

16.2

45 40 35 30 25 20 15

9 140 1 2 3 4 145 6 7 8 9 150 1 2 3 4

AS BUILT

AS BUILT

APR 21 1976

Contract No. 2.

84/1

PREVIOUS IMAGE IS CROPPED ON ORIGINAL DOCUMENT

FED. ROAD DIVN. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.
3	FLA.	10002-3502		11

Curve Data
℄ Reloc. Concordia Ave.
P.I. Sta. 11+58.07
Δ = 55°11'58"
D = 45°50'12"
T = 65.35'
L = 120.43'
R = 125.00'
P.C. = Sta. 10+92.72
P.T. = Sta. 12+13.15
No S.E.

Sta. 11+40 ℄ Gunlock Ave. =
Sta. 10+40.24 ℄ Reloc. Concordia Ave.

Const. Valley Gutter

12+00
+82.00
10'
13.61
13.5'
90°
26.5'R
13.49
13.61
+78.74
P.C.
12'
589°06'19"E
13.61
26.5'R
+78.74
12'

R/W Line

11+00
+15.82
℄ Connect to Exist. Pav't.
℄ Const. Curb and Gutter (6" Curb, 1.5' Gutter)

℄ Euclid Ave.
S89°16'06.7"E
℄ Gunlock Ave.
N0°53'41.3"E
89°50'12"

Sta. 13+50.00
Connect to Existing Pavement

R/W Line

532
P.I.
12'
12'
N 35°41'43" E
15"
℄ Relocated Concordia Ave.
533

535
15"
527
15"
534

Sta. 6+43.28 ℄ Euclid =
Sta. 10+00 ℄ Gunlock Ave.

Sta. 11+12.35 ℄ Ramp "A" =
Sta. 6+81.40 ℄ Euclid Ave.

Sta. 7+06.12 ℄ Euclid =
Sta. 10.00 ℄ Concordia

℄ Concordia Ave.
N 29°59'05.3" E
30" Storm Drain (To Remain)
℄ Ramp "A"
60°44'48"

For Ramp "A" Construction
See Sheet No. 13.

Scale 1"=20'

℄ Reloc. Concordia Ave.
5'6" 12'-0" 12'-0" 5'6"
6"
Grade Ref. Pt.
6"
Match Exist. Grade
14"/Ft.
14"/Ft.
12" 12" 12"
Concrete Curb and Gutter
6" Curb, 1.5' Gutter (Lt. and Rt.)
Min. L.B.R. 30

TYPICAL SECTION
Relocated Concordia Ave.
9" Limerock Base (Double Course) Primed, with Type S-1 A.C. Surface Course (2" Thick).

℄ Gunlock Ave.
+40.24
14.12
13.95
13.61
+90.24 Connect to Exist. Pav't.
-0.20%
Profile Grade
Connect To Existing Pavement El. 13.35
Rt. and Lt. Gutter 0.34 Ft. Below Profile Grade
Existing ℄ Profile

14
12
10
10 11 12 13 14

AS BUILT
AS BUILT
APR 21 1976

Concordia Ave. Relocation

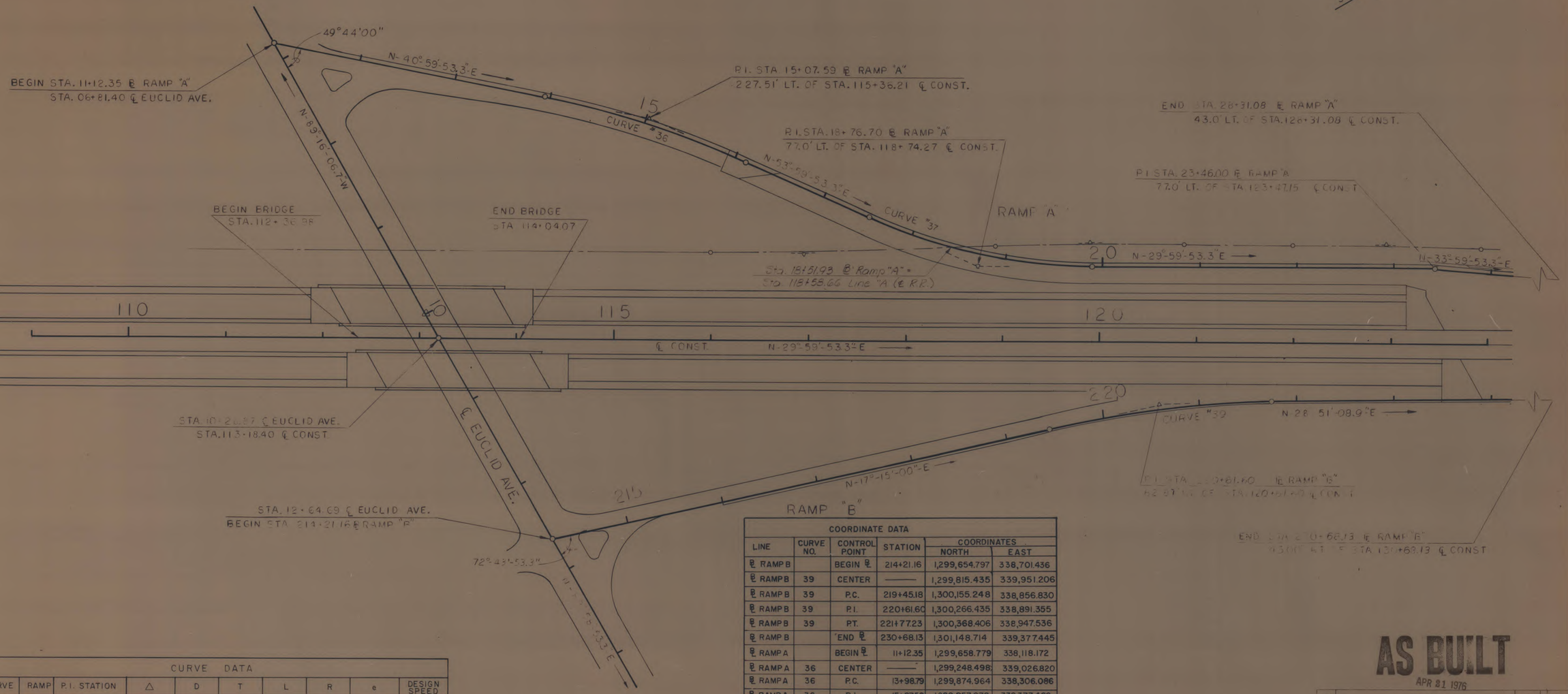
Contract No. 2.

84
1

K&E CO.
ORLANDO, FLA.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		12
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

SCALE 1" = 50'



CURVE DATA									
CURVE	RAMP	P.I. STATION	Δ	D	T	L	R	e	DESIGN SPEED
37	A	18+76.70	34°00'00"	5°00'00"	171.70	340.00	572.96	0.08	45 MPH
36	A	15+07.59	6°00'00"	6°00'00"	108.00	216.07	954.93	0.03	25 MPH
39	B	220+61.60	11°-35'-00"	5°0'0"	116.42	232.03	1145.92	0.076	45 MPH

COORDINATE DATA					
LINE	CURVE NO.	CONTROL POINT	STATION	COORDINATES NORTH	EAST
℄ RAMP B		BEGIN ℄	214+21.16	1,299,654.797	338,701.436
℄ RAMP B	39	CENTER	———	1,299,815.435	339,951.206
℄ RAMP B	39	P.C.	219+45.18	1,300,155.248	338,856.830
℄ RAMP B	39	P.I.	220+61.60	1,300,266.435	338,891.355
℄ RAMP B	39	P.T.	221+77.23	1,300,368.406	338,947.536
℄ RAMP B		END ℄	230+68.13	1,301,148.714	339,377.445
℄ RAMP A		BEGIN ℄	11+12.35	1,299,658.779	338,118.172
℄ RAMP A	36	CENTER	———	1,299,248.498	339,026.820
℄ RAMP A	36	P.C.	13+98.79	1,299,874.964	338,306.086
℄ RAMP A	36	P.I.	15+07.59	1,299,957.079	338,377.462
℄ RAMP A	36	P.T.	16+15.46	1,300,021.033	338,465.481
℄ RAMP A	37	CENTER	———	1,300,548.264	338,217.705
℄ RAMP A	37	P.C.	17+54.91	1,300,103.003	338,578.296
℄ RAMP A	37	P.I.	18+76.70	1,300,174.593	338,676.824
℄ RAMP A	37	P.T.	19+94.91	1,300,280.068	338,737.715
℄ RAMP A		P.I.	23+46.00	1,300,584.127	338,913.252
℄ RAMP A		END ℄	28+31.08	1,300,986.285	339,184.492

AS BUILT
APR 81 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

LAYOUT OF INTERCHANGE AT EUCLID AVENUE

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE V. S. DATE 1-24-72 | TRACED J. R. S. DATE 1-24-72
CHECKED D. M. DATE 1-24-72 | SCALE

84
1

Contract No. 2.

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		13
By: WAGO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

STA. 6+43.28 ℄ EUCLID = STA. 10+00.00 ℄ GUNLOCK AVE.

℄ GUNLOCK AVE. N 0°53'41.3" E

CONNECT TO EXIST. PAV'T

10'

11'

℄ CONST. CURB AND GUTTER (6" CURB, 1.5' GUTTER)

GRADE TO DRAIN AS DIRECTED BY BY THE ENGINEER

P.C. 13'-6" RT. STA. 10+34.07 ℄ GUNLOCK AVE.

P.C.C. 24.16' LT. STA. 6+68.68 ℄ EUCLID AVE.

10'R

20'

S 89°16'08.7" E

5-35

P.T. 4' LT. STA. 11+80.73 ℄ RAMP "A"

RETURN NO. 3

90'R

5-27

CONST. TYPE "B" FENCE

For Concordia Ave. Relocation Construction Details Sheet No. 11.

5-32

CONCORDIA AVE.

15"

5-33

P.C. STA. 13+98.79

CONST. TYPE "B" FENCE

CONST. GUARDRAIL

P.T. STA. 16+15.46

12 13 14 15 16 17

N 40°59'53.3" E

℄ RAMP "A"

CONST. SHOULDER GUTTER

CONST. GUARDRAIL

STA. 16+41.50 END RAMP BRIDGE

N 53°59'53.3" E

49°44'00"

℄ EUCLID AVE.

30" ℄ (TO REMAIN)

5-34

Const. 4" S/W

CONST. CURB TYPE "A"

RETURN NO. 4

P.T. STA. 12+57.90 ℄ RAMP "A"

5-28

END TAPER 15' RT. STA. 13+82.91 ℄ RAMP "A"

STA. 11+12.35 ℄ RAMP "A" = STA. 6+81.40 ℄ EUCLID AVE.

5-1

5'R 31' LT. STA. 7+33.87 ℄ EUCLID AVE. = 20' RT. STA. 11+69.92 ℄ RAMP "A"

5'R 20' RT. STA. 11+98.09 ℄ RAMP "A"

5'R 31' LT. STA. 7+56.92 ℄ EUCLID AVE.

P.C.C. CONSTRUCTED 60 L.F. FENCE STA. 7+83.22 ℄ EUCLID AVE.

11.5'R

P.C. 22.50' LT. OF STA. 7+93.04 ℄ EUCLID AVE.

5-2

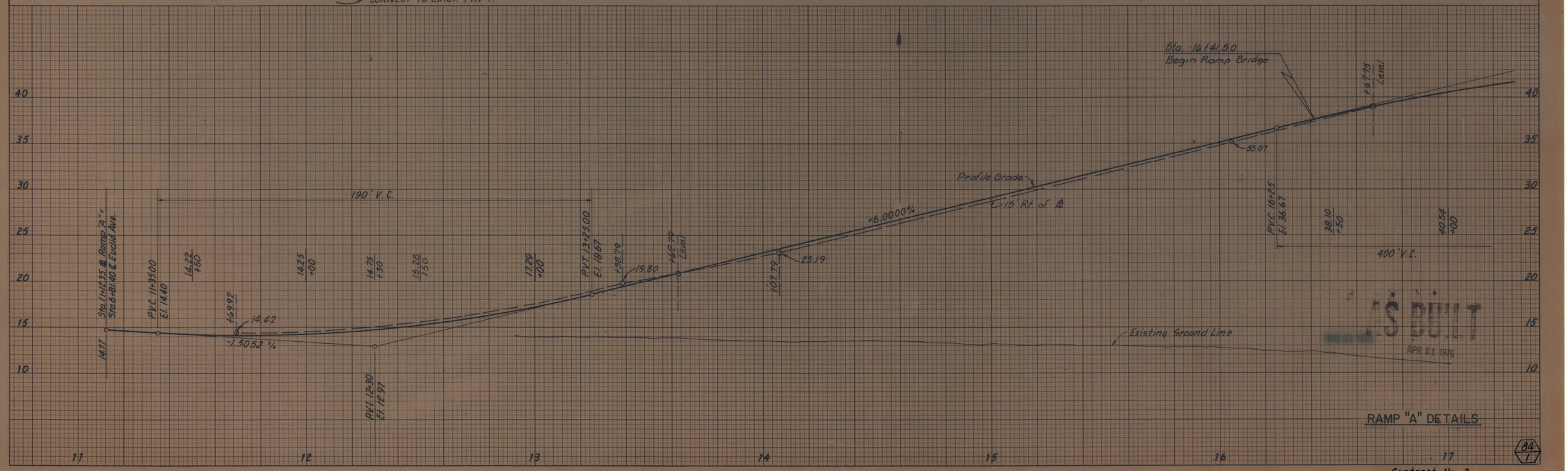
CONNECT TO EXIST. CURB AND GUTTER

CONNECT TO EXIST. PAV'T.

Scale: 1" = 20'

CURVE DATA

CURVE	RAMP	P.I. STATION	Δ	D	T	L	R	e	DESIGN SPEED
36	A	15+07.59	13°00'00"	6°00'00"	108.80	216.67	954.93	0.03 1/8"	25 M.P.H.



K&E CO. ORLANDO, FLA.

84 / 1

Contract No. 2.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		14
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

SCALE 1"=20'

EUCLID AVENUE

24.0'

EUCLID To Remain

N 89°56'53.3"E

CONNECT TO EXIST. PAVT

CONNECT TO EXIST. CURB & GUTTER

RETURN NO. 1

5'R.

+35.40 ℄ 22.5 Lt.

15"

75'R.

+83.36 15' Lt.

5'R. 6.42' Rt. Sta. 214+72.74 ℄ Ramp "B"

Sta. 214+21.16 ℄ Ramp "B" = Sta. 12+64.69 ℄ Euclid Ave.

72°43'53.3"

5'R. 31.00' Lt. Sta. 12+77.68 ℄ Euclid Ave.

5'R. 31.00' Lt. Sta. 12+96.97 ℄ Euclid Ave.

CONST 4" S/W

CONST. CURB & GUTTER (6" CURB, 1'-6" GUTTER)

℄ RAMP "B"

CONST. TYPE "A" CURB

RETURN NO. 2

DEVELOP "V" BOTTOM SWALE

CONST. PAVED SHLDR.

+41.34

S-29

El. 12.0

El. 11.0

CONSTRUCTED 77.4 L.F. OF GUARDRAIL

OBLITERATE EXIST. ROADWAY

CONST. 5' F.B. DITCH

CONST. SIDEWALK

CONST. TYPE "B" FENCE

CONSTRUCTED 10" DRIVE 9" L.R. BASE

CONNECT TO EXIST. CURB & GUTTER WITH 1" W.C. TOP

CONNECT TO EXIST. SIDEWALK

CONNECT TO EXIST. PAVT

+71.98

N 17°15'00"E

℄ CONST.

N 20°59'53.3"E

S-9

S-30

S-31

CONST. SHLDR. GUTTER

CONST. GUARDRAIL

NOSE 120+16.25

+20.76

+78.30

P.C. 219+45.18

NOSE 220+17.66

Exist. Culvert To Remain

RECONSTRUCT BOX CULVERT - SEE SHEETS NO. 23 & 24

CONSTRUCTED CONC. DITCH PAVT.

CURVE DATA

CURVE	RAMP	P.I. STATION	Δ	D	T	L	R	e	DESIGN SPEED
39	"B"	220+61.60	11°36'8.9"	5°00'00"	116.42'	232.05'	1145.92'	0.076/FT.	45 M.P.H.

NOTE, CONSTRUCTED SIDEWALK & FENCE AS SHOWN, MOVED CUL-DE-SAC SOUTH TO ALLOW EGRESS FOR PROPERTY OWNER

CONSTRUCTED DRIVE

100' V.C.

Sta. 214+21.16 ℄ Ramp "B" = Sta. 12+64.69 ℄ Euclid Ave.

P.V.C. 214+50 13.24

+45.82 13.23

+33.36

13.55

13.76

Variable Grade

-1.0000%

P.V.I. 215+00 El. 12.74

P.V.T. 215+50 13.22

13.49 +50

15' Lt. of ℄

+4.9700%

Profile Grade

Existing Ground Line

28.58

+12.70

P.V.C. 218+00 27.65

29.96 +50

31.94 +00

33.56 +50

200' V.C.

P.V.I. 219+00 El. 32.62

35.47

+79.30

-2.2300%

P.V.T. 220+00 34.85

AS BUILT

APR 21 1976

RAMP "B" DETAILS

215 216 217 218 219 220

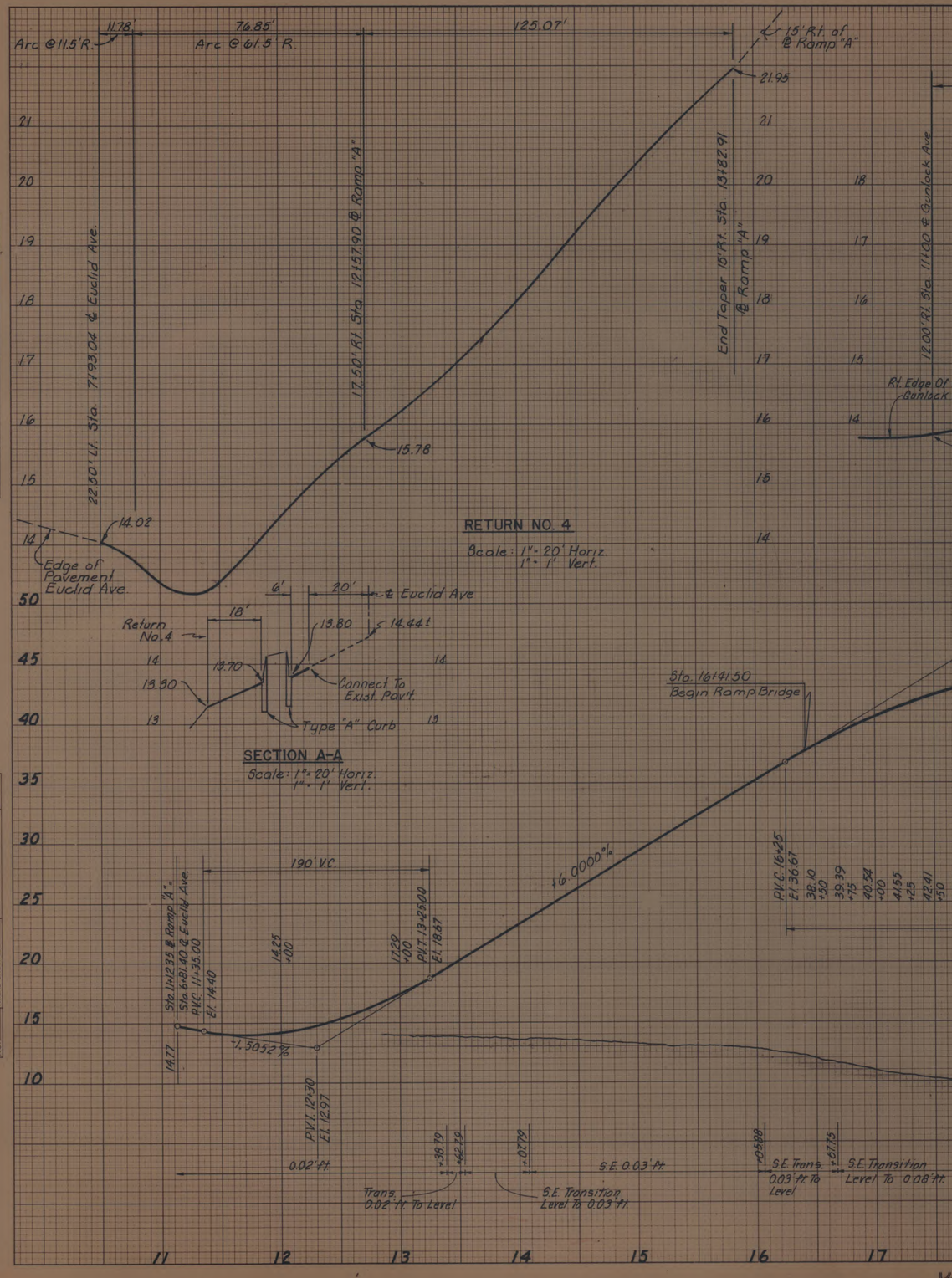
64/1

Contract No. 2.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		15
BY: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		DATE: 1974

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO.



AS BUILT
APR 21 1976

PROFILES OF RAMP "A" & INTERSECTION RETURNS

SCALES AS NOTED

64
11

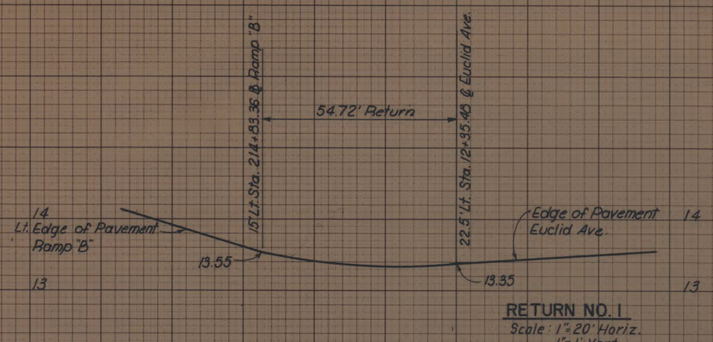
Contract No. 2.

K&E PLATE 3, CROSS SECTION KEUFFEL & ESSER CO.

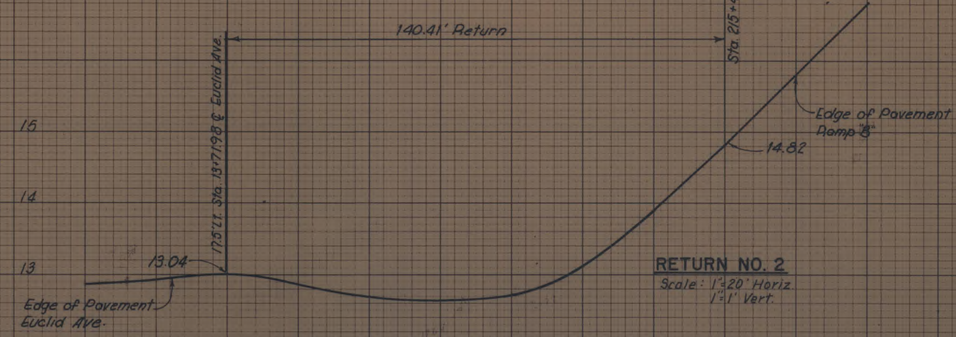
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		16
BY: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	DATE: 1974

FINAL SURVEY — SURVEYED — PLOTTED — CHECKED — NOTE BOOK — AREAS — AREAS CHECKED — NO. — BY — DATE

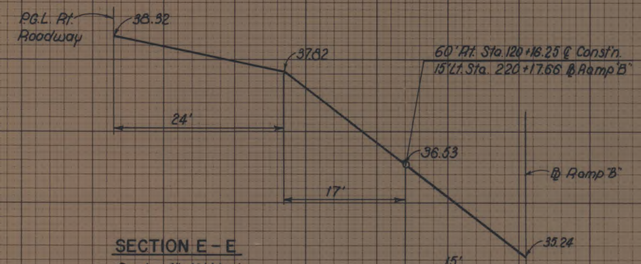
ORIGINAL SURVEY — SURVEYED — PLOTTED — CHECKED — NOTE BOOK — AREAS — AREAS CHECKED — NO. — BY — DATE



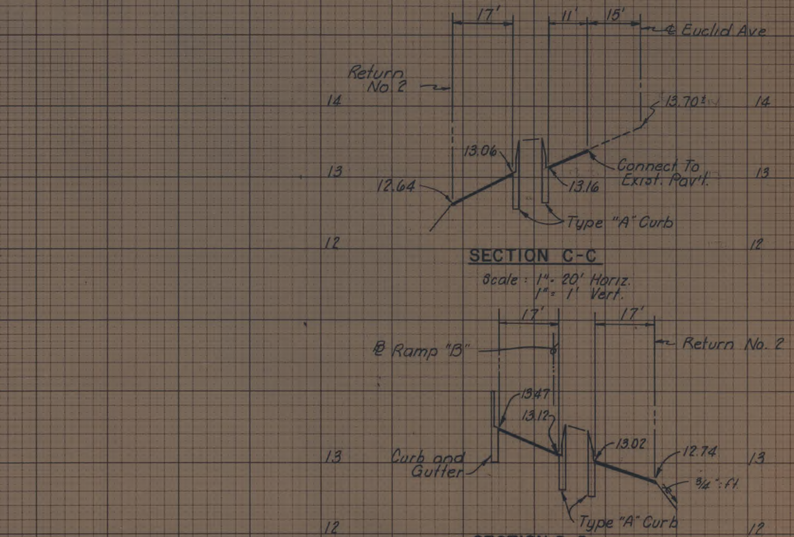
RETURN NO. 1
Scale: 1"=20' Horiz.
1"=1' Vert.



RETURN NO. 2
Scale: 1"=20' Horiz.
1"=1' Vert.



SECTION E-E
Scale: 1"=10' Horiz.
1"=1' Vert.



SECTION C-C
Scale: 1"=20' Horiz.
1"=1' Vert.

SECTION D-D
Scale: 1"=20' Horiz.
1"=1' Vert.



RAMP "B"
Scale: 1"=50' Horiz.
1"=5' Vert.

AS BUILT
APR 21 1976

PROFILES OF RAMP "B" & INTERSECTION RETURNS
SCALES AS NOTED
84/1

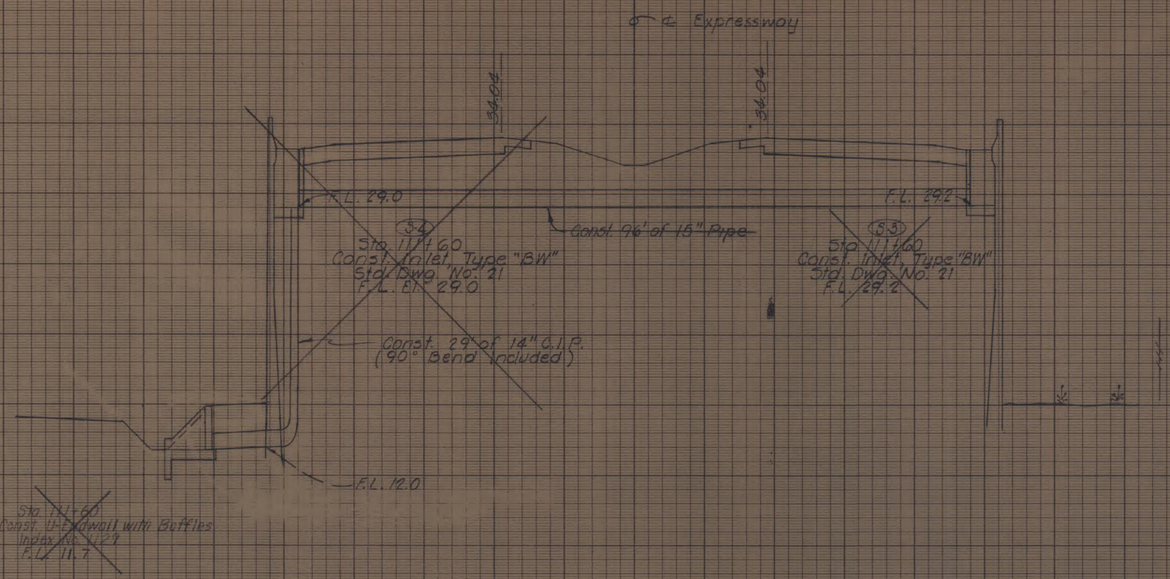
Contract No. 2.

K+E PLATE 3. CROSS SECTION KEUFFEL & ESSER CO.

CROSS SECTIONS

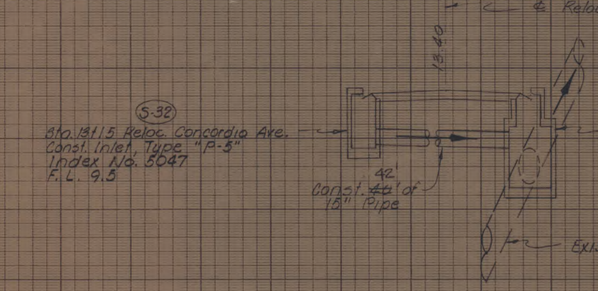
Scale 1 inch = 5 feet Vert
1 inch = 10 feet Horiz.

Fed. Road Distn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	Hillsborough	449	10002-3507	17

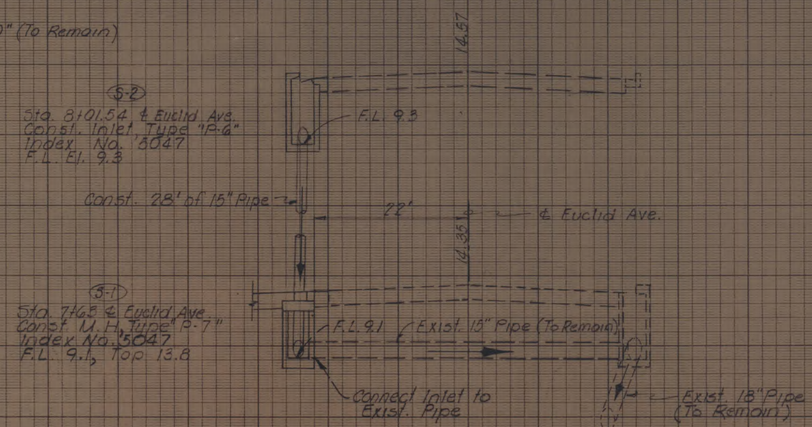


NOTE: Structures S-3 and S-4 are deleted and are not a part of this Contract

S-3
S-4



S-32
S-33



S-2

NOTE:

Special attention is directed to the fact that portions of some drainage structures extend into the stabilized portions of the roadbed and caution will be necessary in stabilization operations at those locations.

S-1

AS BUILT
APR 21 1976

84
17

Contract No. 2.

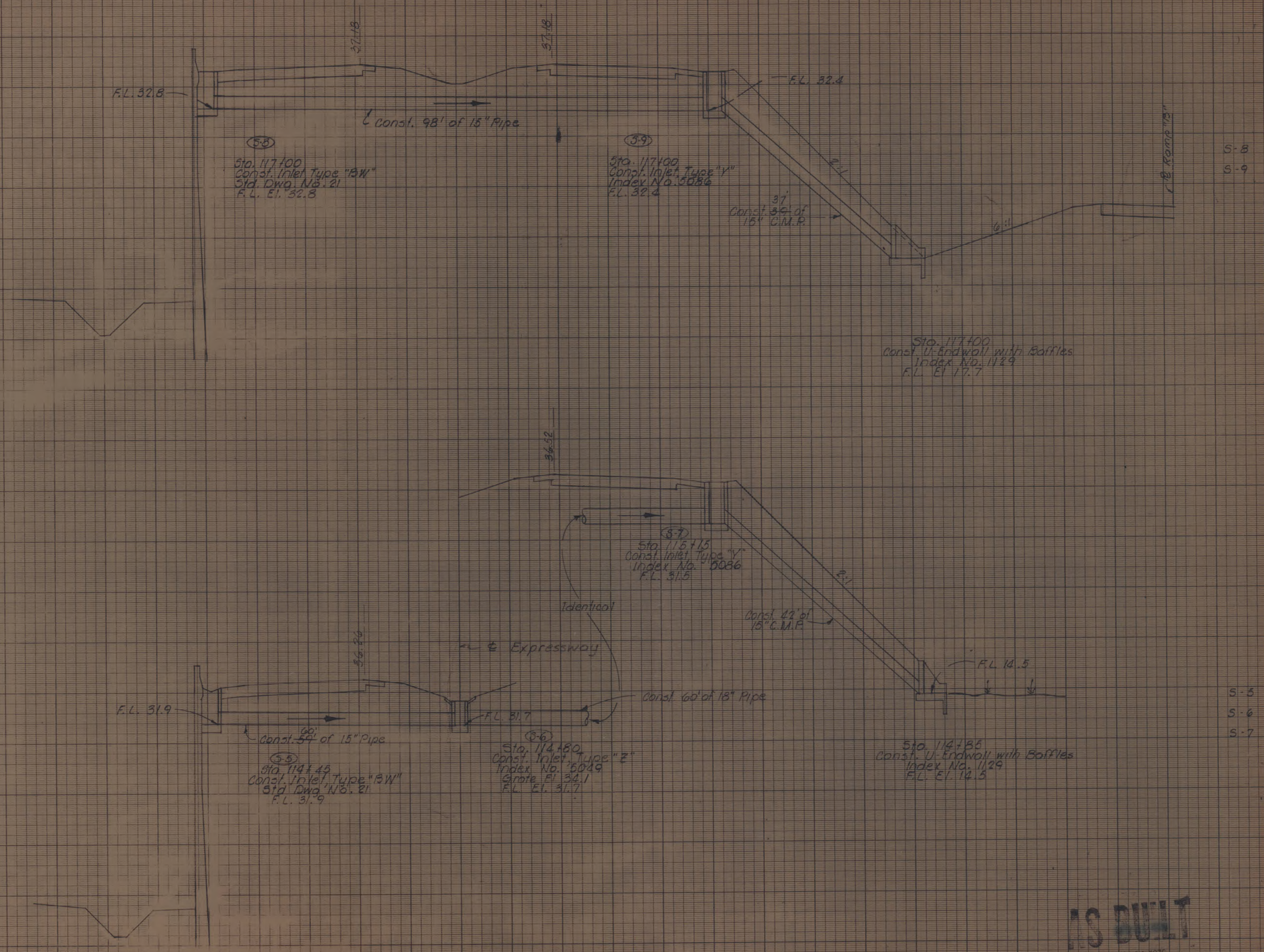
Application No.
Route No.
Original Plotted by
" Checked by
Tensilate by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO.
ORLANDO, FLA.
ORDER STOCK # 1004

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	Hillsborough	449	10002 · 3502	18



AS BUILT
apr 21 1976

Contract No. 2.

84
1

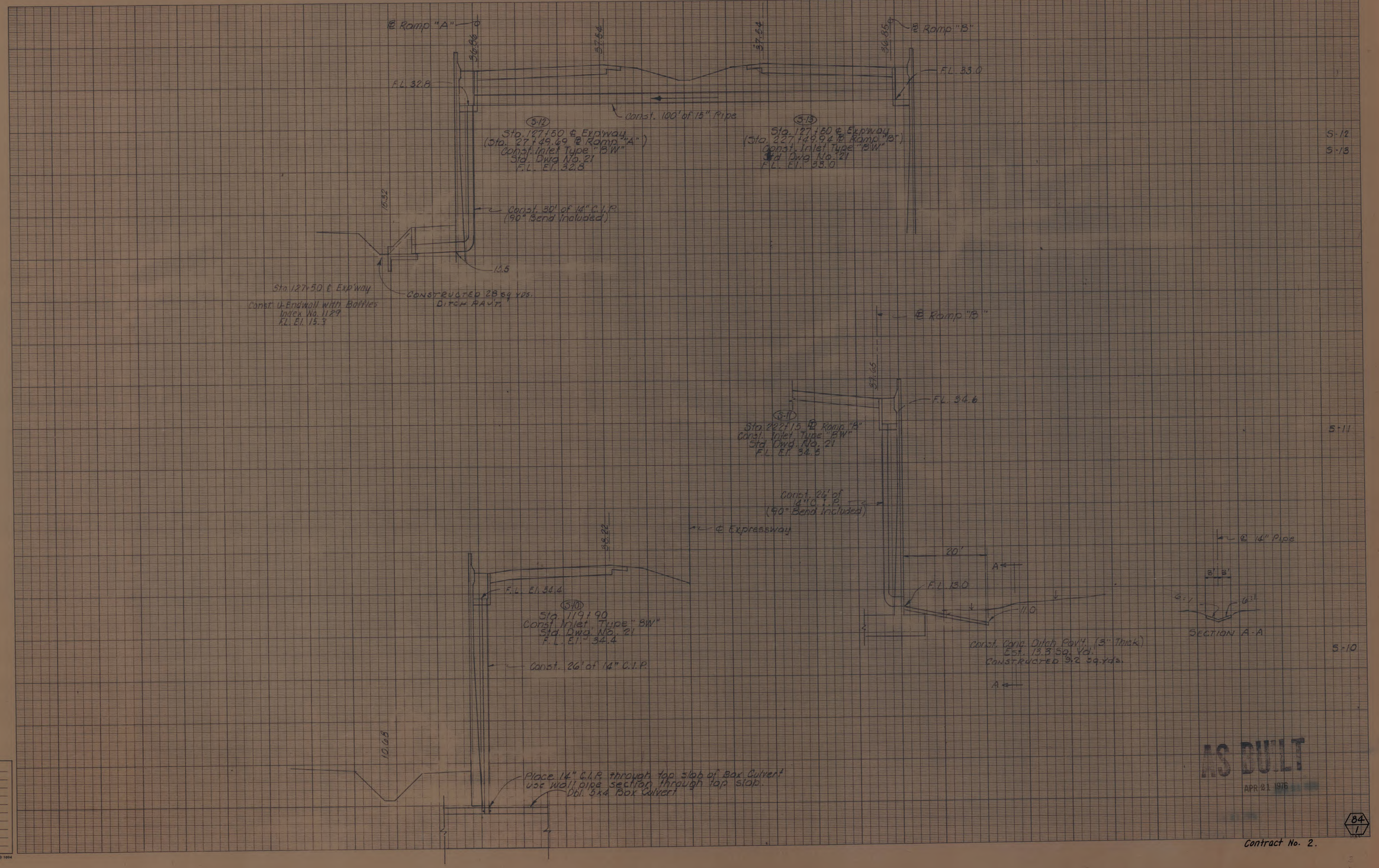
Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	Hillsborough	449	10002-3502	19



AS BUILT
APR 21 1976

84
1

Contract No. 2.

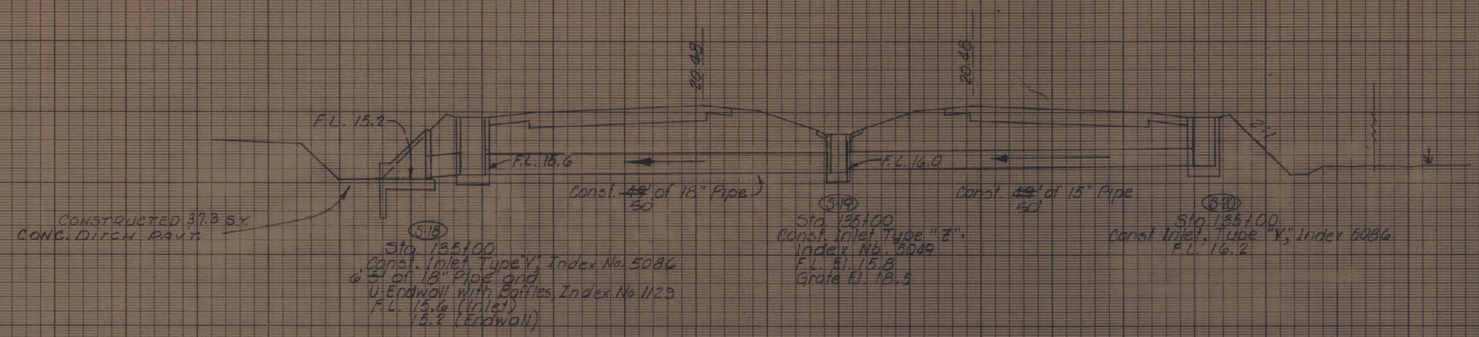
Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

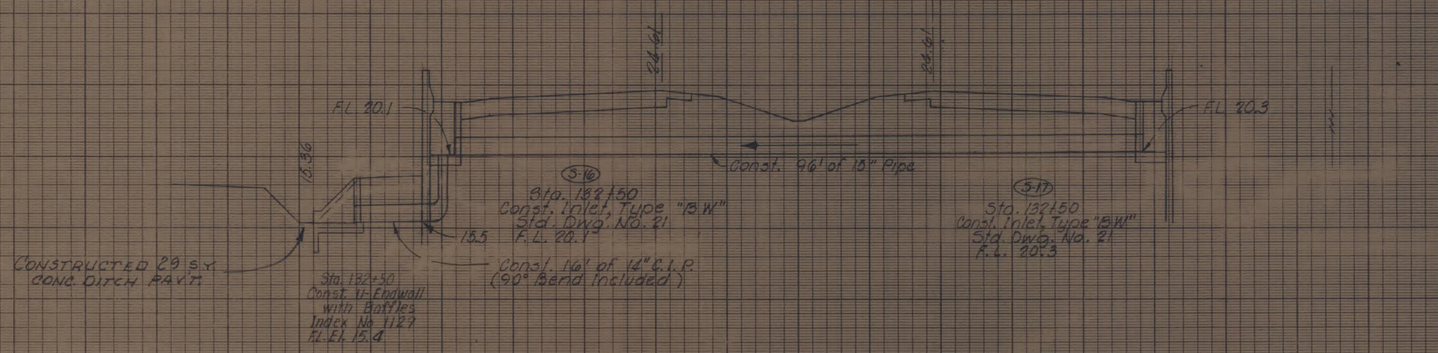
K&E CO. ORLANDO, FLA. ORDER STOCK @ 1004

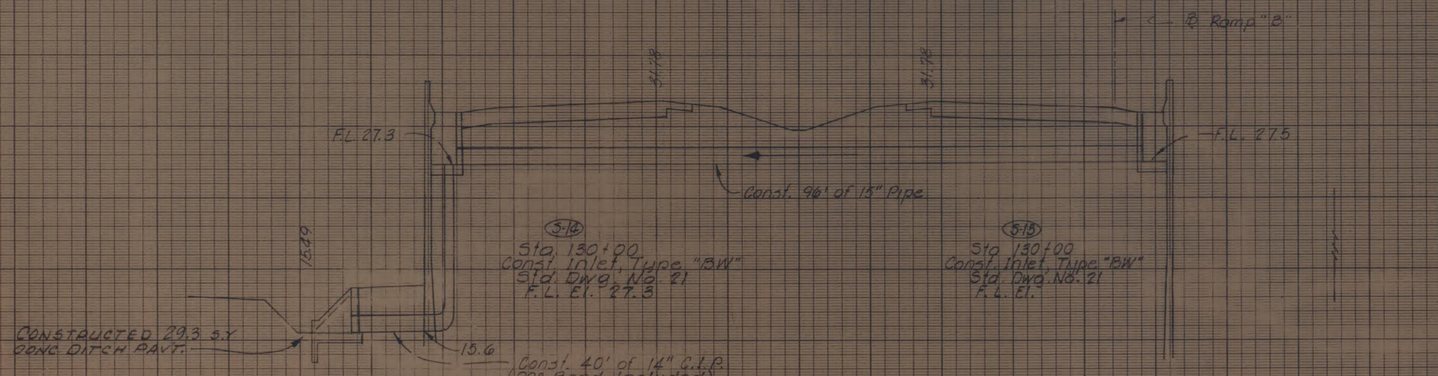
CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Dsm. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	Hillsborough	449	10002-3502	20







Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

KAE CO. ORLANDO, FLA. ORDER STOCK @ 1004

APR 21 1976

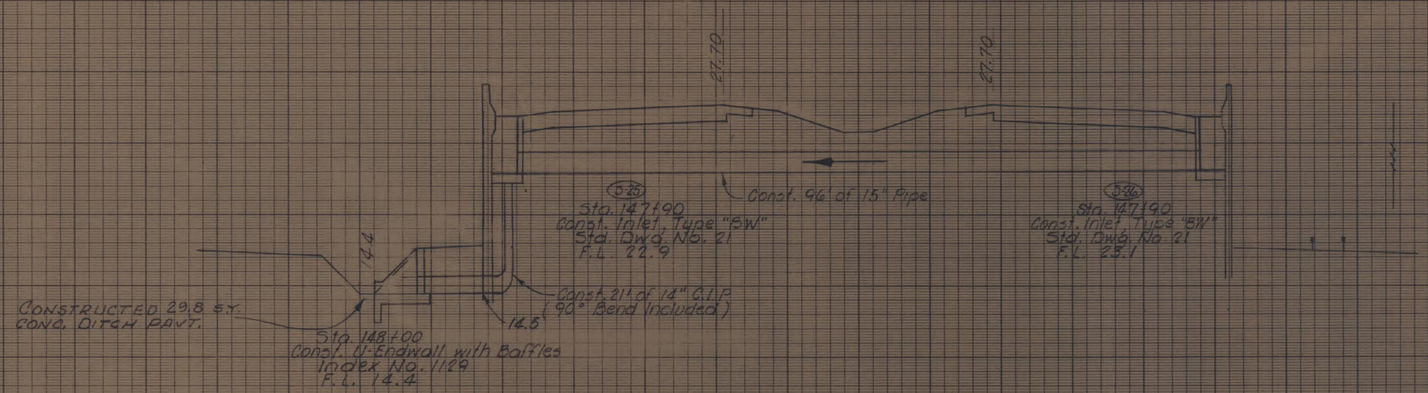
Contract No. 2.

84/1

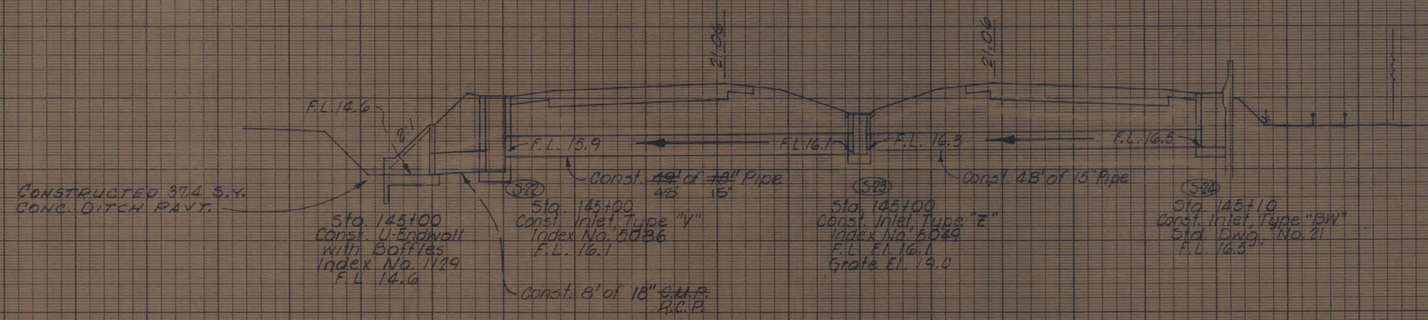
CROSS SECTIONS

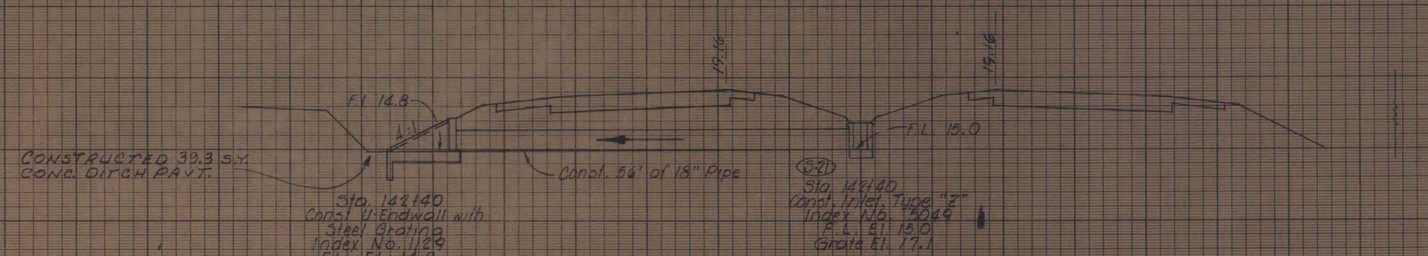
Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	Hillsborough	449	10002-3502	21



S-25
S-26





AS BUILT
APR 21 1976

S-21

Contract No. 2.

84
1

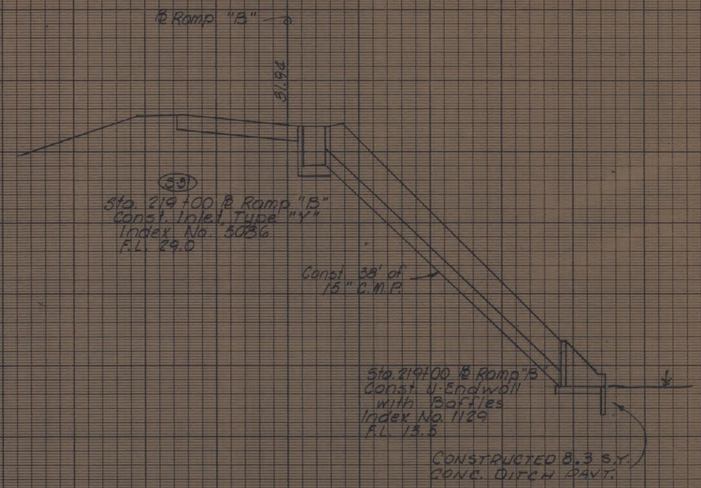
Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

KAE CO. ORLANDO, FLA. ORDER STOCK # 1964

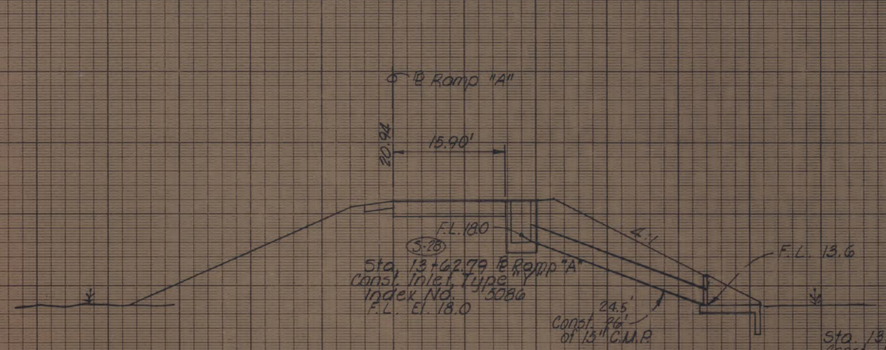
CROSS SECTIONS

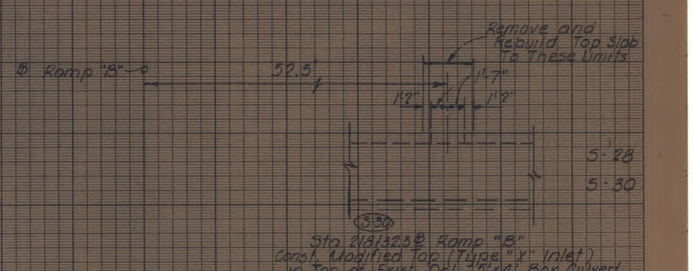
Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

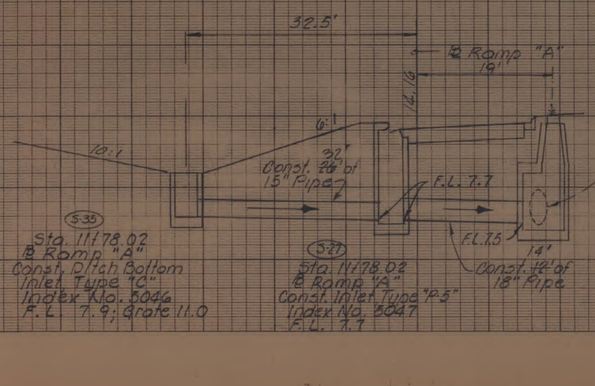
Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	Hillsborough	449	10002-3502	21

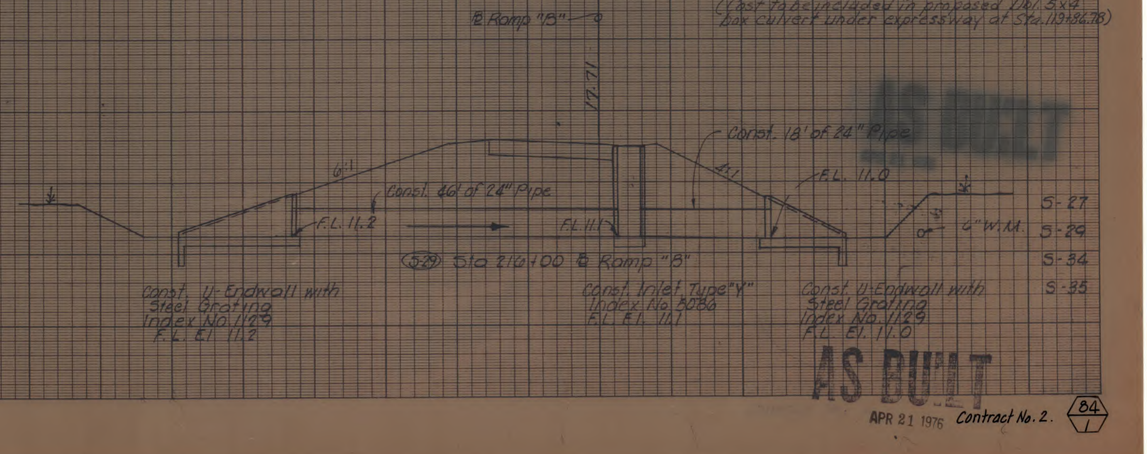


S-31









AS BUILT

APR 21 1976

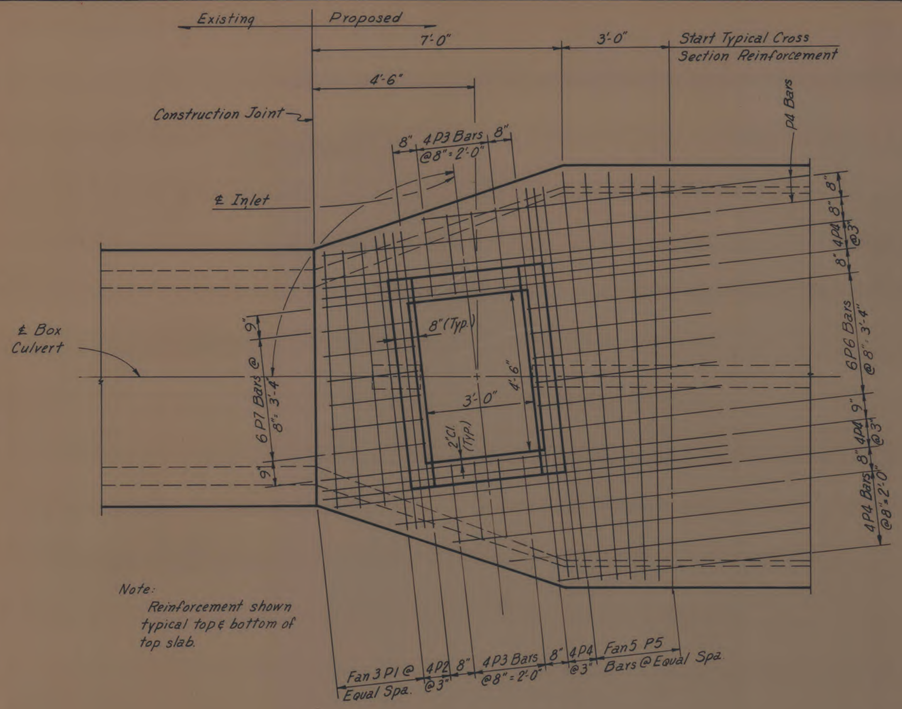
Contract No. 2.

84

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

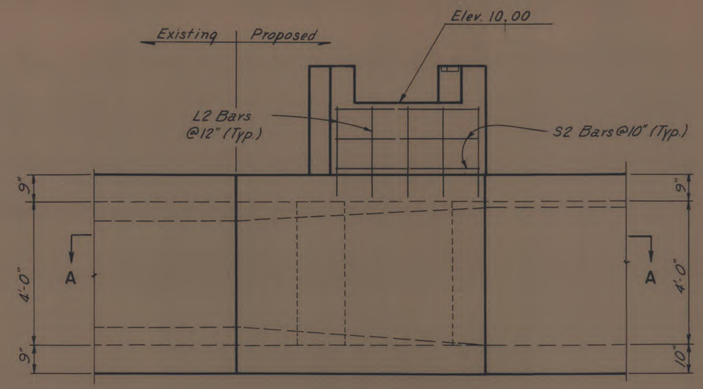
K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		23
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

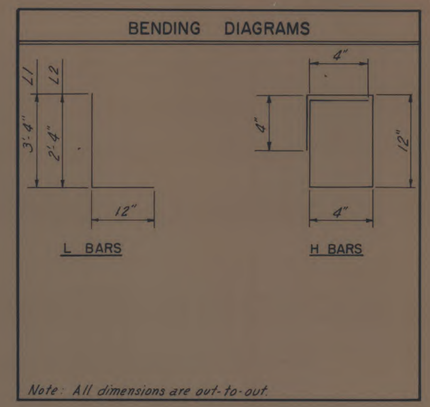


Note:
Reinforcement shown typical top & bottom of top slab.

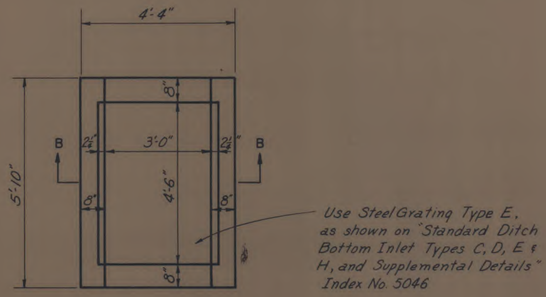
PLAN OF TOP SLAB



ELEVATION

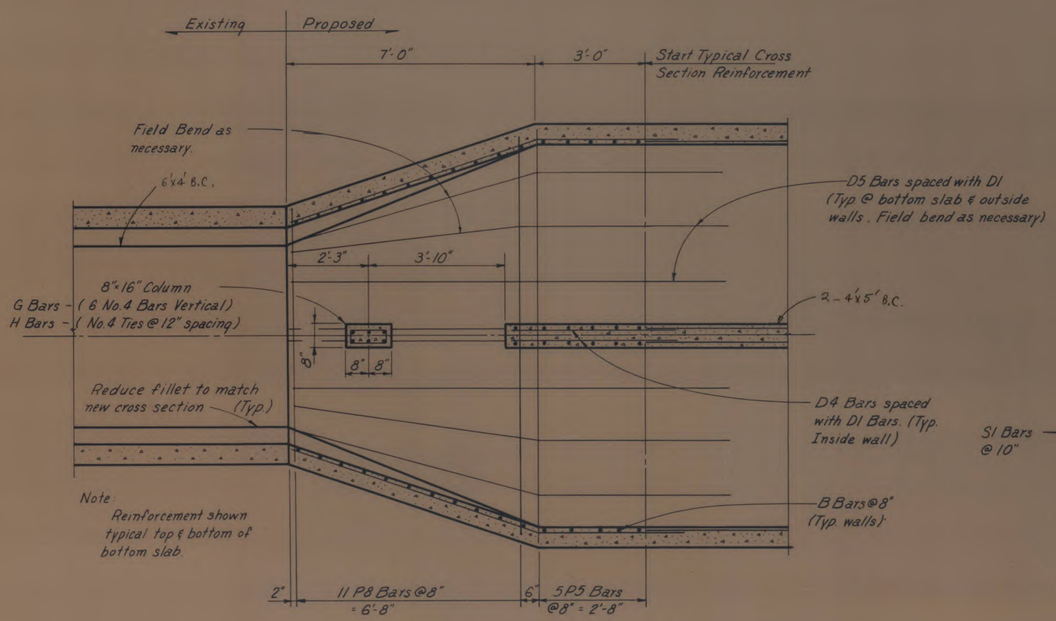


Note: All dimensions are out-to-out



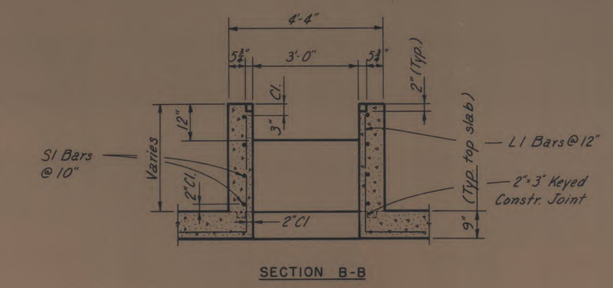
Use Steel Grating Type E, as shown on "Standard Ditch Bottom Inlet Types C, D, E & H, and Supplemental Details" Index No. 5046

PLAN



Note:
Reinforcement shown typical top & bottom of bottom slab.

SECTION A-A



SECTION B-B

DITCH BOTTOM INLET
(To be paid for under Item No. 425-1-2)

JOINT AT STA. 118 + 93.07

AS BUILT
APR 21 1976

NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

DOUBLE 5'x4' BOX CULVERT UNDER EXPRESSWAY AT STATION 119 + 86.78

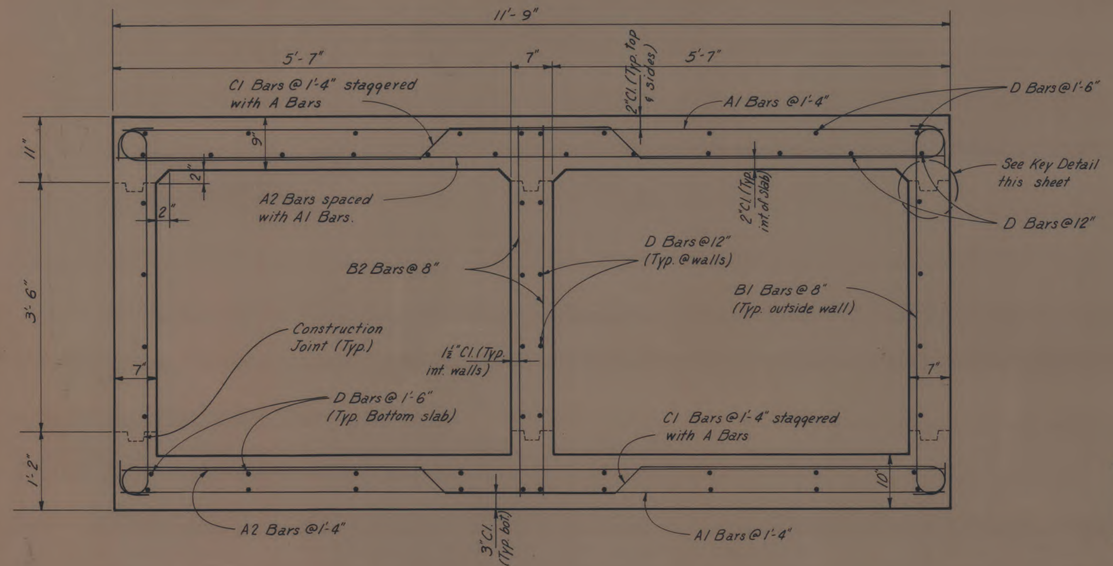
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE O.C. DATE 9/71 | TRACED O.C. DATE 9/71
CHECKED R.D.C. DATE 9/73 | SCALE

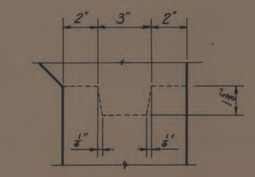
84
1

Contract No. 2

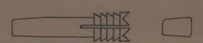
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3502		24
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974



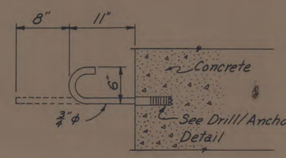
TYPICAL CROSS SECTION



KEY DETAIL

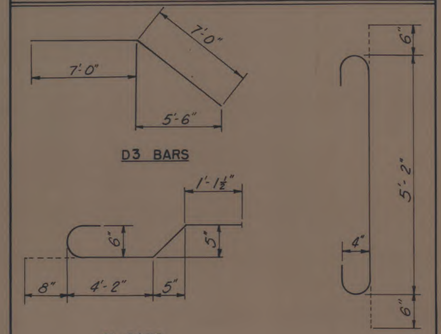


DRILL / ANCHOR DETAIL



DETAIL OF EXPANSION ANCHOR

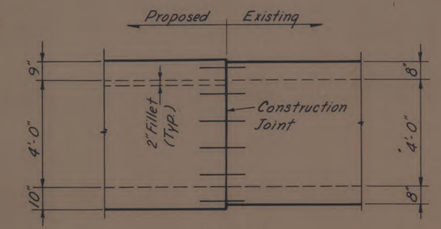
BENDING DIAGRAMS



BILL OF REINFORCING STEEL

MARK	SIZE	NO. REQ'D	LENGTH	BENDING
A1	6	326	11'-5"	Straight
A2	4	324	11'-5"	"
A3	6	36	11'-7"	"
A4	6	32	7'-8"	"
B1	4	708	6'-2"	See Diagram
B2	4	688	5'-2"	Straight
C1	6	326	13'-1"	See Diagram
D1	4	165	31'-3"	Straight
D2	4	220	32'-3"	"
D3	4	55	14'-0"	See Diagram
D4	4	47	11'-3"	Straight
D5	4	8	4'-10"	"
G	4	6	5'-2"	"
H	4	4	3'-4"	See Diag. Sh. 2
L1	4	12	4'-4"	"
L2	4	10	3'-4"	"
P1	6	6	7'-2"	Straight
P2	6	8	8'-4"	"
P3	6	16	2'-2"	"
P4	6	36	11'-0"	"
P5	6	20	11'-5"	"
P6	6	12	5'-0"	"
P7	6	12	2'-6"	"
P8	6	22	Varies	"
S1	4	8	5'-6"	"
S2	4	6	4'-0"	"

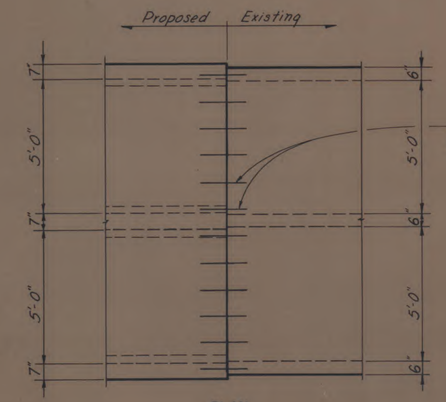
Varies ~ 2 Sets 11'-2" to 6'-10"



ELEVATION

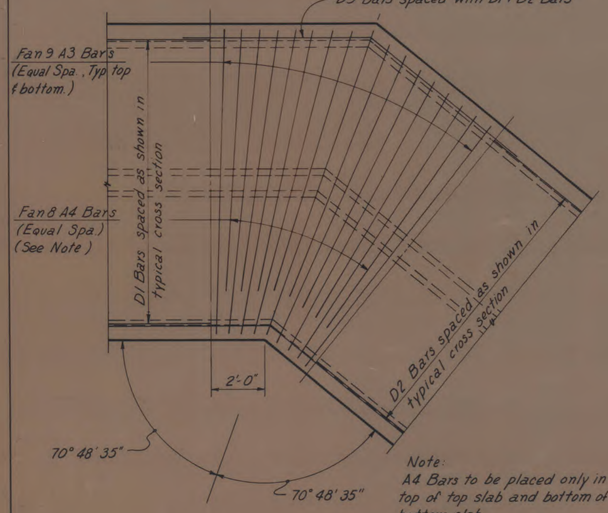
ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITIES
Concrete Class H	Cu. Yd	223.87
Reinforcing Steel	L.b.	31,550



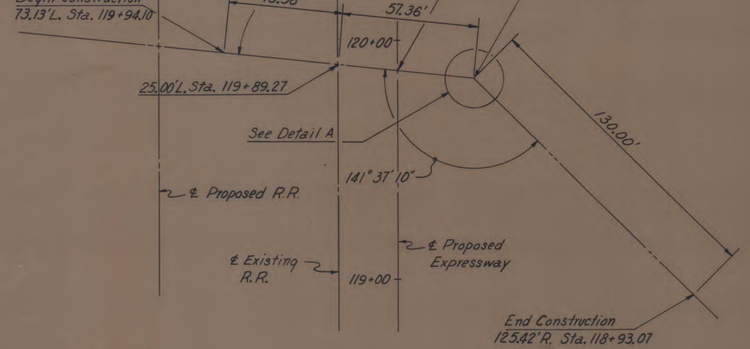
PLAN

JOINT AT STA. 118 + 93.07



Note:
A4 Bars to be placed only in top of top slab and bottom of bottom slab.

DETAIL A



LIMITS OF CONSTRUCTION

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

DOUBLE 5'x4' BOX CULVERT UNDER EXPRESSWAY AT STATION 119 + 86.78

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE O.C.	DATE 9/71	TRACED O.C.	DATE 9/71
CHECKED R.D.C.	DATE 9/73	SCALE	

84/1

Contract No. 2.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		1
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

THIS CONTRACT INCLUDES:

1. ROADWAY PLANS
2. ROADWAY SIGNING PLANS
3. TRAFFIC SIGNAL PLANS
4. LIGHTING PLANS.
5. BRIDGE AND RETAINING WALL PLANS.
6. SANITARY SEWER RELOCATION PLANS.

OF INDEX OF PLANS-SEE APPROPRIATE PLAN SETS.

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

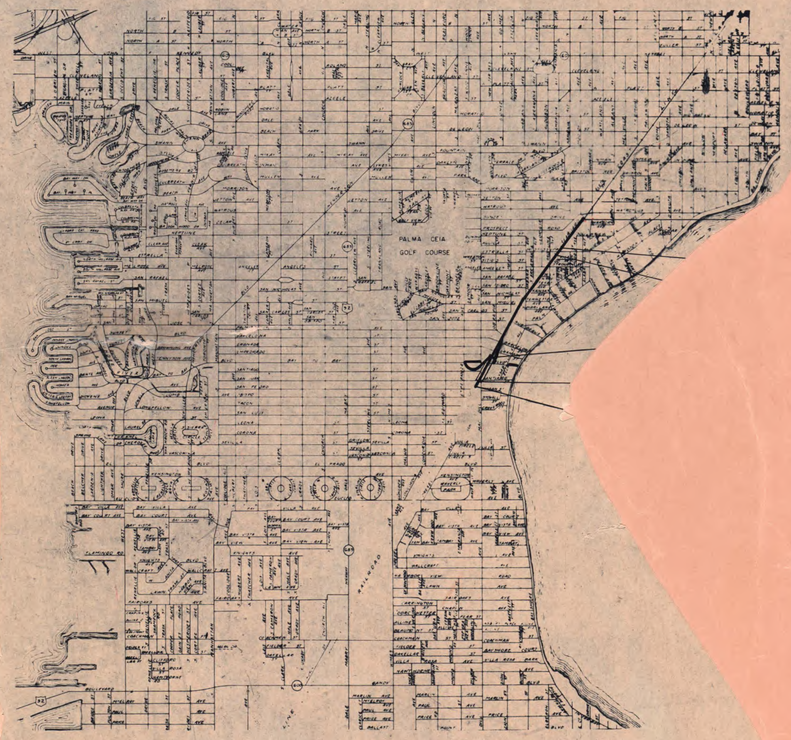
— PLANS OF PROPOSED —

STATE JOB NO. 10002-3503-032

SOUTH CROSSTOWN EXPRESSWAY

STATE ROAD NO. 449

HILLSBOROUGH COUNTY TAMPA, FLORIDA



CONTRACT NO. 3

FROM SOUTH OF MAC DILL AVE.
TO SOUTH OF WATROUS AVE.

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 3 - State Job No. 10002-3503

Description	Drawing Number Sheet No.
Cover Sheet - from S. of Mac Dill Ave. to S. of Watrous	1
Plan and Profile Drainage Map	2 and 3
Alignment Control	4
Typical Sections	5 - 6
Miscellaneous Details	7
Drainage Details Inlet Type BW	8
Summary of Quantities	9
Plan and Profiles	10 through 16
Ramp A and Santiago St. Details	17
Plan and Profiles Ramp A	18
Plan and Profiles Ramp B	19
Plan and Profile	20 through 26
Improvement of Exist Single 8'x4' Box Culvert	27
Cover Sheet Traffic Signals	T-1
Bill of Material and Summary of Quantities	T-2
Conventional Signal Symbols	T-3
General Notes	T-4
Typical Installation Details	T-5-T-6 & T-7
Pole Schedule	T-8
Traffic Signal Plan	T-9 & T-10
Prestressed Concrete Pole	T-11
Steel Strain Pole Detail	T-12

Total No. Mylar Sheets 39.

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		1
by WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

THIS CONTRACT INCLUDES:

1. ROADWAY PLANS
2. ROADWAY SIGNING PLANS
3. TRAFFIC SIGNAL PLANS
4. LIGHTING PLANS.
5. BRIDGE AND RETAINING WALL PLANS.
6. SANITARY SEWER RELOCATION PLANS.

FOR INDEX OF PLANS-SEE APPROPRIATE PLAN SETS.

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

STATE JOB NO. 10002-3503-032

SOUTH CROSSTOWN EXPRESSWAY

STATE ROAD NO. 449

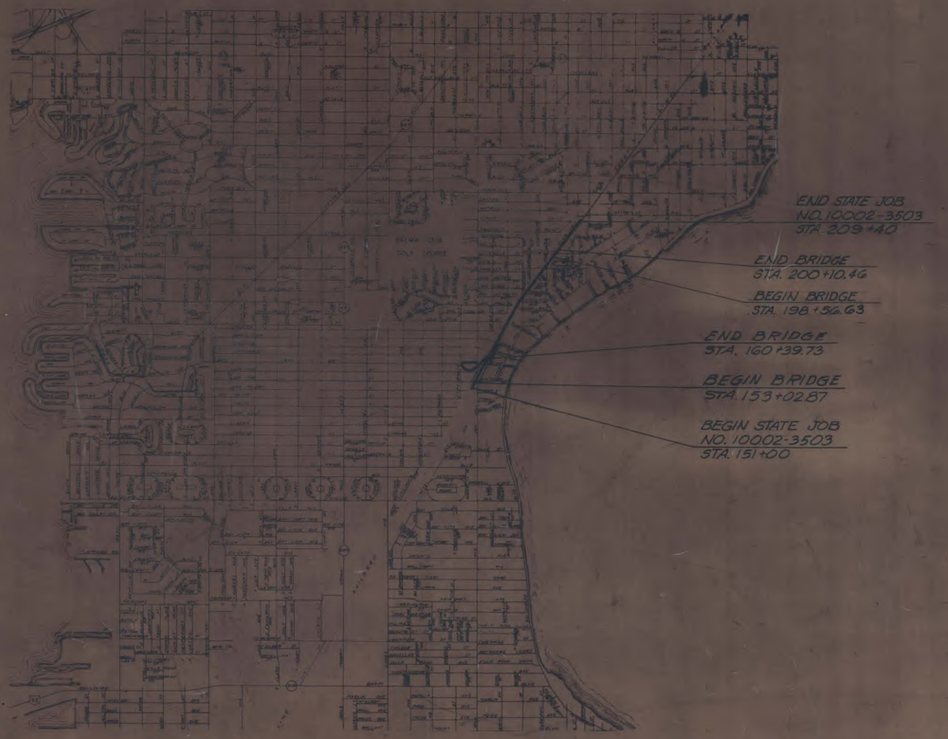
HILLSBOROUGH COUNTY TAMPA, FLORIDA

INDEX OF ROADWAY PLANS

Sheet No.	Sheet Description
1	Key Map
2-3	Drainage Maps
4	Alignment Control
5-6	Typical Sections
7	Miscellaneous Details
8	Drainage Details (Inlet Type BW)
9	Summary of Quantities
10	Mass Diagram
11-14	Plan and Profiles (Mainline)
15-16	Plan and Profiles (Bay to Bay)
17-19	Interchange
20-27	Drainage Structures
28	Soil Classification Sheet
29-53	Cross Sections
54-G1	Approach Slab Details
G2-G4	Vehicular Impact Attenuator
G5	Project Information Sign
G6	Borrow Area Ore
G7-10	Right-of-Way Maps

Index No. Standard Drawings

Index No.	Standard Drawings
194	Standard Abbreviations (2 sheets)
195	Standard Symbols for Key Maps and Plan Sheets (3 sheets)
1101-W	Miscellaneous Roadway Construction Details (2 sheets)
1129-G	U-Endwalls for Pipe Culverts (3 sheets)
2300-R	Guardrail Construction (4 sheets)
5010-H	Superelevation Details
5016-B	Turnout Details
5047-G	Inlet, Manhole, and Junction Box Types P and J (2 sheets)
5049-A	Inlet, Type Z
5061-E	Miscellaneous Drainage Details (2 sheets)
5072-6	Details of Fencing (2 sheets)
5073-L	Standard Details for Ramp Terminals (3 sheets)
5080-G	Curb, Curb and Gutter and Traffic Separator (2 sheets)
5086-A	Shoulder Gutter Inlet Type Y



2000 FT.



LENGTH OF PROJECT		
	LIN. FT.	MILES
ROADWAY	4949.31	0.937
BRIDGES	890.69	0.169
NET LENGTH	5840.00	1.106
EXCEPTIONS	00.00	0.000
GROSS LENGTH	5840.00	1.106

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

GENERAL SPECIFATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION-1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

AS BUILT
APR 21 1976

APPROVAL RECOMMENDED MAY 15, 1974
BY Donald R Henderson
J.E.GREINER CO. INC. — WATSON AND COMPANY

APPROVED _____
BY _____ CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 3
FROM SOUTH OF MACDILL AVE.
TO SOUTH OF WATROUS AVE.

WATSON AND COMPANY
CONSULTING ENGINEERS TAMPA FLA.

SUBMITTED W Wade Preston DATE 5/14/74

AS BUILT

84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002-3503	2

(156+00) PI EL 52.00

3.00%

CONST. 736.86' BRIDGE

STA. 151+00 BEGIN JOB

BEG. BRIDGE STA 153+02.87

CALLE EL MACOLL AVE

END BRIDGE STA. 160+39.73

1.97% (BEG. TO BR.)

1.01399%

(179+00) PI EL 49.91

54"

2.60"

6'x4' Conc. Box

40 30 20 10

150 155 160 165 170 175 180

SCALE: 1" = 100'

STA. 151+00
BEGIN STATE JOB
NO. 10002-3503
END STATE JOB
NO. 10002-3502

BEGIN BRIDGE
STA. 54 +54.00

BEG. BRIDGE
STA. 153+02.87

END BRIDGE
STA. 160+39.73

CONSTRUCTION LINE "B"

S.C.L.R.R. LINE "A"

SANTIAGO

ESPERANZA ST.

SAN JUAN ST.

EMERALDO ST.

GRANADA ST.

BARCELONA AVE.

PALMIRA AVE.

SAN JOSE ST.

OBRAPIA AVE.

SAN CARLOS

SAN MIGUEL ST.

SAN NICOLAS

MASON ST.

YSABELLA AVE.

BLVD.

MAC

Ditch

Existing Ditch

Existing Ditch to Remain

Jet Box

8'x4' Box

6'x4' Box

0.61Ac. 0.34Ac. 0.42 Ac. 0.61Ac. 0.10Ac. 0.29 Ac. 0.31Ac. 0.33 Ac. 0.25 Ac. 0.17 Ac. 0.29Ac. 0.28 Ac. 0.35 Ac. 0.23Ac. 0.48 Ac. 0.22 Ac. 0.43 Ac. 0.20 Ac. 0.30 Ac. 0.72Ac. 0.13Ac. 1.51 Ac. 0.14 Ac. 0.07 Ac. 1.18 Ac. 0.31 Ac. 0.31 Ac.

S-1 S-2 S-3 S-4 S-4A S-5 S-6A S-6 S-7 S-10 S-11 S-15 S-16 S-17 S-18 S-19 S-19A S-20 S-21 S-21A S-22 S-23 S-23A S-23B S-24 S-25 S-26 S-27 S-28 S-50 S-51

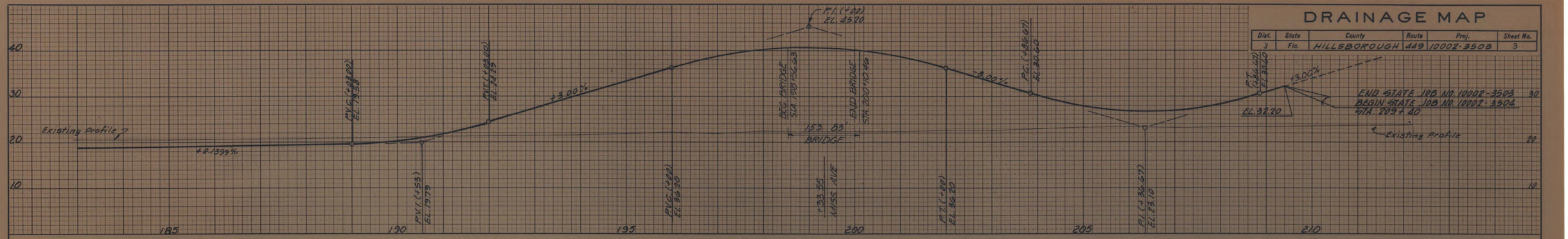
AS BUILT
APR 21 1976

Contract No. 3

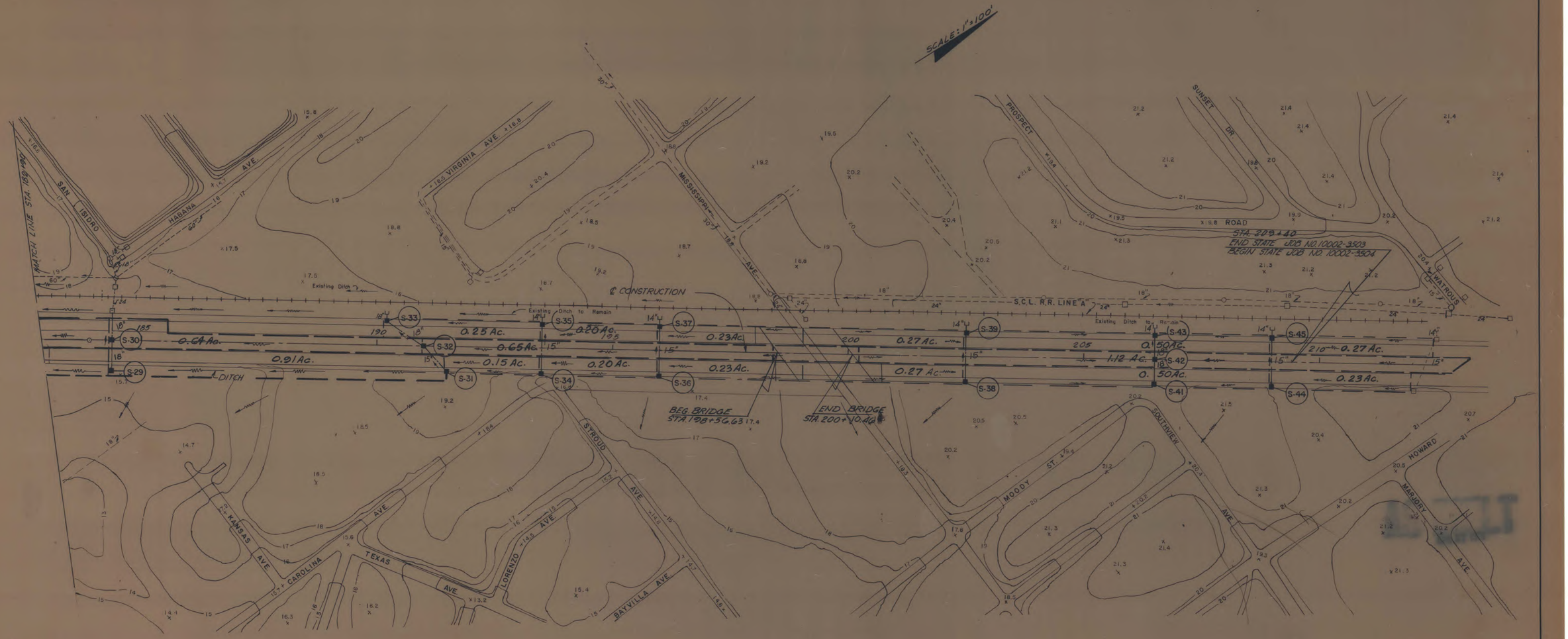
84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002-3503	3



SCALE: 1"=100'



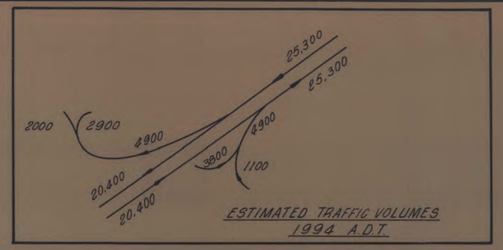
AS BUILT

APR 21 1976

84/1

Contract No. 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		4
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973



ESTIMATED TRAFFIC VOLUMES
1994 A.D.T.

SCALE: 1" = 100'

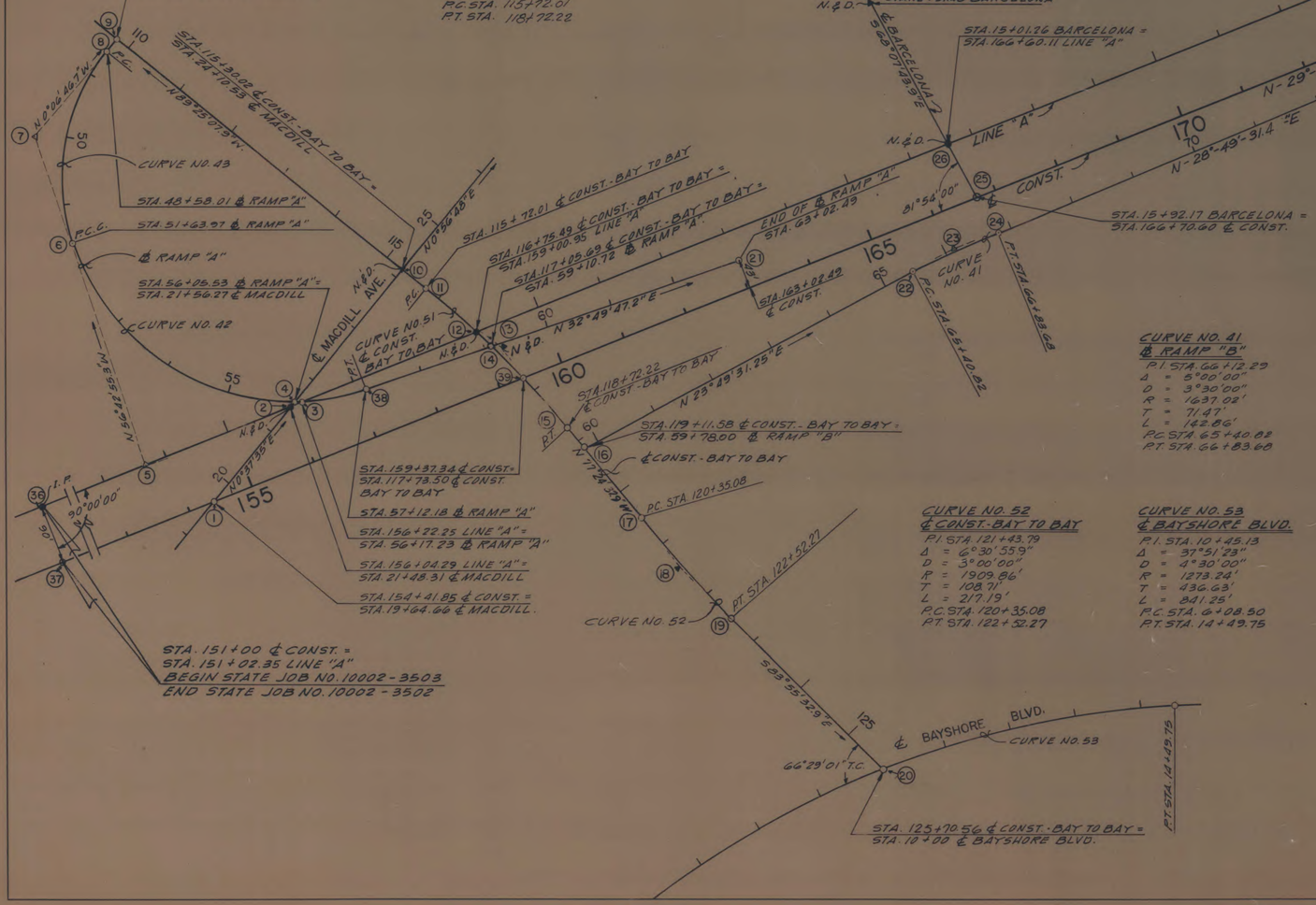
CURVE NO. 10 ℄ RAMP "A"
P.I. STA. 181 + 82.03
Δ = 8°44'10.9"
D = 2°00'00"
R_c = 2864.93'
T_s = 238.35'
θ_s = 0°23'24"
L_c = 397.22'
L_s = 39.00'
T.S. STA. 179 + 43.68
S.T. STA. 184 + 19.50

CURVE NO. 31 ℄ CONST.
P.I. STA. 181 + 72.82
Δ = 8°44'10.9"
D = 2°01'02"
R = 2839.93'
T = 216.93'
L = 433.03'
P.C. STA. 179 + 55.89
P.T. STA. 183 + 88.92

CURVE NO. 43 ℄ RAMP "A"
P.I. STA. 50 + 24.78
Δ = 56°36'08.6"
D = 18°30'00"
R = 309.71'
T = 166.77'
L = 305.96'
P.C. STA 48 + 58.01
P.C.C. STA. 51 + 63.97

CURVE NO. 42 ℄ RAMP "A"
P.I. STA. 55 + 13.98
Δ = 90°27'17.5"
D = 16°30'00"
R = 347.25'
T = 350.02'
L = 548.21'
P.C.C. STA. 51 + 63.97
P.T. STA. 57 + 12.18

CURVE NO. 51 ℄ CONST. - BAY TO BAY
P.I. STA. 117 + 22.67
Δ = 120°00'30"
D = 4°00'00"
R = 1432.39'
T = 150.66'
L = 300.21'
P.C. STA. 115 + 72.01
P.T. STA. 118 + 72.22



CURVE NO. 41 ℄ RAMP "B"
P.I. STA. 66 + 12.29
Δ = 5°00'00"
D = 3°30'00"
R = 1637.02'
T = 71.47'
L = 142.86'
P.C. STA. 65 + 40.82
P.T. STA. 66 + 83.68

CURVE NO. 52 ℄ CONST. - BAY TO BAY
P.I. STA. 121 + 43.79
Δ = 6°30'55.9"
D = 3°00'00"
R = 1909.86'
T = 108.71'
L = 217.19'
P.C. STA. 120 + 35.08
P.T. STA. 122 + 52.27

CURVE NO. 53 ℄ BAYSHORE BLVD.
P.I. STA. 10 + 45.13
Δ = 37°51'23"
D = 4°30'00"
R = 1273.24'
T = 436.63'
L = 841.25'
P.C. STA. 6 + 08.50
P.T. STA. 14 + 49.75

COORDINATES				
NO	DESCRIPTION		NORTH	EAST
1	STA. 154 + 41.85	℄ CONST.	1,303,226.50	340,526.02
2	STA. 156 + 04.26	LINE "A"	1,303,410.14	340,528.03
3	STA. 156 + 22.22	LINE "A"	1,303,425.70	340,537.00
4	STA. 21 + 56.27	℄ MACDILL	1,303,418.10	340,528.12
5	P.I. CURVE NO. 42		1,303,203.39	340,408.92
6	P.C.C. STA 51 + 63.97	RAMP "A"	1,303,395.47	340,116.32
7	P.I. CURVE NO. 43		1,303,487.00	339,976.91
8	P.C. STA 48 + 58.01	RAMP "A"	1,303,653.76	339,976.57
9	STA. 109 + 75.63	℄ BAY TO BAY	1,303,677.96	339,976.53
10	INT. MACDILL	℄ BAY TO BAY	1,303,672.34	340,530.89
11	P.C. STA 115 + 72.01	BAY TO BAY	1,303,671.91	340,572.88
12	STA. 159 + 00.93	LINE "A"	1,303,667.14	340,676.22
13	P.I. CURVE NO. 51		1,303,670.39	340,723.53
14	STA. 59 + 10.72	RAMP "A"	1,303,664.33	340,706.31
15	P.T. STA 118 + 72.22	℄ BAY TO BAY	1,303,637.55	340,870.57
16	INT. RAMP "B"	℄ BAY TO BAY	1,303,628.97	340,908.98
17	P.C. STA 120 + 35.08	℄ BAY TO BAY	1,303,602.05	341,029.51
18	P.I. CURVE NO 52		1,303,578.35	341,135.61
19	P.T. STA 122 + 52.27	℄ BAY TO BAY	1,303,566.85	341,243.71
20	INT. BAY TO BAY	℄ BAYSHORE	1,303,533.18	341,560.22
21	STA. 63 + 02.49	RAMP "A"	1,303,993.53	340,918.71
22	P.C. STA 65 + 40.82	RAMP "B"	1,304,143.94	341,135.99
23	P.I. CURVE NO 41		1,304,209.32	341,164.86
24	P.T. STA 66 + 83.68		1,304,271.94	341,199.32
25	STA. 166 + 70.60	℄ CONST.	1,304,290.93	341,139.85
26	STA. 166 + 60.11	LINE "A"	1,304,324.80	341,055.49
27	STA. 75 + 83.86	RAMP "B"	1,305,060.58	341,633.34
28	P.C. STA 179 + 55.89	℄ CONST.	1,305,404.35	341,781.94
29	P.I. CURVE NO. 31		1,305,592.27	341,890.31
30	P.T. STA 183 + 88.92	℄ CONST.	1,305,761.55	342,025.97
31	P.I. CURVE NO. 10		1,305,643.19	341,815.78
32	STA. 199 + 33.55	℄ CONST	1,306,966.91	342,991.90
33	STA. 198 + 78.85	LINE "A"	1,306,967.98	342,877.43
34	STA. 207 + 16.06	LINE "A"	1,307,621.29	343,400.97
35	STA. 207 + 00	℄ CONST	1,307,565.92	343,471.81
36	STA. 151 + 02.32	LINE "A"	1,302,975.30	340,277.26
37	STA. 151 + 00	℄ CONST	1,302,930.36	340,355.24
38	P.T. STA 57 + 12.18	RAMP "A"	1,303,497.51	340,598.68
39	STA. 159 + 37.36	℄ CONST	1,303,655.74	340,773.55
40				

NOTE: HORIZONTAL CONTROL DATUM IS BASED ON U.S.C. & G.S. GRID COORDINATE SYSTEM N.A.D. 1927.

REFERENCE POINTS LEGEND:
- I.R. - IRON ROD SET IN CONCRETE. (POL.)
- I.R. - IRON ROD SET IN CONCRETE. (P.I.)
- N.℄D - NAIL & DISC. (P.O.L)
- N.℄D - NAIL & DISC. (P.I.)

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

ALIGNMENT CONTROL

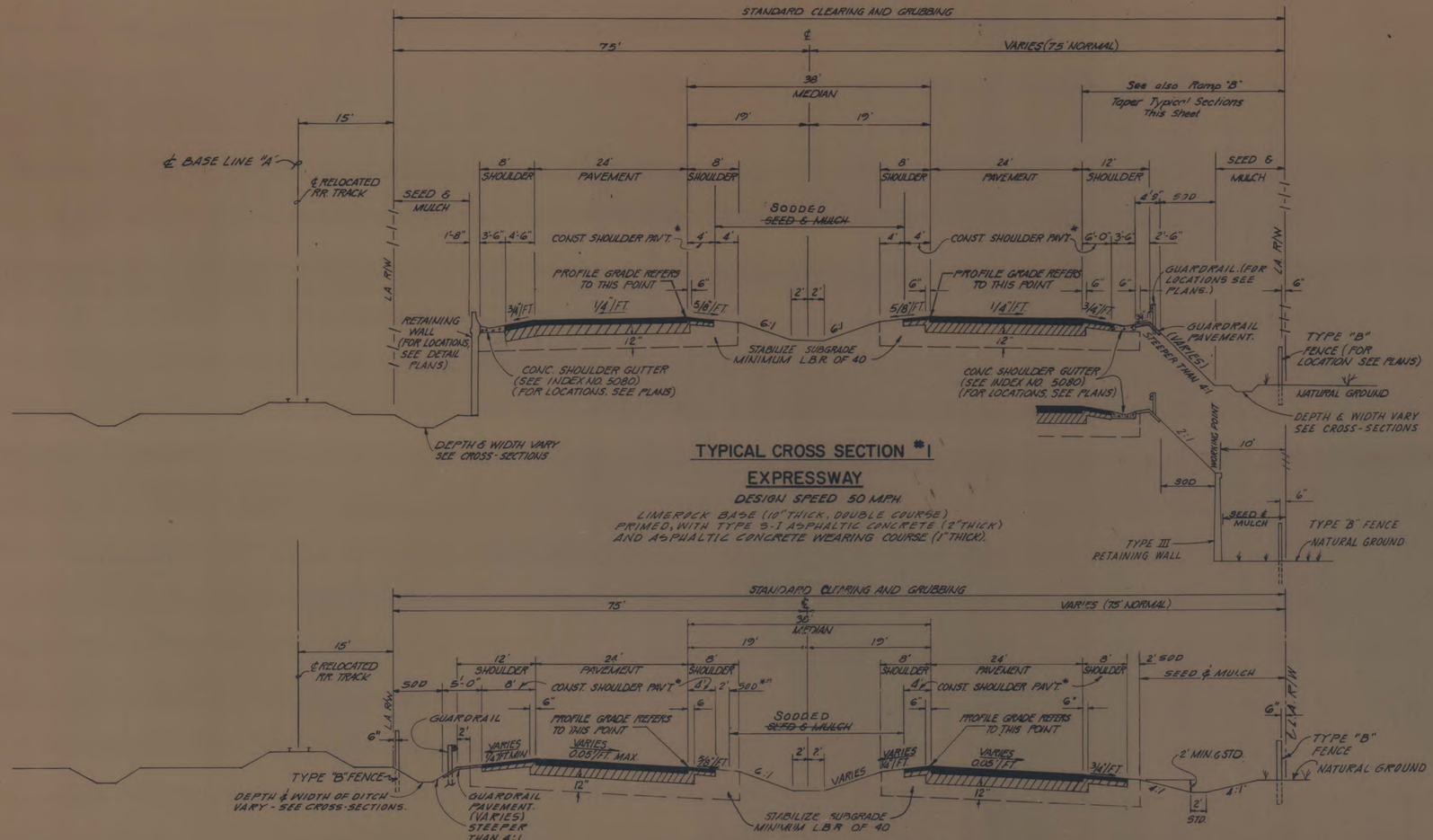
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE D. MARCH DATE 4-13-73 | TRACED E.A.J. DATE 1973
CHECKED J.N.C. DATE 11-73 | SCALE AS NOTED

84
1

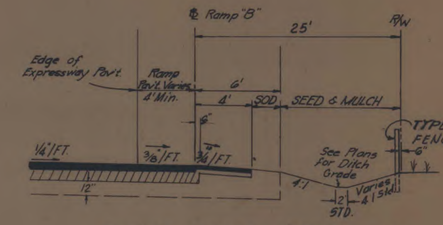
Contract No. 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		5
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973

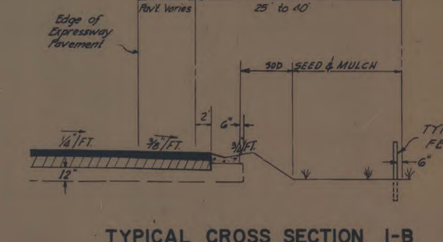


TYPICAL CROSS SECTION #1
EXPRESSWAY
DESIGN SPEED 50 MPH.
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK).

TYPICAL CROSS SECTION #2
EXPRESSWAY
DESIGN SPEED 50 M.P.H.
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK).



TYPICAL CROSS SECTION I-A
RAMP "B" TAPER



TYPICAL CROSS SECTION I-B
RAMP "B" TAPER

NOTES:

1. * ALT. - SHOULDER PAVEMENT SHALL BE EITHER LIMEROCK BASE (5" THICK) PRIMED, WITH (TYPE S-1) ASPHALTIC CONCRETE (1" THICK) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) (ALT. "A") OR (ALT. "B") SAND-ASPHALT HOT MIX (5" THICK) (800 LB. STABILITY) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK)
2. ** SOD 2' ADJACENT TO PAVED SHOULDER IN SUPERELEVATION SECTIONS WHEN ROADWAY WATER DRAINS TO MEDIAN DITCH.
3. WHERE SHOULDER PAVEMENT ADJACENT TO SHOULDER GUTTER IS LESS THAN 6' WIDE, IT SHALL BE IDENTICAL TO THE ADJACENT ROADWAY PAVEMENT.

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

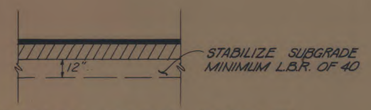
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE D.MARCH DATE 1973 | TRACED E.A.J. DATE 1973
CHECKED J.N.C. DATE 1973 | SCALE NOT TO SCALE

84/1

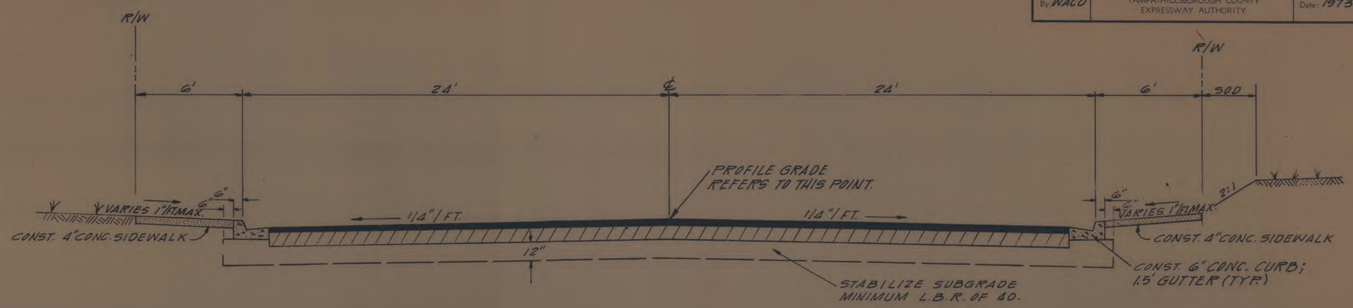
Contract No. 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		6
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973



TYPICAL CROSS SECTION
SANTIAGO STREET & CAROLINA AVE.

DESIGN SPEED 30 M.P.H.
LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICK, TOP LAYER 1½" THICK)

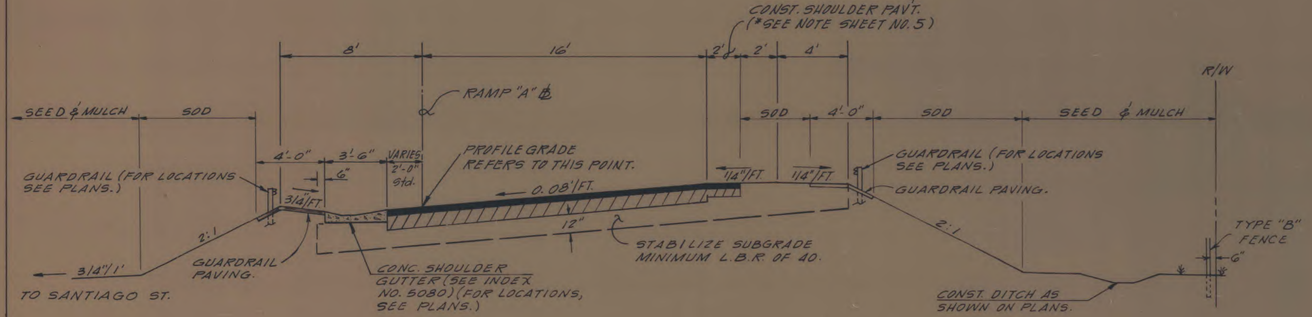


TYPICAL CROSS SECTION
BAY TO BAY BLVD.

DESIGN SPEED 35 M.P.H.
LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICK, TOP LAYER 1½" THICK.)

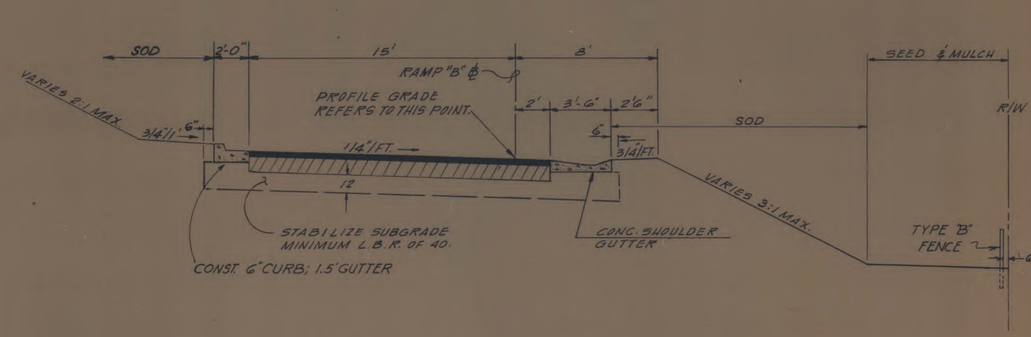
NOTE: CONST. ONLY SIDEWALK (NORTH SIDE) UNDER BAY TO BAY BRIDGE (SEE PLAN SHEET FOR LOCATION)

NOTE:
NONE OF THE EXISTING LIMEROCK BASE THAT IS REMOVED IS TO BE USED IN THE CONSTRUCTION OF THE NEW BASE. ALL OF THE EXISTING ROCK BASE MATERIAL WHICH IS REMOVED IS TO BE INCORPORATED IN THE STABILIZED PORTION OF THE SUBGRADE.



TYPICAL CROSS SECTION
RAMP "A"

DESIGN SPEED 35 M.P.H.
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK)



TYPICAL CROSS SECTION
RAMP "B"

DESIGN SPEED 35 M.P.H.
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK)

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

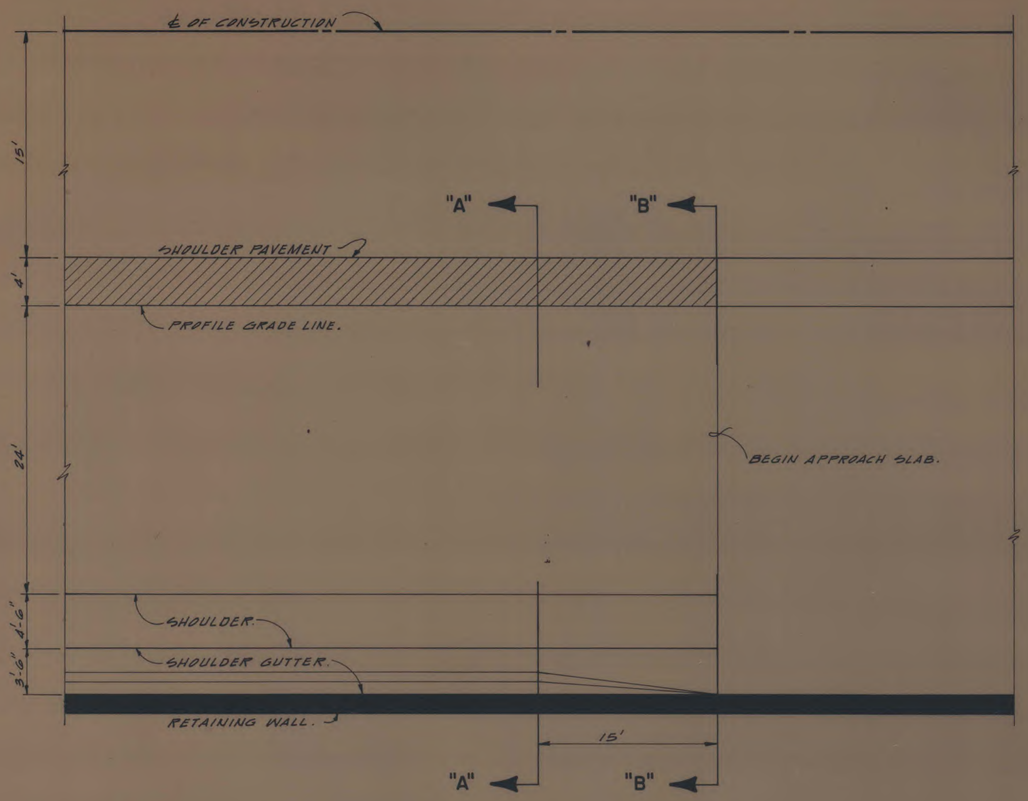
TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

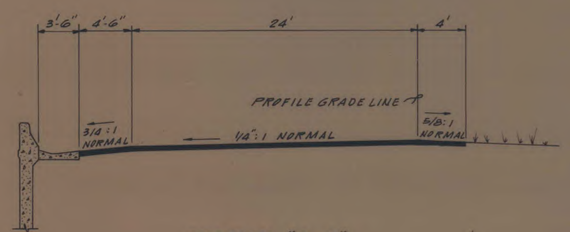
MADE D. MARCH	DATE 1973	TRACED EAJ	DATE 1973
CHECKED J.N.C.	DATE 1973	SCALE NOT TO SCALE	84 / 1

Contract No. 3

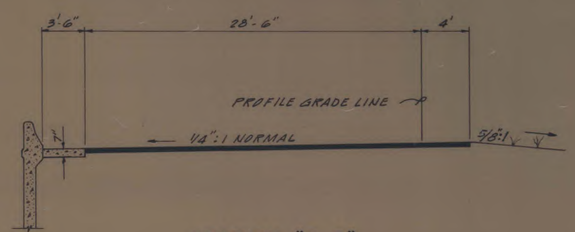
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		7
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1974



PLAN

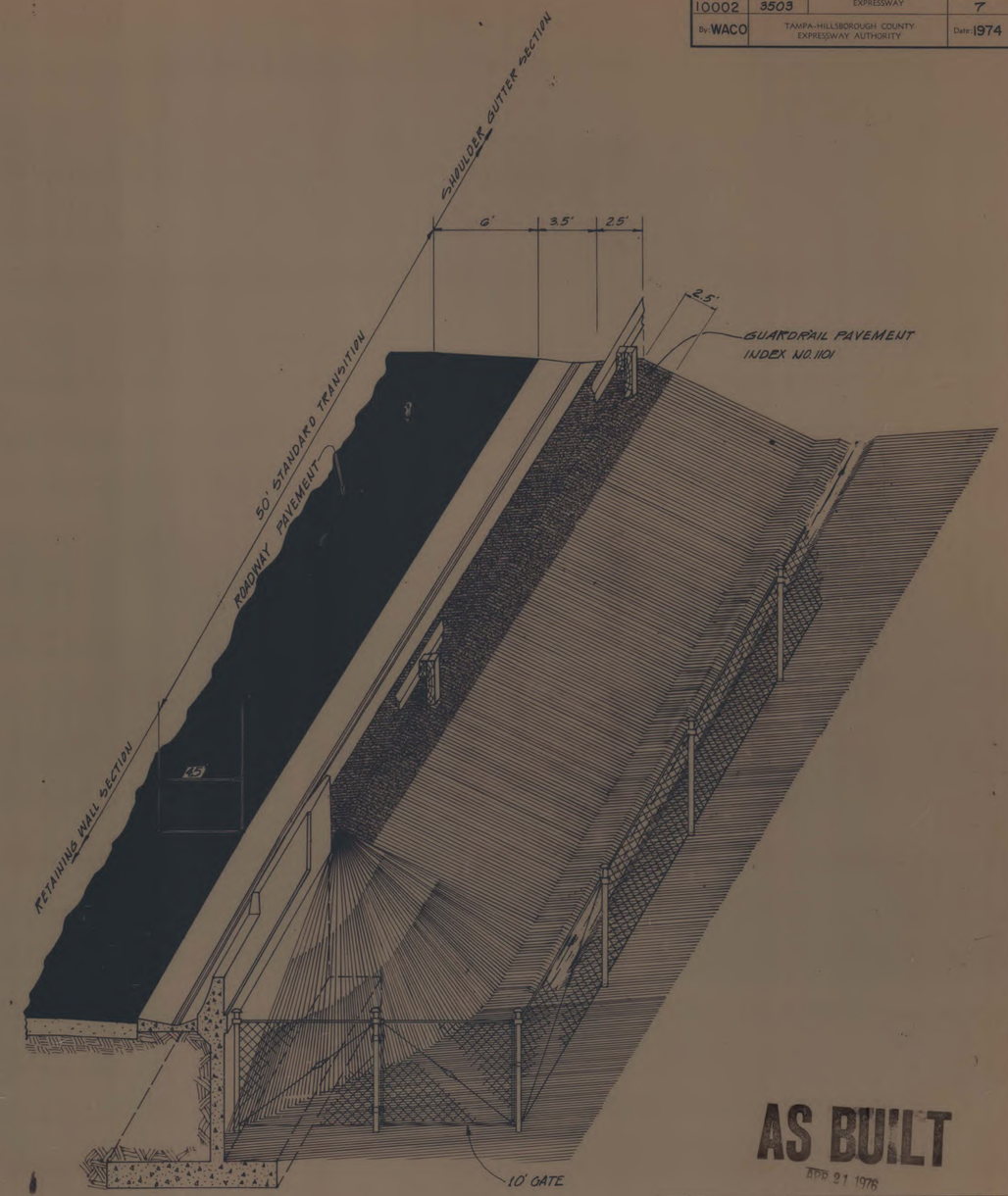


SECTION "A-A"
RETAINING WALL.



SECTION "B-B"
APPROACH SLAB

15' TRANSITION — RETAINING WALL TO APPROACH SLAB



TRANSITION DETAIL
RETAINING WALL SECTION TO SHOULDER GUTTER SECTION.

AS BUILT
APR 21 1978

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

MISCELLANEOUS DETAILS

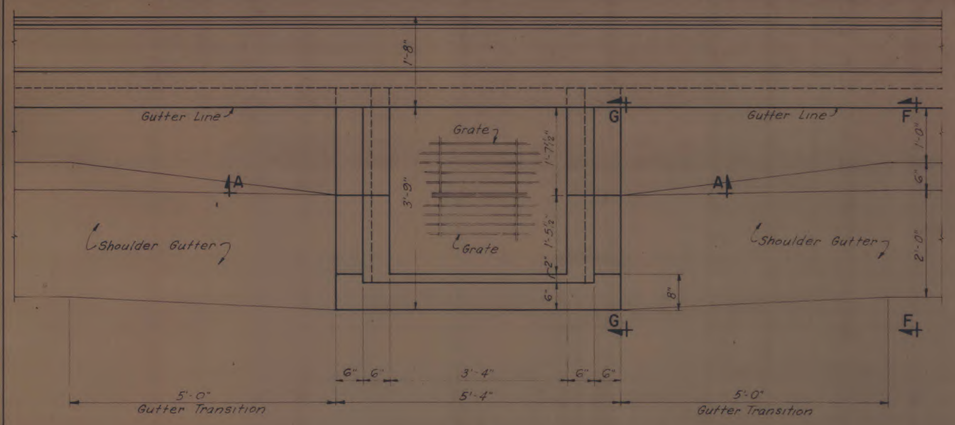
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.N.C. DATE
CHECKED J.N.C. DATE
TRACED R.D. DATE
SCALE NOT TO SCALE

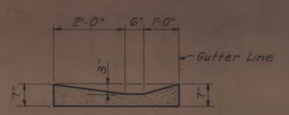
84/1

Contract No. 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		8
By JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973



PLAN

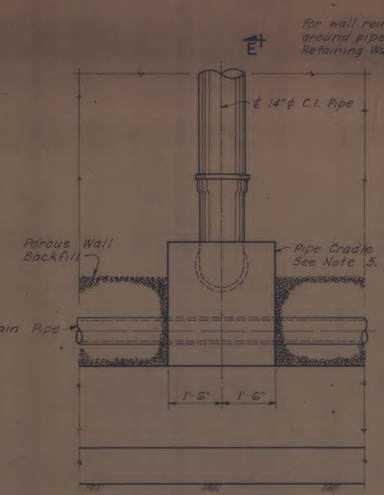


SECTION F-F

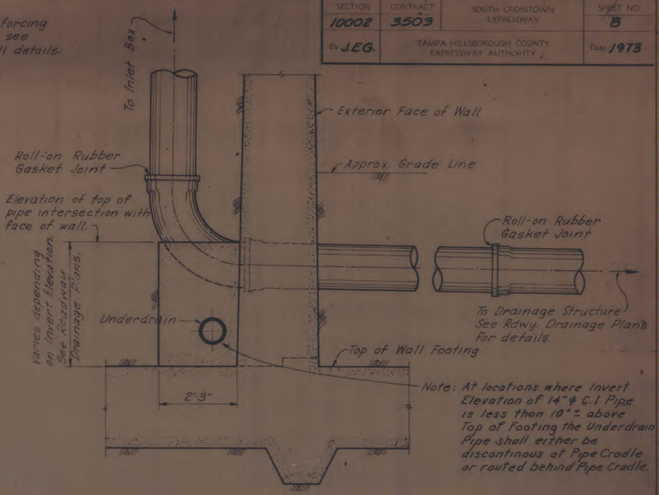


SECTION G-G

DETAILS OF SHOULDER GUTTER TRANSITION

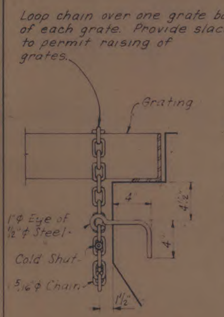


ELEVATION

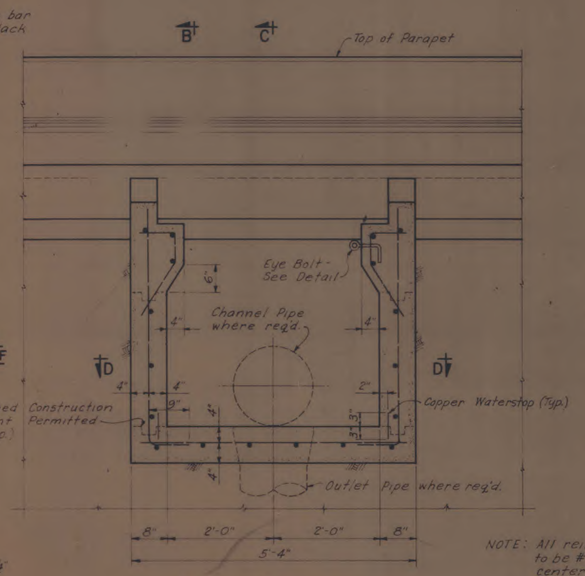


SECTION E-E

PIPE CRADLE DETAILS

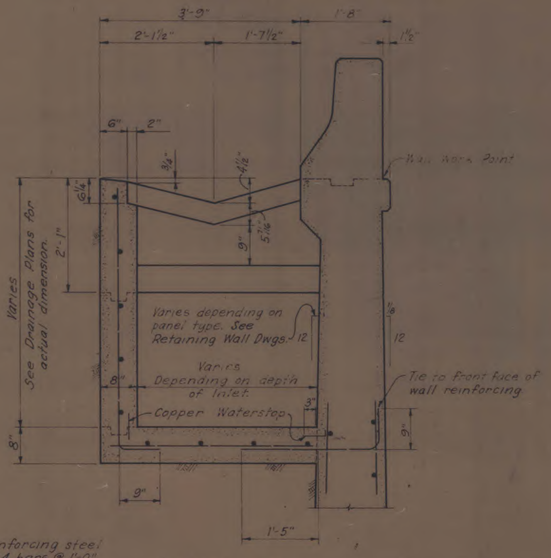


EYE BOLT AND CHAIN DETAIL FOR SECURING OF INLET GRATES



SECTION A-A

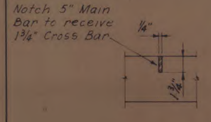
NOTE: All reinforcing steel to be #4 bars @ 1'-0" centers. See sections for leg dimensions.



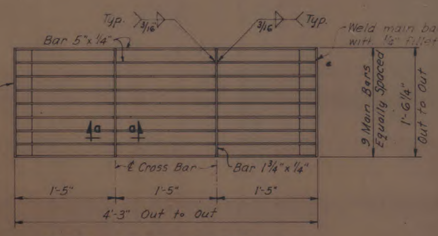
SECTION B-B



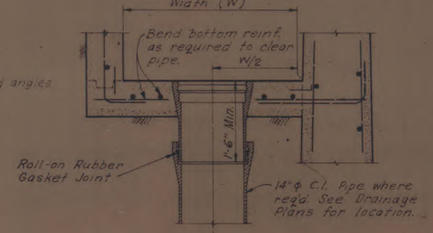
CONSTRUCTION JOINT KEY DETAIL



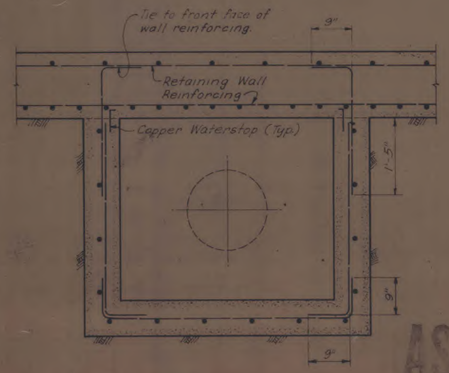
section a-a



STEEL GRATING DETAILS
(2 Required)



SECTION C-C



SECTION D-D

AS BUILT
APR 21 1976

NOTES

1. Concrete for Box to be Class II
2. All reinforcing to have a minimum of 2" concrete cover unless otherwise noted.
3. Copper waterstop shall be continuous 24 oz. copper strip, 6" wide.
4. All items necessary for the completion of each box, including grates and reinforcing embedded in retaining wall, etc., shall be included in the Contract Unit Price bid for each inlet.
5. Pipe Cradle to be Class I Concrete accurately shaped so as to fit contour of pipe surface, extending as shown from top of pipe intersection with face of wall to top of footing.
6. All exposed edges to be tooled to ¼" radius.

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

DRAINAGE DETAILS INLET TYPE BW

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE	R.M.W.	DATE	10-72	TRACED	R.M.W.	DATE	10-72
CHECKED	L.H.S.	DATE	10-72	SCALE	None		

STANDARD DRAWING NO. 21

B4 / 1

Contract No. 3.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		9
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

SUMMARY OF ROADWAY QUANTITIES

	ITEM NO.	ITEM	ASBUILT QUANTITIES	UNIT	QUANTITY
	101-1	MOBILIZATION	1	LUMP SUM	1
	102-1	MAINTENANCE OF TRAFFIC	1	LUMP SUM	1
	102-3	COMMERCIAL MATERIALS FOR DRIVEWAY MAINTENANCE	0	CU. YD.	50
	102-4	CALCIUM CHLORIDE FOR DUST CONTROL	2.05	TON	28
	104-1	ARTIFICIAL COVERINGS	0	SQ. YD.	621
	104-2	MULCHING (TEMPORARY)	0	SQ. YD.	3107
	104-3	SODDING (TEMPORARY)	1333	SQ. YD.	3107
	104-4	MOWING	0	ACRE	3.2
	104-5	SANDBAGGING	0	CU. YD.	80
	104-6	SLOPE DRAINS (TEMPORARY)	0	LIN. FT.	100
	110-1	CLEARING AND GRUBBING	1	LUMP SUM	1
	120-6	EMBANKMENT (See Revision)	155,263	CU. YD.	155,263 ①
	120-8	FINAL DRESSING	1	LUMP SUM	1
	160-4	TYPE B STABILIZATION	58,589	SQ. YD.	86,170
	200-1-8	LIMEROCK BASE (5" THICK)	9147	SQ. YD.	8,600
Sh'ld. ALT. F	300-1-1B	BITUMINOUS MATERIAL (PRIME COAT)	1111	GAL.	1890
Sh'ld. ALT. F	300-1-3B	BITUMINOUS MATERIAL (TACK COAT)	499	GAL.	380
Sh'ld. ALT. F	300-1-13B	BITUMINOUS MATERIAL (PLANT MIX) (AC-20)	22,842	GAL.	1290
Sh'ld. ALT. F	331-1-1	TYPE S-I ASPHALTIC CONCRETE (1" THICK)	11,646	SQ. YD.	9503
Sh'ld. ALT. F	338-70-1B	ASPHALTIC CONCRETE WEARING COURSE (1" THICK)	11,367	SQ. YD.	9503
	300-1-3C	BITUMINOUS MATERIAL (TACK COAT)	0	GAL.	475
Sh'ld. ALT. G	300-1-13C	BITUMINOUS MATERIAL (PLANT MIX) (AC-20)	0	GAL.	41,926
Sh'ld. ALT. G	335-1-61	SAND-ASPHALT HOT MIX (3" THICK) (800 LB. STABILITY)	0	SQ. YD.	9,503
Sh'ld. ALT. G	338-70-1C	ASPHALTIC CONCRETE WEARING COURSE (1" THICK)	0	SQ. YD.	9,503
	200-1-3	LIMEROCK BASE (10" THICK) [DOUBLE COURSE]	33,692	SQ. YD.	32,236
	200-1-7	LIMEROCK BASE (9" THICK) [DOUBLE COURSE]	5490	SQ. YD.	5,854
	300-1-1A	BITUMINOUS MATERIAL (PRIME COAT)	4967	GAL.	8,714
	300-1-3A	BITUMINOUS MATERIAL (TACK COAT)	1727	GAL.	1487
	300-1-13A	BITUMINOUS MATERIAL (PLANT MIX) (AC-20)	93,568	GAL.	92,136
	331-1-5	TYPE S-I ASPHALTIC CONCRETE (2" THICK)	34,934	SQ. YD.	31,347
	331-1-9	TYPE S-I ASPHALTIC CONCRETE (3" THICK) [DOUBLE COURSE]	5678	SQ. YD.	5,829
	338-70-1A	ASPHALTIC CONCRETE WEARING COURSE (1" THICK)	37,873	SQ. YD.	31,347
	339-70	MISCELLANEOUS ASPHALT PAVEMENT [PAVEMENT UNDER GUARDRAIL]	187	TON	207
	360-1	CONCRETE APPROACH SLABS	9	EACH	9
	400-1-2	CLASS I CONCRETE (ENDWALLS)	22.73	CU. YD.	22
	400-2-1	CLASS II CONCRETE (CULVERTS)	63.5	CU. YD.	64
	415-1-1	REINFORCING STEEL (ROADWAY)	9900	POUND	9874
	425-1-1	INLETS (CURB)	7	EACH	7
	425-1-2	INLETS (DITCH BOTTOM)	10	EACH	10
	425-1-3	INLETS (SPECIAL) [TYPE BW]	9	EACH	8
	425-2	MANHOLES	4	EACH	5
	425-5	ADJUSTING MANHOLES	1	EACH	1
	425-72	MODIFYING INLETS	3	EACH	1
	425-74	SHOULDER GUTTER INLETS	15	EACH	15
	430-1-22	CONCRETE PIPE CULVERT (15") [STORM SEWER]	978	LIN. FT.	950
	430-1-23	CONCRETE PIPE CULVERT (18") [STORM SEWER]	866	LIN. FT.	855
	430-1-27	CONCRETE PIPE CULVERT (42") [STORM SEWER]	24	LIN. FT.	24
	430-1-28	CONCRETE PIPE CULVERT (48") [STORM SEWER]	304	LIN. FT.	308
	430-1-29	CONCRETE PIPE CULVERT (54") [STORM SEWER]	264	LIN. FT.	264
	430-1-59	CONCRETE PIPE CULVERT (54") (SPECIAL) [STORM SEWER]	140	LIN. FT.	140
	430-2-22	CORRUGATED STEEL PIPE CULVERT (15") [GUTTER DRAIN]		LIN. FT.	75
ALT.	430-8-22	CORRUGATED ALUMINUM PIPE CULVERT (15") [GUTTER DRAIN]		LIN. FT.	75
	430-15-6	CAST IRON PIPE CULVERT (14") (STANDARD)	157	LIN. FT.	157
	430-15-12	CAST IRON PIPE CULVERT (6") (HEAVY)	29	LIN. FT.	24
	440-1-2	UNDERDRAINS (6")	120	LIN. FT.	200
	460-71	ENDWALL GRATE	1066	POUND	1026
	520-1-1	CONCRETE CURB AND GUTTER (6" CURB, 1.5' GUTTER)	2214.5	LIN. FT.	2280
	520-1-7	CONCRETE CURB AND GUTTER (TYPE E)	173.9	LIN. FT.	162
	520-2-1	CONCRETE CURB (TYPE A)	80.8	LIN. FT.	88
	520-2-4	CONCRETE CURB (TYPE D)	189.7	LIN. FT.	198
	520-6	CONCRETE SHOULDER GUTTER	5980	LIN. FT.	5778
	522-1	CONCRETE SIDEWALK, 4" THICK	652.7	SQ. YD.	767
	522-2	CONCRETE SIDEWALK, 6" THICK	366.8	SQ. YD.	249
	524-1-1	CONCRETE DITCH PAVEMENT (5" THICK)	211.1	SQ. YD.	100
	536-1-1	GUARDRAIL (ROADWAY)	3956.8	LIN. FT.	3720
	536-6	END ANCHORAGE ASSEMBLIES, TYPE II	11	EACH	11
	544-75	VEHICULAR IMPACT ATTENUATOR [HYDRO-CELL]	1	EACH	
	550-2	FENCING, TYPE B	8560	LIN. FT.	9,083
	550-3-2	CORNER POST ASSEMBLIES (TYPE B FENCE)	21	EACH	21
	550-4-2	PULL AND END POST ASSEMBLIES (TYPE B FENCE)	39	EACH	27
	550-70-2	FENCE GATES (TYPE B FENCE)	10	EACH	7
	570-2	SEEDING AND MULCHING	24,423	SQ. YD.	63,252
	570-3	GRASS SEED (PERMANENT TYPE)	570	POUND	1,307
	570-4	MULCH MATERIAL	16.2	TON	52
	570-5	FERTILIZER	7.27	TON	7
	570-9	WATER FOR GRASSING	68.4	M. GALS.	201
	570-10	GRASS SEED (QUICK-GROWING TYPE)	171	POUND	196
	575-1	SODDING	41,455	SQ. YD.	12,528.

SUMMARY OF GUARDRAIL

STATION TO STATION	RT. ROADWAY LT.	RT. ROADWAY RT.	LT. ROADWAY LT.	LT. ROADWAY RT.	TOTAL
151+67.00 TO 152+67.00	200.00				200.00
160+43.87 TO 161+68.87				200.00	200.00
161+00.15 TO 164+00.15		300.00			300.00
167+00.00 TO 167+62.50			62.50		62.50
172+85.86 TO 175+83.86		300.00			300.00
192+07.50 TO 197+70.00		562.50			562.50
197+33.42 TO 198+58.42	200.00				200.00
200+08.67 TO 201+33.67				200.00	200.00
200+90.00 TO 209+10.00		820.00			820.00
50+39.96 TO 54+39.96 @ RAMP "A"			400.00	400.00	800.00
SANTIAGO STREET			25.00	50.00	75.00
SUMMARY OF ASBUILT GUARDRAIL					
Sta. 151+67.00 TO 152+67.00	208.60				208.60
" 160+43.87 To 161+68.87				208.90	208.90
" 161+00.15 TO 164+00.15		303.75			303.75
" 167+00 TO 167+62.50			151.85		151.85
" 172+85.86 To 175+83.86		302.00			302.00
" 192+07.50 To 197+70.00		564.50			564.50
" 197+33.42 To 198+58.42	208.75				208.75
" 200+08.67 To 201+33.67				208.75	208.75
" 200+90.80 To 209+10		824.85			824.85
Sta. 50+39.96 To 54+39.96 RAMP "A"			389.70		389.70
" 50+39.96 To 54+39.96 RAMP "A"	413.00				
DEADEND SANTIAGO ST.			25.00		25.00
DEADEND SANTIAGO ST.			50.10		50.10
DEADEND SANTIAGO ST.			25.00		25.00
DEADEND SANTIAGO ST.			20.00		20.00
R/W SANTIAGO ST.			26.00		26.00
R/W BAY TO BAY BLVD.			26.00		26.00
TOTAL					3956.8
TOTAL					~~3,720.00~~

SUMMARY OF SOD

STATION TO STATION	LT.	MED.	RT.	TOTAL
161+00 TO 166+50			1003	1003
173+50 TO 175+50			303	303
177+79 TO 185+66		175		175
180+00 TO 185+00	1333			1333
198+50 TO 196+30			200	200
194+30 TO 197+45			1466	1466
200+90 TO 203+25			898	898
203+25 TO 206+90			423	423
206+90 TO 209+40			278	278
50+25 TO 54+40 @ RAMP "A"			1693	1693
50+00 TO 54+45 @ RAMP "A"	1380			1380
62+00 TO 68+50			1683	1683
CONE @ BRIDGE @ RAMP "A"			106	106
CONE @ BRIDGE 160+79			126	126
CONE @ RETAINING WALL 197+70			141	141
CONE @ RETAINING WALL 200+90			156	156
FOR DRAINAGE STRUCTURES			84	84
CONTINGENCY				1000
TOTAL				12,528 SQ.YD.

SUMMARY OF EARTHWORK

* ROADWAY EXCAVATION = 8,691 CU. YD.
EMBANKMENT = 155,263 CU. YD. ①

* There is no direct payment for Roadway Excavation. Any suitable material may be used in the embankment at the option of the Contractor.

GENERAL NOTES:

ITEM NO's. 104-1 THROUGH 104-6 ARE ESTIMATED QUANTITIES FOR PREVENTION, CONTROL, AND ABATEMENT OF SOIL EROSION AND WATER POLLUTION. TO BE USED AT LOCATIONS DESIGNATED BY THE ENGINEER.

NOTE:

1. FOR BRIDGE ITEMS & QUANTITIES, SEE BRIDGE PLANS.
2. FOR RETAINING WALL ITEMS & QUANTITIES, SEE BRIDGE PLANS.
3. FOR HIGHWAY SIGN ITEMS & QUANTITIES, SEE ROADWAY SIGNING PLANS.
4. FOR SIGNALIZATION ITEMS & QUANTITIES, SEE SIGNALIZATION PLANS.
5. FOR LIGHTING ITEMS & QUANTITIES, SEE LIGHTING PLANS.
6. GUARDRAIL STATIONS ARE APPROXIMATE AND ARE TO BE ADJUSTED IN THE FIELD BY THE ENGINEER, IF NECESSARY.
7. FOR SANITARY SEWER ITEMS & QUANTITIES, SEE SANITARY SEWER RELOCATION PLANS.

ITEM NO. 570-2 INCLUDES 17,650 SQ. YD's. FOR TEMPORARY GRASSING.
ITEM NO. 570-3 INCLUDES 261 LBS. FOR TEMPORARY GRASSING.
ITEM NO. 570-4 INCLUDES 10.5 TONS FOR TEMPORARY GRASSING.
ITEM NO. 570-5 INCLUDES 1.5 TONS FOR TEMPORARY GRASSING.
ITEM NO. 570-9 INCLUDES 137 M GAL. FOR TEMPORARY GRASSING.
ITEM NO. 570-10 INCLUDES 39 LBS. FOR TEMPORARY GRASSING.
ITEM NO. 120-6 ANY BORROW EXCAVATION REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR FROM AREAS PROVIDED BY HIM AND/OR BORROW AREA ONE AS SHOWN ON SHEET NUMBER 66 AND THE COST OF FURNISHING SUCH MATERIAL IS TO BE INCLUDED IN THE PRICE FOR EMBANKMENT.
ITEM NO. 339-70 FOR PAVEMENT UNDER GUARDRAIL.
ITEM NO. 440-1-2 And 524-1-1 included for contingency, to be used, if necessary, as directed by the Engineer.
ITEM NO. 575-1 Includes 1,000 Sq. Yds. for contingency, to be used, if necessary, as directed by the Engineer.

The cost of informational signs is to be included in the overall bid. See sheet no. 65.

ASBUILT SODDING SUMMARY

Location		SQ.YDS.	Location		SQ.YDS.
Sta 151+00 - 155+36	Lt.	1126.0	Sta 175+90 - 182+35	Rt.	1,474.4
" 159+36 - 168+64	Lt.	2536.5	" 191+50 - 192+07	Rt.	66.5
" 168+64 - 178+23	Lt.	880.1	" 192+07 - 192+50	Rt.	48.0
" 178+23 - 185+00	Lt.	1953.4	" 192+50 - 198+75	Rt.	965.6
" 185+00 - 189+68	Lt.	446.0	" 200+90 - 203+26	Rt.	1007.3
" 189+68 - 190+60	Lt.	271.5	" 203+26 - 209+40	Rt.	617.5
" 190+60 - 198+63	Lt.	2239.1	DRAINAGE STRUCTURES	Var.	0
" 199+00 - 209+40	Lt.	2884.6	RAMP "A"	Rt.	1282.5
" 151+00 - 153+02.87	Rt.	622.6	RAMP "A"	Lt.	1492.8
" 160+33.13 - 198+56.63	Rt.	12503.2	BAY TO BAY RAMP "A" & MEDIAN	Rt.	34.0
" 200+10.44 - 209+40	Rt.	3,051.8	BAY TO BAY SANTIAGO BAYSHORE	Rt.	191.4
" 160+79.65 - 164+94.65	Rt.	1335.9	CONTINGENCY		0
" 166+55 - 168+27	Rt.	363.1	RAMP "B"	Rt.	2381.7
" 168+27 - 173+40	Rt.	1117.4			
" 173+40 - 175+90	Rt.	455.6			
TOTAL					41,455.3
		USE			41,455

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE
1	Changed Emb. Quantity	JNC	9-10-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE AJO DATE APRIL '74 | TRACED DJR DATE APRIL '74
CHECKED JNC DATE May '74 | SCALE

84
1

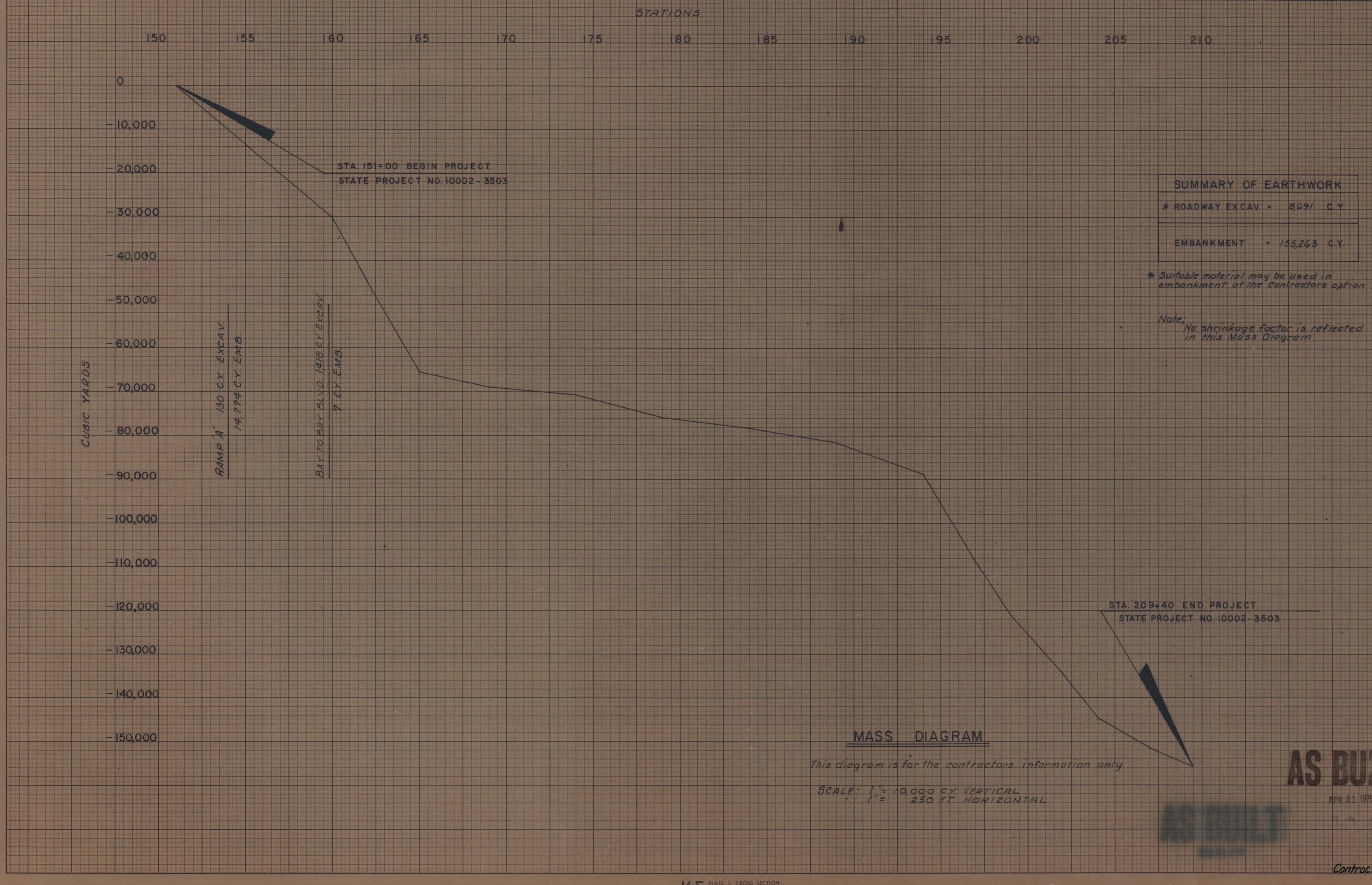
Contract No. 3

NO.	REVISION	BY	DATE
1	Changed Emb. Quantity	JNC	9-10-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		10
By: Waco	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED: CSD, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE: 9-73 — NOTE BOOK — NO.



SUMMARY OF EARTHWORK

* ROADWAY EXCAV. =	8,691 C.Y.
EMBANKMENT =	155,263 C.Y.

* Suitable material may be used in embankment at the contractors option

Note:
No shrinkage factor is reflected in this Mass Diagram

MASS DIAGRAM

This diagram is for the contractors information only

SCALE: 1" = 10,000 CY VERTICAL
1" = 250 FT. HORIZONTAL

AS BUILT

APR 21 1976

AS BUILT

Contract No. 3

54
1

K+E PLATE 3. CROSS SECTION KEUFFEL & ESSER CO.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		11
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

FINAL SURVEY	BY	DATE
SURVEYED		12-3-72
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS CHECKED	

SEE SHEET NO. 17 FOR DETAILS OF RAMP "A" AND SANTIAGO STREET

SAN JUAN ST. — SANTIAGO ST. — AVENUE — GRANADA ST. — MACDILL — MASON ST. — BAY TO BAY BLVD.

S.C.L. R/W — Exist. S.C.L. R.R. — L.A. R/W LINE — Existing R.R. Siding — Existing S.C.L. R.R. Siding

Constructed conc Ditch Pav't. — Const. Retaining Wall — Const. Ret. Wall — Const. Ret Wall

BEGIN BRIDGE STA. 54+51.67 RAMP "A" — END BRIDGE STA. 60+39.73 — END ℄ RAMP "A" STA 63+02.49 43' LT. STA. 163+02.49

℄ RAMP "A" — ℄ RAMP "B" N 23° 49' 31.4" E — N 38° 49' 41.8" E — N 29° 58' 16.1" E ℄ CONSTRUCTION

BEG. BRIDGE STA. 153+02.87 — END STATE JOB NO. 10002-3502 BEGIN STATE JOB NO. 10002-3503 STA. 151+00

STA. 59+78.00 RAMP "B" = STA. 119+11.58 BAY TO BAY.

APPROACH SLAB 1-A — APPROACH SLAB 1-L — APPROACH SLAB 2-L — APPROACH SLAB 2-R

CONST. 10' GATE — CONST. TYPE 'B' FENCE — L.A. R/W LINE CONST. TYPE "B" FENCE

CONST. 4" CONC. S/W — Exist. S/W — 2' Gas — 12" W.M. — 6" San. — 6" C.I. — 12" W.M. (TO REMAIN) — 8" G.M.

15' GUTTER TRANS. — 15' CONST. BACK RAIL END BACK RAIL — CONST. 250 L.F. OF GUARDRAIL. 208.6 — CONST. 200 L.F. OF GUARDRAIL. INDEX NO. 23001 — CONST. GUARDRAIL. 303.75' — 50' SHOULDER TRANSITION

(TO BE REMOVED BY OTHERS) — TO BE REMOVED BY OTHERS — Edge of Asphalt Lot — Asph. Drive

1 Sty. Conc. Block — 1 Sty. Metal Shed — 1 Sty. C.B. & Metal Bldg. — 1 Sty. Fr. Res. — 1 Story Metal Comm. — 1 Sty. C.B. Comm. — 1 Sty. Metal Bldg.

PARKING LOT — Open Field

S-2 — S-3 — S-4 — S-4A — S-15 — S-16 — S-17 — S-18 — S-19 — S-19A — S-20 — S-50 — S-51

SEE SHEET NO. 19 FOR DETAILS OF RAMP "B"

SCALE: 1" = 50'

B.M. NO. J 40-A-1
East End of the N.W. Conc. Island of Gas Sta. Gas Pumps on the S.W. Cor. of Intersection BAY TO BAY and MACDILL.
EL. 19.28

P.V.I. (+00) EL. 52.00 — +3.0000% — -3.0000%

END STATE JOB NO. 10002-3502
BEGIN STATE JOB NO. 10002-3503
STA. 151+00

34.00 — 37.00 — +3.0000% — -3.0000%

P.V.C. (+00) EL. 43.00 — P.V.T. (+00) EL. 43.00 — PROFILE GRADE

44.37 — 45.50 — 46.37 — 47.00 — 47.37 — 47.50 — 47.37 — 47.00 — 46.37 — 45.50 — 44.37

600' V.C.

CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF EMBANKMENT TO THIS LINE AND COORDINATION OF PLACEMENT WITH ADJACENT CONTRACTOR.

CONST. MED. DITCH 0.57' BELOW SHOULDER — 10' MED. DITCH TRANS. — CONST. ST'D. MED. DITCH 1.5' BELOW SHOULDER — SOD MED. DITCH

CONST. MED. DITCH 0.57' BELOW SHOULDER — 10' MED. DITCH TRANS. — STANDARD MEDIAN DITCH (1:5' BELOW SHO.) (SOD MEDIAN DITCH.) — 25.00

GENERAL NOTES

1. Grades shown are finished grades.
2. B.M. Datum U.S.C.&G.S.
3. Except for City of Tampa Water and Sewer Lines, all utilities are to be adjusted by others as directed by the Engineer.
4. The location of the proposed utilities shown in the plans are approximate only; the exact locations shall be determined by the engineer during construction.
5. For utility adjustment symbols, see index No. 125.
6. All Storm Sewers to remain in place unless indicated other wise.
7. All buildings to be removed by others.

UTILITY OWNERS

1. Tampa Electric Co.
2. Peoples Gas System
3. General Telephone Co.
4. City of Tampa Water Dept.
5. City of Tampa Sanitary Sewer Dept.
6. Western Union

AS BUILT

AS BUILT

ORIGINAL SURVEY	BY	DATE
SURVEYED		12-3-72
PLOTTED		
NOTE BOOK	TEMPLATE	
NO.	AREAS CHECKED	

Contract No. 3.

SECTION	CONTRACT		SHEET NO.
10002	3503	SOUTH CROSSTOWN EXPRESSWAY	17
FEDERAL	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		TOTAL SHEETS 1978

SEE SHEET NO. 17 FOR DETAILS OF RAMP "A" AND SANTIAGO STREET.

SAN JUAN ST.

SANTIAGO ST.

AVENUE

GRANADA

MACDILL

MASON ST.

BAY TO BAY BLVD.

BEGIN BRIDGE STA. 3+14.4 RAMP "A"

CONST. 10' GATE

CONST. TYPE 'B' FENCE

APPROACH SLAB 1-A

1-Sty. Metal Comm.

1-Sty. Fr. Res.

1-Sty. C.B. Comm.

1-Sty. C.B. & Metal Bldg.

1-Sty. Metal Bldg.

S.C.L. R/W

Exist. S.C.L. R.R.

Existing R.R. Siding

Constructed Conc. Ditch Pvt.

L.A. R/W LINE

Const. Retaining Wall

END 4" CONC. S/W

END ℄ RAMP "A" STA. 63+02.49
43' LT. STA. 163+02.49

℄ RAMP "A"

15' GUTTER TRANS. APPROACH SLAB 1-L

15' CONST. BACK RAIL

END BACKRAIL

CONST. 252 L.F. OF GUARDRAIL. 208.6

BEG. BRIDGE STA. 153+02.87

Existing S.C.L. R.R. Siding

Const. Retaining Wall

APPROACH SLAB 1-R

1 Sty. Conc. Block

END STATE JOB. NO. 10002-3502
BEGIN STATE JOB NO. 10002-3503
STA. 151+00

12" W.M. (TO REMAIN)

12" W.M. Exist. 24" R.C.P.

8" G.M.

8" San.

2" Gas

N 29°58'16.1"E ℄ CONSTRUCTION

CONST. 4" CONC. S/W

APPROACH SLAB 2-L

CONST. 200 L.F. OF GUARDRAIL. INDEX NO. 2300

END BRIDGE STA. 160+39.73

APPROACH SLAB 2-R

CONST. GUARDRAIL. 303.75' ±

END BACKRAIL

50' SHOULDER TRANSITION

Edge of Asphalt Lot

Asph. Drive

Const. Ret. Wall

N 29°29'47.8"E

N 29°49'31.4"E ℄ RAMP "B"

1 Sty. Metal Shed

L.A. R/W LINE CONST. TYPE "B" FENCE

PARKING LOT

Open Field

Exist. S/W

CONST. 4" CONC. S/W

STA. 59+78.00 RAMP "B" = STA. 119+11.58 BAY TO BAY.

SEE SHEET NO. 19 FOR DETAILS OF RAMP "B"

SCALE: 1" = 50'

	SURVEYED	DATE
FINAL SURVEY	PLOTTED	12-5-72
NOTE BOOK	TRACED	BY
NO	AREAS	
	AREAS CHECKED	

	SURVEYED	DATE
ORIGINAL SURVEY	PLOTTED	12-5-72
NOTE BOOK	TRACED	BY
NO	AREAS	
	AREAS CHECKED	

P.V.I. (+00)
EL. 52.00

+3.0000%

-3.0000%

END STATE JOB NO. 10002-3502
BEGIN STATE JOB NO. 10002-3503
STA. 151+00

34.00

31.00

+3.0000%

CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF EMBANKMENT TO THIS LINE AND COORDINATION OF PLACEMENT WITH ADJACENT CONTRACTOR.

P.V.C. (+00)
EL. 43.00

44.37 45.50 46.37 47.00 47.37 47.50 47.37 47.00 46.37 45.50 44.37

P.V.T. (+600)
EL. 43.00

600' V.C.

PROFILE GRADE

25.00

CONST. MED. DITCH 0.57' BELOW SHOULDER

10' MED. DITCH TRANS.

CONST. ST'D. MED. DITCH 1.5' BELOW SHOULDER

SOD MED. DITCH

CONST. MED. DITCH 0.57' BELOW SHOULDER

RAMED DITCH TRANS.

STANDARD MEDIAN DITCH (1.5' BELOW S/W'S.)
(SOD MEDIAN DITCH)

B.M. NO. J 40-A-1
East End of the N'ly'most Conc. Island of Gas Sta.
Gas Pumps on the S.W. Cor. of Intersection BAY TO BAY and MACDILL
EL. 19.28

GENERAL NOTES

1. Grades shown are finished grades.
2. Std. Datum U.S.C. & G.S.
3. Except for City of Tampa Water and Sewer Lines, all utilities are to be adjusted by others as directed by the Engineer.
4. The location of the proposed utilities shown on the plans are approximate only. The exact locations shall be determined by the engineer during construction.
5. For utility adjustment symbols, see Index No. 195.
6. All Storm Sewers to remain in place unless indicated otherwise.
7. All buildings to be removed by others.

UTILITY OWNERS

1. Tampa Electric Co.
2. Peoples Gas System
3. General Telephone Co.
4. City of Tampa Water Dept.
5. City of Tampa Sanitary Sewer Dept.
6. Western Union

AS BUILT
APR 21 1976

Contract No. 3.

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	9503		12
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

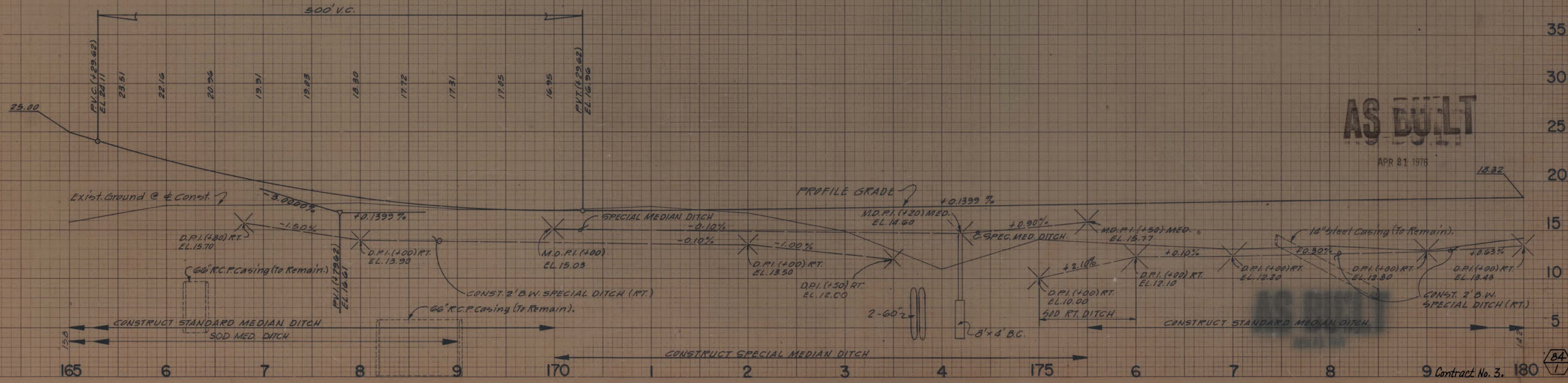
BARCELONA ST.
PALMIRA ST.
SAN JOSE ST.
SAN CARLOS ST.
MARTI AVE.
1-story Frame Res.
1-story Conc. Block Res.
1-story Conc. Block Residence
Frame shelter
2-60" Exist R.C.P.
2-60" Exist R.C.P.
66" R.C.P. Casing (To Remain In Place).
Exist. S.C.L. R.R.
L.A. R/W LINE
S.C.L. R/W
10" San.
(To Be Removed By Others). 151.85'
CONST. 625' GUARDRAIL
Existing Ditch
Existing Ditch to Remain.
Exist Jct Box
8' G.M. (To Be Moved By Others).
18" steel Casing, Around 6" W.M. (To Remain.)
Exist. S.C.L. R.R.
L.A. R/W LINE
CONST. 10' GATE
END RETAINING WALL Sta. 167+00
SHOULDER GUTTER
CONST. TYPE "B" FENCE.
SHOULDER LINE
INLET MODIFIED WITH FLUSH TYPE TOP
CONST. 8'-4' BOX CULVERT SEE DETAIL SHEET NO. 27
Existing Ditch To Remain
165
170
175
180
N 29° 58' 16.1" E
℄ Construction
To Be Moved (By Others).
P.I. Sta. 66+12.29 RAMP "B" CURVE NO. 41.
℄ RAMP "B"
CONST. 10' GATE
CONSTRUCT DITCH
CONST. TYPE "B" FENCE.
50:1 TAPER
CONST. 325' 6" GUARDRAIL.
END RAMP "B" Sta. 75+83.86
L.A. R/W. Sta. 175+83.86
BT (300 PR) (To Be Moved By Others).
BT (300 PR) & 8' G.M. (To Be Moved By Others)
200' SHOULDER TRANSITION. STA. 173+83.86 TO STA. 175+83.86
CONST. TYPE "B" FENCE
SHOULDER GUTTER
Exist. 6'x4' Conc. Box
Existing 20' Drainage Easement.
Parking Area.
2-Story C.B. Apt. House
2-Story C.B. Apts.
2-60" Exist. R.C.P.
Frame Garage
1-story Frame Res.
S-21
S-21A
S-22
S-23
S-23A
S-23B
S-24
S-25
S-26
S-27
CURVE NO. 41
P.I. Sta. 66+12.29
Δ = 5°30'00"
D = 3°30'00"
R = 1637.02'
T = 71.47'
L = 142.86'
P.C. Sta. 65+40.82
P.T. Sta. 66+83.68
e = 0.063'/'
SCALE: 1" = 50'

B.M. NO. 50-A
100' RT. STA. 166+39
IRON PIN S.W. COR. OF BAYSHORE PRESB. APT'S.
EL. 17.19

B.M. NO. 49-A
104' RT. STA. 169+04
SQ. CUT IN N.W. COR. OF LIGHT BASE IN PRESB. APTS. PARKING LOT
EL. 16.12

B.M. NO. 48-A
101' RT. STA. 173+20
SQ. CUT IN S.W. COR. OF SIDEWALK IN FRONT OF BAY MANOR APTS. ON RUSKIDEAUX AVE.
EL. 12.21

T.B.M. NO 49-A
112' LT. STA. 173+32
SQ. CUT IN C.B. N. SIDE 2903 SAN. JOSE ST.
EL. 11.74



AS BUILT
APR 21 1976

KAE CO.
ORLANDO, FLA
ORDER STOCK 20248

Contract No. 3.

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		13
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

NO.	REVISION	BY	DATE
1	Rev. Ret. Wall & Carolina Ave.	WA	9-10-74

SAN NICOLAS — 2 WAY — ISIDRO ST — 2 WAY — HABANA AVE. — 2 WAY

STROUD AVE. — 2 WAY — GEORGIA AVE. — 2 WAY

Exist 60" RCP — 12" Exist 60 RCP

S.C.L. R/W

Existing Ditch

Exist. S.C.L. R/W

CONST. 10' GATE

CONST. TYPE "B" FENCE

INLET MODIFIED WITH FLUSH TYPE TOP

EXIST. DITCH

SHOULDER LINE

CONSTRUCTED 8' OF 18" PIPE

+60 BEGIN RETAIN. WALL.

Constructed Conc. Ditch Pav't.

L.A. R/W LINE

P.I. STA. 181+72.82

CONST. RETAINING WALL

180 — 185 — 190 — 195

S-27 — S-28 — S-29 — S-30 — S-31 — S-32 — S-33 — S-34 — S-35

CURVE NO. 31

℄ CONST.

N 38°42'27" E

B.T.

2 B.T. (200 Pr. & 100 Pr.)

TO BE MOVED BY OTHERS

B.T. (300 PR)

CONST. DITCH

SHOULDER LINE

B.T.

L.A. R/W LINE

CONST. TYPE "B" FENCE

TIN STORAGE SHED

+50 BEGIN RETAIN. WALL

CONST. ~~562.50'~~ 564.50' OF GUARDRAIL

CONST. 10' GATE

CONNECT TO EXIST. PAV'T.

CAROLINA AVE. — 2 WAY

STROUD AVE.

P.O.T. STA 194+02.23 ℄ CAROLINA

SCALE: 1" = 50'

CURVE NO. 31 ℄ CONSTRUCTION

P.I. STA. 181+72.82
Δ = 8°44'10.9"
D = 2°01'02"
R = 2839.93'
T = 216.93'
L = 433.03'
P.C. STA. 179+55.89
P.T. STA. 183+88.92
e = 0.06 1/1

B.M. NO. 47-A
111' LT. STA. 181+85
SQ. CUT ON NO. CURB
@ 2805 SAN NICHOLAS ST.
EL. 16.19

B.M. NO. 45-A
132' RT. STA. 193+29
SQ. CUT ON NO. RIM SEWER M.H.
70' SO. STROUD ON CAROLINA
EL. 18.44

EXIST. GROUND @ ℄ CONST.

PROFILE GRADE

18.32

+0.43% — +0.06% — +0.05% — +0.16% — +0.1999% — +0.56% — +2.00% — +3.0000% — +0.317%

D.P.I. (+00) RT. EL. 13.43

D.P.I. (+00) RT. EL. 14.72

D.P.I. (+40) RT. EL. 14.80

D.P.I. (+00) RT. EL. 14.93

CONST. SPEC. 2 BW DITCH RT.

D.P.I. (+00) RT. EL. 16.46

P.V.C. 183+00 EL. 19.59

19.76

20.21

P.V.I. 185+00 EL. 19.99

20.92

21.76

22.25

P.V.T. 187+00 EL. 24.29

300' V.C.

D.P.I. (+00) RT. EL. 17.46

D.P.I. (+50) RT. EL. 18.46

STA. 94+02.23 EL. 17.40

PROFILE GRADE @ CAROLINA

SOD MEDIAN DITCH

CONSTRUCT STANDARD MEDIAN DITCH

40 — 35 — 30 — 25 — 20 — 15

180 — 1 — 2 — 3 — 4 — 185 — 6 — 7 — 8 — 9 — 190 — 1 — 2 — 3 — 4 — 195

AS BUILT

APR 21 1976

Contract No. 3.

84 / 1

K&E CO. ORLANDO, FLA. ORDER STOCK 20248

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		14
by: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

NO.	REVISION	BY	DATE
1	Rev. Ret. Wall & Caroline Ave.	W.A.	9-10-74

MISSISSIPPI AVENUE 12'WM

Terena Terrace II Apartments

Parking

Pool

2-story Metal Building

Constructed Conc. Ditch Pav't.

Exist. Ditch. 24" Casing (To Remain)

S.C.L. R/W

Exist. S.C.L. RR

LA. R/W LINE

APPROACH SLAB 1-L

CONST. RETAINING 15' GUTTER TRANS. WALL

BEGIN BRIDGE STA. 198+56.63

END BRIDGE STA. 200+10.46

12" W.M. (To Remain)

195 200 205 210

S-37 S-36 S-39 S-38 S-43 S-42 S-41 S-45 S-44

208.75

CONST. 208 L.F. OF GUARDRAIL

BACKRAIL

END BACKRAIL

APPROACH SLAB 2-L

APPROACH SLAB 2-R

APPROACH SLAB 1-R

To Be Removed By Others

2 DT 22 GIRDER & 10" SLAB

BT (300 PR)

15' GUTTER TRANS.

10' GATE

CONST. 208.15' OF GUARDRAIL

Existing Ditch To Remain.

Constructed Conc. Ditch Pav't.

CONST. RETAINING WALL

CONST. SHLD. GUTTER

N 38° 42' 27" E

CONST. RET. WALL

CONST. 862.50' OF GUARDRAIL

N 41° 51' 48" E

198 ± CO.

END RET. WALL

CONST. 10' GATE

1-Story SHLD TRANS. Fr. Res.

N 38° 40' 54" E

STA. 199+33.55 ℄ MISSISSIPPI AVE.

CONNECT TO EXIST. PAV'T.

R/W STA. 98+90.00 ℄ CAROLINA Δ = 3° 16' 54" LT.

2-Story Metal Bldgs.

2-Story Tin Bldgs.

P.O.T. STA. 100+00 ℄ CAROLINA

P.O.T. STA. 11+37.07 ℄ MISSISSIPPI AVE.

ADDITIONAL FENCE & GATE CONSTRUCTED HERE TO ALLOW BETTER ACCESS FOR MOWING & MAINTENANCE

+90 END RETAINING WALL

+25 BEGIN RETAINING WALL

CONST. 223' OF GUARDRAIL B24.85

+35 END RETAINING WALL

+80 BEGIN RETAINING WALL

+30 END RETAINING WALL

2-story Fr. Res.

1-Story Fr. Res.

MOODY AVE.

SOUTHVIEW AVE.

CONSTRUCTED 10' GATE

8" WM

2" WM

END STATE JOB NO. 10002-3503

BEGIN STATE JOB NO. 10002-3504

STA. 209+40

NOTE, 10' GATE CONSTRUCTED HERE, DELETED ON CONTRACT 3504 & ADDED TO CONTRACT 3503

SCALE: 1" = 50'

B.M. NO. 44-A
12G. RT. STA. 195+96
EX. SPIKE IN BASE OF 24" OAK ON CAROLINA 100' SO. OF CHICAGO
EL. 18.55

B.M. NO. 43-A
SQ. CUT IN CURB S.E. COR. OF MISSISSIPPI AVE. AND CAROLINA AVE.
EL. 19.62

B.M. NO. 42-A
10' RT. STA. 206+59
SQ. CUT IN W. END S.W. ON SOUTH VIEW AVE.
EL. 21.35

END STATE JOB NO. 10002-3503
BEGIN STATE JOB NO. 10002-3504
STA. 209+40

45 40 35 30 25 20 15

+3.000% +0.317% -3.000% +3.000%

P.V.C. (400) EL. 34.20

P.T. (400) EL. 36.20

600' V.C.

500' V.C.

P.V.C. (486.67) EL. 30.60

P.T. (486.67) EL. 30.60

EL. 32.20

PROFILE GRADE

Existing Ground @ ℄ Const.

P.G. ℄ CAROLINA

CONNECT TO EXIST. PAV'T.

600 MED. DITCH

CONST. STD. MED. DITCH 1.5' BELOW SHOULDER

CONST. MED. DITCH 0.67' BELOW SHOULDER

10' MED. DITCH TRANSITION

CONST. MED. DITCH 0.67' BELOW SHOULDER

10' MED. DITCH TRANSITION

500 MED. DITCH

CONST. STANDARD MED. DITCH (1.5' BELOW SHOULDER)

SPECIAL GUTTER PROFILE LT. & RT.

P.I. +66.67 EL. 25.84

P.I. +66.67 EL. 25.85

P.I. +36.67 EL. 25.74

CONTRACTOR WILL BE RESPONSIBLE FOR CONSTRUCTION OF EMBANKMENT TO THIS LINE AND COORDINATION OF PLACEMENT WITH ADJACENT CONTRACTOR.

AS BUILT

APR. 21 1976

95 100 6 7 8 9 0 1 2 3 205 6 7 8 9 210

195 200

K&E CO. ORLANDO, FLA.

Contract No. 3.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		15
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

CONSTRUCTED EXTRA 4" CONC. SIDEWALK

STA 109+75.63 BAY TO BAY
STA 48+33.81 RAMP A

Conc. Parking Area

BEGIN CONSTRUCTION STA. 109+00

CONST. S/W

CONNECT TO EXISTING PAVEMENT

CONST. S/W

NOTE, ALL WORK CONSTRUCTED FROM STA 109+00 TO 109+30 SHOWN ABOVE WAS DONE ON CONTRACT 8A+8B & PAID FOR ON CONTRACT 8A+8B. THEREFOR DELETING WORK ON THIS CONTRACT.

STA. 0+44
CONNECT TO EXIST. PAV'T.

(Asph. Pav't.)
5' CURB TRANS.
ESPERANZA AVE.

Paved Parking Lot
Grass
curb

1-Story Fr. Comm.
1-Story Masonary Comm.
1-Story Mas. Comm.
1-Story Frm. Comm.
1-Story Frm. Res.
1-Story Masonary Comm.

CONST. 4" CONC. S/W

CONST. 6" CURB, 1.5' GUTTER

109 110 111 112 113 114 115

BAY TO BAY BLVD

N 89° 25' 08" W

Exist. S/W

CONST. 4" CONC. S/W PAV'T.

Exist. Curb
12" W.M.
8" Gas
B.T. (26) Pr.

CONST. 6" CURB, 1.5" GUTTER

CONST. 4" CONC. S/W

Gas Pumps

1-Story Mas. Comm. (Gas Station)
1-Story Masonary Comm.
1-Story Fr. Res.
1-Story Fr. Res.
2-Story Fr. Res.
1-Story Mas. Comm.

END CONSTRUCTION
MATCH EXISTING GRADE
STA. 114+70.97
CONNECT TO EXISTING PAVEMENT

Exist. S/W

MAC DILL

SCALE: 1" = 20'

B.M. NO. J 40 A1
CAST END OF PIPE N.W.
CONC. ISLAND OF GAS STA.
GAS PUMPS ON THE S.W. SIDE
OF INNER BAY TO BAY & MACDILL
EL. 18.28

WARP GRADE 130

+0.3500%

FW.I. (1.30) EL. 18.95

18.36

BEGIN CONSTRUCTION TO MATCH EXISTING GRADE STA. 109+00

& PROFILE GRADE

EXISTING & GRADE

-0.3000%

END CONSTRUCTION MATCH EXISTING GRADE STA. 114+70.97 EL. 17.96

12" W.M.
8" San.

8" E=1st San.

12" Exist. W.M.
8" Exist San.

15"
18"
48"

10.5
10.75
11.05

18.36
17.57

AS BUILT
APR 21 1975

20 18 16 14 12 10 8

109 110 111 112 113 114 115

84/1

Contract No. 3.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		16
By: WILCO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 4-30-73

CURVE NO. GO (℄ A)
P.I. STA. = 26+10.56
Δ = 69° 22' 49" LT.
D = 57° 17' 45"
R = 100'
T = 67.74'
L = 110.62'
P.C. STA. = 25+48.82
P.T. STA. = 26+59.44

BEGIN CONSTRUCTION
STA. 122 + 53.56 ℄ CONST. =
STA. 122 + 55.88 ℄ SURVEY

CONNECT TO EXIST. PAVT.

YSABELLA ST.

N27°34'30.1"E

Conc. S/W

12"W

℄ SURVEY

2"G.M.

121 122 123 124 125

BAY TO BAY BLVD. (TO BE REMOVED)

℄ SURVEY & CONST.

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. SIDEWALK

R/W

1 Story Brick Res.

1 Story C.B. Res.

2 Story Frame

1 Story Frame

2 Story Brick Res.

END CONST. STA. 25+12

Note, S-47 Deleted & 15" pipe run from S-46 to S-48

S-48 S-47 S-46

CURVE NO. 53
P.I. STA. = 10+45.13
Δ = 37°51'23"
D = 4°30'00"
R = 1273.24'
T = 436.63'
L = 841.25'
P.C. STA. = 6+08.50
P.T. STA. = 14+49.75

NOTE: FOR SAN. SEWER ADJUSTMENTS SEE SHEET SS-3 IN SAN. SEWER RELOCATION PLANS

BAYSHORE BLVD.

CONNECT TO EXIST. PAVT.

5' CURB TRANS.

Correct location of outfall pipe

CURVE NO. 53 & CONST. STA. 10+00 BASELINE

STA. 10+00 BASELINE

CONST. 4" CONC. SIDEWALK

CONST. TYPE 'E' CURB & GUTTER

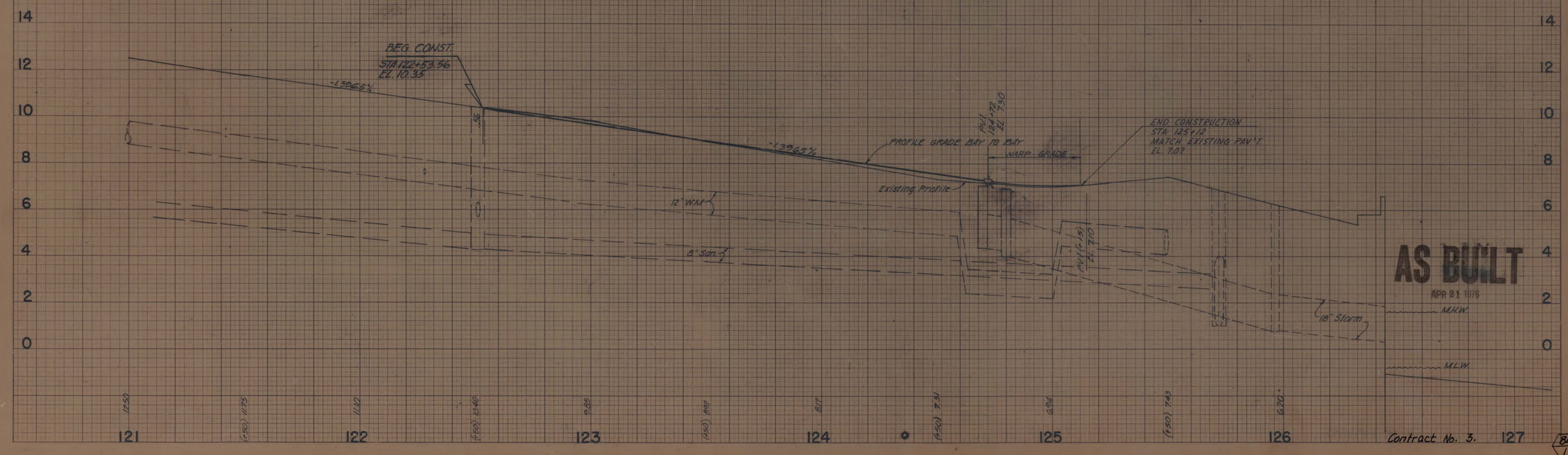
REMOVE CURB INLET TOP AND REPLACE WITH 30"I TOP, FLUSH WITH PAVT.

HILLSBOROUGH BAY (BAYSHORE)

STA. 20+59.44 (℄ A)

Outlet only no Pipe

SCALE: 1"=20'



AS BUILT
APR 21 1976

Contract No. 3.

84
1

K&E CO
ORLANDO, FLA
ORDER STOCK 2024R

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3803		17
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973

SCALE 1"=20'

BAY TO BAY BLVD.

ESPERANZA

SANTIAGO STREET

MACDILL AVE.

AVENUE

SAN JUAN

STA. 109+75.63 ℄ BAY TO BAY = STA. 48+35.31 RAMP "A"

STA. 109+28.08 ℄ BAY TO BAY = STA. 130.00 ESPERANZA

N 09°25'00.0" W

℄ CONSTRUCTION BAY TO BAY

CONST. 4' CONC. SIDEWALK

CONST. TYPE "A" CURB

CONST. 6" CURB, 1.5' GUTTER

15' CURB TRANSITION

CONST. SHOULDER GUTTER

CONST. TYPE "B" FENCE

L.A.R/W

℄ ESPERANZA

RETURN NO. 1

RETURN NO. 2

END FENCE STA. 49+00

SPECIAL "C" END SECTION, INDEX NO. 5080

CONST. 38.75' GUARDRAIL

CONST. 25' OF GUARDRAIL

CONST. 413.0' GUARDRAIL

CONST. 50' of Guardrail

CONST. TYPE "D" CURB

CONST. CURB TYPE "D"

REMOVE EXIST. CURB

End Type "D" curb

CONST. 15' SHOULDER GUTTER TRANSITION.

BEGIN BRIDGE STA. 54+54.00

Approach Slab 1-A

℄ Survey

CONST. TYPE "B" FENCE

CONST. 10' GATE

CONST. 2' B/W SOD DITCH

EXIST. 2' B/W DITCH

℄ RELOCATED RR (LINE "A")

EL. 13.90

154+00

℄ Existing Ditch

CONST. TYPE "B" FENCE

SHOULDER LINE

CURVE NO. 42

CURVE NO. 43

STA. 10+00 SANTIAGO = STA. 10+47.64 ESPERANZA

Exist Fence

AREA PAVED AT INTER. Note, This area left as is by request of City & Property Owner

STA. 51+50 BEG. DITCH EL. 13.0

STA. 52+50 D.P.I. EL. 18.6

STA. 53+50 D.P.I. EL. 17.8

-0.40%

-0.80%

CURVE NO. 43 ℄ RAMP "A"

P.I. STA. 50+24.78
Δ = 58°36'08.6"
D = 18°30'00"
R = 309.71'
T = 166.77'
L = 305.96'
P.C.C. STA. 48+58.01
P.C.C. STA. 51+63.97
e = 0.08%
1-Str. Res.

BEGIN TYPE "D" CURB.

CURVE NO. 42 ℄ RAMP "A"

P.I. STA. 55+13.98
Δ = 90°27'17.5"
D = 16°30'00"
R = 347.25'
T = 350.02'
L = 548.21'
P.C.C. STA. 51+63.97
P.T. STA. 57+12.18
e = 0.08%

1-Story C.B. Apt.

2-Story Fr. Res.

1-Story Frame Res.

1½ Story Frame Res.

1 Sty Frame Gar.

1 Sty C.B. Duplex

1-Story Mas. Gas Station

GAS PUMPS

CONST. 6" CURB, 1.5" GUTTER

1-Story C.B. Res.

2-Story C.B. Apt.

1-Story Fr.

2-Story Fr.

1-Story Frame

1-Story C.B. Res.

Fr. Comm. Bldg.

1-Story Metal Comm.

1-Story Stucco Res.

1-Story Frame Res.

2-Story Gar. Apt.

Garage

Shed

Gate

Shoulder Pavt.

NOTE: FOR SAN. SEWER ADJUSTMENTS SEE SHEET SS-4 IN SAN. SEWER RELOCATION PLANS

AS BUILT

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RAMP "A" & SANTIAGO ST. DETAILS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE DM DATE 10-73 | TRACED SL DATE 10-73
CHECKED U.N.C. DATE 10-73 | SCALE 1" = 20'

Contract No. 3.

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		18
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, TIE SHEET, NOTE BOOK, AREAS, AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TIE SHEET, NOTE BOOK, AREAS, AREAS CHECKED — BY — DATE

SECTION "A-A"
SCALE 1"=10' HORZ
1"=1' VERT

STA 101+49.36 ℄ RAMP A
3' 1' 24'
LIP GUTTER-RETAIN 1½:1
EL 18.49
EL 18.32
EL 18.52
EL 18.62
EL 18.51
EL 18.52
¼"/FT.
.0142'/FT.
EL 18.15

PROFILE ℄ RAMP "A"
28.39
+39.81
PVC (-4.8%) EL 18.77
18.65
19.30
20.70
PVT (-1.8%) EL 22.15
200' VC.
24.03
50' S.E. TRANS. 0.0312.5% TO 0.08%
1.68
RT. EDGE PAVEMENT
LT. EDGE PAVEMENT
22.22
+39.81 ℄ BAY EL 18.32
CROWN LINE
+37.18 18.61
RETURN NO. 1
18.48
+5.00% GRADE
+39.25 (BAY)
RETURN NO. 2
+90.33 RAMP A 18.12
PVC (-4.8%) EL 17.78

PROFILE ℄ RAMP A
PVC (1.50) EL 45.35
-5.00000%
-2.00000%
49.19
46.69
46.51
46.01
15.68
"D" (20 FT.) RIDGE PAVEMENT
CROWN LINE
44.99
2.80
44.35
44.35
44.28
11.66
24.50
24.50
24.73
MAINLINE PROFILE
42.96
42.46
LT. EDGE OF MAINLINE PAVEMENT
180' S.E. TRANS. 0.08% TO 1.61%
PVC (1.50) EL 37.85
10.13
41.28
43.40
44.38
44.93
300' V.C.
PVT (1.50) EL 45.05
37.01
36.51
36.19
MAINLINE PROFILE
34.00
33.50
33.34
PROFILE ℄ RAMP A
+00.00 EL 30.03
+02.47 EL 30.23
APR 21 1976

PROFILES
RAMP A
Scale: 1"=1' Vert
1"=50' Horiz

84/1

Contract No. 3.

K&E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		19
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1978

FINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TYPE SIZE	
	AREAS	
	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
NOTE BOOK	SURVEYED	
NO.	PLOTTED	
	TYPE SIZE	
	AREAS	
	AREAS CHECKED	

118 119 120 — 163 164 165 — 60 61 62 63 64 65 66

BAY TO BAY BLVD.

CURVE NO. 51

CONST. 4" CONC. SIDEWALK

15' Gutter Trans.

CONST. SHOULDER GUTTER

50' SHOULDER TRANSITION

End Retain. Wall

CONST. 383.75' 360 L.F. OF GUARDRAIL

CONSTRUCTED 4" CONC. SIDEWALK

CONST. 6" CURB, 1.5' GUTTER.

CONST. 4" CONC. S/W.

CROWN LINE

CONST. TYPE "A" CURB

2'R (TYP.)

20' TRANSITION SHOULDER GUTTER TO CURB AND GUTTER

CONST. SHOULDER GUTTER

℄ RAMP "B"

N 23° 58' 16.1" E

EDGE OF PAV'T.

℄ CONSTRUCTION

S-19A

S-19

S-17

S-51

S-50

ASPHALT DRIVE

"A"

1 Sty. Metal Shed

BEGIN S.E. TRANSITION STA. 64+20.82

EXIST. 54" R.C.P.

CONST. TYPE "B" FENCE

L.A. R/W

PARKING LOT

GRANADA ST.

EDGE OF PAV'T.

CONSTRUCTED 4" CONC. SIDEWALK

CONST. 4" CONC. SIDEWALK

CONST. 6" CURB 1.5' GUTTER.

BEG. TYPE "B" FENCE

CONNECT TO EXISTING CONC. SIDEWALK

P.T. (-72.22)

ASPHALT PAV'T.

P.O.T. STA. 59+78.00 ℄ RAMP "B"

STA. 59+11.52 ℄ BAY TO BAY

S 77° 24' 35" E

STA. 64+94.91

STA. 64+95.74

CURVE NO. 41

FULL SUPER STA. 65+70.82

P.C.

SHOULDER PAVEMENT

ASPHALT PAV'T.

66°46'36" 6'

6"

32'

24'

12.27

+68.69

+70.82

+72.44

+60+80.94

+51.94

+05.01

+21.76

+23.02

+20.92

+72.22

+95.74

+96.23

+96.46

+23.33

+25.15

+24.65

+18.02

+15.80

+19.80

+13.96

+23.96

+25.15

+28.15

+24.65

+23.33

14.85

15.41

15.08

24.5'

24.5'

30'

24'

19'

17'

15'

2'

2%

4%

6%

180' R.

115' R.

45' R.

40' R.

CURVE NO. 51 (Exist.)

P.I. Sta. 117+22.67
Δ = 12° 00' 30"
D = 4° 00' 00"
T = 150.66'
L = 300.21'
R = 1432.39
P.C. Sta. = 115+72.01
P.T. Sta. = 118+72.22

CURVE NO. 41

P.I. STA. 66+12.29
Δ = 5° 00' 00"
D = 3° 30' 00"
R = 1637.02'
T = 71.47'
L = 142.86'
P.C. STA. 65+40.82
P.T. STA. 66+83.68
e = .063'/'

SCALE: 1" = 20'

DETAIL SECTION "A-A"

RAMP "B"

P.V.I. STA. 63+00 EL. 27.77

+3.7500%

-3.2500%

PROFILE GRADE ℄ RAMP "B"

15' LEFT OF PROFILE GRADE LINE

VARIABLE GRADE

75' V.C. UNSYMETRICAL

400.94' (P.V.C.) EL. 14.95 EXIST.

P.V.I. (-75) EL. 14.84

P.V.T. +75.84 EL. 17.28

P.V.C. (-125) EL. 21.33

P.V.I. (+325) EL. 22.81

330' V.C.

-0.7847%

+3.7500%

SE = 0.0200%

150' SE TRANSITION 0.0200% TO 0.063%

SC 0.063%

AS BUILT

APR 21 1976

Contract No. 3.

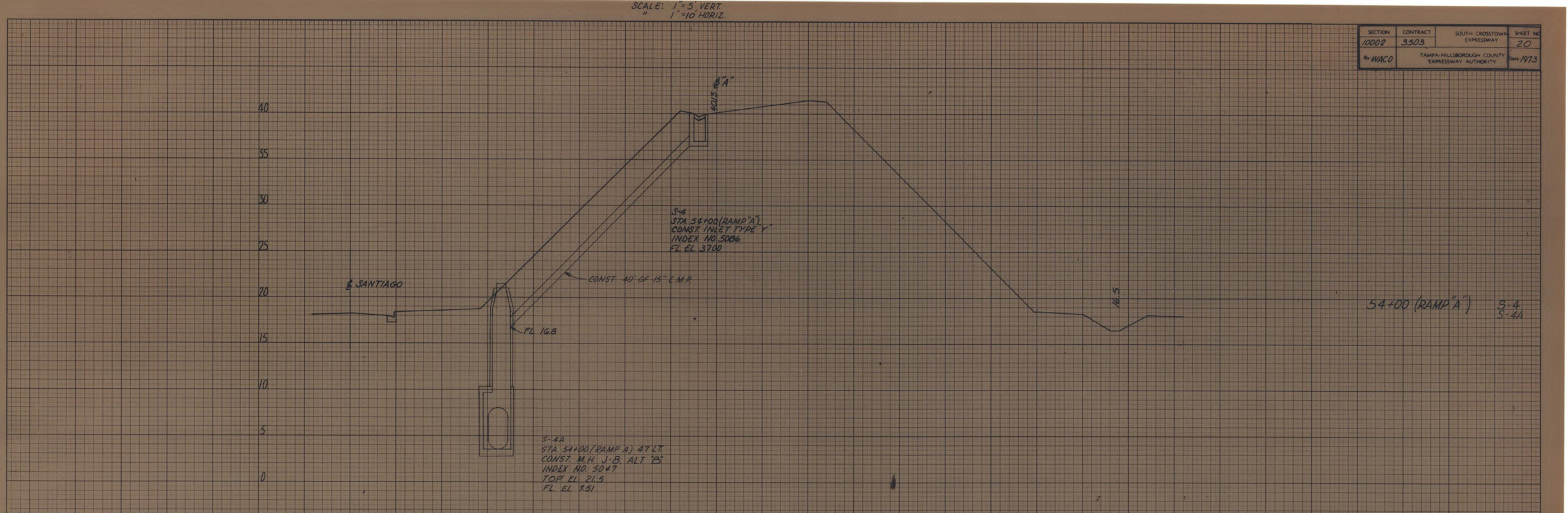
84/1

SCALE: 1"=5' VERT.
" 1"=10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3503		20
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — FIELD PLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — FIELD PLATE — AREAS — AREAS CHECKED — BY — DATE



AS BUILT
APR 31 1976

Contract No. 3.

84
1

K+E PLATE 3 CROSS SECTION
KEUFFEL & ESSER CO.

SCALE: 1"=5'

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3503		21
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, TAPES AT, NOTE BOOK, AREAS AT, NO., BY, DATE, AREAS CHECKED

ORIGINAL SURVEY — SURVEYED, PLOTTED, TAPES AT, NOTE BOOK, AREAS AT, NO., BY, DATE, AREAS CHECKED

S-9
RAMP "A" STA. 48+90.33 (LT)
CONST. INLET TYPE P-5
INDEX NO. 5047
FL. EL. 12.80

CONST. 36' OF 15" PIPE
FL. EL. 6.2
48" PIPE
CONST. CONC. COLLAR
INDEX NO. 5061

48+90.33 (RAMP "A")
S-9

S-11
BAY TO BAY
STA. 112+00 (LT.)
INLET TYPE P-5
INDEX NO. 5047
FL. EL. 10.5

℄ BAY TO BAY

Exist. San.

FL. 10.75 CONST. 52' OF 15" PIPE FL. 11.05

FL. 10.5

CONST. 244' OF 18" PIPE

S-10
BAY TO BAY STA. 112+25 (RT)
CONST. INLET TYPE P-5
INDEX NO. 5047
FL. EL. 11.05

S-10
S-11

112+00 (BAY TO BAY BLVD)

S-6
STA. 109+50 (13.75' LT) BAY TO BAY
CONST. M.H. TYPE J-8
INDEX NO. 5047
FL. EL. 5.0

INDEX NO. 5061
48" PLUG
(15.75' LT)
FL. 5.05

CONST. 40' OF 48" PIPE

FL. 5.0

FL. 8.8

6'
6'
PLAN VIEW

SANTIAGO ST.

CONST. 264' OF 48" PIPE

TYPE 'D' CURB
INDEX NO. 5080

42" PLUG
INDEX NO. 5061

CONST. 24' OF 42" PIPE

FL. 5.2 (42")
FL. 4.7 (48")

FL. 4.2

CONST. 140' OF 54" PIPE
EXTRA STRENGTH

Exist. San.

IDENTICAL

S-5A

CONST. 192' OF 54" PIPE
19%

S-7
STA. 101+40 (7' LT.) SANTIAGO STREET
CONST. INLET TYPE 'C' INDEX NO. 5046
ON TYPE V M.H. BOTTOM (ALT. B)
SUBSTITUTE INLET IN PLACE OF
M.H. RISER. OTHER M.H. DETAILS
AS SHOWN IN INDEX NO. 5047
GRATE EL. 17.80
FL. EL. 4.2
END AS MANHOLE

6'
6'
PLAN VIEW

℄ "A"

SLOPE

S-5
℄ "A" STA. 52+00
CONST. INLET TYPE 'Y'
INDEX NO. 5086
FL. EL. 25.10

FL. 16.8

CONST. 20' OF 15" C.M. PIPE

S-5A
STA. 51+93 (27' LT.) RAMP A
CONST. M.H. TYPE J-8, ALT 'B'
INDEX NO. 5047
TOP EL. 22.2
FL. EL. 3.87

S-5A
S-5
52+00 (RAMP "A")

S-5A
FL. EL. 9.51
SEE SHEET 20
FOR DETAILS

94'
CONST. 82' OF 54" PIPE

CONNECT TO EXIST. PIPE

33%

Exist. 54" Pipe

S-4A
S-5A
S-6
S-7

AS BUILT

APR 21 1976

84

Contract No. 3.

K-E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SCALE - 1" = 5' Vert
1" = 10' Horiz.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3503		22
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE

℄ "A"

STA. 167+75
CONST. U TYPE
ENDWALL WITH GRATING
INDEX NO. 1129
OUTLET EL. 9.5

CONST. 6' OF 15" PIPE

S-21
STA. 167+75
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 13.7

16.43

S-22
STA. 168+75
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 14.0

11.20

L.A. R/W

STA. 168+75
CONST. U TYPE
ENDWALL WITH GRATING
INDEX NO. 1129
OUTLET EL. 13.9

14.17

℄ "B"

2'

FL. 14.0

CONST. 7' OF 15" PIPE

S-27
S-27
S-21A

16.49

℄ B-B

L.A. R/W

15.4

S-21-A
STA. 167+00
CONST. INLET TYPE Y
INDEX NO. 3086
FL. EL. 15.7

CONST. 4' OF 15" PIPE

STA. 167+00
CONST. U TYPE
ENDWALL WITH GRATING
INDEX NO. 1129
FL. EL. 15.5

L.A. R/W

S-20
S-19

℄ "A"

S-20
STA. 163+89
CONST. INLET TYPE "BW"
STANDARD DRAWING NO. 21
FL. EL. 23.4

28.33

26.41

28.33

S-19
STA. 163+89
CONST. INLET TYPE Y"
INDEX NO. 5086
FL. EL. 23.8

24.67

℄ B-B

STA. 163+89
CONST. U TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 13.8

CONST. 48' OF
18" PIPE

CONST. 20' OF 14" C.I.P.
(INCLUDES ELBOW)

S-19A
STA. 163+89
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 26.31
FL. EL. 23.4

CONST. 48' OF 15" PIPE

15.2

S-15
S-16

S-18
STA. 60+77 (RAMP "A")
CONST. INLET TYPE "BW"
STANDARD DRAWING NO. 21
FL. EL. 32.2

37.18

37.48

34.96

S-17
STA. 161+08
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 32.6

9'
CONST. 8'
OF 6" C.I.
PIPE

FROM S-16 SEE BRIDGE
PLANS FOR DETAILS

FL EL
13.50

FL EL 13.86

FROM S-15 SEE BRIDGE
PLANS FOR DETAILS
FL 15.07

20'

FL 14.0

CONST. 16'
OF 6" C.I. PIPE

FOOTING

EXIST. P-8 MANHOLE
FL 9.0
TOP EL 16.4
(S-32 CONTRACT 10002-3510)

S-18
S-17

℄ "A"

32.2

CONST. 104' OF 15" PIPE
108'

32.6

EXIST. P-8 MANHOLE
FL 2.2
TOP EL 15.9
(S-31 CONTRACT 10002-3510)

STA. 60+77
CONST. "U" TYPE
ENDWALL WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 14.5

CONST. 22' OF
14" C.I.P.
(INCLUDES ELBOW)

15.9

AS BUILT
APR 2 1, 1976

S-15
S-16

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130

K&E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

Contract No. 3.

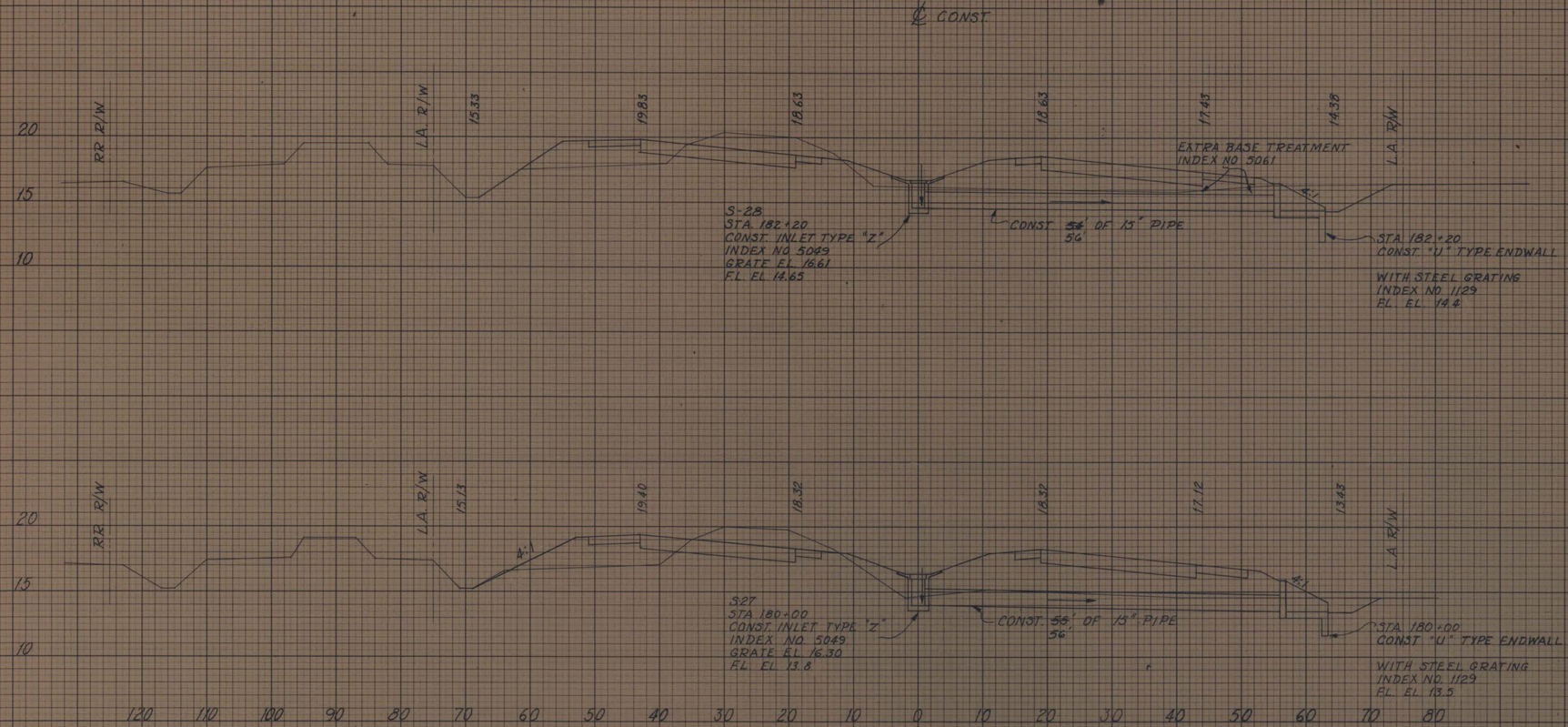
34

Scale: 1" = 5' Vert.
1" = 10' Horiz.

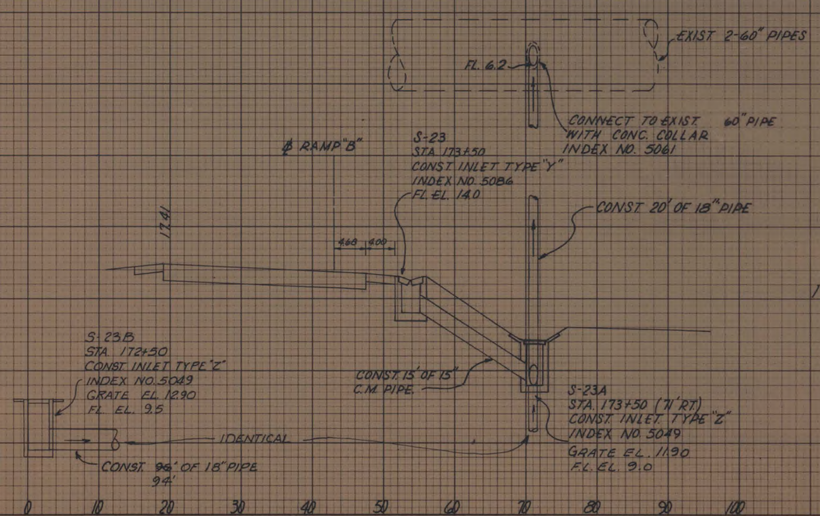
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		23
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

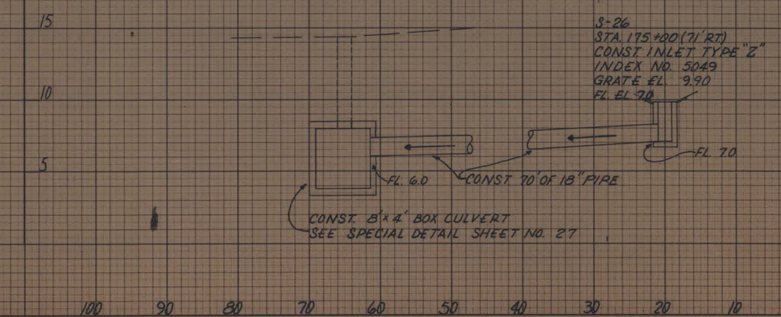
FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — NOTE BOOK — NO. — BY — DATE



Note: For Details of S-24 and 25, See Sheet No. 27





S-26
S-23
S-23A
S-23B

AS BUILT
APR 21 1976

Contract No. 3.

84
1

SCALE 1"=5' VERT.
1"=10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3503		24
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — SURVEYED — PLOTTED — TRACED — NOTE BOOK — AREAS — NO. — BY — DATE — AREAS CHECKED

ORIGINAL SURVEY — SURVEYED — PLOTTED — TRACED — NOTE BOOK — AREAS — NO. — BY — DATE — AREAS CHECKED

℄ CONST.

S-35
STA. 193+50
CONST. INLET TYPE "BW"
SEE ST'D DRAWING NO. 21
F.L. EL. 23.8

28.70 28.78 28.70

℄ "A"

2:1

18.30 CONST. 19' OF 14" C.I.P. (INCLUDES ELBOW)

CONST. 96' OF 15" PIPE
98'

S-34
STA. 193+50
CONST. INLET TYPE "Y"
INDEX NO. 3086
F.L. EL. 24.2

STA. 193+50
CONST. "U" TYPE ENDWALL WITH BAFFLES
INDEX NO. 1129
F.L. EL. 17.0

193+50 S-35 S-34

19.34 16.18 19.90 20.40 21.76 21.76 22.35 22.34 19.96 R/W

4:1 4:1

CONST. 30' OF 18" PIPE

CONST. 65' OF 15" PIPE
70'

STA. 190+20
CONST. "U" TYPE ENDWALL WITH GRATE
INDEX NO. 1129
F.L. EL. 16.2

CONST. 8' OF 18" PIPE

S-33
STA. 190+20
CONST. INLET TYPE "Y"
INDEX NO. 3086
F.L. EL. 16.3

S-32
STA. 191+00
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 19.74
F.L. EL. 17.4

S-31
STA. 191+50
CONST. INLET TYPE "Y"
INDEX NO. 3086
F.L. EL. 18.20

191+50 S-33 S-32 S-31

191+00

190+22.67

℄ "A"

19.55 18.94 18.94 18.12

STA. 184+33.94
EXIST. INLET

4:1 4:1

R/W

CONNECT TO EXIST. PIPE

EXIST. 24" PIPE

EXIST. 8' OF 18" PIPE

CONST. 59' OF 18" PIPE
60'

CONST. 64' OF 18" PIPE

184+40 S-30 S-29

S-30
STA. 184+40
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 16.92
F.L. EL. 12.2

S-29
STA. 184+40
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 14.7
F.L. EL. 12.4

AS BUILT
APR 21 1976

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

K+E PLATE 3. CROSS SECTION KEUFFEL & ESSER CO.

Contract No. 3.

84
17

SCALE 1"=5' VERT.
1"=10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		25
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

FINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS CHECKED / NOTE BOOK / PAGE NO.

ORIGINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS CHECKED / NOTE BOOK / PAGE NO.

S-43
STA 206+36.67
CONST INLET TYPE "BW"
SEE ST'D DRAWING NO 21
F.L. EL. 21.9

S-41
STA 206+36.67
CONST. INLET TYPE "Y"
INDEX NO. 5086
F.L. EL. 22.3

CONST 47' OF 18" PIPE
48'

CONST 47' OF 18" PIPE
50'

S-42
STA 206+37
CONST. INLET TYPE "Z"
INDEX NO 5049
GRATE EL. 24.73
F.L. EL. 22.1

CONST 13' OF 14" C.I.P.
(INCLUDES ELBOW)

STA 206+37
CONST "U" TYPE
ENDWALL WITH
BAFFLES
INDEX NO. 1129
FL 17.8

206+36.67
S-43
S-42
S-41

S-39
STA 202+55
CONST INLET TYPE "BW"
SEE ST'D DRAWING NO 21
F.L. EL. 29.8

S-38
STA 202+55
CONST. INLET TYPE "Y"
INDEX NO. 5086
F.L. EL. 30.2

CONST 96' OF 15" PIPE
96'

CONST 20' OF 14" C.I.P.
(INCLUDES ELBOW)

STA 202+55
CONST "U" TYPE
ENDWALL WITH
BAFFLES
INDEX NO. 1129
F.L.EL. = 18.0

202+55
S-39
S-38

S-37
STA 196+05
CONST INLET TYPE "BW"
SEE ST'D DRAWING NO 21
F.L. EL. 31.3

S-36
STA 196+05
CONST. INLET TYPE "Y"
INDEX NO 5086
FL EL. 31.7

CONST 96' OF 15" PIPE
98'

STA 196+05
CONST "U" TYPE
ENDWALL WITH
BAFFLES
INDEX NO. 1129
F.L.EL. 17.7

CONST 20' OF 14" C.I.P.
(INCLUDES ELBOW)

196+05
S-37
S-36

AS BUILT
APR 21 1976

Contract No. 3.

84
1

K&E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SCALE 1"=5' VERT.
1"=10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		26
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED — BY — DATE — NOTE BOOK — NO. —

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS CHECKED — BY — DATE — NOTE BOOK — NO. —

60+24 (RAMP B) S-51
60+06 (RAMP B) S-50

S-51
STA. 60+06 LT. (RAMP "B")
CONST INLET TYPE P-6
INDEX NO 50 47
FL. EL. 9.4

CONST. 4' OF 18" PIPE
CONNECT TO EXIST. PIPE
EXIST. 18" PIPE

CONST. 66' OF 18" PIPE

S-50
STA. 60+24 RT. (RAMP "B")
CONST. INLET TYPE P-5
INDEX NO. 50 47
FL. EL. 9.7

NOTE: For San. Sewer Adj. See Sheet SS-3.

℄ BAY TO BAY

CONST. EXTRA BASE PROTECTION, INDEX NO. 50G1

CONST. EXTRA BASE PROTECTION INDEX NO. 50G1

S-48
STA 124+82
CONST. INLET TYPE P-6
(CONST. IN PLACE ONLY)
INDEX NO 5047
FL. EL. 3.6

CONST. 6' OF 18" PIPE

*S-47
STA 124+85 LT.
CONST. MANHOLE TYPE P-7
OVER EXIST. 18" PIPE
INDEX NO. 5047
FL. EL. 3.6

CONST. 336' OF 15" PIPE (TOTAL S-46 TO S-48)

S-46
STA. 124+72 (BAY TO BAY BLVD.)
CONST. INLET TYPE P-6 (CONST. IN PLACE ONLY)
INDEX NO. 5047
FL. EL. 3.7

124+72 (BAY TO BAY) S-48 S-47 S-46

*STRUCTURE S-47 WAS DELETED ADDING 4' TO TOTAL PIPE LENGTH BETWEEN STRUCTURES S-46 AND S-48

S-45
STA. 209+00
CONST. INLET TYPE "BW"
SEE ST'D DRAWING NO 21
FL. EL. 26.1

℄ "A"

RR. R/W

STA 209+00
CONST. "U" TYPE ENDWALL WITH BAFFLES
INDEX NO 1129
FL. EL. 18.0

CONST. 20' OF 14" C.I.P. (INCLUDES ELBOW)

19.8

3.03

3.03

CONST. 96' OF 15" PIPE
100'

S-44
STA. 209+00
CONST. INLET TYPE "Y"
INDEX NO. 5046
FL. EL. 26.5

R/W

209+00 S-45 S-44

AS BUILT

APR 21 1976

30
25
20
15

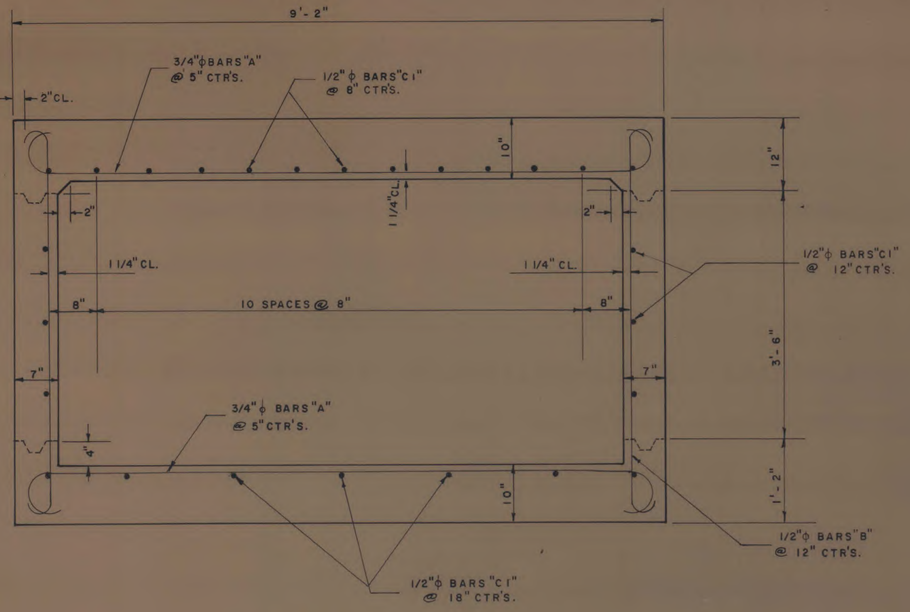
130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

Contract No. 3.

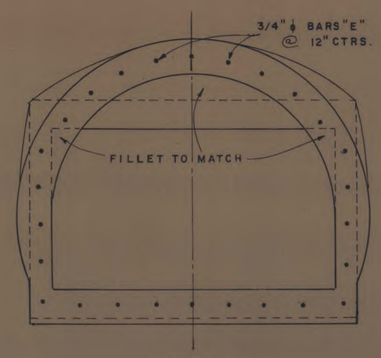
84/1

K·E PLATE 3. CROSS SECTION KEUFFEL & ESSER CO.

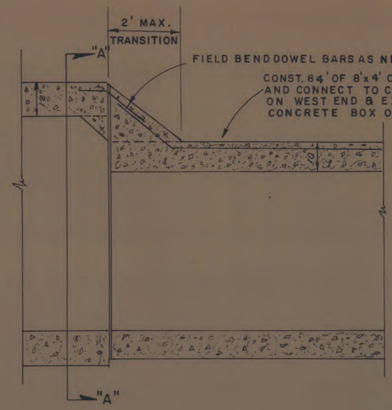
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		27
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973



TYPICAL CROSS SECTION



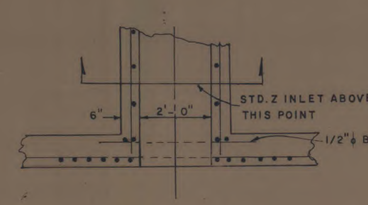
SECTION A-A



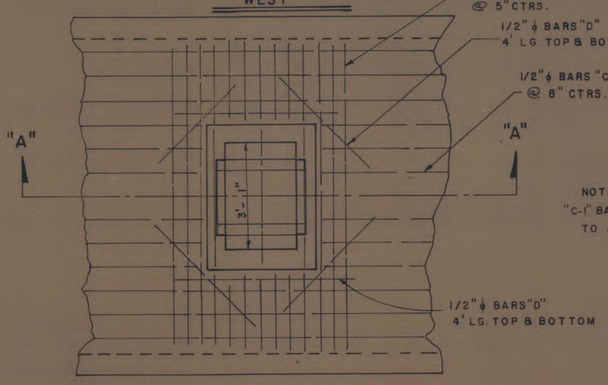
TRANSITION ARCH TO BOX DETAIL



SECTION A-A
EAST



SECTION A-A
WEST



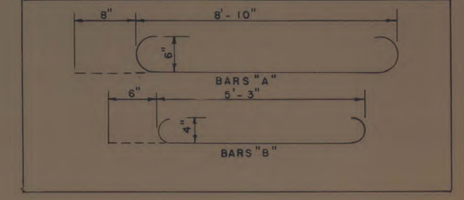
NOTE, CUT "A" BARS & "C-1" BARS IN TOP 8'x4' SLAB TO ACCOMODATE OPENING.

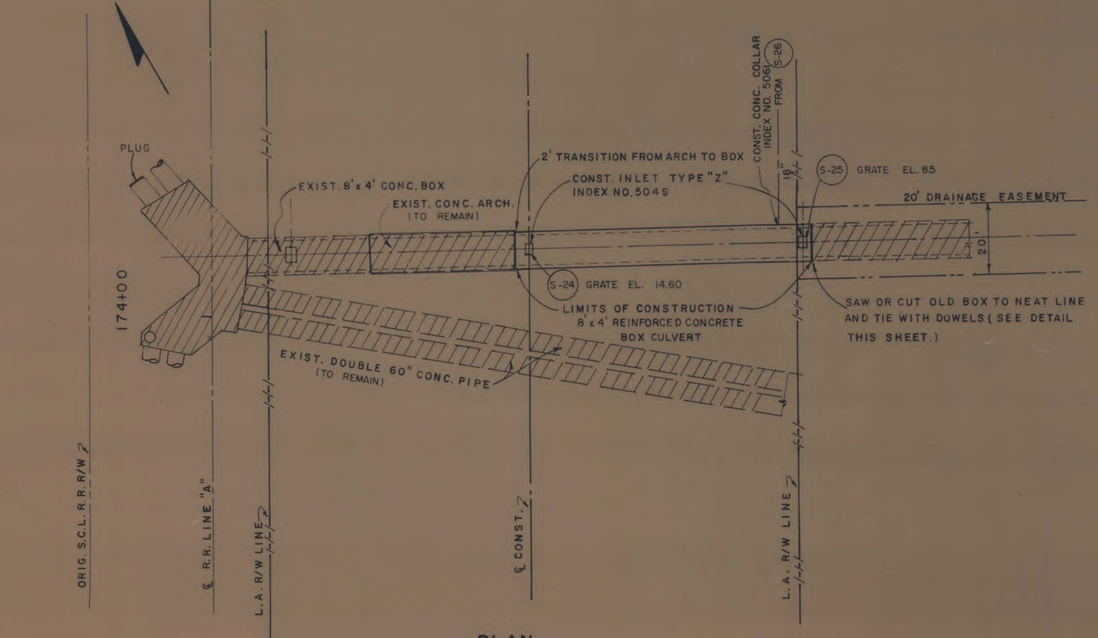
PLAN
TYPE Z INLET REINF. BARS DETAIL

BILL OF REINFORCING STEEL				
MARK	SIZE	NO REQ'D	LENGTH	BENDING
A	6	404	10'-2"	SEE DIAGRAM
B	4	168	6'-3"	"
C-1	4	78	28'-7"	STRAIGHT
D	4	24	4'-0"	"
E	6	26	2'-3"	AS REQ'D.

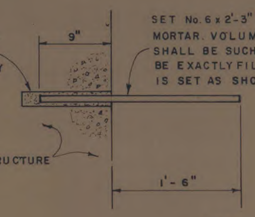
ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITIES
CONCRETE (CLASS II)	C.Y.	63.5
REINFORCING STEEL	LBS.	8511.5

BENDING DIAGRAM





PLAN
LIMITS OF CONSTRUCTION



DRILL 1 3/4"ϕ HOLES 12" DEEP INTO EXISTING STRUCTURES AT 12" CTRS. DRILL HOLES AT CENTER OF TOP, BOTTOM & SIDEWALLS & THOROUGHLY CLEAN TO REMOVE ALL DUST.

SET No. 6 x 2'-3" DOWEL (E BAR) IN EPOXY MORTAR. VOLUME OF EPOXY MORTAR SHALL BE SUCH THAT THE HOLE WILL BE EXACTLY FILLED WHEN THE DOWEL IS SET AS SHOWN.

DOWEL BARS "E" SHALL BE SET IN EXISTING TOP & BOTTOM SLABS AND IN EACH SIDEWALL AT A SPACING OF NOT MORE THAN 12"

DOWEL DETAIL

APR 81 1976

ASHTT

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

IMPROVEMENT OF EXISTING SINGLE 8'x4' BOX CULVERT AT STA. 174+15

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE C S D DATE 5-9-73 | TRACED C S D DATE 5-13-73
CHECKED D M DATE 5-73 | SCALE NO SCALE

84/1

Contract No. 3.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		T-1
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

STATE JOB NO. 10002-3503

SOUTH CROSSTOWN EXPRESSWAY

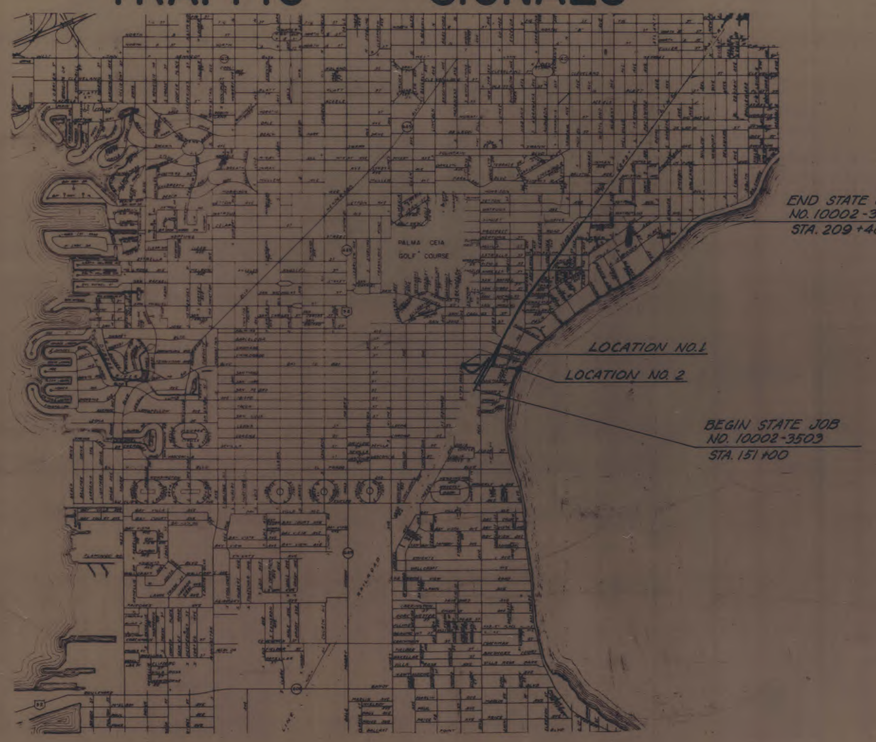
STATE ROAD NO. 449

HILLSBOROUGH COUNTY TAMPA, FLORIDA

TRAFFIC SIGNALS

INDEX OF SHEETS

Sheet No.	Sheet Description
T-1	Key Sheet
T-2	Bill of Materials and Summary of Quantities
T-3	Conventional Signal Symbols
T-4	General Notes
T-5 - T-7	Installation Details
T-8	Pole Schedule
T-9, T-10	Traffic Signal Plans
T-11	Index No. 9821 - Prestressed Concrete Poles
T-12	Steel Strain Pole Detail





2000 FT.

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

AS BUILT
APR 21 1976

GENERAL SPECIFATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

APPROVAL RECOMMENDED _____

BY _____

APPROVED _____

BY _____ CHAIRMAN

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 3

FROM SOUTH OF MAC DILL AVE.
TO SOUTH OF WATROUS AVE.

J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS

WATSON AND COMPANY
TAMPA, FLA.

SUBMITTED _____ DATE _____

Contract No. 31

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		T-2
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 5-74

BILL OF MATERIALS

ITEM	DESCRIPTION	UNIT	QUANTITY LOCATION 1	LOCATION 2		TOTAL
1	CONTROLLER: THREE PHASE FULLY ACTUATED, SOLID STATE MODULAR DESIGN	EACH	1	1		2
2	DETECTOR ASSEMBLIES: (VEHICLE) LOOP TYPE	EACH	3	3		6
3	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN]	EACH	4	-		4
4	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (LEFT)]	EACH	3	-		3
5	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (45° RIGHT)]	EACH	2	-		2
~~6~~	~~SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (UP)]~~	~~EACH~~	~~2~~	-		~~2~~
7	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (RIGHT)]	EACH	1	-		1
◆ 8	MESSENGER WIRE: 1/4" DIAMETER	LIN. FT.	*	*		*
◆ 9	MESSENGER WIRE: 3/8" DIAMETER.	LIN. FT.	*	*		*
◆ 10	CABLE: SOLID COPPER CONDUCTOR	LIN. FT.	*	*		*
◆ 11	CONDUIT	LIN. FT.	*	*		*
◆ 12	DETECTOR LOOP WIRE: NO. 12 AWG.-UF STRANDED COPPER	LIN. FT.	*	*		*
◆ 13	REPLACE 12" GREEN LENS WITH 12" GREEN ARROW (45° LEFT)	EACH		1		1
◆ 14	REPLACE 12" GREEN LENS WITH 12" GREEN ARROW (RIGHT)	EACH		1		1
◆ 16	SIGNAL LAMPS: 150 WATTS CLEAR 125 VOLTS MIN.	EACH	30	8		
17	CONCRETE STRAIN POLES [TYPE II]	EACH	4	-		
18	PULL BOXES: METER TYPE CONCRETE	EACH	1	1		2
◆ 19	12" LONG TUNNEL VISORS	EACH	9	-		9
20	REMOVE AND INSTALL EXISTING EQUIPMENT	LUMP SUM	-	1		1
21	DETECTOR ASSEMBLY (PEDESTRIAN) PUSH BUTTON	EACH	4	-		4
22	CONCRETE PEDESTAL (TYPE II)	EACH	-	1		1
23	SIGNAL ASSEMBLY: 4 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN, GREEN ARROW (LEFT)]	EACH	-	2		2
◆ 24	GROUND RODS	EACH	4	-		4
	STEEL STRAIN POLES (ALTERNATE TO CONCRETE POLE)	EACH	4	-		4

* TO BE FIGURED FROM PLANS AND JOB SITE BY CONTRACTOR AND SHALL BE SUFFICIENT QUANTITY FOR COMPLETE INSTALLATION COST, SHALL BE INCLUDED IN BID ITEM NO. 675-47 OF THE SUMMARY OF QUANTITIES.
◆ SEE NOTE UNDER SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

	ITEM NO.	ITEM	UNIT	QUANTITY
	675-32-3	CONTROLLER (THREE PHASE) [FULLY ACTUATED, SOLID STATE MODULAR DESIGN]	EACH	2
	675-33A	DETECTOR [VEHICLE, LOOP TYPE]	EACH	6
	675-33B	DETECTOR [PEDESTRIAN, PUSH BUTTON]	EACH	4
	675-37A	TRAFFIC SIGNAL ASSEMBLY [3 SECTION: 1 WAY WITH 12" LENSES]	EACH	10
	675-37B	TRAFFIC SIGNAL ASSEMBLY [4 SECTION: 1 WAY WITH 12" LENSES]	EACH	2
ALT. A → ALTERNATES	675-40-2	CONCRETE STRAIN POLES (TYPE II)	LIN. FT.	136
	675-42	CONCRETE PEDESTAL [TYPE II]	LIN. FT.	12
	675-47	ACCESSORY MATERIAL	LUMP SUM	1
	675-48	PULL BOXES-[METER TYPE-CONCRETE]	EACH	2
ALT. B →	675-54	STEEL STRAIN POLES-[28' LENGTH]	EACH	4
	675-55	REMOVE AND INSTALL EXISTING EQUIPMENT	LUMP SUM	1

NOTE: ◆ ITEMS LISTED IN BILL OF MATERIALS SHALL BE INCLUDED IN THE COST OF CONTRACT BID ITEM NO. 675-47

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY
BILL OF MATERIALS AND SUMMARY OF QUANTITIES
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE JNC DATE 11-73 | TRACED DJR DATE 11-73
CHECKED JNC DATE 5-74 | SCALE

84/1

Contract No. 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		T-2
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 5-74

BILL OF MATERIALS

	ITEM	DESCRIPTION	UNIT	QUANTITY LOCATION 1	QUANTITY LOCATION 2		TOTAL
	1	CONTROLLER: THREE PHASE FULLY ACTUATED, SOLID STATE MODULAR DESIGN	EACH	1	1		2
	2	DETECTOR ASSEMBLIES: (VEHICLE) LOOP TYPE	EACH	3	3		6
	3	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN]	EACH	4	-		4
	4	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (LEFT)]	EACH	3	-		3
	5	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (45° RIGHT)]	EACH	2	-		2
	~~6~~	~~SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (UP)]~~	~~EACH~~	~~2~~	-		~~2~~
	7	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN ARROW (RIGHT)]	EACH	1	-		1
◆	8	MESSENGER WIRE: 1/4" DIAMETER	LIN. FT.	*	*		*
◆	9	MESSENGER WIRE: 3/8" DIAMETER	LIN. FT.	*	*		*
◆	10	CABLE: SOLID COPPER CONDUCTOR	LIN. FT.	*	*		*
◆	11	CONDUIT	LIN. FT.	*	*		*
◆	12	DETECTOR LOOP WIRE: NO. 12 AWG.- UF STRANDED COPPER	LIN. FT.	*	*		*
◆	13	REPLACE 12" GREEN LENS WITH 12" GREEN ARROW (45° LEFT)	EACH		1		1
◆	14	REPLACE 12" GREEN LENS WITH 12" GREEN ARROW (RIGHT)	EACH		1		1
◆	16	SIGNAL LAMPS: 150 WATTS CLEAR 125 VOLTS MIN.	EACH	30	8		
	17	CONCRETE STRAIN POLES [TYPE V]	EACH	4	-		
	18	PULL BOXES: METER TYPE CONCRETE	EACH	1	1		2
◆	19	12" LONG TUNNEL VISORS	EACH	9	-		9
	20	REMOVE AND INSTALL EXISTING EQUIPMENT	LUMP SUM	-	1		1
	21	DETECTOR ASSEMBLY (PEDESTRIAN) PUSH BUTTON	EACH	4	-		4
	22	CONCRETE PEDESTAL (TYPE II)	EACH	-	1		1
	23	SIGNAL ASSEMBLY: 4 SECTION 1-WAY WITH 12" LENSES [RED, YELLOW, GREEN, GREEN ARROW (LEFT)]	EACH	-	2		2
◆	24	GROUND RODS	EACH	4	-		4
		STEEL STRAIN POLES (ALTERNATE TO CONCRETE POLE)	EACH	4	-		4

* TO BE FIGURED FROM PLANS AND JOB SITE BY CONTRACTOR AND SHALL BE SUFFICIENT QUANTITY FOR COMPLETE INSTALLATION COST. SHALL BE INCLUDED IN BID ITEM NO. 675-47 OF THE SUMMARY OF QUANTITIES.
◆ SEE NOTE UNDER SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

	ITEM NO.	ITEM	UNIT	QUANTITY
	675-32-3	CONTROLLER (THREE PHASE) [FULLY ACTUATED, SOLID STATE MODULAR DESIGN]	EACH	12
	675-33A	DETECTOR [VEHICLE, LOOP TYPE]	EACH	6
	675-33B	DETECTOR [PEDESTRIAN, PUSH BUTTON]	EACH	4
	675-37A	TRAFFIC SIGNAL ASSEMBLY [3 SECTION: 1 WAY WITH 12" LENSES]	EACH	10
	675-37B	TRAFFIC SIGNAL ASSEMBLY [4 SECTION: 1 WAY WITH 12" LENSES]	EACH	2
ALT. A → ALTERNATES	675-40-2	CONCRETE STRAIN POLES (TYPE V)	LIN. FT.	136
	675-42	CONCRETE PEDESTAL [TYPE II]	LIN. FT.	12
	675-47	ACCESSORY MATERIAL	LUMP SUM	1
	675-48	PULL BOXES-[METER TYPE-CONCRETE]	EACH	2
ALT. B → ALTERNATES	675-54	STEEL STRAIN POLES-[28' LENGTH]	EACH	4
	675-55	REMOVE AND INSTALL EXISTING EQUIPMENT	LUMP SUM	1

NOTE: ◆ ITEMS LISTED IN BILL OF MATERIALS SHALL BE INCLUDED IN THE COST OF CONTRACT BID ITEM NO. 675-47

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY
BILL OF MATERIALS AND SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE JNC DATE 11-73 | TRACED DJR DATE 11-73
CHECKED JNC DATE 5-74 | SCALE

84
7

Contract No. 3,

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			7-3

State Job No. 10002-3503

RIGHT-OF-WAY LINE

LIMITED ACCESS LINE

RAILROADS

SIGNAL CABLE OVERHEAD ON MESSENGER WIRE

INTERCONNECT CABLE (AERIAL)

CABLE IN CONDUIT

DETECTOR CABLE - PAVEMENT SAW CUT

LOOP VEHICLE DETECTOR CABINET (POLE MOUNTED)

SIGNAL POLE REQUIRED

SIGNAL POLE IN PLACE

SIGNAL HEAD, SPAN WIRE MOUNTED

SIGNAL HEAD, MAST ARM MOUNTED

PEDESTRIAN SIGNAL HEAD, POLE MOUNTED

PEDESTRIAN SIGNAL HEAD, PEDESTAL MOUNTED

PEDESTRIAN DETECTOR, POLE MOUNTED

PEDESTRIAN DETECTOR, PEDESTAL MOUNTED

VEHICLE DETECTOR, LOOP TYPE - MOTION

VEHICLE DETECTOR, LOOP TYPE - PRESENCE

VEHICLE DETECTOR, PRESSURE SENSITIVE

CONTROLLER, POLE MOUNTED

CONTROLLER, BASE MOUNTED

JUNCTION BOX

PULL BOX

(8) ITEM NUMBER

[5] SIGNAL FACE NUMBER

R.R. MILE POST (M.P. NO. 0.00)

	EXISTING	PROPOSED
POWER POLE	◇	◆
TELEPHONE POLE	○	●
COMBINATION POLE	◈	◈
LIGHT STANDARD	✕	●

AS BUILT

APR 21 1976

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS

CONVENTIONAL SIGNAL SYMBOLS

REVISIONS		ROAD NO.	COUNTY	PROJECT NO.
Dates	Descriptions			

	Names	Dates
Detailed by		
Checked by		
Quantities by		
Checked by		
Traced by		

Recommended For Approval by: Engineer of Traffic Operations

APPROVED BY: Deputy Design Engineer

Drawing No. 84/1 | Index No.

Contract No. 3.

A. R. COGSWELL CO., JACKSONVILLE

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3503		T-4
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 11-73

GENERAL NOTES

GENERAL

G-1 NO CHANGES SHALL BE MADE IN THE SIGNALIZATION PLANS WITHOUT THE APPROVAL OF THE RESIDENT ENGINEER.

G-2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE PROJECT ENGINEER TWO (2) COPIES OF SUBMITTAL DATA FOR EACH ITEM OF PROPOSED EQUIPMENT TO BE USED AND SHALL HAVE APPROVAL OF SUBMITTAL DATA PRIOR TO THE INSTALLATION.

G-3 ALL EQUIPMENT MUST MEET AND BE INSTALLED IN ACCORDANCE WITH THE D.O.T. PUBLICATION "STANDARD SPECIFICATIONS FOR TRAFFIC SIGNALS AND AUXILIARY EQUIPMENT" REVISED.

G-4 THE CONTRACTOR SHALL REQUIRE THE CONTROLLER MANUFACTURER OR SUPPLIER TO FORWARD THE MAKE, MODEL AND SERIAL NUMBERS OF EACH CONTROLLER, REFERENCED BY JOB NUMBER AND LOCATION NUMBER AS SHOWN ON THE SIGNAL PLANS TO THE RESIDENT ENGINEER.

G-5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFYING THE SIZE AND NUMBER OF CONDUCTOR RUNS (PLUS 4 SPARES) AND CONDUIT REQUIRED TO COMPLETELY AND SATISFACTORILY WIRE THE SIGNAL SYSTEM AS OUTLINED AND SHOWN ON THE PLANS. IN ALL INSTANCES, THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND AUXILIARY EQUIPMENT" TOGETHER WITH THE LATEST METHODS OF THE NATIONAL ELECTRICAL CODE SHALL BE STRICTLY ADHERED TO. ANY DEVIATIONS OR EXCEPTIONS TO THE ABOVE MUST BE SUBMITTED IN WRITING TO THE RESIDENT ENGINEER FOR HIS REVIEW AND SUBSEQUENT DECISION.

G-6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SERVICE GROUND TO HAVE A RESISTANCE TO GROUND NOT TO EXCEED 25 OHMS AS MEASURED WITH A GROUND "MEGGER".

G-7 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE RESIDENT ENGINEER TWO (2) COPIES OF A SCHEMATIC SHOWING THE CONDUCTOR RUNS, THE POINTS OF CHANGES AND THE NUMBER OF CONDUCTORS REQUIRED AT EACH POINT.

CONTROLLER

C-1 THE OUTSIDE DOOR AND AUXILIARY DOOR OF ALL CONTROLLER CABINETS TO BE EQUIPPED WITH DIFFERENT CYLINDER LOCKS, TWO KEYS TO EACH LOCK.

C-2 IN ALL CABINETS CONTAINING ACTUATED CONTROLLERS, THERE MUST BE INSTALLED ONE (1) ADDITIONAL, SIX (6) TERMINALS STRIP FOR THE ACCOMMODATION OF LOOP TYPE DETECTOR LEADS.

C-3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE PROPER SIZE FOUNDATION, ACCORDING TO MANUFACTURER'S SPECIFICATIONS, FOR BASE MOUNTED CONTROLLER CABINETS.

C-4 THE CONTROLLER CABINETS SHALL BE OF THE FOLLOWING LISTED MINIMUM OUTSIDE DIMENSIONS: POLE MOUNTED; HEIGHT, 31½ INCHES; WIDTH, 19⅜ INCHES; DEPTH, 13½ INCHES. BASE MOUNTED; HEIGHT, 47 INCHES; WIDTH, 28 INCHES; DEPTH, 15 INCHES. THE EQUIPMENT, PROPOSED AND FUTURE, SHALL NOT OCCUPY MORE THAN 70% OF THE CABINET CAPACITY.

C-5 THE CONTROLLER BID SHALL HAVE BUILT-IN NON-LOCKING DETECTION CAPABILITIES OR SHALL HAVE INCLUDED IN THE BID A TIME DELAY RELAY TO EFFECT A TIME DELAY FOR OPENING AND CLOSING A CIRCUIT WITHIN A SPECIFIED TIME LIMIT. THE TIME DELAY SHALL BE ADJUSTABLE FROM 2 TO 60 SECONDS. THE RELAY SHALL BE INSERTED ONLY INTO THE CIRCUIT BETWEEN THE CONTROLLER AND THE DETECTOR SPECIFIED.

C-6 ALL SOLID STATE CONTROLLERS ARE REQUIRED TO HAVE AN ADEQUATE NUMBER OF EXTERNAL JACK MOUNTED, HEAVY DUTY TYPE, SIGNAL LIGHT LOAD SWITCHES WITH SUB-BASE TO CARRY THE AMPERAGE FOR THE MAXIMUM NUMBER OF 150 WATT BULBS THAT SHALL BE DISPLAYED AT ANY ONE INTERVAL.

C-7 ALL CONTROLLLERS THAT DO NOT HAVE A BUILT-IN FEATURE TO ELIMINATE CONFLICTING SIGNAL INDICATIONS SHALL HAVE A SOLID STATE DEVICE (WITH A VARIABLE TIME DELAY FEATURE WHICH PREVENTS ERRONEOUS REACTIONS) TO MONITOR THE SIGNAL INDICATIONS AT THE POINT WHERE THE LOAD SWITCHES FEED THE SIGNAL CABLE SO THERE WILL BE NO CONFLICTING SIGNAL INDICATIONS DISPLAYED. IF THIS CONDITION EXISTS, THE UNIT WILL TRANSFER THE SIGNAL TO AN ALL RED INDICATION, PROCEEDED BY A FLASHING OPERATION DISPLAYING A YELLOW FLASHING SIGNAL TO THE ARTERY AND RED FLASHING SIGNAL TO THE SIDE STREET OR STREETS. THE FLASHING CONDITION WILL REMAIN UNTIL THE SYSTEM IS RESET MANUALLY.

C-8 CONTROLLERS SPECIFIED TO OPERATE AS MULTI-PHASE WILL BE COMPLETELY SOLID STATE WITH NO ELECTRO-MECHANICAL RELAYS, OR OTHER MOVING PARTS. SOLID STATE PHASE TIMING MODULES SHALL BE INTERCHANGEABLE BETWEEN DIFFERENT CONTROLLERS OF THE SAME MANUFACTURER EACH MODULE PROVIDES ALL FUNCTIONS FOR A SINGLE TRAFFIC MOVEMENT OF PHASE. EACH CONTROLLER SHALL BE FURNISHED WITH THE APPROPRIATE INTERVAL SEQUENCE UNIT, PHASE SEQUENCE UNIT, CONNECTING CABLE, SWITCHING RELAYS, SOLID STATE FLASHER, SPECIAL SEQUENCE RELAYS AS REQUIRED, VEHICLE DETECTOR RELAYS AND MISCELLANEOUS HARDWARE AND EQUIPMENT. ALL TIMING INTERVALS SHALL BE SELECTABLE OVER THE ENTIRE TIMING RANGE, WITHOUT THE USE OF MULTIPLICATION SWITCHES.

C-9 WHEN SPECIFIED, MULTI-PURPOSE CONTROLLERS PROVIDING FOR ADDITIONAL PHASE CAPACITY BY THE ADDITION OF MODULAR UNITS SHALL DO SO WITHOUT THERE BEING ANY ADDITIONAL WIRING OR CHANGE IN WIRING TO THE CONTROLLER AND/OR FRAME. ALL MOUNTING FRAMES SHALL BE CAPABLE OF ACCEPTING ADDITIONAL FUNCTIONAL OR PHASE MODULES REGARDLESS OF THEIR FUNCTIONAL CHARACTERISTICS. ALL CABINET WIRING REQUIRED FOR FUTURE OPERATION AS SHOWN ON THE OPERATION PLAN SHALL BE INCLUDED SO THAT ALL ACCESSORY UNITS MAY BE ADDED BY JACK MOUNTING OR PLUGGING UNITS. SUFFICIENT NUMBER OF CONDUCTORS SHALL BE FURNISHED TO WIRE FUTURE SIGNAL HEADS AS SHOWN ON THE PLANS, FROM THE CONTROLLER TO THE FIRST DISCONNECT HANGER.

C-10 THE CONTRACTOR MAY BE REQUIRED TO PROVIDE, INSTALL, AND OPERATE ALL PHASE MODULES (PROPOSED AND FUTURE) AS OUTLINED BY THE SIGNAL OPERATION PLAN. AT THE END OF THE OPERATION CHECK BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE ALL FUTURE PHASE MODULES AND INSTALL COVER PLATES.

DETECTOR

D-1 THE CONTRACTORS SHALL BE RESPONSIBLE FOR INSTALLING THE CORRECT PHASE DETECTOR UNITS REQUIRED FOR SEMI-ACTIVATED CONTROLLERS: WHERE MULTIPLE-PHASE DETECTION IS REQUIRED, AS WITH FULL-ACTUATED MULTI-PHASE CONTROLLERS, THE DETECTORS SHALL BE CAPABLE OF DETECTING EACH AND EVERY SEPARATE MOVEMENT AS SHOWN IN THE SIGNAL OPERATING PLAN.

D-2 THE CONTRACTOR SHALL FURNISH ONE DETECTOR UNIT WITH SUFFICIENT POWER SUPPLIES FOR EACH WIRE LOOP DETECTION TO BE IMBEDDED IN ROADWAY. METHODS FOR TUNING MUST BE EXTERNAL AND EASILY ACCESSIBLE. THERE MUST BE PROVIDED ON THE FRONT OF THE DETECTOR UNIT A VISUAL INDICATOR OR LIGHT TO SHOW WHEN ACTUATIONS ARE BEING RECEIVED. THE DETECTOR UNIT (BY MEANS OF A FRONT PANEL MOUNTED SWITCH) MUST BE CAPABLE OF MOTION DETECTION. PRESENCE DETECTION MUST DETECT VEHICLES ENTERING, STATIONARY, IN, LEAVING THE LOOP OR A COMBINATION OF THESE.

D-3 LOOP LOCATION AND SIZE ARE SHOWN ON THE PLANS FOR THE PURPOSE OF GENERAL LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE CORRECT SIZE LOOPS TO BE PLACED IN ROADWAY AND CORRECT SIZE A.W.G. WIRE AS REQUIRED BY MANUFACTURER'S SPECIFICATIONS IN ORDER TO ASSURE PROPER OPERATION. WHERE LOOP CONDUCTOR IS RUN OVERHEAD SHIELDED WIRE MUST BE USED.

POLES

P-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE AMOUNT OF RAKE TO BE USED ON POLES AT THE TIME OF INSTALLATION.

P-2 IN ACCORDANCE WITH GENERAL NOTE NO. G-3, STRAIN INSULATORS ARE HEREWITH DELETED. ALL TRAFFIC SIGNAL POLES SHALL BE GROUNDED IN ACCORDANCE WITH SECTION 715-11 AS SHOWN IN FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 1973. ALL SPAN WIRES MUST BE GROUNDED WITH NO. 6 (MIN.) COPPER WIRE.

P-3 CONCERNING PEDESTRIAN PUSH BUTTON DETECTORS, TYPE VII, PARAGRAPH "C" PAGE 84 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND AUXILIARY EQUIPMENT" IS HEREWITH DELETED.

TRAFFIC SIGNAL ASSEMBLY

T-1 ALL TRAFFIC SIGNAL ASSEMBLIES TO BE FURNISHED WITH TWELVE INCH (12") LENSES, STANDARD VISORS, DISCONNECT HANGERS, BULBS (150 WATTS, 125 VOLTS) AND HARDWARE FOR SPAN WIRE MOUNTING UNLESS OTHERWISE SPECIFIED IN THE PLANS.

T-2 THERE SHALL BE PROVIDED BY THE MANUFACTURER OF TRAFFIC SIGNAL HEADS A METHOD OF POSITIVE LOCKING. THE METHOD USED SHALL PREVENT ANY MIS-ALIGNMENT DUE TO STRONG WINDS OR OBJECTS WHICH MAY COME IN CONTACT WITH THE SIGNAL HEAD. AT THE POINT OF ENTRANCE INTO ANY SIGNAL HEAD A SURE GASKETING METHOD SHALL BE USED TO PREVENT THE ENTRANCE OF ANY WATER.

T-3 THOSE TRAFFIC SIGNAL ASSEMBLY HEADS SHOWN AS FUTURE, SHALL NOT BE INSTALLED DURING THE CHECKOUT OF THE CONTROLLER.

REMOVAL OR ADJUSTMENT OF EXISTING EQUIPMENT

R-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING ANY EXISTING TRAFFIC SIGNAL EQUIPMENT OR SIGNAL POLES IF NECESSARY TO ACCOMMODATE THE CONSTRUCTION WORK AND STILL PROVIDE ADEQUATELY SAFE TRAFFIC CONTROL. ALL SUCH RELOCATIONS OR ADJUSTMENTS SHALL HAVE THE APPROVAL OF THE RESIDENT ENGINEER.

R-2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EXISTING TRAFFIC SIGNAL EQUIPMENT (SIGNAL HEADS, POLES, SIGNAL HARDWARE AND CONTROLLER) ON THE PROJECT THAT IS NOT INCORPORATED IN THE NEW INSTALLATION AND DELIVER IT DURING NORMAL WORKING HOURS TO:

CITY OF TAMPA
SIGNAL & SIGN MAINTENANCE SHOP
2300 MARITIME BLVD.
TAMPA, FLORIDA 33605

NOTIFICATION TO UTILITIES AND ARRANGEMENTS FOR SAFEGUARDS

N-1 CHAPTER 8AS-4, REGULATION REQUIRING PROTECTIONS IN CLOSE PROXIMITY OF OVERHEAD HIGH-VOLTAGE POWER LINES. WHEN ANY OPERATIONS ARE TO BE PREFORMED, IN CLOSE PROXIMITY (6 FEET) OF ANY POWER LINE, THE PERSON OR PERSONS RESPONSIBLE FOR THE WORK TO BE DONE SHALL PROMPTLY NOTIFY THE UTILITY COMPANIES INVOLVED. THEY SHALL ALSO BE RESPONSIBLE FOR THE COMPLETION OF THE SAFETY MEASURES REQUIRED IN SECTION 4.04 THROUGH 4.07 BEFORE PROCEEDING WITH ANY ACTIVITY WHICH MAY NOT CONFORM TO THE REQUIRED CLEARANCES OR OTHER REQUIREMENTS.

GENERAL AUTHORITY: 440.56(2) FLORIDA STATUTES
LAW IMPLEMENTED: 440.56 FLORIDA STATUTES
HISTORY: AMENDED 4-1-71, 5-1-72

THE FOLLOWING NOTES ARE TO BE DELETED FROM THIS PROJECT

P-3
T-3

AS BUILT
APR 21 1976

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

GENERAL NOTES

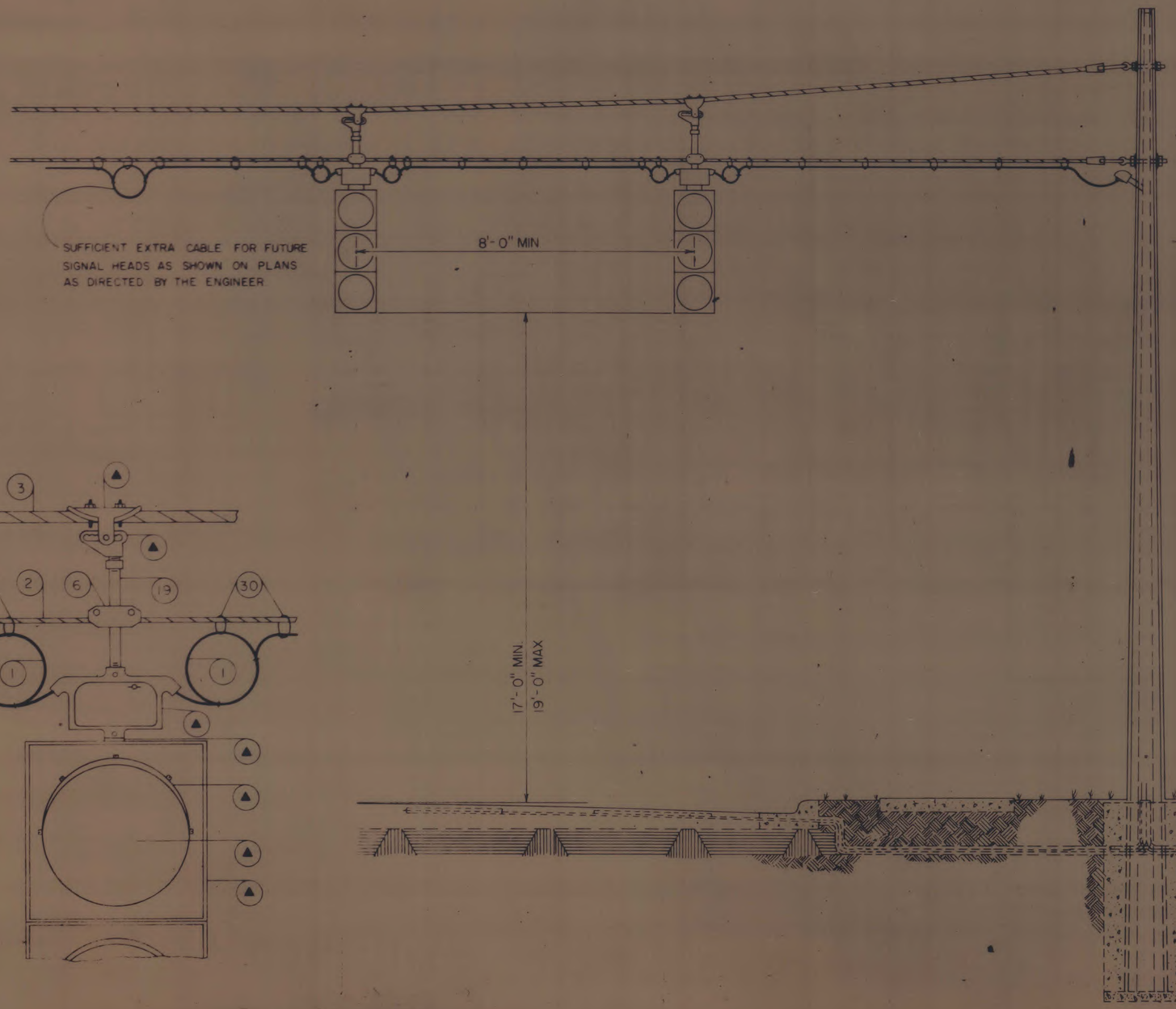
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

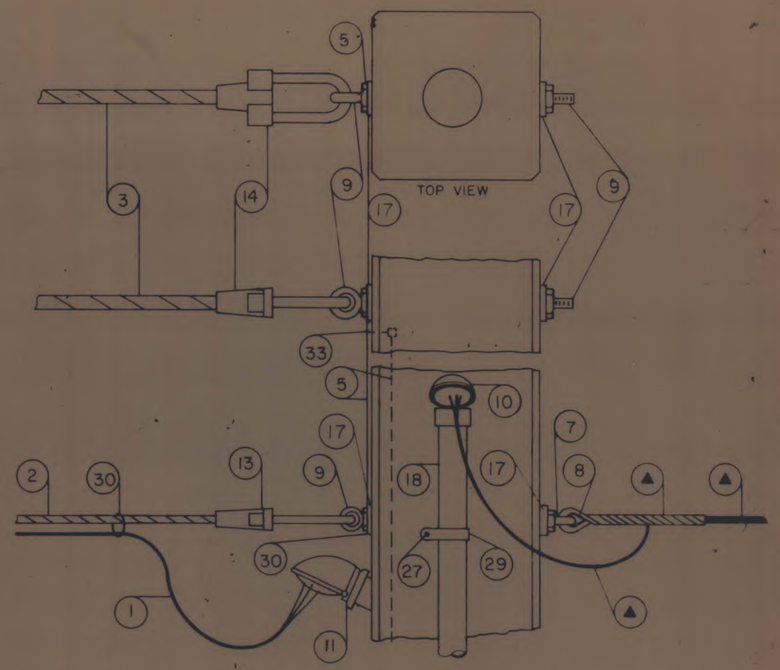
MADE GT DATE 10-73 | TRACED ____ DATE ____
CHECKED JNC DATE 11-73 | SCALE ____ | 84/1

Contract No. 3.

PROJECT No	FISCAL YEAR	SHEET NO
		T-5

State Job No. 10002-3508





AS BUILT
APR 21 1976

FLORIDA DEPARTMENT OF TRANSPORTATION
Traffic Operations

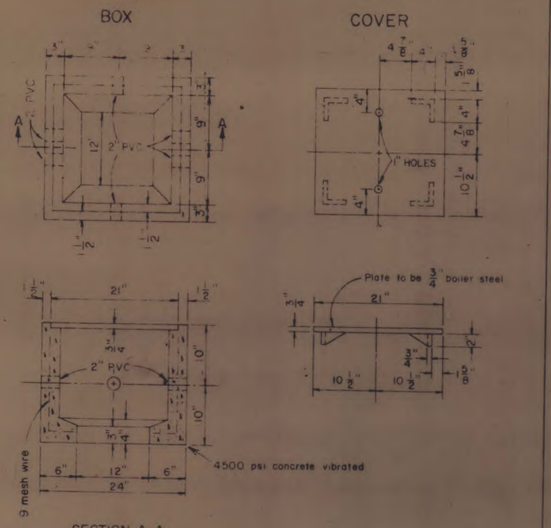
TYPICAL INSTALLATION DETAILS

REVISIONS			INITIALS	DATES
Dates	Descriptions	Detailed by		
		Checked by		
		Quantities by		
		Checked by		
		Supervised by		

Recommended for approval
by _____
Deputy Traffic Operations Engr.
Approved
By _____
State Traffic Operations Engr.

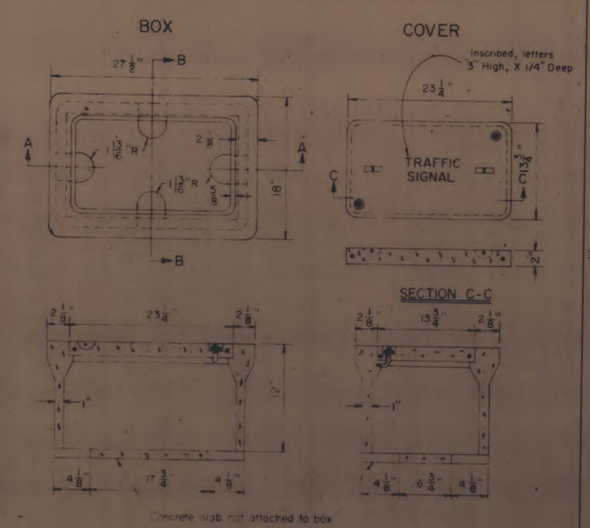
DRAWING NO. 84 INDEX NO. 1

Contract No. 3.



TRAFFIC TYPE PULL BOX DETAIL

NO SCALE

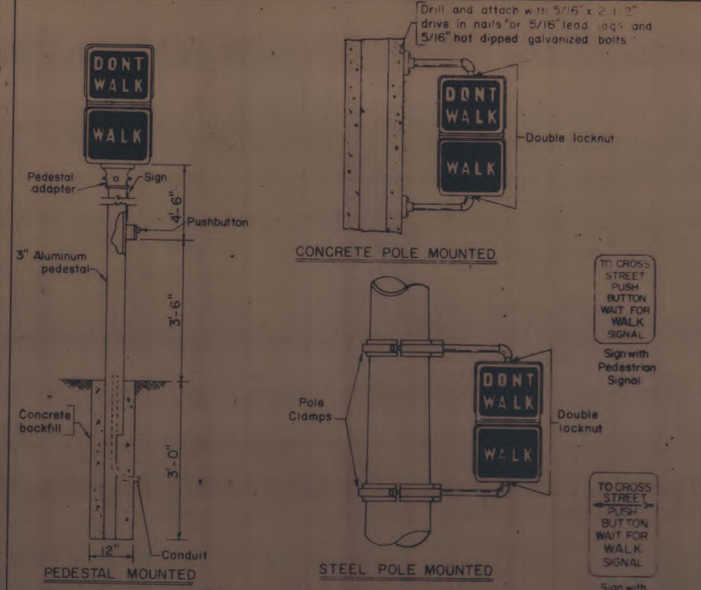


NOTES

1 - Two galvanized lift eyes per cover required
2 - Cover to have 6 guage welded wire frame
3 - Brass "L" bolts and nuts in diagonal corners, two required
4 - Cover to be marked "TRAFFIC SIGNAL"

METER TYPE PULL BOX DETAIL

NO SCALE



NOTES

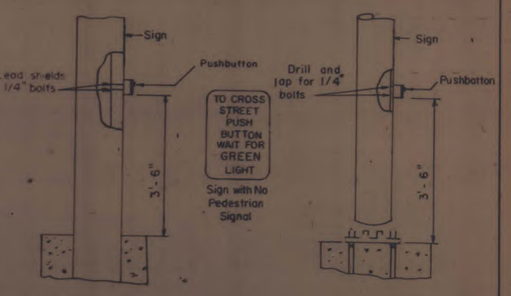
1. Provide 8' clearance from signal to surface
2. Aluminum Pedestal (3" I.D., .125" W.T.) - Aluminum association alloy 6061-T or 6351-T5 ASTM B221
3. Assemble signal according to manufacturer's recommendations

PEDESTRIAN SIGNAL MOUNTING

NO SCALE

PROJECT NO.	SHEET NO.
	T-6

State Job No. 10002-3503

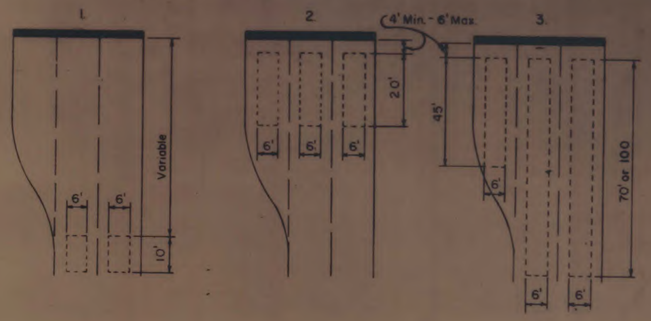


PUSHBUTTON INSTALLATION

NO SCALE

1.- Motion - 6' wide x 10' length or 18' wide x 10' length (Continuous Cut)
2.- Presence - 6' wide x 20' length per lane only
3.- Loop Occupancy* - 6' wide x 70' min - 100' max length per thru lane only
Left turn only - 6' wide x 45' length (Standard Requirement)
Suggested placement behind Stop Bar - 4' min., 6' max

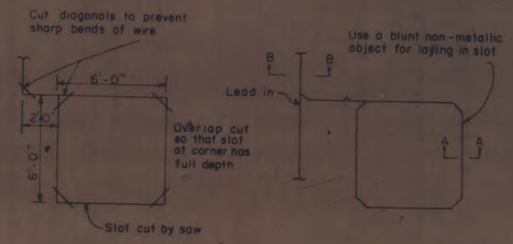
TYPICAL SKETCHES SHOWING APPLICATION

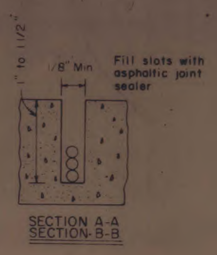


NOTES: 1. X. Thru lane loop lengths are determined by approach speed 0-34 MPH = 70' 35-45 MPH = 100'
2. Left turn slots constructed only at locations as shown on plans

VEHICULAR LOOP STANDARDS

NO SCALE





DETECTION LOOP CONSTRUCTION DETAIL

NO SCALE

APPROVED
APR 21 1976

FLORIDA DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS

TYPICAL INSTALLATION DETAILS

REVISIONS		INITIALS	DATES

84
1

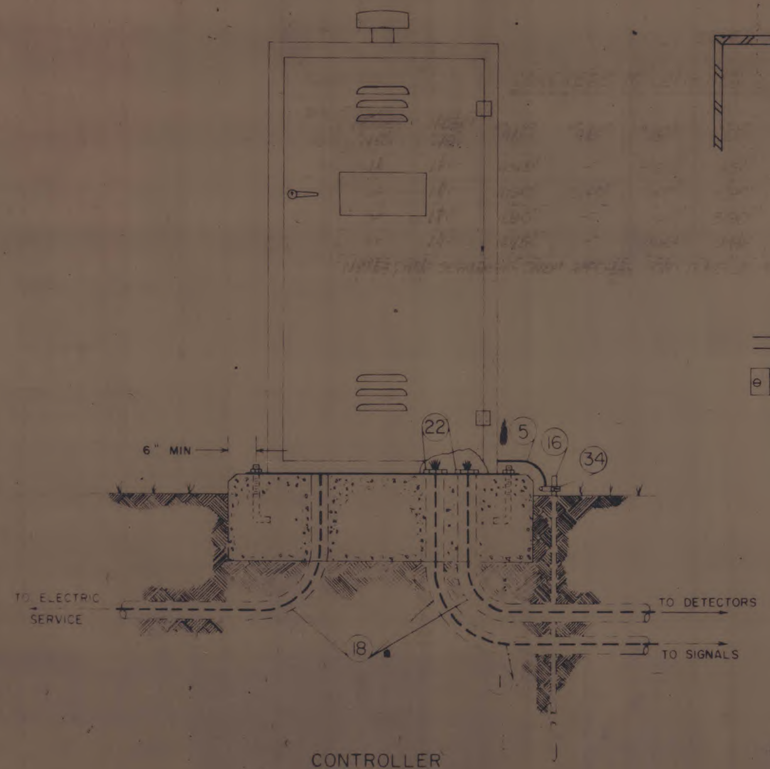
Contract No. 3.

STATE SECTION	SHEET NO
	T-7

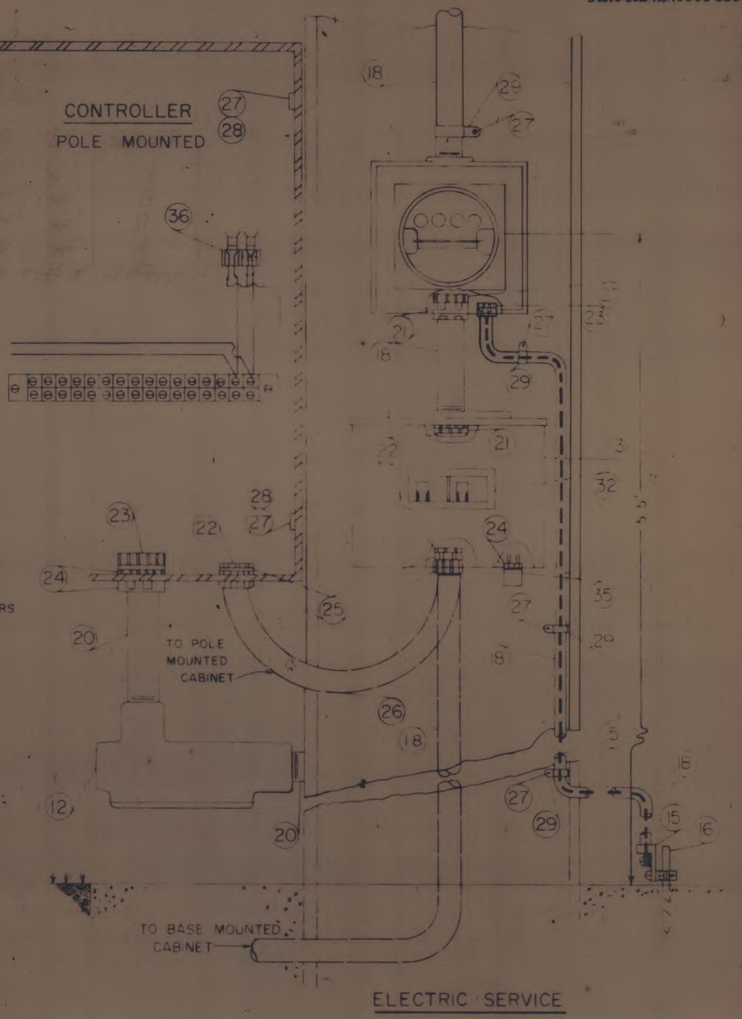
State Job No. 10002-3508

ITEM NO	DESCRIPTION
1	CONDUCTOR, TRAFFIC CONTROL CABLE
2	MESSENGER WIRE (1/4")
3	MESSENGER WIRE (3/8")
4	STRANDED "THWN" WIRE (#12 AWG)
5	STRANDED BARE (GROUND)(#4 AWG)
6	O.Z. GROUNDING DEVICE
7	EYELET (5/8")
8	THIMBLE (GALV)(5/8")
9	EYEBOLT WITH TWO NUTS (GALV.)
10	WEATHERHEAD - SERV. ENTR. (GALV)
11	WEATHERHEAD (1 1/4" ENTR. HEAD WITH SLIP FITTER FOR 2" PIPE)
12	UNILET, BODY, COVER, AND GASKET (2")
13	PREFORMED GRIP (1/4")
14	PREFORMED GRIP (3/8")
15	GROUND CLAMP WITH 1/2" HUB (3/4")
16	GROUND ROD (3/4" MIN DIA) COPPER
17	WASHER, GALV. (2"X2"X1/8")(11/16")
18	CONDUIT, RIGID (GALV)
19	IRON PIPE, GALV (1 1/4")
20	NIPPLE, GALV IRON PIPE (2" DIA)
21	HUB (SCRU-TITE)
22	BUSHING, GROUNDING
23	BUSHING (MOLDED, NON-METALLIC)
24	LOCK NUTS (2")
25	CONNECTOR (SEAL-TITE) STRAIGHT
26	FLEXIBLE CONDUIT (METAL, LIQUID TIGHT)
27	CAULKING ANCHOR
28	MACHINE BOLT (5/8"X18) HEX HEAD BOLT, (1 1/2")
29	STRAP, CONDUIT
30	O-RING
31	CIRCUIT BREAKER BOX (EXTERIOR) 70 AMP, 120 VOLTS
32	CIRCUIT BREAKER 20 AMP (SQUARE "D" TYPE)
33	CONNECTOR, CABLE (SPLIT TYPE OR SQUEEZE-ON)
34	GROUND CLAMP
35	LIGHTNING ARRESTOR
36	GASFILLED SURGE VOLTAGE PROTECTOR, AL-F 90, BUTTON TYPE

▲ INCLUDED IN BILL OF MATERIALS



CONTROLLER
BASE MOUNTED



ELECTRIC SERVICE

AS BUILT
APR 21 1976

REVISIONS			INITIALS	DATES
Dates	Descriptions	Detailed by		
		Checked by		
		Quantities by		
		Checked by		
		Supervised by		

FLORIDA DEPARTMENT OF TRANSPORTATION
Traffic Operations

TYPICAL INSTALLATION DETAILS

Recommended for approval by ... Traffic Operations Engineer

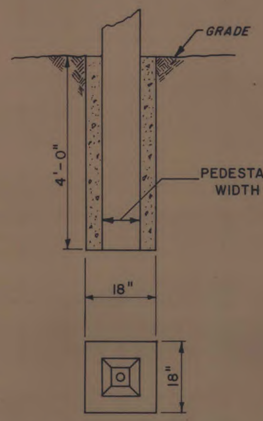
Approved ... Traffic Operations Engineer

DRAWING NO. | INDEX NO.

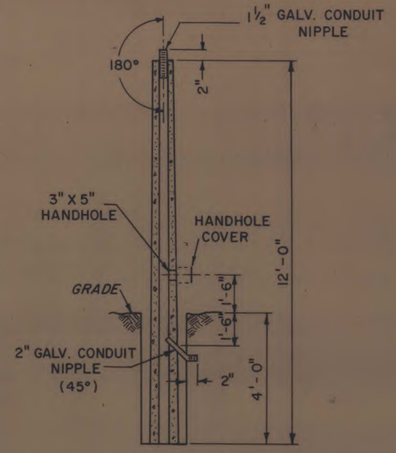
Contract No. 3.

84

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		T-8
By: WKC	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974



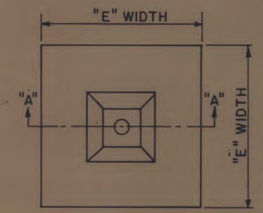
DETAIL OF CONCRETE PEDESTAL BASE



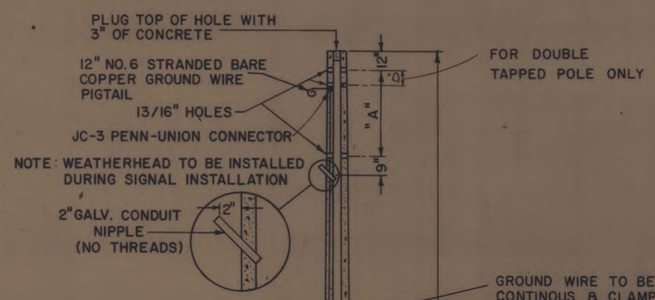
CONCRETE PEDESTAL TYPE II

POLE SCHEDULE

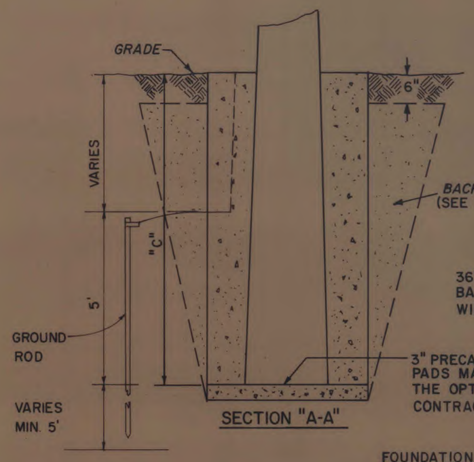
LOCATION	POLE NO	NO REQ'D	LENGTH	CLASS	A	B	C	D	ELEVATION TOP OF BASE
BAY TO BAY BLVD. & ESPERANZA AVE.	1	1	34'	V	4'-5"	6'-0"	7'-6"	1'-0"	18.35
	2	1	34'	V	4'-9"	5'-11"	7'-5"	1'-4"	18.60
	3	1	34'	V	4'-9"	5'-11"	7'-5"	—	18.60
	4	1	34'	V	4'-9"	5'-6"	7'-2"	0'-4"	18.35



FOUNDATION PLAN

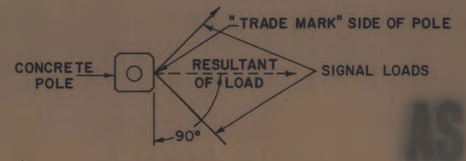


DETAIL OF PRESTRESSED CONCRETE STRAIN POLES; TYPE V, VI, & VII



SECTION "A-A"

FOUNDATION SIZE REQUIREMENTS		
POLE TYPES	"E" WIDTH	"C" DEPTH
V	3'-0"	7'-0"
VI	3'-6"	8'-0"
VII	4'-0"	8'-0"
NOTE: THE DIMINSIONS ABOVE ARE MINIMUM.		



POLE PLACEMENT PLAN

AS BUILT

APR 21 1976

AS BUILT

FOUNDATION NOTES

EXCAVATION & BACKFILL EXCAVATION AND BACKFILL FOR FOOTINGS SHALL BE IN ACCORDANCE WITH SECTION 125-8.2 WITH THE FOLLOWING EXCEPTION. IN LIEU OF THE REQUIREMENTS FOR OBTAINING THE SPECIFIED DENSITY, THE BACKFILL MAY BE HAND TAMPED IN FOUR INCH MAXIMUM LAYERS OR MACHINE TAMPED IN SIX INCH MAXIMUM LAYERS. THE MATERIAL SHALL BE NEITHER DRY NOR SATURATED. BACKFILLING MAY BE DONE WITH POURED CONCRETE AT THE OPTION OF THE CONTRACTOR.

CONCRETE FOOTING: TO BE POURED WITH CLASS "I" CONCRETE.

FORMS: SHALL BE IN ACCORDANCE WITH ARTICLE 700-8.3 (IF THE FOOTING IS POURED IN AN OVERSIZED HOLE, THE CONCRETE IN TOP SIX INCHES SHALL BE PLACED IN A FORM AND ALL EXPOSED SURFACES SHALL BE TROWELED TO A SMOOTH FINISH.

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

POLE SCHEDULE

J.E. GREINER COMPANY—WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA

MADE JNC	DATE 1974	TRACED DJR	DATE 1974
CHECKED JNC	DATE 1974	SCALE	84/1

Contract No. 3.

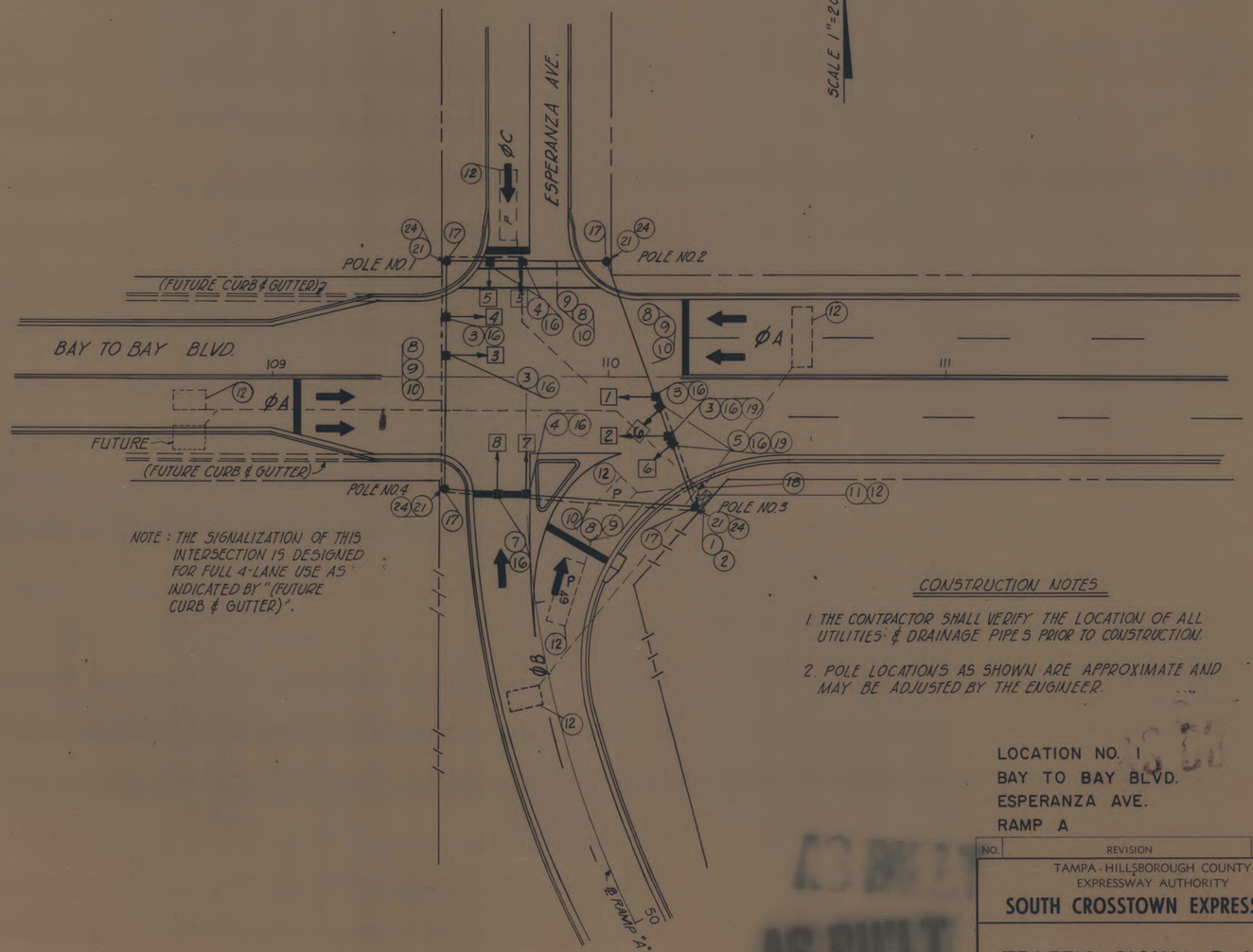
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		T-9
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973

PHASE	INT.	SIGNAL FACE NO.'S 1,4	2,3	5	6	7	8	MOVEMENTS
ØA BAY TO BAY BLVD. (DWELL)	R/W	G	G	R	R	R	R	
	CLEAR TO ØB or ØC	Y	Y	R	R	R	R	
ØB RAMP "A" (ACTUATED)	R/W	R	R	←	↗	R	R	
	CLEAR TO ØC or ØA	R	R	Y	Y	R	R	
ØC ESPERANZA AVE. (ACTUATED)	R/W	R	R	R	R	←	→	
	CLEAR TO ØA or ØB	R	R	R	R	Y	Y	

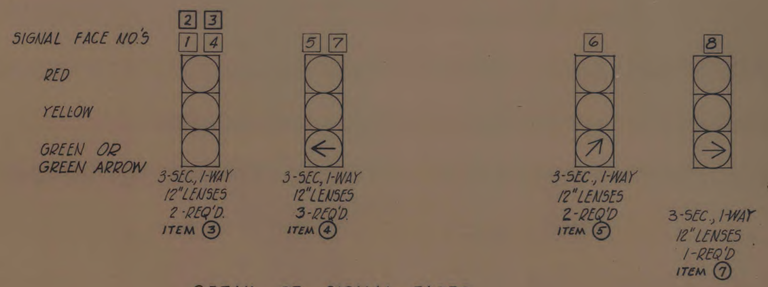
SIGNAL OPERATION PLAN

CONTROLLER

THREE(3) PHASE, FULLY ACTUATED, TYPE XIII, SOLID STATE MODULAR DESIGN, HOUSED IN A POLE MOUNTED CABINET. TO OPERATE AS SEMI-ACTUATED UNTIL FUTURE DEMANDS WARRANT FULL ACTUATION.



NOTE: THE SIGNALIZATION OF THIS INTERSECTION IS DESIGNED FOR FULL 4-LANE USE AS INDICATED BY "(FUTURE CURB & GUTTER)".



DETAIL OF SIGNAL FACES

NOTE: SIGNAL FACES NO.2 & 6 ARE TO BE EQUIPT WITH 12" TUNNEL VISORS.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES & DRAINAGE PIPES PRIOR TO CONSTRUCTION.
2. POLE LOCATIONS AS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER.

LOCATION NO. 1
BAY TO BAY BLVD.
ESPERANZA AVE.
RAMP A

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TRAFFIC SIGNAL PLAN

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE G.E.T. DATE 9-20-73 | TRACED G.E.T. DATE
CHECKED J.N.C. DATE 10-25-73 | SCALE As Shown

84/1

Contract No. 3.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3503		T-10
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 5-74

PHASE	INT.	SIGNAL FACE NUMBERS 1	2	3	4	5	6	7	MOVEMENTS
ØA BAYSHORE BLVD.	R/W	G	G	G	↑	R	R	G	
	CL TO ØC	Y	Y	G	↑	R	R	G	
	CL TO ØB	Y	Y	Y	↑	R	R	Y	
ØC BAYSHORE BLVD.	R/W	R	R	G	↑	R	→	←	
	CL TO ØB	R	R	Y	↑	R	→	Y	
	CL TO ØA	R	R	G	↑	R	Y	Y	
ØB BAY TO BAY BLVD.	R/W	R	R	R	↑	↖	→	R	
	CL TO ØA	R	R	R	↑	Y	Y	R	
	CL TO ØC	R	R	R	↑	Y	→	R	

SIGNAL OPERATION PLAN

CONTROLLER

REMOVE EXISTING CONTROLLER AND REPLACE AT SAME LOCATION WITH THREE (3) PHASE, FULLY ACTUATED, TYPE XIII SOLID STATE MODULAR DESIGN

SIGNAL FACE NO'S 1 2 3 | 5 | 6 | 7 | 4

RED
YELLOW
GREEN OR GREEN ARROW

3-SEC., 1-WAY — G-EXISTING 3-REQ'D. (See Notes 1-3)

3-SEC., 1-WAY — 1-REQ'D. {SEE NOTE NO.1 BELOW}

3-SEC., 1-WAY — 1-REQ'D.

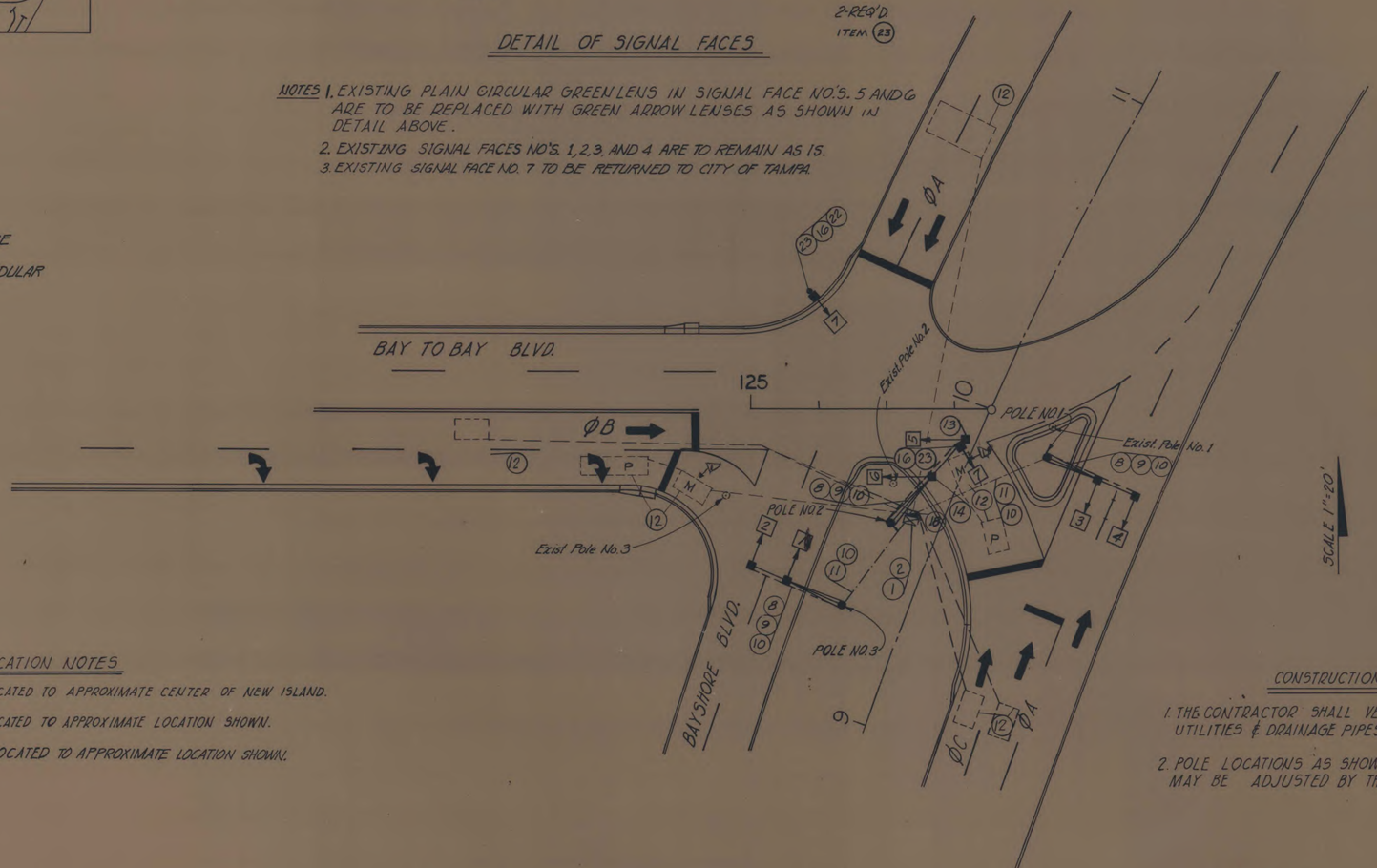
4-SEC., 1-WAY — 2-REQ'D ITEM (23)

GREEN ARROW — 1-SEC., 1-WAY 1-REQ'D.

1-EXISTING

DETAIL OF SIGNAL FACES

NOTES 1. EXISTING PLAIN CIRCULAR GREEN LENS IN SIGNAL FACE NO'S. 5 AND 6 ARE TO BE REPLACED WITH GREEN ARROW LENSES AS SHOWN IN DETAIL ABOVE.
2. EXISTING SIGNAL FACES NO'S. 1, 2, 3, AND 4 ARE TO REMAIN AS IS.
3. EXISTING SIGNAL FACE NO. 7 TO BE RETURNED TO CITY OF TAMPA.



POLE RELOCATION NOTES

1. POLE NO. 1 TO BE RELOCATED TO APPROXIMATE CENTER OF NEW ISLAND.
2. POLE NO. 2 TO BE RELOCATED TO APPROXIMATE LOCATION SHOWN.
3. POLE NO. 3 TO BE RELOCATED TO APPROXIMATE LOCATION SHOWN.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES & DRAINAGE PIPES PRIOR TO CONSTRUCTION.
2. POLE LOCATIONS AS SHOWN ARE APPROXIMATE AND MAY BE ADJUSTED BY THE ENGINEER.

LOCATION NO. 2
BAY TO BAY BLVD.
BAYSHORE BLVD.

AS BUILT
APR 21 1976

NO	REVISION	BY	DATE
1	P-Loop To M-Loop	CMS	3-20-75

NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

TRAFFIC SIGNAL PLAN

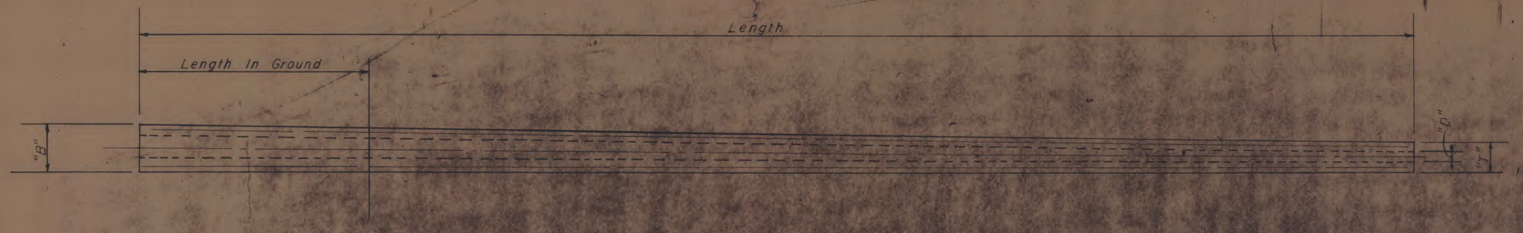
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

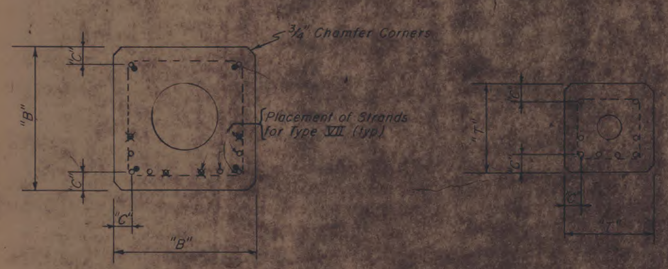
MADE G.E.T. DATE 9-19-73 | TRACED G.E.T. DATE 9-19-73
CHECKED JNC DATE 5-74 | SCALE 1" = 20'

Contract No. 3.

84/1

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.	1002-3503		7-11





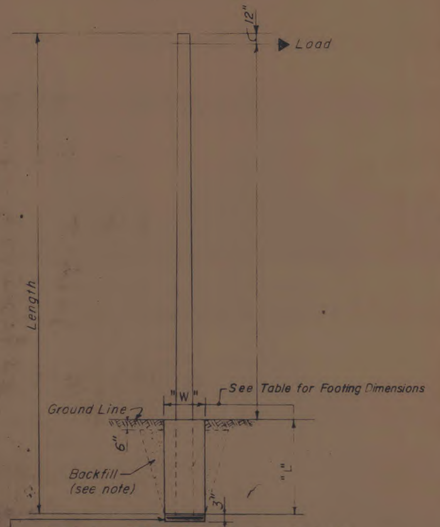
SECTION AT BOTTOM SECTION AT TOP

TYPICAL SECTION FOR TYPE V, VI and VII
(STRANDS ECCENTRICALLY PLACED)



SECTION AT BOTTOM SECTION AT TOP

TYPICAL SECTION FOR TYPE IV
(STRANDS SYMMETRICALLY PLACED)



SIGNAL STRAIN POLE LOADING

At The Option of The Contractor a 3" Precast Leveling Pad May be Used

TYPE	DESIGNATION	SIZE AT TOP "T"	SIZE AT BOTTOM "B"	OUTSIDE POLE TAPER	HOLE DIA. "D" AT TOP	MANDREL DETAIL	STRAND TAPER "C"	NO. OF STRANDS	SIZE & TYPE STRAND	LOAD WITH NO CRACKING	MINIMUM ULTIMATE LOAD CAPACITY	APPLICATION OF LOAD	f'_c	f_{ci}	FOOTING DIMENSIONS "W & L"	SHIELDING (From Top)	SHEAR REINFORCING (From Bottom)	DORMANT STRANDS
SIGNAL STRAIN POLES	VII	14" Sq.	Size at Top + (Lg. x Taper)	.16"/Ft.	2.87" ϕ (Per Mandrel Detail)	Per Pres. MFG.	Min. Cover 1" of Conc.	12	½" ϕ Strands 270 K	7000#	10,000 ± # (Min.)	16 Inches From Top	6000psi	4000psi	3.5'x3.5'x9.0'	Shield 2 at 10' Shield 2 at 26'	3 Wire @ 3" @ 9' up 5 Ga Spiral @ 6" Remainder	4 - ½" ϕ Tie to Corner
	VI	13" Sq.	Size at Top + (Lg. x Taper)	.16"/Ft.	3" ± ϕ (Per Mandrel Detail)	Per Pres. MFG.	Min. Cover 1" of Conc.	8	½" ϕ Strands 250 K	5000#	8500 ± # (Min.)	2 Inches From Top	6000psi	4000psi	3.5'x3.5'x8.0'	Shield 2 at 12'	3 Wire @ 3" @ 9' up 5 Ga Spiral @ 6" Remainder	4 - ½" ϕ Tie to Corner
	V	10" Sq.	Size at Top + (Lg. x Taper)	.16"/Ft.	2.87" ± ϕ (Per Mandrel Detail)	Per Pres. MFG.	Min. Cover 1" of Conc.	8	½" ϕ Strands 250 K	3500#	6000 ± # (Min.)	12 Inches From Top	6000psi	4000psi	3'x3'x7.0'	Shield 2 at 6' Shield 2 at 21'	3 Wire @ 3' @ 10' up 5 Ga Spiral @ 6" Remainder	4 - ½" ϕ Tie to Corner
	IV	8.25" Sq.	Size at Top + (Lg. x Taper)	.16"/Ft.	3" ± ϕ (Per Mandrel Detail)	Per Pres. MFG.	Min. Cover 1" of Conc.	8	½" ϕ A.S.T.M. 250 K	1850 *	3000 ± # (Min.)	12 Inches From Top	6000psi	4000psi	3'x3'x6.0'	Shield 2 at 6' Shield 2 at 12'	5 Ga Spiral @ 6"	4 - 7/16" ϕ Ea Cor R 4 - ½" ϕ Tie To Press.
LIGHT POLES	II	6" Sq.	Size at Top + (Lg. x Taper)	.16"/Ft.	2" ϕ (Per Mandrel Detail)	Per Pres. MFG.	Min. Cover 1" of Conc.	4	7/16" ϕ A.S.T.M. 250 K	900#	1200 ± # (Min.)	2' Feet From Top	6000psi	4000psi	3'x3'x6.0'		9 Ga Spiral @ 6"	8 - 7/16" ϕ
	II	64" Round	Size at Top + (Lg. x Taper)	.16"/Ft.	2" ϕ (Per Mandrel Detail)	Per Pres. MFG.	Min. Cover 1" of Conc.	4	½" ϕ A.S.T.M. 250 K	900#	1200 ± # (Min.)	2 Feet From Top	6000psi	4000psi	3'x3'x6.0'	Shield 2 at 6' Shield 2 at 12'		4 - #4 Bars



SECTION AT BOTTOM SECTION AT TOP

TYPICAL SECTION FOR TYPE II
(STRANDS SYMMETRICALLY PLACED)

*Steel strand used to prestress the Concrete shall not be tensioned above 70% of the rated ultimate strength.

SYMBOLS

O Placement of Prestressed Strands

⊗ Placement of Prestressed Strands for Type VII

● Placement of Dormant Strands

FOOTING NOTES:

EXCAVATION AND BACKFILL

Excavation and Backfill for the Footings shall be in accordance with section 125-8.2 with the exception that for the Backfill, in lieu of the requirements for obtaining the specified density, The Backfill may be handtamped in four inch maximum layers or machine tamped in six inch maximum layers. The material should be neither dry nor saturated. At the Contractor's option Backfilling may be done with poured concrete.

FORMS Shall be in accordance with Article 700-8.3.

AS BUILT APR 21 1976

SIGNAL STRAIN POLES & LIGHT POLE

STATE ROAD DEPARTMENT OF FLORIDA
STRUCTURES DIVISION

PRESTRESSED CONCRETE POLES

REVISIONS	
Dates	Descriptions
10-68	Revised Pole Footing
10-68	Leveling Pad Option Added
12-69	64" Round Light Pole Added
02-70	Revised Footing Dimension
08-71	250K in Lieu 270K

ROAD NO.	COUNTY	PROJECT NO.

	Name	Date
Detailed by	C.W.B.	5-15-68
Checked by	A.J.H.	5-27-68
Quantities by		
Checked by		
Traced by		

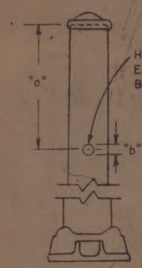
APPROVED BY: T. Alberdi
Engineer of Structures

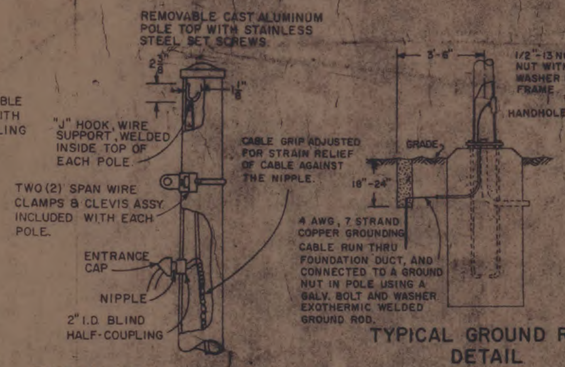
Drawing No. 1 of 1 | Index No. 9821

Contract No. 3.

84/1

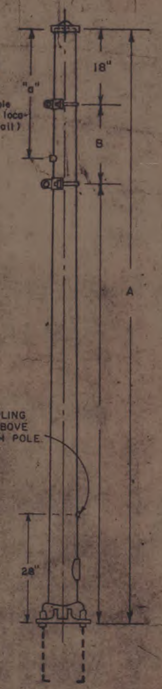
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.	10002-3503		T-12





TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS

TYPICAL GROUND ROD DETAIL

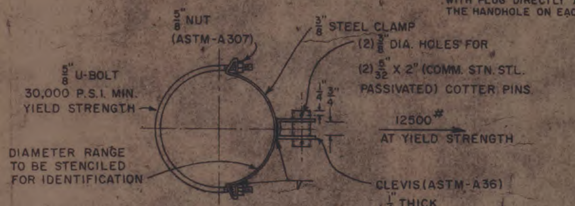


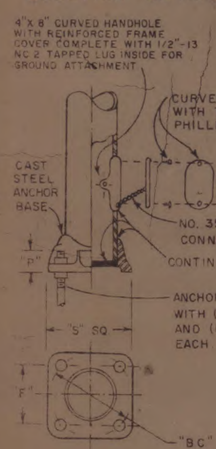
POLE DETAIL

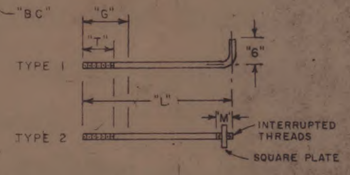
NOTE:
2" I.D. BLIND HALF-COUPLING WITH PLUG DIRECTLY ABOVE THE HANDHOLE ON EACH POLE.

CONFIG.	"a"	"b"	"c"
A	30"	2"	90°
B	30"	2"	180°
C	30"	2"	270°
D	48"	2"	90°
E	48"	2"	180°
F	48"	2"	270°
G	NO HOLE REQUIRED		

CABLE ENTRANCE LOCATION DETAIL







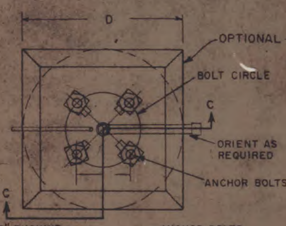
TYPE	RANGE MIN.	RANGE MAX.	NOM. CLAMP SIZE
I	5.2"	5.8"	5"
II	5.8"	6.8"	6"
III	6.8"	7.9"	7"
IV	7.9"	9.0"	8"
V	9.0"	10.1"	9"
VI	10.1"	11.3"	10"
VII	11.3"	12.1"	11"
VIII	12.1"	13.4"	12"

SPAN WIRE CLAMP DETAILS

ANCHOR BASE DATA					ANCHOR BOLT DATA						SQUARE PLATE SIZE
POLE DIA.	"B.C."	"F"	"S"	"P"	SIZE	"L"	"T"	"G"	"M"	TYPE	
10" †	13-1/2"	9-9/16"	14-1/8"	3-3/8"	1-1/2" x 60"	54"	9"	14"	—	1	—
11" †	15"	10-5/8"	15-3/8"	3-5/8"	1-3/4" x 90"	84"	9"	14"	—	1	—
12" †	16"	11-3/16"	17"	4"	1-3/4" x 90"	84"	9"	14"	—	1	—
13" †	18"	12 3/4"	18-1/2"	4-1/4"	2" x 90"	90"	9"	15"	1-3/4"	2	1" x 4"
14" †	20"	14-1/8"	20-1/2"	4-3/4"	2" x 90"	90"	9"	15"	3/4"	2	1" x 4"
14" *	22"	15-1/2"	23"	5 1/4"	2-1/4" x 96"	96"	10"	16"	2"	2	1-1/4 x 4-1/2" □

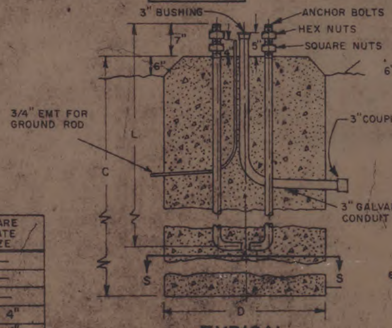
* 2 ply 7 Ga. † 3 Ga. & 0 Ga.

TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS

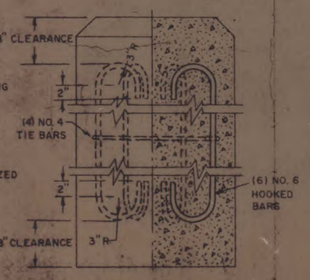




SECTION S-S



TYPICAL STRAIN POLE FOUNDATION



SECTION C-C
TYPICAL REINFORCING STEEL SECTIONS

POLE SCHEDULE

LOCATION NO.	POLE NO.	(POLE LENGTH) "A"	POLE TYPE	"B"	CABLE ENTRANCE CONFIGURATION	"C"	"D"	CLAMP TYPE Upper	CLAMP TYPE Lower	NUMBER REQUIRED POLES	NUMBER REQUIRED CLAMPS Upper	NUMBER REQUIRED CLAMPS Lower
1	1	28	A	4'-9"	E	6'-0"	30"	II	III	1	2	1
1	2	28	A	5'-0"	G	6'-0"	30"	II	III	1	2	1
1	3	28	A	5'-0"	F	6'-0"	30"	II	III	1	1	1
1	4	28	A	4'-9"	E	6'-0"	30"	II	III	1	1	1

FOUNDATION DATA

POLE TYPE	"C"	"D"
A	6'-0"	30"
B	7'-0"	30"
C	7'-0"	36"
D	8'-0"	36"
E	8'-0"	42"
F	6'-0"	30"
G	7'-0"	30"
H	7'-0"	36"
I	8'-0"	36"
J	8'-0"	42"
K	8'-0"	42"

ANCHOR BASE TYPE STEEL STRAIN POLE CHART

OVERALL LENGTH	TYPE	BASE DIAMETER (INCHES)	WALL THICKNESS (GAUGE)	LOAD AT YIELD STRESS (LBS.)	DEFLECTION PER 100 LBS (INCHES)
26 Ft.	A	10	.2500 (3 Ga.)	3400	.45
	B	11		4160	.32
	C	12		4960	.24
	F	10	.3125 (0 Ga.)	4180	.37
	G	11		5120	.26
	H	12		6100	.19
28 Ft.	A	10	.2500 (3 Ga.)	3140	.57
	B	11		3840	.41
	C	12		4590	.31
	H	12	.3125 (0 Ga.)	5640	.25
	I	13		6650	.19
	J	14		7750	.15
30 Ft.	A	10	.2500 (3 Ga.)	2920	.74
	B	11		3560	.53
	C	12		4260	.39
	D	13		5030	.30
	H	12	.3125 (0 Ga.)	5250	.32
	I	13		6200	.24
	J	14		7200	.19
32 Ft.	B	11	.2500 (3 Ga.)	3335	.66
	C	12		3990	.49
	D	13		4700	.37
	H	12	.3125 (0 Ga.)	4910	.40
	I	13		5800	.30
	J	14		6760	.24
	K	14	.3586 (2 ply 7Ga)	7650	.21
34 Ft.	C	12	.2500 (3 Ga.)	3740	.61
	D	13		4420	.46
	E	14		5140	.36
	H	12	.3125 (0 Ga.)	4610	.50
	I	13		5440	.38
	J	14		6340	.30
	K	14	.3586 (2 ply 7Ga)	7000	.26
36 Ft.	C	12	.2500 (3 Ga.)	3530	.75
	D	13		4160	.57
	E	14		4840	.44
	H	12	.3125 (0 Ga.)	4340	.61
	I	13		5120	.46
	J	14		5970	.36
	K	14	.3586 (2 ply 7Ga)	6790	.31

OVERALL LENGTH	TYPE	BASE DIAMETER (INCHES)	WALL THICKNESS (GAUGE)	LOAD AT YIELD STRESS (LBS.)	DEFLECTION PER 100 LBS (INCHES)
38 Ft.	C	12	.2500 (3 Ga.)	3330	.92
	D	13		3930	.69
	E	14		4570	.53
	H	12	.3125 (0 Ga.)	4100	.77
	I	13		4830	.58
	J	14		5630	.45
	K	14	.3586 (2 ply 7Ga)	6420	.38

MATERIAL SPECIFICATIONS

1. Tapered tubes (S.A.E.-1020 Steel processed to minimum yield stress of 55,000 lbs P.S.I.
2. Cast anchor base and handhole frame, ASTM-A27, Grade 65-35.
3. Handhole cover plate, 11 gauge steel, S.A.E.-1015.
4. Cast aluminum pole top, aluminum alloy 43.
5. Span wire clamp, low alloy, high strength steel ASTM-A242 or 375, load producing distortion 12,500 lbs. direct tension.
6. All bolts and nuts less than 5/8" diameter passivated stainless steel AISI-300 series, commercial grade.
7. All bolts and nuts 5/8" dia. and over, ASTM-A307 and galvanized in accordance with ASTM-A153.
8. Anchor base and U-bolts, high strength steel minimum yield stress 55,000 lbs P.S.I.
9. Welding rod, ASTM-A233, class E60XX or 70XX.
10. Galvanizing, as per ASTM-A123.
11. Painting, when specified, inside of poles red lead primer. Outside of poles zinc chromate, iron oxide primer.
12. The taper shall be 0.14 of an inch per linear foot, measured as change in diameter.

APR 21 1976

AS BUILT

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS

STEEL STRAIN POLE DETAIL

REVISIONS Dates	Descriptions

ROAD NO.	COUNTY	PROJECT NO.

	Names	Dates
Detailed by		
Checked by		
Quantities by		
Checked by		
Traced by		

Recommended For Approval by: A. H. Conley, Traffic Operations Engineer
APPROVED BY: [illegible], State Traffic Operations Engineer

Drawing No. 1 of 1 | Index No. 84

Contract No. 3.

THIS CONTRACT INCLUDES:

1. ROADWAY PLANS
2. ROADWAY SIGNING PLANS
3. LIGHTING PLANS L1 - L8
4. BRIDGE & RETAINING WALL PLANS

TAMPA - HILLSBOROUGH C
EXPRESSWAY AUTHOR

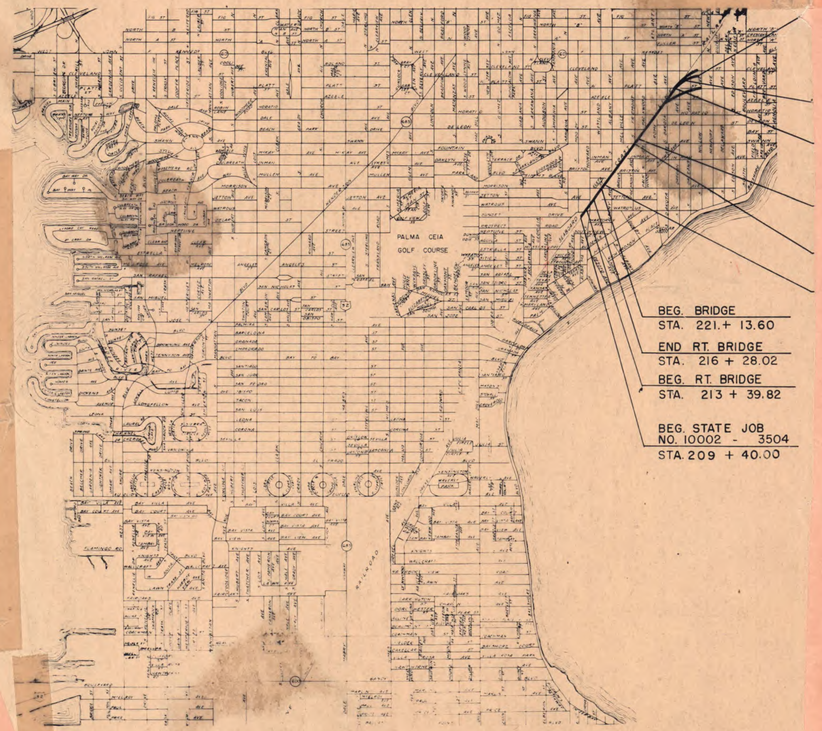
— PLANS OF PROPOSED —

STATE JOB NO. 10002-3504-032

SOUTH CROSSTOWN EXP

STATE ROAD NO. 449

HILLSBOROUGH COUNTY TAMPA, FLORIDA



CONTRACT NO. 4

FROM SOUTH OF WATROUS AVE.
TO WILLOW AVE.

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY

Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority

P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 4 - State Job No. 10002-3504

Description	Drawing Number Sheet No.
Cover Sheet - From S. of Watrous to Willow Avenue	1
Drainage Map	2 and 3
Alignment Control	4
Typical Section	5
Miscellaneous Details	6
Drainage Details Inlet Type BW	7
Summary of Quantities	8
Plan and Profile	9 through 15
Terminal Details Ramp "A"	16-16A & 17
Plan and Profile	18
Terminal Details Ramp "B"	19 and 20
Plan and Profile	21 through 28
Retention Area Details	70

Total No. MYLAL SHEETS 30.

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		1
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

THIS CONTRACT INCLUDES:

1. ROADWAY PLANS
2. ROADWAY SIGNING PLANS
3. LIGHTING PLANS L1 - L8
4. BRIDGE & RETAINING WALL PLANS

—PLANS OF PROPOSED—

STATE JOB NO. 10002-3504-032

SOUTH CROSSTOWN EXPRESSWAY

STATE ROAD NO. 449

HILLSBOROUGH COUNTY TAMPA, FLORIDA

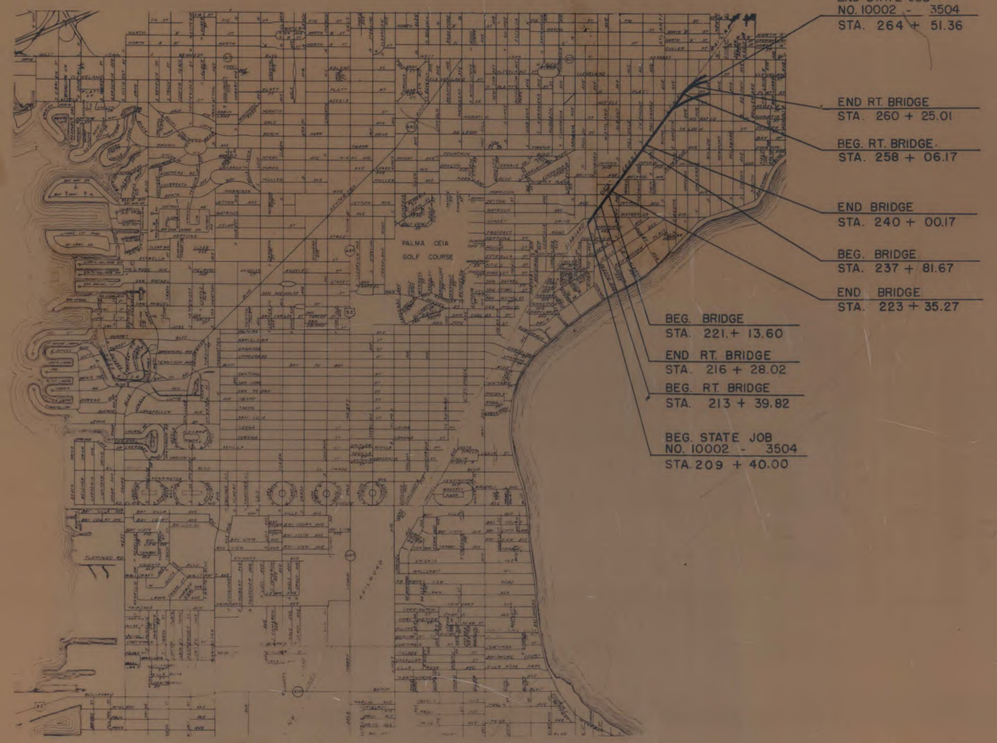
INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	Key Map
2 - 3	Drainage Map
4	Alignment Control
5	Typical Sections
6	Miscellaneous Details
7	Drainage Details (Inlet Type BW)
8	Summary Of Quantities
9	Maps Diagram
10 - 13	Plan and Profile (Main Line)
14 - 15	Plan and Profile (Platt St.)
16 - 21	Interchange
22 - 28	Drainage Structures
29	Soil Classification
30 - 55	Cross Sections (Main Line)
56 - 59	Cross Sections (Ramp "A")
60 - 64	Cross Sections (Ramp "B")
65 - 69	Cross Sections (Platt St.)
70	Retention Area Details
71 - 87	Approach Slabs
88	Borrow Pit
89 - 92	Right-Of-Way Maps

INDEX NO.	STANDARD DRAWINGS
194	Standard Abbreviations (2-Sheets)
195	Standard Symbols For Key Maps & Plan Sheets (3-Sheets)
1101 -W	Miscellaneous Roadway Construction Details (2-Sheets)
1129 -G	U-Endwalls For Pipe Culverts (3-Sheets)
2300 -R	Guardrail Construction (4-Sheets)
5010 -H	Superelevation Details
5016 -B	Turnout Details
5047 -G	Inlet, Manhole & Junction Box Type P and J (2-Sheets)
5049 -A	Inlet Type Z.
5061 -E	Miscellaneous Drainage Details (2-Sheets)
5072 -G	Details Of Fencing (2-Sheets)
5073 -L	Standard Details For Ramp Terminals (3-Sheets)
5080 -G	Curb, Curb & Gutter, & Traffic Separator (2-Sheets)
5086 -A	Shoulder Gutter Type Y
5096 -D	Standard Ditch Bottom Inlet, Types C, D, E & H, And Supplemental Details.

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.





2000 FT.

LENGTH OF PROJECT		
	LINEAR FT.	MILES
ROADWAY	4564.15	0.864
BRIDGES	947.21	0.179
NET LENGTH	5511.36	1.044
EXCEPTIONS	0.00	0.000
GROSS LENGTH	5511.36	1.044

*NOTE: LENGTH OF ROADWAY AND BRIDGES BASED ON RIGHT ROADWAY.

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

AS BUILT
APR 21 1976

APPROVAL RECOMMENDED JAN. 3, 1974
BY Donald R. Heidtman
J.E.GREINER CO., INC. - WATSON AND COMPANY

APPROVED 1-3-74
BY Bob Lester
CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 4

FROM SOUTH OF WATROUS AVE.
TO WILLOW AVE.

WATSON AND COMPANY
CONSULTING ENGINEERS
TAMPA, FLORIDA

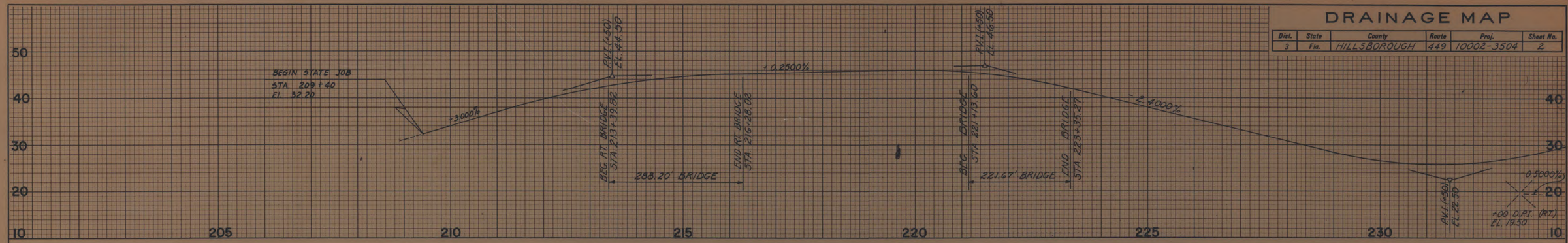
SUBMITTED W Dale Lester DATE 1-3-74

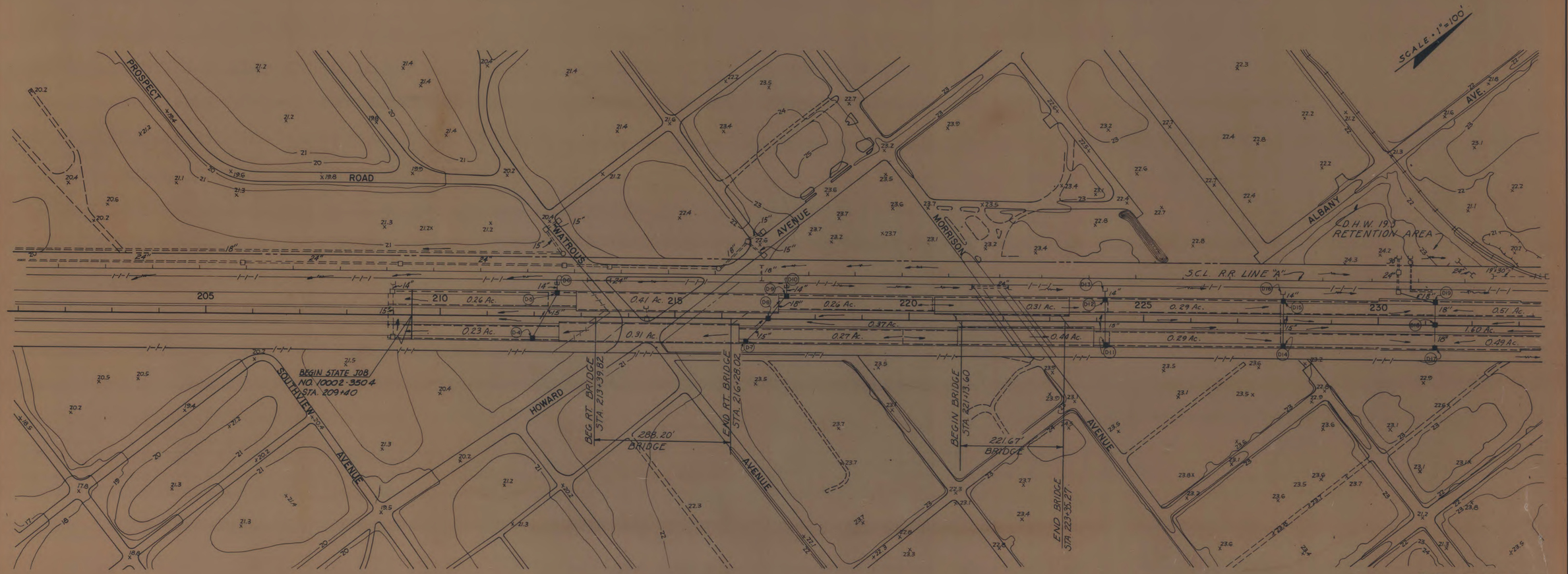
Contract No. 4.

84/1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002-3504	2.





AS BUILT

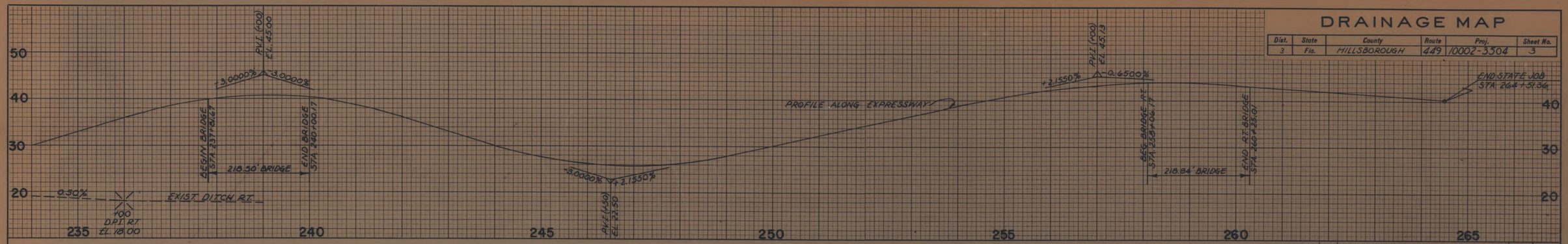
APR 21 1976

Contract No. 4

64
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002-3504	3



NO	REVISION	BY	DATE
1	Moved D-37, D-38 & D-39 Removed D-33, Added D-39A	MF	6/26/76

SCALE: 1" = 100'

AS BUILT

APR 21 1976

Contract No. 4

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		4
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1972

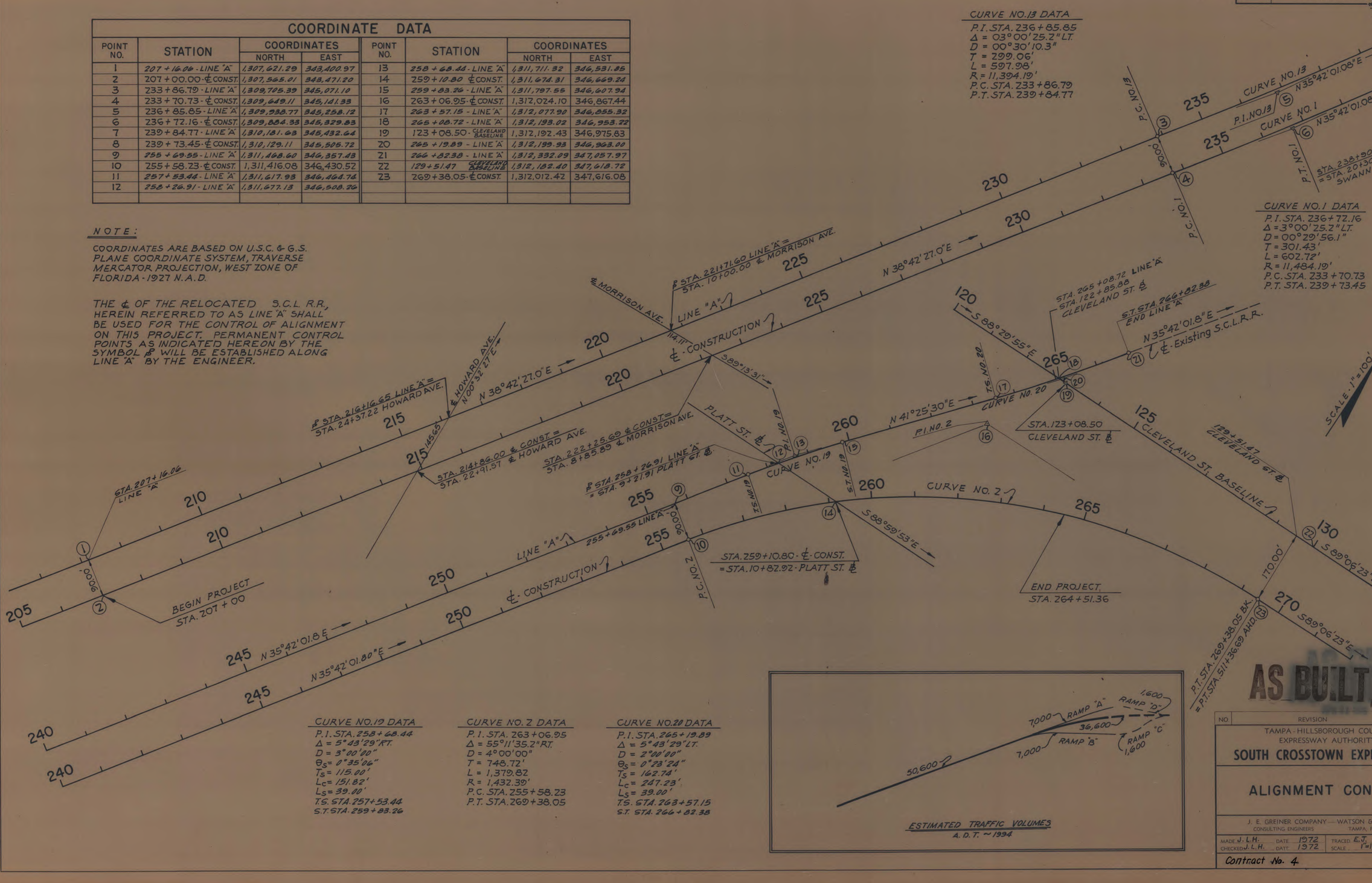
COORDINATE DATA

POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST	POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST
1	207+16.06 - LINE "A"	1,307,621.29	343,400.97	13	258+68.44 - LINE "A"	1,311,711.32	346,531.85
2	207+00.00 - ℄ CONST.	1,307,565.01	343,471.20	14	259+10.80 ℄ CONST.	1,311,674.31	346,669.24
3	233+86.79 - LINE "A"	1,309,705.39	345,071.10	15	259+83.26 - LINE "A"	1,311,787.55	346,607.94
4	233+70.73 - ℄ CONST.	1,309,649.11	345,141.33	16	263+06.95 - ℄ CONST.	1,312,024.10	346,867.44
5	236+85.85 - LINE "A"	1,309,938.77	345,258.12	17	263+57.15 - LINE "A"	1,312,077.90	346,855.32
6	236+72.16 - ℄ CONST.	1,309,884.33	345,329.83	18	265+08.72 - LINE "A"	1,312,193.02	346,953.22
7	239+84.77 - LINE "A"	1,310,181.63	345,432.64	19	123+08.50 - CLEVELAND BASELINE	1,312,192.43	346,975.83
8	239+73.45 - ℄ CONST.	1,310,129.11	345,505.72	20	265+19.89 - LINE "A"	1,312,199.93	346,963.00
9	255+69.55 - LINE "A"	1,311,468.60	346,357.43	21	266+82.38 - LINE "A"	1,312,332.09	347,057.97
10	255+58.23 - ℄ CONST.	1,311,416.08	346,430.52	22	129+51.47 CLEVELAND BASELINE	1,312,182.40	347,618.72
11	257+53.44 - LINE "A"	1,311,617.93	346,464.74	23	269+38.05 - ℄ CONST.	1,312,012.42	347,616.08
12	258+26.91 - LINE "A"	1,311,677.13	346,508.26				

NOTE:

COORDINATES ARE BASED ON U.S.C. & G.S. PLANE COORDINATE SYSTEM, TRAVERSE MERCATOR PROJECTION, WEST ZONE OF FLORIDA - 1927 N.A.D.

THE ℄ OF THE RELOCATED S.C.L. R.R., HEREIN REFERRED TO AS LINE "A" SHALL BE USED FOR THE CONTROL OF ALIGNMENT ON THIS PROJECT. PERMANENT CONTROL POINTS AS INDICATED HEREON BY THE SYMBOL ℘ WILL BE ESTABLISHED ALONG LINE "A" BY THE ENGINEER.



NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

ALIGNMENT CONTROL

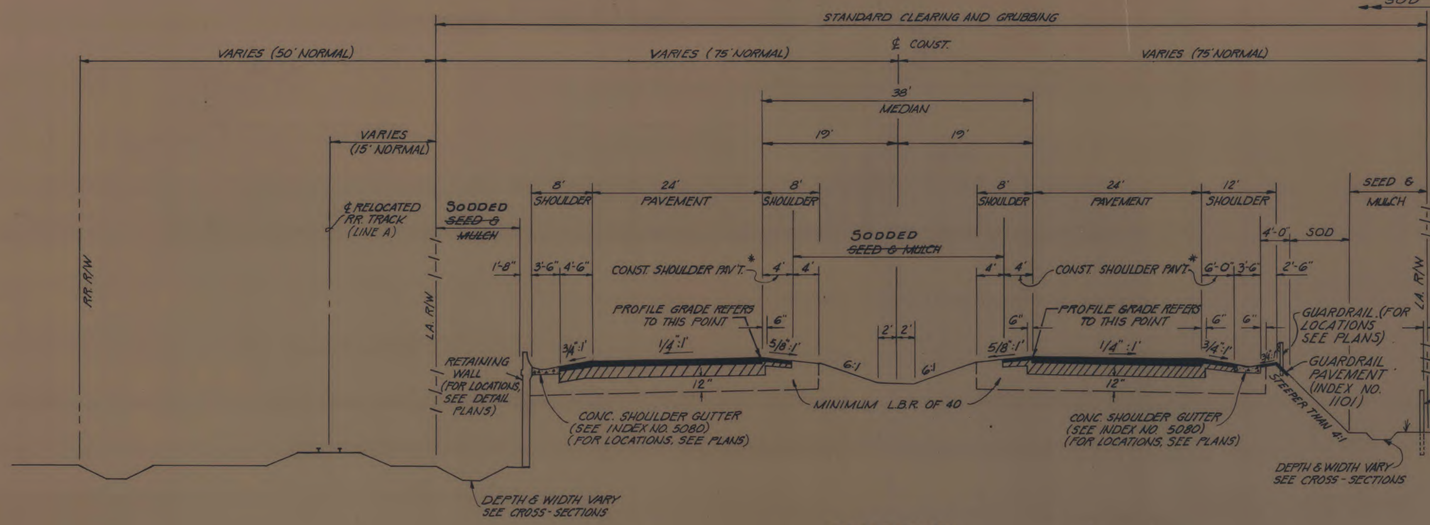
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 1972 TRACED E.T. DATE 1972
CHECKED J.L.H. DATE 1972 SCALE 1"=100'

Contract No. 4

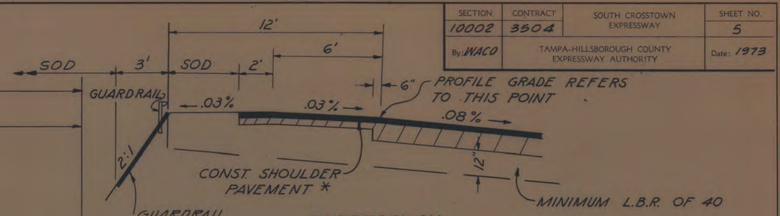
84 / 1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		5
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

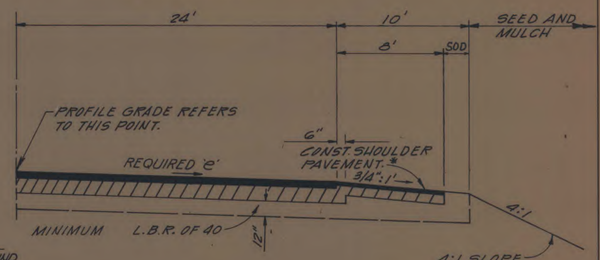


EXPRESSWAY

DESIGN SPEED 50 M.P.H.
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONC. (2" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK).

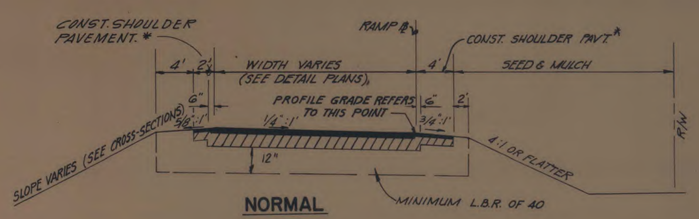


EXPRESSWAY

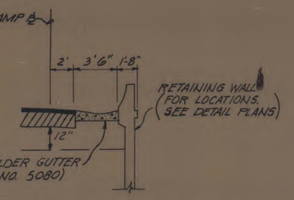


EXPRESSWAY

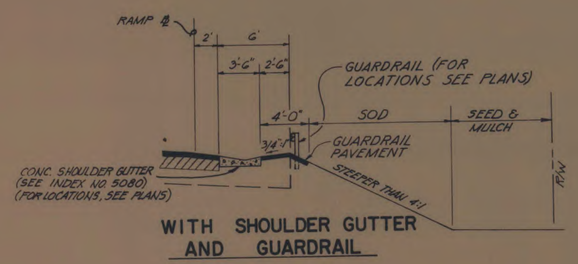
* NOTE
ALT. - SHOULDER PAVEMENT WILL BE EITHER LIMEROCK BASE (6" THICK) PRIMED, WITH (TYPE S-I) ASPHALTIC CONC. (1" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK) (ALT "A") OR (ALT "B") SAND-ASPHALT HOT MIX (5" THICK) 800 LB. STABILITY AND ASPHALTIC CONC. WEARING COURSE (1" THICK)



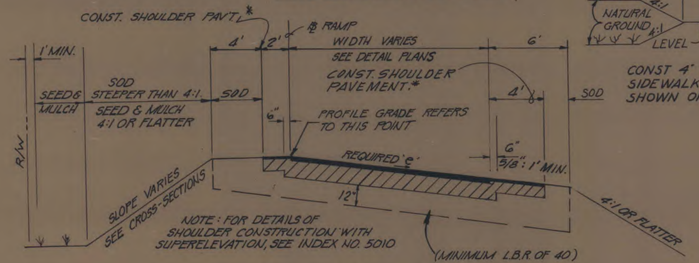
NORMAL



WITH RETAINING WALL

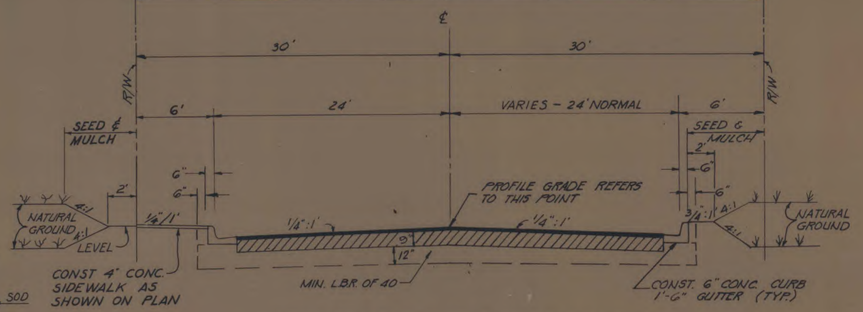


WITH SHOULDER GUTTER AND GUARDRAIL



NOTE: FOR DETAILS OF SHOULDER CONSTRUCTION WITH SUPERELEVATION, SEE INDEX NO. 5010

SUPERELEVATED SECTION



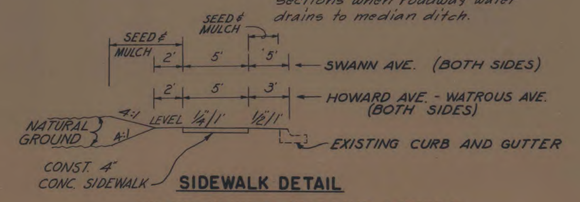
LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALT CONC. (3" THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICK - TOP LAYER 1½" THICK)

PLATT STREET

NOTES:
1. Sod 2' Adjacent to paved Shoulder in superelevation sections when roadway water drains to median ditch.

RAMPS

DESIGN SPEED 35 M.P.H.
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONC. (2" THICK.) AND ASPHALTIC CONC. WEARING COURSE (1" THICK).



SIDEWALK DETAIL
SWANN - HOWARD - WATROUS AVENUES

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

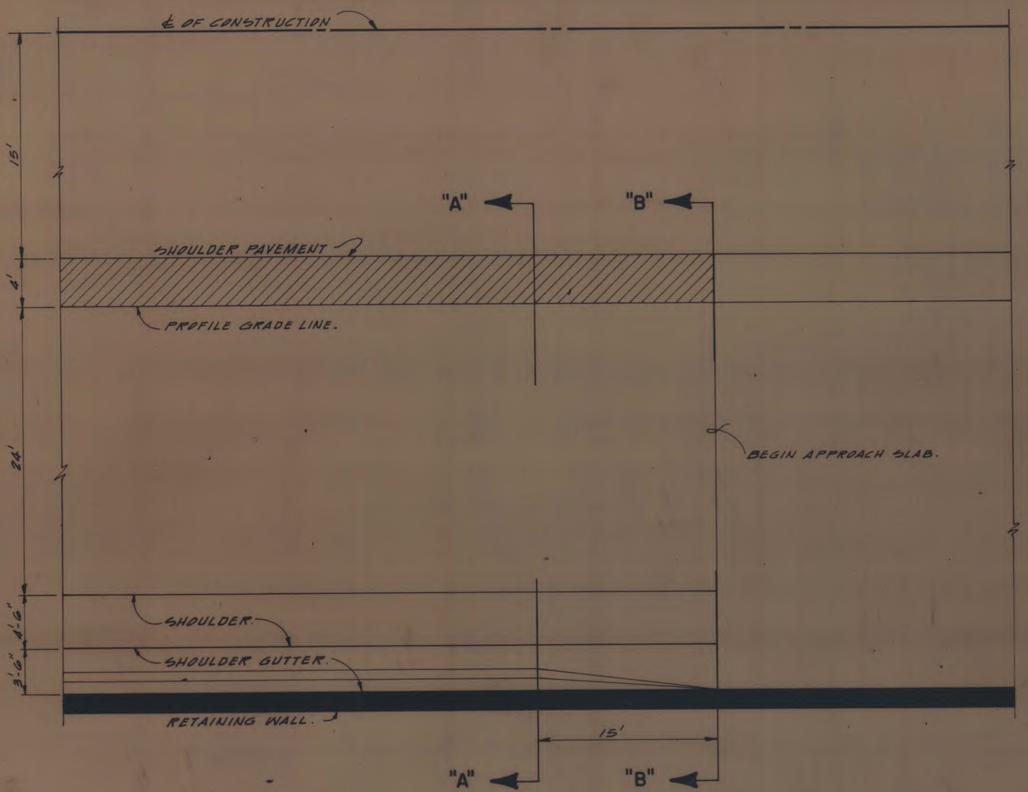
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.H. DATE 1973 | TRACED H.L. DATE 1973
CHECKED J.N.C. DATE 1973 | SCALE NOT TO SCALE

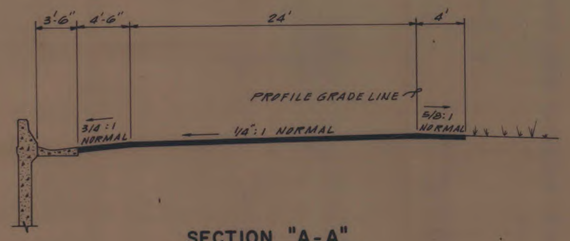
84/1

Contract No. 4.

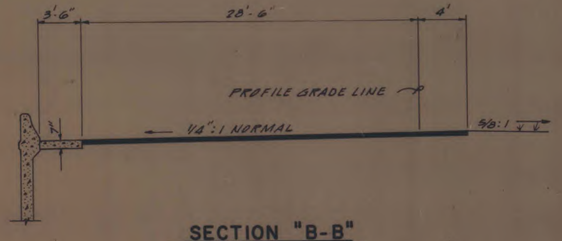
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		6
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1972



PLAN



SECTION "A-A"
RETAINING WALL.



SECTION "B-B"
APPROACH SLAB

15' TRANSITION — RETAINING WALL TO APPROACH SLAB



TRANSITION DETAIL
RETAINING WALL SECTION TO SHOULDER GUTTER SECTION.

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

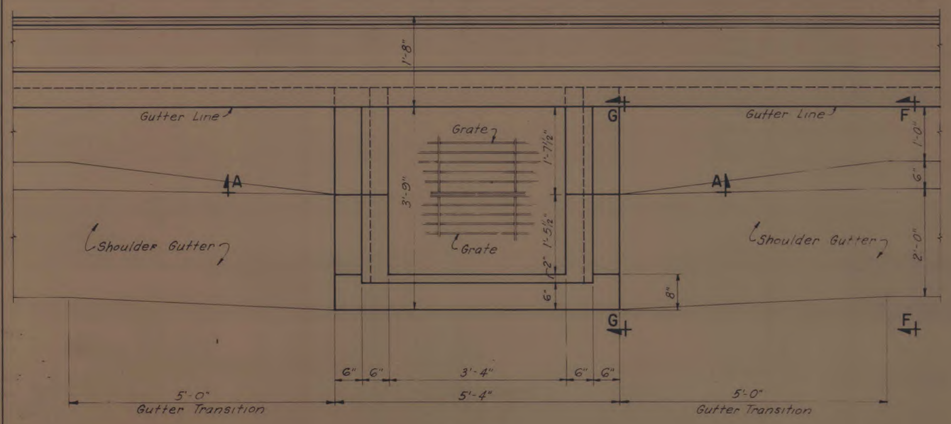
MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

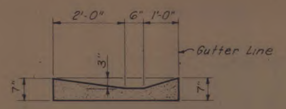
MADE J.L.H.	DATE 1973	TRACED E.U.	DATE 1973
CHECKED J.N.C.	DATE 1973	SCALE N.T.S.	84-1

Contract No. 4.

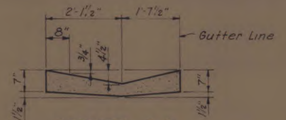
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		7
By JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973



PLAN

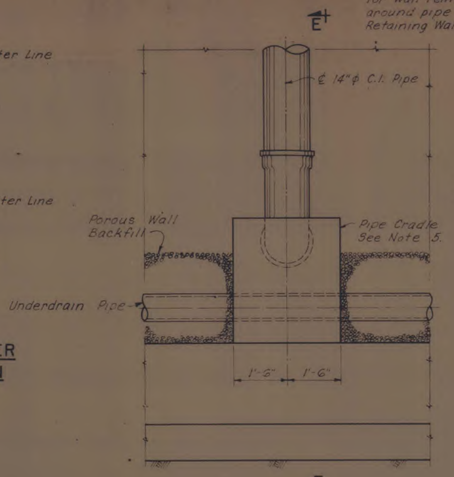


SECTION F-F

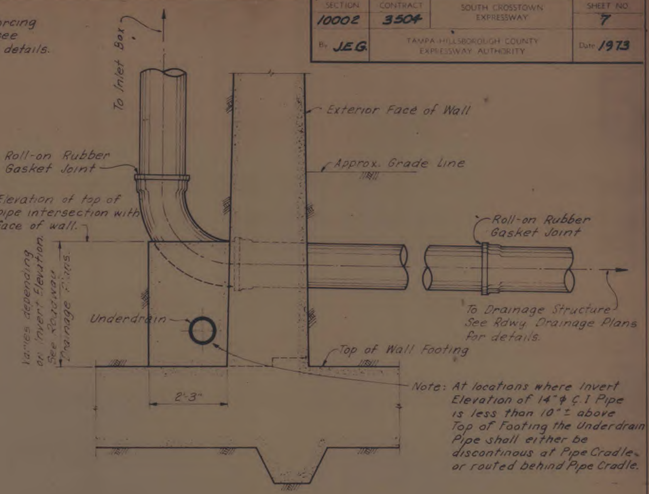


SECTION G-G

DETAILS OF SHOULDER GUTTER TRANSITION



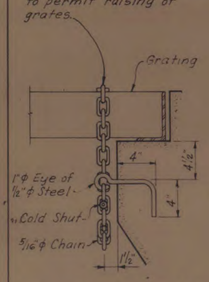
ELEVATION



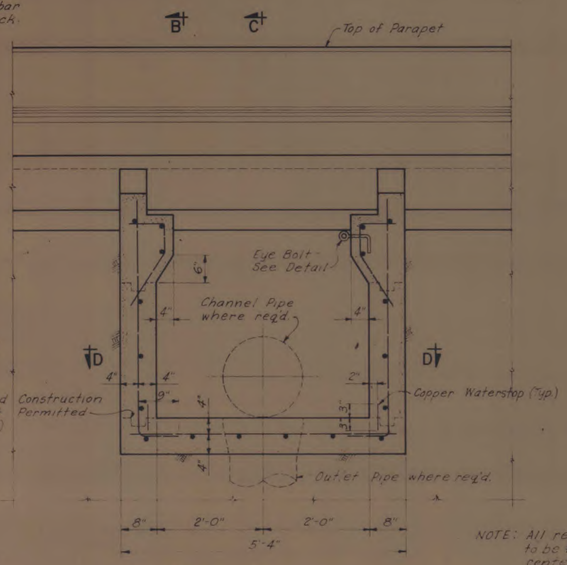
SECTION E-E

PIPE CRADLE DETAILS

Loop chain over one grate bar of each grate. Provide slack to permit raising of grates.

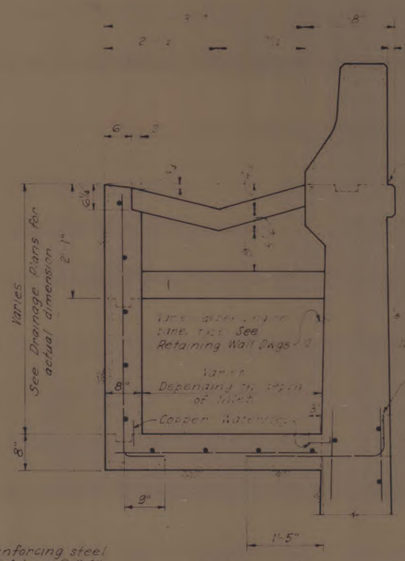


EYE BOLT AND CHAIN DETAIL FOR Ssecuring OF INLET GRATES

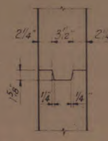


SECTION A-A

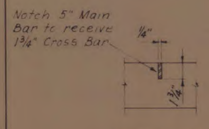
NOTE: All reinforcing steel to be #4 bars @ 1'-0" centers. See sections for leg dimensions.



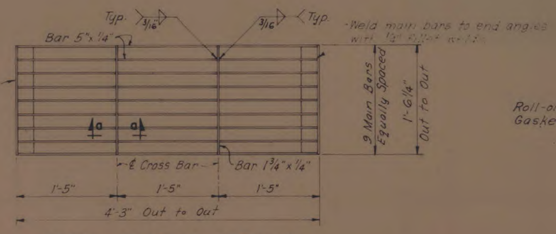
SECTION B-B



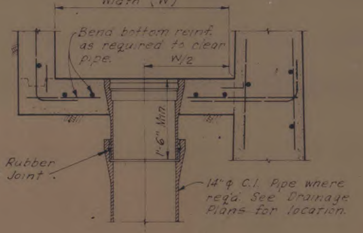
CONSTRUCTION JOINT KEY DETAIL



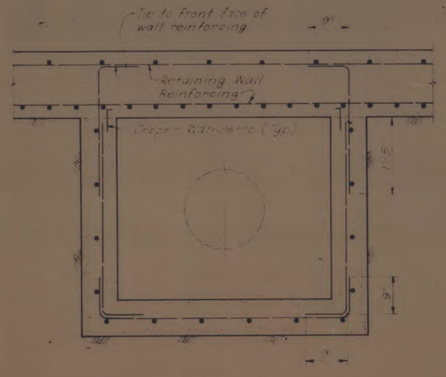
section a-a



STEEL GRATING DETAILS
(2 Required)



SECTION C-C



SECTION D-D

AS BUILT

APR 21 1976

NOTES

1. Concrete for Box to be Class II
2. All reinforcing to have a minimum of 2" concrete cover unless otherwise noted.
3. Copper waterstop shall be continuous 24 oz. copper strip, 9" wide.
4. All items necessary for the completion of each box, including grates and reinforcing embedded in retaining walls, etc., shall be included in the Contract Unit Price bid for each inlet.
5. Pipe Cradle to be Class I Concrete accurately shaped so as to fit contour of pipe surface, extending as shown from top of pipe intersection with face of wall to top of footing.
6. All exposed edges to be tooled to ¼" radius.

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

DRAINAGE DETAILS
INLET, TYPE BW

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

DESIGNED	R.M.W.	DATE 10-72	TRACED	R.M.W.	DATE 10-72
CHECKED	L.H.S.	DATE 10-72	SCALE	None	

STANDARD DRAWING NO. 21

84
1

Contract No. 4.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		8
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973

SUMMARY OF ROADWAY QUANTITIES

ITEM NO.	ITEM	ASBUILT QUANTITY	UNIT	QUANTITY	
101-1	Mobilization	1	Lump Sum	1	
102-1	Maintenance Of Traffic	1	Lump Sum	1	
102-4	Calcium Chloride For Dust Control	0	Ton	24	
104-1	Artificial Coverings	0	Sq.Yd.	778	
104-2	Mulching (Temporary)	0	Sq.Yd.	3889	
104-3	Sodding (Temporary)	2277	Sq.Yd.	3,889	
104-4	Mowing	0	Acre	4	
104-5	Sandbagging	10	Cu.Yd.	20	
104-6	Slope Drains (Temporary)	0	Lin.Ft.	150	
110-1	Clearing and Grubbing	1	Lump Sum	1	
120-6	Embankment	274833	Cu.Yd.	274,833	◇
120-8	Final Dressing	1	Lump Sum	1	
160-4	Type B Stabilization	48,570	Sq.Yd.	48,712	◇
200-1-8	Limerock Base (5" Thick)		Sq.Yd.	5,433	◇
300-1-1A	Bituminous Material (Prime Coat)		Gal.	939	◇
Alt. A 300-1-3A	Bituminous Material (Tack Coat)		Gal.	250	◇
Alt. A 300-1-13A	Bituminous Material (Plant Mix) (A.C.20)	30,860	Gal.	~~8789~~ 23945	◇
331-1-1	Type S-I Asphaltic Concrete (1" Thick)		Sq.Yd.	6,262	◇
Alt. B 300-1-3B	Bituminous Material (Tack Coat)		Gal.	313	◇
335-1-61	Sand-Asphalt Hot Mix (5" Thick) (800 Lb Stability)	6284	S.Y.	5,433	◇
200-1-3	Limerock Base (10" Thick) [Double Course]	32,246	Sq.Yd.	31,492	◇
200-1-7	Limerock Base (9" Thick) [Double Course]	3,771	Sq.Yd.	3,608	
300-1-1H	Bituminous Material (Prime Coat)	4886	Gal.	5,258	◇
300-1-3H	Bituminous Material (Tack Coat)	502	Gal.	1,471	◇
300-1-13H	Bituminous Material (Plant Mix) (A.C.20)	90,537	Gal.	93,815	◇
331-1-5	Type S-I Asphaltic Concrete (2" Thick)	33,409	Sq.Yd.	33,173	◇
331-1-9	Type S-I Asphaltic Concrete (3" Thick)	3618	Sq.Yd.	3,608	
338-70-1	Asphaltic Concrete Wearing Course (1" Thick)	50,560	Sq.Yd.	39,443	◇
339-70	Miscellaneous Asphalt Pavement	249.8	Ton	231	
360-1	Concrete Approach Slabs	17	Each	17	
400-1-2	Class I Concrete (Endwalls)	17.71	Cu.Yd.	18	
415-1-1	Reinforcing Steel (Roadway)	1,089	Pound	1,089	
425-1-1	Inlets (Curb)	9	Each	9	
425-1-2	Inlets (Ditch Bottom)	7	Each	7	
425-1-3	Inlets (Special) [Retaining Wall]	18	Each	18	
430-1-22	Concrete Pipe Culvert (15") [Storm Sewer]	1,102	Lin.Ft.	983	◇
430-1-23	Concrete Pipe Culvert (18") [Storm Sewer]	788	Lin.Ft.	882	◇
Alt. C 430-2-22C	Corrugated Steel Pipe Culvert (15") [Gutter Drain]	138	Lin.Ft.	138	
Alt. D 430-8-22D	Corrugated Aluminum Pipe Culvert (15") [Gutter Drain]		Lin.Ft.	138	
300-1-13A	Bituminus Material plant Mix AC-20 (SA-2)	4042	Gal.		
331-32-9A	Type S-1 asphaltic Concrete (1" Thick)	2725	Sq.yds.		
430-15-6	Cast Iron Pipe Culvert (14") (Standard)	188	Lin.Ft.	188	◇
440-1-2	Underdrains (6")	0	Lin.Ft.	165	
520-1-1	Concrete Curb and Gutter (6" Curb, 1.5' Gutter)	1,327.5	Lin.Ft.	1,326	
520-2-4	Concrete Curb (Type D)	376.1	Lin.Ft.	380	
520-6	Concrete Shoulder Gutter	7344.2	Lin.Ft.	7,529	◇
522-1	Concrete Sidewalk, 4" Thick	1,120	Sq.Yd.	1,058	
524-1-1	Concrete Ditch Pavement (3" Thick)	1,403	Sq.Yd.	1,048	◇
536-1-1	Guardrail (Roadway)	5,555.5	Lin.Ft.	5,242	
536-6	End Anchorage Assemblies, Type II	14	Each	21	
550-2	Fencing, Type B	6,241.8	Lin.Ft.	6,018	
550-3-2	Corner Post Assemblies (Type B Fence)	27	Each	22	
550-4-2	Pull and End Post Assemblies (Type B Fence)	28	Each	21	
550-70-2	Fence Gates (Type B Fence)	7	Each	5	
570-2	Seeding and Mulching	44,316	Sq.Yd.	80,450	
570-3	Grass Seed (Permanent Type)	312	Pound	1,662	
570-4	Mulch Material	10.3	Ton	66	
570-5	Fertilizer	9.1	Ton	9	
570-9	Water For Grassing	85.4	M.Gals.	122	
570-10	Grass Seed (Quick-Growing Type)	274	Pound	249	
575-1	Sodding *	41,869	Sq.Yd.	13,417	
S.A.-3	Relocate Lighting Standard base on Retaining Wall (S.A.-3)	1	Lump Sum		
Alt. 715-1-1	Highway Lighting (Aluminum Poles)		Lump Sum	1	
Alt. 715-1-2	Highway Lighting (Galvanized Steel Poles)		Lump Sum	1	

SUMMARY OF GUARDRAIL

STATION TO STATION	RT. ROADWAY LT.	RT. ROADWAY RT.	LT. ROADWAY LT.	LT. ROADWAY RT.	TOTAL	ASBUILT QUANTITY
Sta. 211+95 To Sta. 213+15	237.5				237.5	210.6
Sta. 216+50 To Sta. 217+80				250.0	250.0	210.6
Sta. 219+90 To Sta. 221+10	200.0				200.0	210.6
Sta. 223+40 To Sta. 224+60				187.5	187.5	210.6
Sta. 228+05 To Sta. 233+00		500.0			500.0	500.3
Sta. 230+00 To Sta. 233+00			300.0		300.0	305.3
Sta. 236+60 To Sta. 237+75	175.0				175.0	210.6
Sta. 240+00 To Sta. 241+20				200.0	200.0	210.6
Sta. 240+83 To Sta. 246+00		517.0			517.0	522.4
Sta. 253+95 To Sta. 256+20				300.0	300.0	313.2
Sta. 254+50 To Sta. 256+90	300.0				300.0	—
Sta. 256+90 To Sta. 258+00	175.0				175.0	208.5
Sta. 257+65 To Sta. 258+50		62.5			62.5	64.4
Sta. 259+75 To Sta. 264+51			500.0		500.0	492.5
Sta. 260+30 To Sta. 261+68				175.0	175.0	128.5
Sta. 261+17 To Sta. 264+51		325.0			325.0	400.0
Sta. 260+30 To Sta. 265+10	335.0					335.6
Sta. 257+00 To Sta. 257+50			50			50.0
RAMP "B"						
Sta. 57+00 To Sta. 59+00		200.0			200.0	203.8
Inman St.						37.5
Bristol Ave.						37.5
RAMP "A"						
Sta. 159+52 To Sta. 162+50			300.0		300.0	344.3
Sta. 159+73 To Sta. 161+48			175.0		175.0	176.8
BARRICADES						
Azeele Street	12.5	37.5			50.0	—
Alley		12.5			12.5	12.5
Orleans Avenue		37.5			37.5	37.5
Alley		12.5			12.5	12.5
Dakota Avenue		50.0			50.0	51.9
Oregon Avenue					—	37.5
TOTAL					5,242.0	5555.5

GENERAL NOTES:

Item No. 102-1 to be accomplished in accordance with the State of Florida Manual on Traffic Control and Safe Pratices for Street and Highway Construction, Maintenance and Utility Operations.

Item No's. 104-1 through 104-6 are Estimated Quantities for Prevention, Control, and Abatement of Soil Erosion and Water Pollution. To be used at locations Designated By the Engineer.

NOTE:

1. For Bridge Items and Quantities, See Bridge Plans.
2. For Retaining Wall Items and Quantities, See Bridge Plans.
3. For Highway Sign Items and Quantities, See Roadway Signing Plans.
4. For Lighting Items, See Lighting Plans.
5. Guardrail Stations are approximately only and are to be adjusted in the field by the Engineer, if necessary.

Item No. 570-2 Includes 16,090 Sq.Yd's. for temporary grassing.
Item No. 570-3 Includes 332 Lb's. for temporary grassing.
Item No. 570-4 Includes 13 Tons for temporary grassing.
Item No. 570-5 Includes 2 Tons for temporary grassing.
Item No. 570-9 Includes 42 M.Gal for temporary grassing.
Item No. 570-10 Includes 50 Lb's. for temporary grassing.

6. Item No. 440-1-2 to be used as a contingency item, to be used if necessary, as directed by the engineer. ◇

SUMMARY OF SODDING

STATION TO STATION	LT.	MED.	RT.	TOTAL
Sta. 209+40 To Sta. 213+20		589		589
Sta. 223+50 To Sta. 237+00		2091		2091
Sta. 228+05 To Sta. 233+00			743	743
Sta. 230+00 To Sta. 233+00	258			258
Sta. 233+11 To Sta. 237+60		107		107
Sta. 240+83 To Sta. 246+00			1637	1637
Sta. 241+00 To Sta. 256+00		2323		2323
Sta. 252+50 To Sta. 257+22		105		105
Sta. 260+32 To Sta. 264+32		2310		2310
Sta. 261+21 To Sta. 264+32			1398	1398
Sta. 57+00 To Sta. 59+00 (Ramp "B")			678	678
Sta. 160+00 To Sta. 162+00 (Ramp "A")	1017			1017
Endwalls				161
Median				14,594
Left Side				12,666
Right Side				9745
Ramps				4,864
TOTAL				13417

TOTAL ASBUILT * 41,869 S.Y.

* Note, All ditch slopes of 2:1 and steeper and all areas which were subject to erosion were sodded. The material used to construct the embankment was a highly erodable sandy type soil and many suseptable areas including the median were sodded.

TABULATION OF CONCRETE DITCH PAVEMENT

STATION TO STATION	LT.	MED.	RT.	TOTAL
	388.1			
Sta. 242+00 TO Sta. 250+00	~~500~~	~~535.3~~ 335.3		388.1 ~~500~~ 535.3 ~~335~~ 335.3 ◇
Sta. 57+00 To Sta. 60+00 (Ramp "B")				335.3
Sta. 160+00 To Sta. 163+20 (Ramp "A")				330.5
Spillway Sta. 237+50				15.3
" " 257+00				12.5
" " 260+50				13.2
Structure D-6				33
" D-10				33
" D-13				33
" D-14				33
" D-21				33
" D-23				33
TOTAL Asbuilt				1402.0
TOTAL		* USE 1403		1048 ◇

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE
◇	Revised Qty. Items, Added Note 6.	M.F.	6/26/74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.N.C. DATE 1973 | TRACED E.A.J. DATE 1973
CHECKED J.N.C. DATE 1973 | SCALE —

84/1

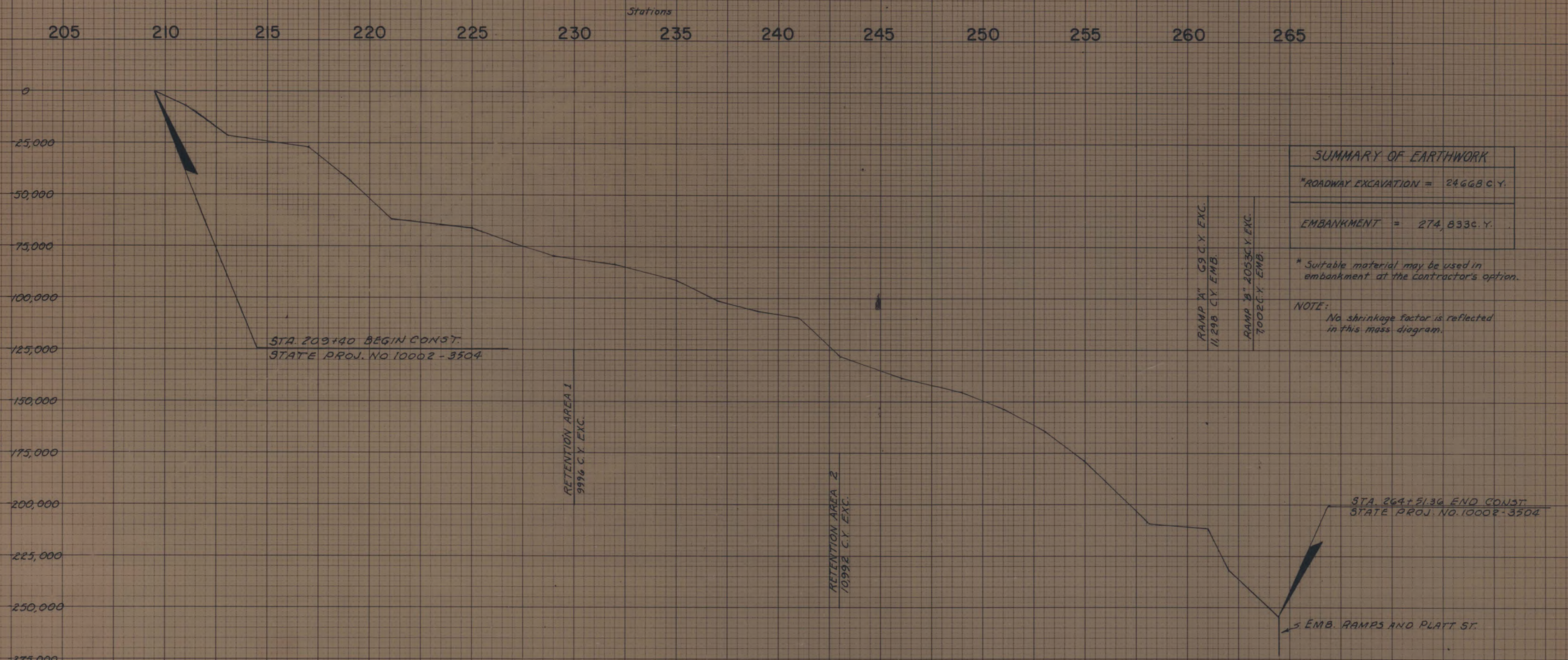
Contract No. 4.

NO	REVISION	BY	DATE
1	Revised Embankment Quantity	M.F.	6/20/73

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3504		9
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, TAPE & E, NOTE BOOK, AREAS, AREAS CHECKED — BY, DATE, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TAPE & E, NOTE BOOK, AREAS, AREAS CHECKED — BY, DATE, NO.



SUMMARY OF EARTHWORK

"ROADWAY EXCAVATION = 24668 C.Y.

EMBANKMENT = 274,833 C.Y.

* Suitable material may be used in embankment at the contractor's option.

NOTE:
No shrinkage factor is reflected in this mass diagram.

MASS DIAGRAM

This diagram is for the contractor's information only.

SCALE: 1" = 25,000 C.Y. VERTICAL
1" = 250' HORIZONTAL

AS BUILT
APR 21 1976

Contract No. 4

84/1

NO.	Revision	BY	Date
1	Added Note	MF	1-75

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		10
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

WATROUS AVE.

JETTON AVE.

MORRISON AVE.

HOWARD AVE.

SOUTHVIEW AVE.

S.C.L. R/W LINE

S.C.L. R.R.

EXISTING DITCH TO REMAIN

Constructed Conc. Ditch Pavt.

L.A. R/W LINE

CONST. RETAINING WALL

15' GUTTER TRANS.

CONSTRUCTION

CONST. 237.5 / 210.4 L.F. GUARDRAIL

CONST. APPR. SLABS SEE SHEET NO. 11 & 12

CONST. APPR. SLABS SEE SHEET NO. 12 & 16

CONST. 220 L.F. OF GUARDRAIL 210.4

2 BT. (200 & 100 PR.)

(TO BE MOVED BY OTHERS) BT. (300 PR.)

8" W.M.

12" W.M.

CONST. 4" CONC. S/W

BT

LINE "A"

N 38°42'27.0"E

N 38°42'27"E

STA. 213+54.68 BEGIN LT. BRIDGE

STA. 213+39.82 BEGIN RT. BRIDGE

STA. 216+28.02 END BRIDGES

BEG. BRIDGE STA. 221+13.60

BEGIN STATE JOB No. 10002-3504
STA. 209+40
END STATE JOB 10002-3503

210 215 220

D-4 D-5 D-6 D-7 D-8 D-10

① NOTE: Construct the top 1" of 3" bituminous Surface On Howard & Watrous Avenue Sta. 1+80 to Sta 5+50 Watrous Ave Sta. 21+57 To Sta. 25+77.34 Howard Avenue

Approximate Quantity:
Bituminous Material Plant Mix AC-20 2166 Gal. Type S-1 Asphaltic Concrete 1" 1460 Sq. Yds.

B.M. No. 41-A
99' Rt. Sta. 211+00
Nail in Tel. Pole
Elev. 21.86

B.M. No. 40-A
86' Rt. Sta. 214+36
Sq. cut in Curb
S.W. Cor. Howard Ave. & Watrous Ave.
Elev. 21.94

B.M. No. 40-B
107' Lt. Sta. 216+30
Sq. Cut in Curb on
S.E. Cor. Howard Ave. & Jetton Ave.
Elev. 21.95

B.M. No. 39-A
Nail in Tel. Pole
N. Side Morrison Ave.
100' W. of Survey Line.
Elev. 24.77

SCALE: 1" = 50

GENERAL NOTES

1. Grades shown are finished grades.
2. B.M. Datum U.S.C.&G.S.
3. Except for City of Tampa Water and Sewer Lines, all Utilities are to be adjusted by others as directed by the Engineer.
4. The location of the utilities shown in the plans are approximate only; the exact locations shall be determined by Contractor during construction.
5. For utility symbols See index No. 195.

UTILITY OWNERS

1. Tampa Electric Co.
2. Peoples Gas System
3. General Telephone Co.
4. City of Tampa Water Dept.
5. City of Tampa Sanitary Sewer Dept
6. Western Union

P.V.I. (+50) ELEV. 44.50

+3.0000%

+0.2500%

+0.2500%

-2.4000%

+0.20%

+0.25%

+0.50%

+60 D.P.I. EL. 43.66

P.I. +50 EL. 44.70

P.I. 40.20 EL. 45.08

P.V.I. (+50) ELEV. 46.50

SPEC. MED. DITCH

Spec. Gutter Profile Lt.

M.D.P.I. +50 EL. 44.08

Spec. Med. Ditch

M.D.P.I. +30 EL. 44.41

PROFILE GRADE

273.34' BRIDGE LT ~ 288.20' BRIDGE RT.

P.V.C. (+00) ELEV. 37.00

P.V.T. (+00) ELEV. 45.13

P.V.C. (+50) ELEV. 46.00

500' V.C.

400' V.C.

27.09 27.62 28.45 29.53 P.V.T. +86.67 EL. 30.20 EL. 32.20

38.43 39.72 40.88 41.90 42.78 43.53 44.13 44.60 44.93

46.24 45.92 45.63 45.17 44.55

Exist Ground @ ℄ Const.

SOD MEDIAN DITCH

CONST. STD. MED. DITCH 1.5' BELOW SHOULDER

10' MED. DITCH TRANSITION

CONST. MED. DITCH 0.57' BELOW SHOULDER

CONST. STD. MED. DITCH 1.5' BELOW SHOULDER

AS BUILT
APR 21 1975

50 45 40 35 30 25 20 15

7 8 9 210 11 12 13 14 215 16 17 18 19 220 21 22

Contract No. 4.

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		11
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

CURVE NO 1 DATA

P.I. STA. 236+72.16
Δ = 3°00'25.2" LT.
D = 00°29'56.1"
T = 301.43'
L = 602.72'
R = 11,484.19'
P.C. STA. 233+70.73
P.T. STA. 239+73.45
e = R.C.

BRISTOL AVE.
S. ALBANY AVE.
CONST. FENCE (TYPE 'B')
RETENTION AREA FOR DETAILS SEE SHEET NO. 10 D.H.W. 19.9
END BRIDGE STA. 223+35.27
S.C.L. R/W LINE
CONST. APPR. SLABS SEE SHEET NO. 16
S.C.L. R.R.
225
Constructed Conc. Ditch Pavt.
LINE "A"
STA. 230+00 END RET. WALL LT.
EXIST. PUMPING STATION CONST. FENCE (TYPE 'B')
N 38°42'27.0"E
230
15'x30" C
235
EXISTING DITCH TO REMAIN
15' GUTTER TRANS.
CONST. RETAINING WALL
CONST. 10' GATE
L.A. R/W LINE
CONST. TYPE 'B' FENCE
CONST. 210± L.F. GUARDRAIL
50' SHOULDER TRANS.
CONST. 305 L.F. GUARDRAIL
CONST. GUARDRAIL
CURVE NO 1
℄ OF CONST.
STA. 233+00
CONST. 500 L.F. GUARDRAIL
BEG. RET. WALL LT. & RT.
BT (200 & 300 PR)
STA. 228+05 END RET. WALL BT.
CONSTRUCTED 313± L.F. GUARDRAIL
CONST. TYPE 'B' FENCE
TO BE MOVED BY OTHERS
CONSTRUCTED 378± L.F. GUARDRAIL
MORRISON AVE.
S. ALBANY AVE.
BRUCE ST.
FREMONT ST.
INMAN AVE.
D-11 D-12 D-13 D-14 D-15 D-16 D-17 D-18 D-19 D-20 D-21 D-22 D-23

SCALE 1"=50'

B.M. NO. 39 B
SQ. CUT IN SQ. CURB
ON MORRISON AVE.
120' E. OF SURVEY LINE
ELEV. = 22.843

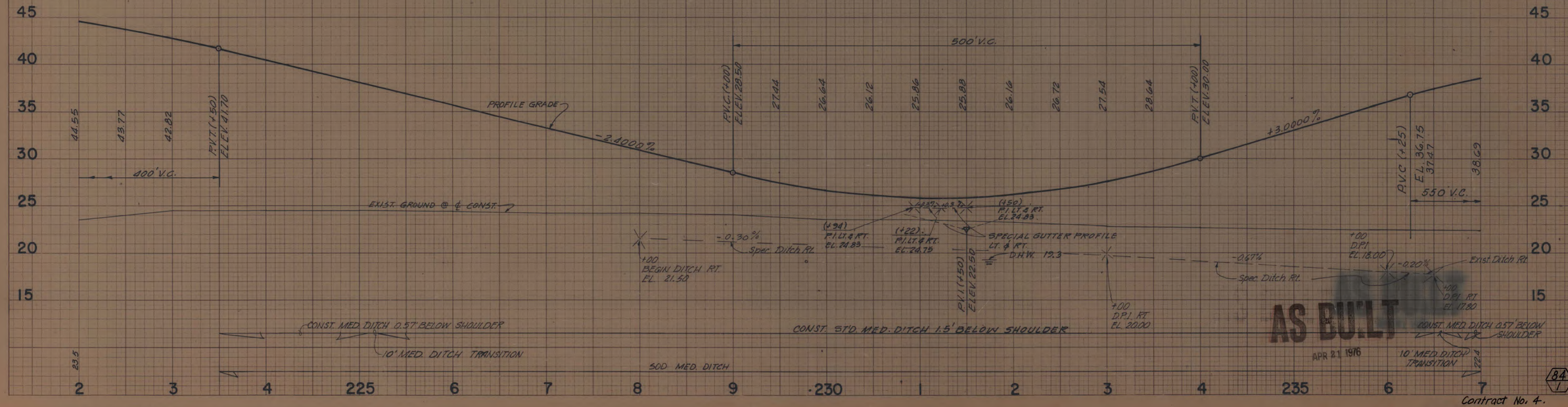
① NOTE: Construct the top 1" of S" bituminous surface on Morrison Avenue. Sta. 8+60 To Sta. 11+50 Lt.
Approximate Quantity: Sta. 8+30 To Sta. 11+50 Rt.

Bituminous Material: Plant Mix AC 20	309	Gal.
Type S-1 Asphaltic Concrete	613	Sq. Yd.

B.M. NO. 38 A
98' LT. STA. 227+52
SQ. CUT ON END OF CURB
E. SIDE ALBANY AVE
& BRISTOL AVE
ELEV. 22.557

B.M. NO. 37 A
134' RT. STA. 234+08
R.R. SPIKE IN BASE OF 30" OAK
S.W. COR. FREMONT & INMAN ST.
ELEV. 21.016

NO	REVISION	BY	Date
1	Added Note	MK	1-76



AS BUILT
APR 21 1976

KAE CO. ORLANDO, FLA. UNDER STOCK 2024R

84/1

Contract No. 4.

NO.	REVISION	BY	DATE
1	REVISED LINE "H"	J.N.C.	2-4-74
2	Revised ditch Lt.	J.N.C.	7-29-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		12
By: WACO		TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

SWANN AVE. — FREMONT AVE. — DELEON ST. — PACKWOOD AVE. — HORATIO — ROME AVE. — DAKOTA STREET — ROME AVE. — PACKWOOD AVE.

CURVE NO. 1 DATA
P.I. Sta. 236+72.16
Δ = 3°00'25.2" LT.
D = 0°29'56"
R = 11,484.19'
L = 602.71'
T = 301.48'
P.C. Sta. 233+70.73
P.T. Sta. 239+73.44
a = R.C.

STA. 42+00.00 LINE "H"
STA. 242+00.00 LINE "A"
P.I. NO. 10 Frog Angle
Const. NO. 10 Turnout

STA. 50+01.24 LINE "H"
STA. 250+00.00 LINE "A"
P.I. NO. 10 FROG ANGLE
CONST. NO. 10 TURNOUT

EXISTING DITCH TO REMAIN
S.C.L. R/W Line
36" Conc. Casing
15' GUTTER TRANS.
CONST. APPR. SLABS SEE SHEET NO. 78182
CONST. 125' OF GUARDRAIL
CONST. CONC. RAILWAY (INDEX NO. 500)
CURVE NO. 1
CONST. APPR. SLABS SEE SHEET NO. 79&81
CONST. 202 L.F. GUARDRAIL (INDEX NO. 2300R)
CONST. RETAINING WALL
LINE "A"
LINE "H"
388 S.Y. BY FIELD MEASUREMENTS
Const. 5005 S.Y. of 8" Conc. ditch Pavement
Curve 17
Curve 18
N 35°42'01.8" E
℄ OF CONSTRUCTION
50' SHOULDER TRANS.
2 BT (200 & 100 PR)
TO BE MOVED BY OTHERS
230' TAPER
END RETAINING WALL STA. 240+82.54
CONST. 522 L.F. GUARDRAIL 522.4'
CONST. RETAINING WALL
L.A. R/W LINE
24" Steel Casing
BT (600 PR)
STA. 237+81.67 BEGIN BRIDGE
STA. 240+00.17 END BRIDGE
RETENTION AREA FOR DETAILS, SEE SHEET NO. 70
CONST. TYPE "B" FENCE
RT. STA. 246+00 BEGIN RETAINING WALL
6' W.M.
6 Way Duct
STA. 249+43.51 BEGIN TAPER

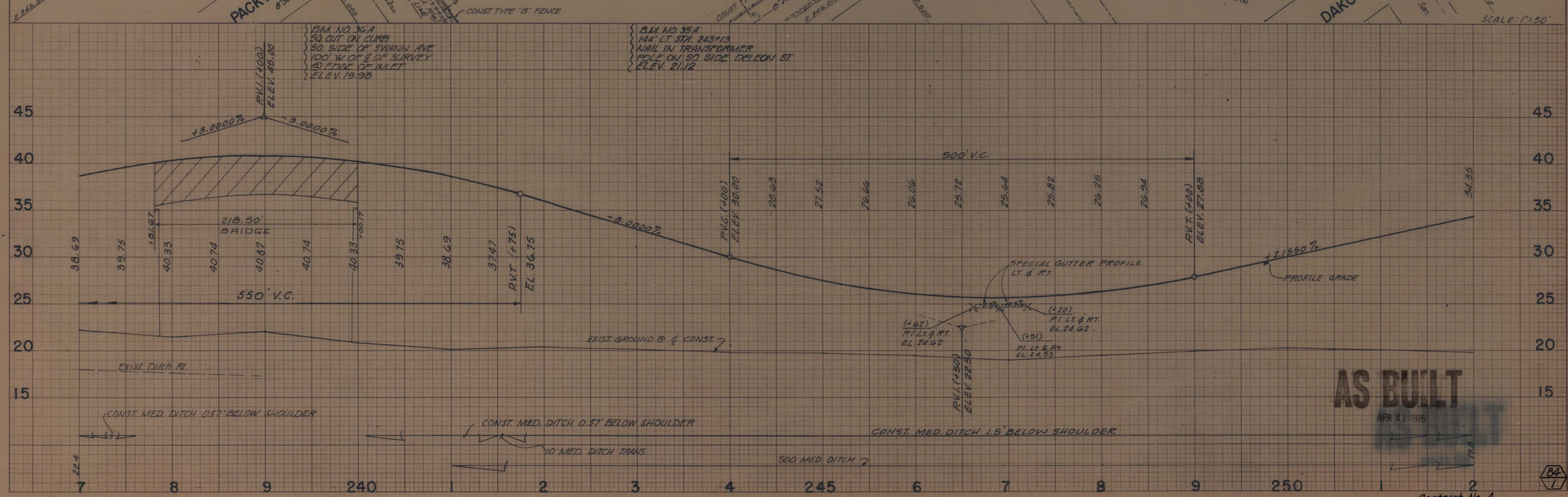
LINE "H" CURVE NO. 17
P.I. STA. 43+50.38
Δ = 5°43'29"
D = 6°00'00"
T = 47.77'
L = 95.41'
R = 955.37'
P.C. STA. 43+02.61
P.T. STA. 43+98.02

LINE "H" CURVE NO. 18
P.I. STA. 48+50.99
Δ = 5°43'29"
D = 6°00'00"
R = 955.37'
L = 95.41'
T = 47.77'
P.C. STA. 48+03.22
P.T. STA. 48+98.63

B.M. NO. 36A
30 CUT ON CURB
30' SIDE OF SWANN AVE.
100' W. OF ℄ OF SURVEY
@ EDGE OF INL. PT.
ELEV. 19.98

B.M. NO. 35A
144' LT. STA. 243+13.
NAIL IN TRANSFORMER
POLE ON SO. SIDE DELEON ST.
ELEV. 21.12

SCALE: 1"=50'



AS BUILT
APR 21 1976

84/1

Contract No. 4

K&E CO. ORLANDO, FLA. ORDER STOCK 20248

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		13
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973

CURVE NO. 2 DATA
P.I. STA. 263+06.95
Δ = 55°11'35.2" RT.
D = 4°00'00"
T = 748.72'
L = 1,379.82'
R = 1,432.39'
P.C. STA. 255+58.23
P.T. STA. 269+38.05
e = 0.08%

CURVE NO. 3 DATA
P.I. STA. 160+97.99
Δ = 19°00'00"
D = 10°00'00"
T = 95.88'
L = 190.00'
R = 572.96'
P.C. STA. 160+02.11
P.T. STA. 161+92.11
e = 0.06%

CURVE NO. 4 DATA
P.I. STA. 56+15.81
Δ = 38°20'39.8" RT.
D = 14°00'00"
T = 142.30'
L = 273.89'
R = 409.26'
P.C. STA. 54+73.51
P.T. STA. 57+47.40
e = 0.10%

NOTES:
1. TOLL PLAZA SITE WORK TO BE COMPLETED WITHIN 90 DAYS AFTER NOTICE TO PROCEED.
2. WILLOW AVE. AND 12'x5' BOX CULVERT TO BE BUILT UNDER CONTRACT NO. 10002-3505

STA. 266+44.54 & CONST. = STA. 22+00.00 & WILLOW AVE.

NOTE:
FOR INTERCHANGE DETAILS SEE SHT. NOS. 16-21

STA. 264+51.36
END STATE JOB NO. 10002-3504
BEG. STATE JOB NO. 10002-3505

STA. 164+19.99 & "B" = STA. 17+84.88 PLATT & STA. 75+24.00 WILLOW.

CONSTRUCTED 5' L.F. OF 6' WIDE x 4" THICK SIDEWALK

B.M. NO. 33-A
Sq. Cut on Curb on S. Side of Platt St. 42 E. of Oregon St.
Elev. 20.44

B.M. NO. 33-A
100' Lt. of Sta. 255+96
50' on S.W. cor. of Gas Pump Base on E. Side of Dakota Ave.
Elev. 21.06

NOTE: Construct the top 1.0' of 3" bituminous surface on Platt Street, Sta. 254+40 to approximate station: Sta. 257+60

Bituminous Material Plant Mix AC-20 367 Cal.
Type SP Asphaltic Concrete 652 Sq. Yds.

NO	Revision	BY	DATE
1	Revised Title "A"		
2	Revised Ramp "C" & Wall Note	MF	6/20/74
3	Sheet Note	MF	7-15-76

AS BUILT
SEPT. 21, 1976

SCALE: 1" = 50'

Contract No. 4.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		14
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 11-73

NOTE:
CONST. 4" CONC. SIDEWALK NORTH SIDE OF PLATT ST FROM STA. 9+47 TO WILLOW AVE.

1-Story C.B. Building

N 35° 42' 10" E

T.R. SURVEY ℄

8" W.M. (TO BE CLOSED)

AVE.

13 K.V. Elect. U.G. DUCTS — 2-8" PVC & 1-6" PVC

8" San. (TO BE CLOSED)

Sign

CONST 4" CONC. S/W

1W 3W 1W

8" W.M. (TO BE ABANDONED)

2" W.M. (TO BE ABANDONED)

AVE. (TO BE CLOSED)

2" W.M. (TO BE ABANDONED)

(TO BE CLOSED)

10 11 12 13 14 15 16

55° 15' 06"

30'

24'

S 88° 59' 59" E

℄ SURVEY AND ℄ CONSTRUCTION

PLATT STREET

12" W.M.

30" S.S.

STA. 10+60 BEGIN CONST. PLATT STREET

8" W.M. (TO BE ABANDONED)

OREGON AVE.

8" San. (TO BE CLOSED)

STA. 259+10.80 - ℄ CONST. = STA. 10+82.92 - PLATT ST. ℄

1-Story C.B. Building

8" San. (TO BE CLOSED)

E-2

E-3

E-7

2" W.M.

ORLEANS AVE.

8" San.

RAMP "B"

1-Story Frame Building

(TO BE CLOSED)

SCALE 1" = 20'

PLATT STREET

22 20 18 16 14 12 10 8

EL 20.28

PROFILE GRADE

Existing Grade Along ℄

0.20000%

0.463%

100' GUTTER PI (EL 19.58)

SPECIAL GUTTER PROFILE RT

190' GUTTER PI EL 19.13

2" W.M.

+@20%

100' GUTTER PI EL 19.01

EXIST. 12" W.M.

8" W.M. (TO BE ABANDONED)

EXIST 15" OF 18" CONC. PIPE ENCASEMENT

Tel (TO BE ABANDONED)

13 KV Elect (TO BE ABANDONED)

Tel (TO BE ABANDONED)

Tel (TO BE ABANDONED)

E-2

E-3

30"

100' V.C.

AS CULT

SEP 6 1974

Contract No. 4.

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3504		15
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 11-73

1 Story C.B. Building (Business)

+30.24 CONC. S/W

CONC. CURB & GUTTER

WILLOW AVE. TO BE CONSTRUCTED UNDER CONTRACT NO 10002-3505

LIMITS OF CONSTRUCTION

6" W.M.

1 Story Metal Frame (Business)

AVE.

S 00°32'38"W

8'T.

2'x 5' Box

RAMP "C" (To Be Built Under Contract No. 10002-3505)

R/W LINE

2" W.M.

30

36" S.S.

Double 7'x 5.4' Box

24'

15'

16

℄ SURVEY & ℄ CONSTRUCTION

17

89°32'31"

18

19

20

21

16" San.

PLATT STREET

S 88°59'53"E

64

12" W.M.

6'

8'8"

RAMP "B"

2 Story Brick Building (Business)

E-4

Tavern

STA. 17+34.88 PLATT ST.
STA. 25+24.00 WILLOW AVE.
STA. 64+49.99 ℄

2 - Story Brick Building (Business)

12" San.

NEWPORT

1 - Story C.B. Bldg.

FOR INTERSECTION DETAILS SEE SHEET NO. ____

26

8'SCD

WILLOW

4" G.M.

SCALE: 1"=20'

PLATT STREET

19.24

PROFILE GRADE

+0.55%

END CONST. STA 17+13.88 EL 18.57

Existing Grade Along ℄

Existing 12" W.M.

6" W.M.

4" G.M.

E-4

30°

36"

Double 7'x 5.4' Box

19.15 | 18.97 | 18.63 | 18.48 | 18.44

+50 | +50

20 18 16 14 12 10 8

16 17 18 19 20 21

AS BUILT

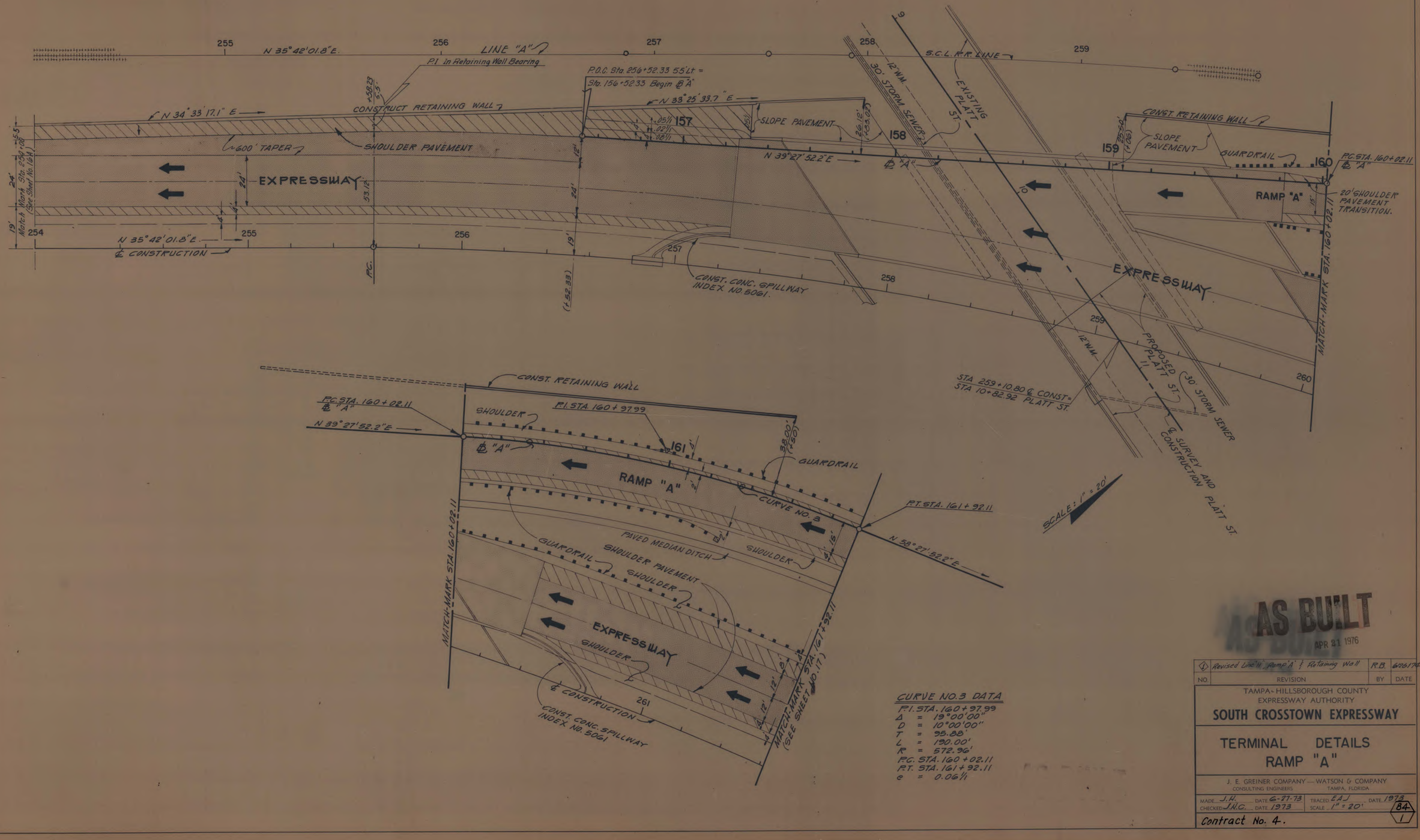
APR 21 1976

Contract No. 4.

84

K&E CO. ORLANDO, FLA. UNDER STOCK 20218

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		16
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973



AS BUILT
APR 21 1976

CURVE NO. 3 DATA

P.I. STA. 160+97.99
Δ = 19°00'00"
D = 10°00'00"
T = 95.88'
L = 190.00'
R = 572.96'
P.C. STA. 160+02.11
P.T. STA. 161+92.11
e = 0.06'/'

NO.	REVISION	BY	DATE
1	Revised Line "A", Ramp "A" & Retaining Wall	R.B.	6/26/74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "A"

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

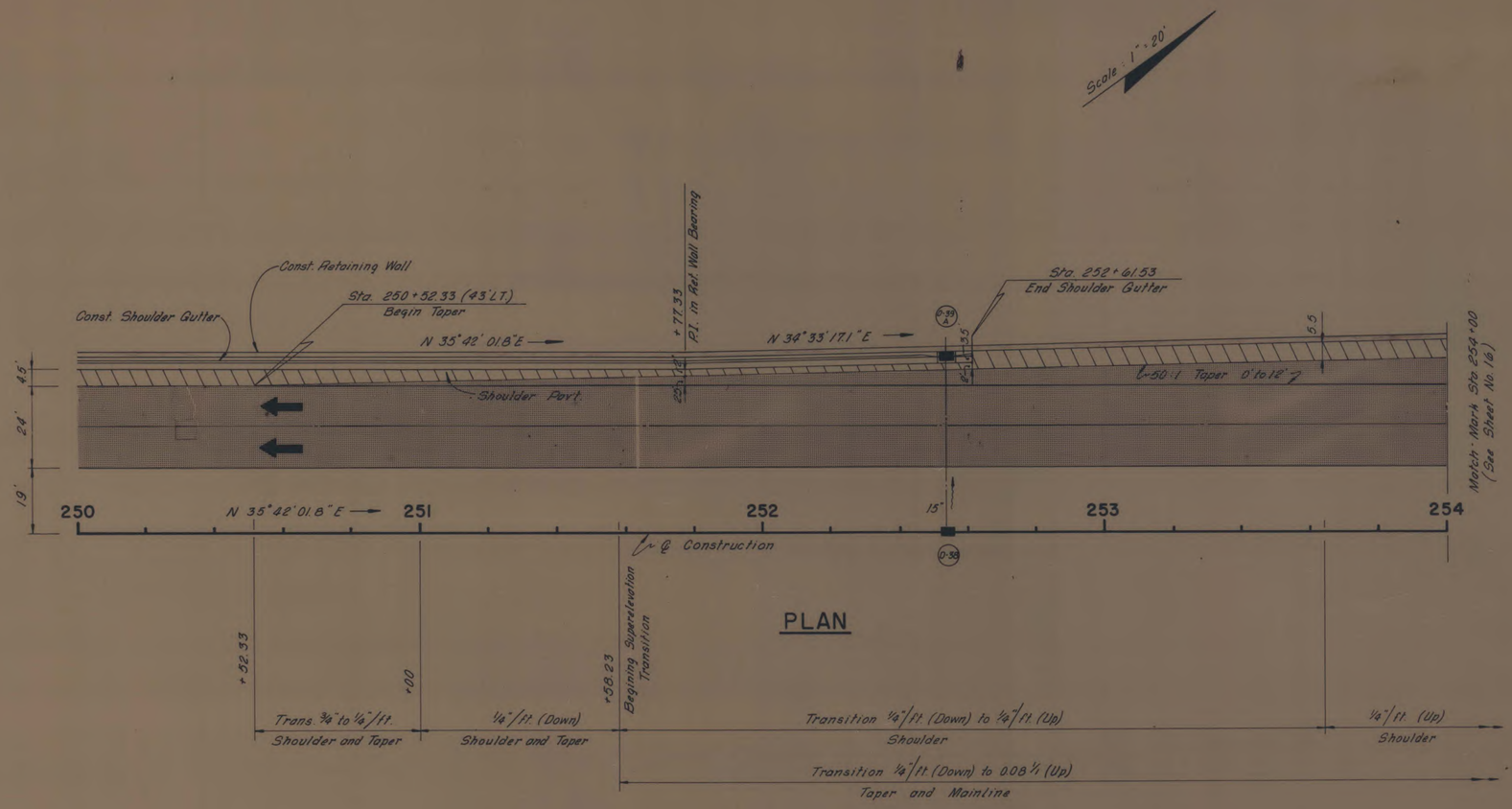
MADE J.H. DATE 6-27-73 | TRACED E.A.J. DATE 1973
CHECKED J.N.C. DATE 1973 | SCALE 1" = 20'

84/1

Contract No. 4.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		16 A
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 7-8-74

Scale: 1" = 20'



PLAN

CROSS SLOPE TRANSITIONS

AS BUILT
APR 21 1976

NO	REVISION	BY	DATE
1	Added Sheet 16 A to Plans	J.N.C.	7-8-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS
RAMP "A"

J. E. GREINER COMPANY — WATSON G COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE J.N.C. DATE 7-8-74 | TRACED W.A. DATE 7-8-74
CHECKED J.N.C. DATE 7-8-74 | SCALE 1" = 20'

Contract No. 4.

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		17
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973

SCALE 1"=20'

124 CLEVELAND 125 126 STREET

S 89°06'23"E

STA. 7+71.37 ℄ A. =
STA. 12G+38.81 Cleveland St.
STA. 20+00 WILLOW AVE

DROP CURB

L.A. R/W LINE

CONST. TYPE "B" FENCE

EXIST. D.B.I.

PARKING AREA 75'

STA 166+00 END ℄ A

TO BE CONSTRUCTED UNDER CONTRACT NO. 10002-3505

STA 166+00 END RAMP CONSTRUCTION

TOLL PLAZA (by others)

STA 6+00 BEG. ℄ A

EXIST. 7°5 B.C.

CONNECT TO EXIST. PAVT.

N 56°27'52.2"E

32°25'44.8"

32°25'45"

D.B.I.

TO BE BUILT UNDER CONTRACT NO. 10002-3505

WILLOW AVENUE

TO BE REMOVED UNDER CONTRACT NO. 10002-3505

12'x5' BOX CULVERT (TO BE CONSTRUCTED UNDER CONTRACT NO. 10002-3505)

STA. 266+44.54 ℄ CONST. = STA. 22+00.00 ℄ WILLOW AVE.

℄ A

SECTION B-B
STA 165+50

CONCRETE PAVEMENT AND CURBS BY OTHERS

PARKING AREA
LIMEROCK BASE (9" THICK, DOUBLE COURSE)
PRIMED WITH TYPE 5-1 ASPHALTIC CONCRETE
(3" THICK, DOUBLE COURSE, BOTTOM LAYER 1½" THICK - TOP LAYER 1½" THICK)

EXISTING GROUND

TOP OF 12" STABILIZATION

STABILIZE TO MIN. L.B.R. OF 40

PAVING EXCEPTION
100'
CONCRETE PAVEMENT AND CURBS BY OTHERS

NOTE:
TOLL PLAZA SITE WORK TO BE COMPLETED WITHIN 120 DAYS AFTER ACQUISITION OF PROPERTY TO PERMIT TOLL PLAZA CONSTRUCTION TO COMMENCE.

RAMP "A"

CONST. 6" CURB, 1.5' GUTTER

20' Shoulder Pav't Trans.
+20
BEG. CURB & GUTTER

Shoulder Pav't

Shoulder Line

PAVED MED. DITCH

END GUARDRAIL

GUARDRAIL

SHOULDER LINE

SHOULDER PAVEMENT

℄ CONSTRUCTION

STA 264+51.36
END STATE JOB NO. 10002-3504
BEGIN STATE JOB NO. 10002-3505

P.T. STA. 161+92.11

N 58°27'52.2"E

MATCH MARK STA. 161+92.11

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS
RAMP "A"

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE J.L.H. DATE 6-73 | TRACED R.B. DATE 6-73
CHECKED J.N.C. DATE 6-73 | SCALE 1"=20'

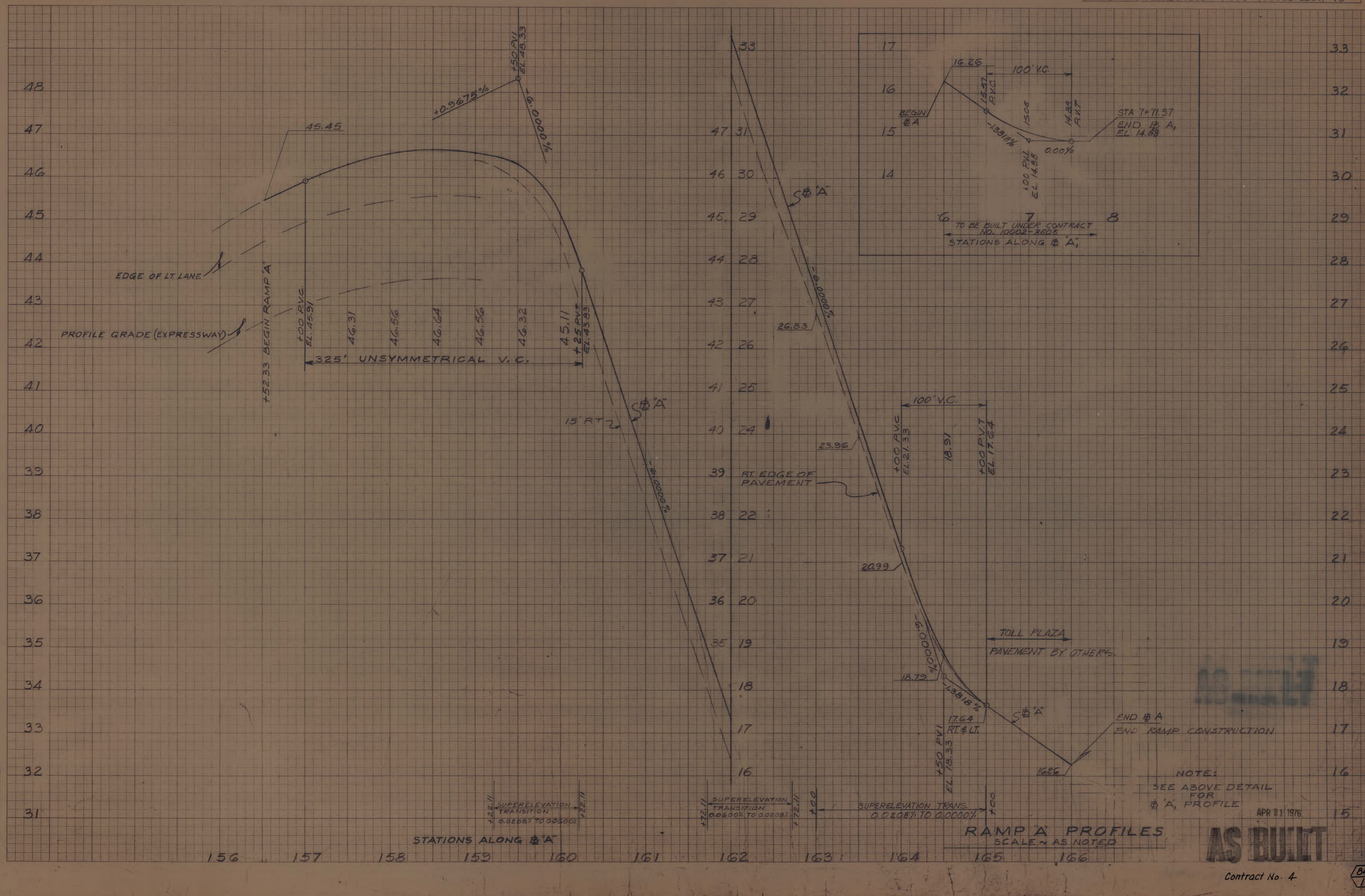
Contract No. 4

84

CROSS SECTIONS

Scale 1 inch = 5 feet

Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002-3504	18



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finale Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

Contract No. 4

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		19
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973

SCALE-1"=20'

STA. 249+43.51 BEGIN TAPER

STA. 251+73.51 END TAPER

STA. 254+73.51

P.C. CURVE No. 2

250 N35°42'01.8"E 251 ℄ CONST. 255 256 257 258

A

19' SHOULDER

19' SHOULDER PAVEMENT

2.4' EXPRESSWAY

12' CONST. SHOULDER GUTTER

3.5' 4.5' 2' 191.43 CONST. RETAINING WALL

4.4' 42.25 40.32 +17.46 SHOULDER PAVEMENT CURVE No. 2

55 CURVE No. 4 37.20 56 +12.18 38.80 SOD GORE AREA SHOULDER PAVEMENT SHOULDER CONST. GUARD RAIL

+00 BEG. PAVED DITCH

P.C. STA. 54+73.51 BEGIN ℄ "B"

A

57 +12.18 57+00 END RET. WALL CONST. GUARDRAIL RAMP "B" SHD. LINE

P.T. STA. 57+47.40 MATCH LINE

16' P.T. STA. 57+47.40 MATCH LINE BEGIN TAPER

58 CONST. SHOULDER GUTTER CONST. GUARDRAIL PAVED DITCH SHOULDER

59 (E1) SHOULDER PAVEMENT N74°02'41.6"E ℄ "B" 60 100 END GUARDRAIL 20' SHOULDER TRANS. SHOULDER

MATCH LINE STA 60+00 SEE SHEET NO. 20

CURVE NO. 4 DATA

P.I. STA. 56+15.81
Δ = 38°20'39.8" RT.
D = 14°00'00"
T = 142.30
L = 273.89
R = 409.26
P.C. STA. = 54+73.51
P.T. STA. = 57+47.40
e = 0.10%

AS BUILT

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "B"

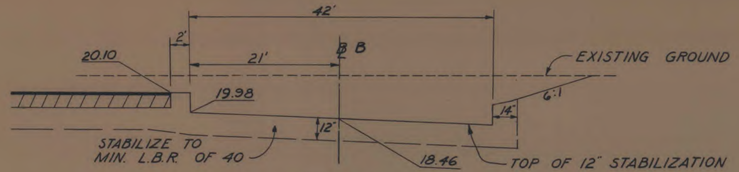
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 6-73 TRACED R.B. DATE 6-73
CHECK J.C. DATE 7-73 SCALE 1"=20'

84/1

Contract No. 4.

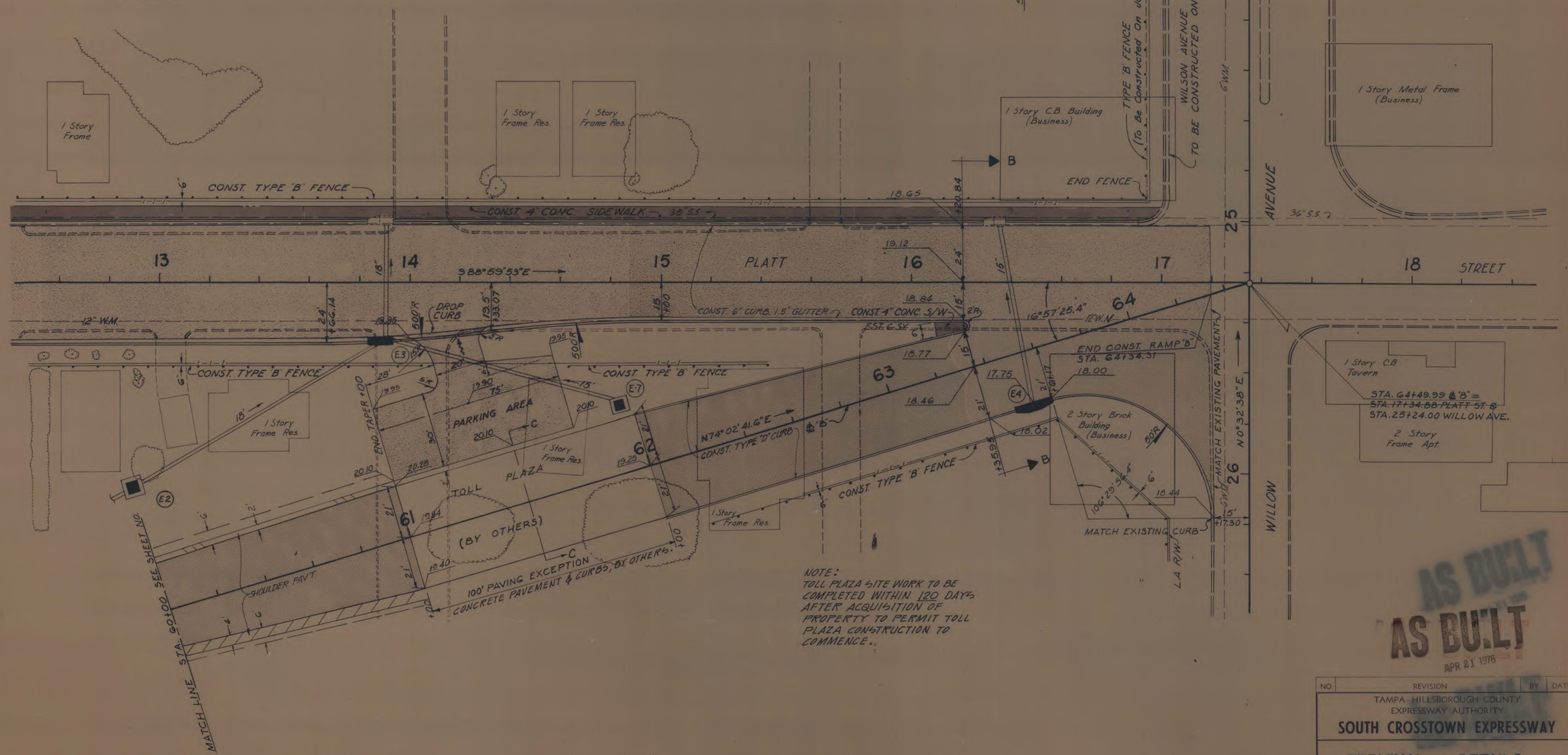
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		20
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1973



SECTION C-C
STA. 61+50
CONCRETE PAVEMENT & CURBS BY OTHERS.

NOTE: PARKING AREA
LIMEROCK BASE (9" THICK, DOUBLE COURSE)
PRIMED WITH TYPE S-I ASPHALTIC CONCRETE
(3" THICK, DOUBLE COURSE, BOTTOM LAYER
1½" THICK - TOP LAYER 1½" THICK)

SCALE-1"=20'



NOTE:
TOLL PLAZA SITE WORK TO BE COMPLETED WITHIN 120 DAYS AFTER ACQUISITION OF PROPERTY TO PERMIT TOLL PLAZA CONSTRUCTION TO COMMENCE..

AS BUILT
AS BUILT
APR 21 1976

NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "B"

J. E. GREINER COMPANY — CONSULTING ENGINEERS
WATSON & COMPANY — TAMPA, FLORIDA

MADE J.L.H. DATE 6-73 | TRACED J.L.H. DATE 6-73
CHECKED J.N.C. DATE 12-73 | SCALE 1" = 20'

84/1

Contract No. 4.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3504		21
By WACC		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, AREAS, NOTE BOOK, NO., BY, DATE, AREAS CHECKED

ORIGINAL SURVEY — SURVEYED, PLOTTED, AREAS, NOTE BOOK, NO., BY, DATE, AREAS CHECKED

251 252 253 254 255

STATIONS ALONG EXPRESSWAY

PROFILE GRADE EXPRESSWAY

24' RT.

PROFILE GRADE RAMP B

+2.1850%

+13.61

SUPERELEVATION TRANSITION 0.0313% TO 0.10%

RT. EDGE OF ACCELERATION LANE

PG. STA. 64+73.51 BEGIN ℄ "B"

+117.46

42.24

40.32

38.80

38.01

37.86

37.20

36.80

36.30

35.92

35.52

35.19

34.90

33.50

+12.18

A

LT. EDGE OF PAVEMENT 37.12

36.50

STATIONS ALONG ℄ "B"

RT. EDGE OF PAVEMENT ℄ "B"

+147.40 BEGIN TAPER RT. & LT.

-4.8000%

+87.40

SUPERELEVATION TRANSITION 0.10% TO 0.0208%

+87.40

150' V.C.

+50 P.V.C. EL. 23.90

21.85

20.49

+00 P.V.T. EL. 19.84

+25 P.V.I. EL. 20.30

-0.6092%

RT. EDGE OF PAVEMENT

℄ "B"

TOLL PLAZA

PAVEMENT AND BASE BY OTHERS

LT. EDGE OF PAVEMENT ℄ PROFILE PLATT ST.

100' V.C.

400 P.V.C. EL. 18.62

+100 P.V.T. EL. 18.42

+0.2000%

+150 P.V.I. EL. 18.32

+35.95

STA. 16+20.84 PLATT ST.

STA. 64+99.88 PLATT ST.

END ℄ "A" STA. 17+34.88 PLATT ST.

161.17 BEG. RETURN 21' RT. OF ℄ "B"

19.12

18.84

18.77

18.46

18.02

18.00

B

SECTION A-A
SCALE ~ 1"=10' HOR. & 1' VERT.

PROFILE GRADE LINE 19' RT. OF STA. 256+17.46 ℄ CONST.

STA. 56+12.18 ℄ "B"

42.24

40.32

38.80

37.20

24' 15' 16'

SECTION B-B
SCALE ~ 1"=10 HOR. & 1' VERT.

24' 15' 4' 15' 21'

℄ PLATT ST. STA. 16+20.84

℄ "B" STA. 63+35.95

19.12

18.77

18.84

18.46

18.65

18.02

RETURN PROFILE
SCALE ~ 1"=50' HOR. & 1' VERT.

15' AT STA. 261+73.30 WILLOW AVE. MATCH EXISTING GUTTER

21' RT. OF STA. 63+61.17 ℄ "B" BEGIN RETURN

EXISTING GUTTER WILLOW AVENUE

18.44

18.10

18.00

AS BUILT
APR 21 1976

RAMP "B" PROFILES
SCALE ~ AS NOTED

84
11

Contract No. 4.

SCALE: 1" = 5' VERT.
1" = 10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		22
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, BY, AREAS, AREAS CHECKED

ORIGINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, BY, AREAS, AREAS CHECKED

D-9
STA. 217+40
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 40.6

D-8
STA. 217+00
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 43.36
FL. EL. 40.7

D-7
STA. 216+51.61
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 41.0

40.4 — CONST. 60' OF 18" PIPE — 40.7 — CONST. 68' OF 15" PIPE — 41.0

R.R. R/W — LINE "A" ℄ — R/W

CONST. 32' OF 14" C.I.P. (INCLUDES ELBOW)

D-10
STA. 217+40
CONST "U" TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 19.0

EL. 20.8

216+51.61 — D-7, D-8, D-9, D-10

D-5
STA. 212+50
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 34.8

D-4
STA. 212+00
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 35.2

40.38 — 40.88 — 39.72

34.8 — CONST. ~~104'~~ 108' OF 15" PIPE — 35.2

R.R. R/W — LINE "A" ℄ — R/W

CONST. 28' OF 14" C.I.P. (INCLUDES ELBOW)

D-6
STA. 212+50
CONST. "U" TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 18.2

20.0

212+00 — D-4, D-5, D-6

45 40 35 30 25 20 15

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

AS BUILT
APR 81 1976

Contract No. 4

84/1

K+E PLATE 3 CROSS SECTION KEUFFEL & ESSER CO.

SCALE: 1" = 5' VERT.
1" = 10 HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		23
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — BY — DATE

D-15
STA. 228+00
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 26.0

D-16
STA. 228+00
CONST. "U" TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 18.5

D-14
STA. 228+00
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 26.4

R/W — LINE "A" ℄ — R/W

30.40 — 30.90 — 30.90 — 30.40

26.0 — ℄ CONST. 96' OF 15" PIPE — 26.4

CONST. 16' OF 14" C.I.P. (INCLUDES ELBOW)

20.3 — 18.5

228+00

D-14
D-15
D-16

D-12
STA. 224+20
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 35.1

D-11
STA. 224+20
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 35.5

R/W — LINE "A" ℄ — R/W

40.02 — 40.02

35.1 — ℄ CONST. 96' OF 15" PIPE — 35.5

D-13
STA. 224+20
CONST. "U" TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 19.0

CONST. 26' OF 14" C.I.P. (INCLUDES ELBOW)

20.5 — 19.0

224+20

D-11
D-12
D-13

30 25 20 35 30 25 20 45 40 35 30 25 20

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

AS BUILT
APR 21 1976

Contract No. 4

84/1

K&E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SCALE: 1" = 5' VERT.
1" = 10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3504		24
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / NOTE BOOK / AREAS CHECKED / NO

ORIGINAL SURVEY — DATE / BY / SURVEYED / PLOTTED / TEMPLATE / AREAS / NOTE BOOK / AREAS CHECKED / NO

35
30
25
20
15

R/W
LINE "A" ℄
R/W

D-20
STA. 234+00
CONST. INLET TYPE "BW"
STANDARD DRAWING NO. 21
FL. EL. 25.5

D-21
STA. 234+00
CONST. U-TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
OUTLET EL. 18.5

29.50
30.00
30.00
30.45
25.5
CONST. 17' OF 14" C.I.P. (INCLUDES ELBOW)
20.3

234+00
D-20
D-21

D-19
STA. 231+22
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 17.1

D-18
STA. 231+22
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 23.82
FL. EL. 21.1

D-17
STA. 231+22
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 21.3

2:1
2583
2583
20.9
CONST. 49' OF 18" PIPE
50'
21.1
CONST. 49' OF 18" PIPE
50'
21.3
17.1
CONST. 86' OF 18" PIPE

231+22
D-17
D-18
D-19

CONNECT TO EXIST. INLET
2:1

30" PIPE
16.5
16.0
15.8
EXIST. 45' OF 24" PIPE

STA 230+50 (22' RT.) LINE A
EXIST. INLET TYPE "E"
INDEX NO. 5046
GRATE EL. 18.97
SLOT EL. 17.97
FL. EL. 16.0

STA 230+50 (26' LT.) LINE A
EXIST. INLET TYPE "E"
INDEX NO. 5046
GRATE EL. 19.77
SLOT EL. 18.77
FL. EL. 15.3

230+50 (LINE A)

130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100

AS BUILT
APR 21 1976

Contract No. 4.

84
1

K•E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SCALE: 1" = 5' VERT.
1" = 10 HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		25
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED — PLOTTED — TRACED — AREAS — AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

35
30
25
20
40
35
30
25
20
40
35
30
25
20
15

R/W — LINE "A" ℄ — R/W — LINE "A" ℄ — R/W — LINE "A" ℄ — R/W

D-29
STA 244+00
CONST INLET BW
STANDARD DRAWING NO. 21
FL. EL. 25.6

29.50 — 30.00 — 30.00 — 29.50

25.6

CONST 98' OF 15" PIPE

D-28
STA 244+00
CONST INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 25.2

2:1

CONST. 38' OF 15" C.M.P. (INCLUDES ELBOW)

CONST. ELBOW — 14.0

244+00

D-27
D-28
D-29

D-27
STA. 244+00
CONST. U TYPE ENDWALL WITH BAFFLES
INDEX NO. 1129
FL. EL. 14.0

D-26
STA. 241+50
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 33.2

36.97 — 37.47 — 37.47 — 36.97

33.2

CONST 98' OF 15" PIPE

D-25
STA. 241+50
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 32.8

32.8

2:1

CONST. 52' OF 18" C.M.P. (INCLUDES ELBOW)

CONST. ELBOW 14.2 — 13.8

241+50

D-24
D-25
D-26

D-24
STA. 241+50
CONST. U TYPE ENDWALL WITH BAFFLES
INDEX NO. 1129
FL. EL. 13.8

D-22
STA. 237+00
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 34.3

38.43 — 38.43

34.3

CONST. 28' OF 14" C.I.P. (INCLUDES ELBOW)

D-23
STA. 237+00
CONST. U TYPE END-WALL (WITH BAFFLES)
INDEX NO. 1129
OUTLET EL. 17.8

EL. 19.4

17.8

237+00

D-22
D-23

AS BUILT
APR 21 1976

Contract No. 4.

K+E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SCALE : 1" = 5' VERT.
1" = 10' HORIZ.

NO.	REVISION	BY	DATE
1	Relocated D-37, D-38, D-39 And Removed D-33, Add D-39A	M.F.	6-26-72

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		26
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

D-39
STA. 252+53.27
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 29.9

D-38
STA. 252+53
CONST. INLET TYPE Z
INDEX NO. 5049
GRATE EL. 33.47
FL. EL. 30.2

D-37
STA. 252+53
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 30.5

D-39A
STA. 252+03
CONST. "U" TYPE ENDWALL WITH BAFFLES, INDEX NO. 1129
OUTLET EL. 16.1

LINE "A" ℄ — R/W — 252+53

D-37
D-38
D-39
D-39A

35.46 — 35.49 — 35.49 — 34.99

29.9 — CONST. 49' OF 18" PIPE 52' — 30.2 — CONST. 53' OF 15" PIPE 60' — 30.5

CONST. 18' OF 14" C.I.P. (INCLUDES ELBOW)

16.1

D-34
STA. 250+00
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 25.5

D-35
STA. 250+00
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 25.1

D-36
STA. 250+00
CONST. "U" TYPE ENDWALL WITH BAFFLES, INDEX NO. 1129
OUTLET EL. 16.2

LINE "A" ℄ — R/W — 250+00

29.54 — 30.04 — 30.04 — 29.55

CONST. 96' OF 15" PIPE — 25.1 — 25.5

CONST. 13' OF 14" C.I.P. (INCLUDES ELBOW) — 17.4 — 16.2

D-34
D-35
D-36

D-32
STA. 246+91
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 20.7

D-31
STA. 246+91
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 23.61
FL. EL. 20.9

D-30
STA. 246+91
CONST. INLET TYPE BW
STANDARD DRAWING NO. 21
FL. EL. 21.1

LINE "A" ℄ — LINE H ℄ — R/W — 246+91

25.13 — 25.43 — 25.43 — 25.13

CONST. 10' OF 18" C.I.P. (INCLUDES ELBOW) — 16.8 — 20.7

CONST. 47' 48' OF 18" PIPE — 20.9 — CONST. 47' 48' OF 18" PIPE — 21.1

D-30
D-31
D-32

AS BUILT
APR 21 1976

Contract No. 4.

84
1

K-E PLATE 3. CROSS SECTION KEUFFEL & ESSER CO.

SCALE: 1"=5' VERT.
1"=10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		27
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS, NO. —, AREAS CHECKED, BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, NOTE BOOK, AREAS, NO. —, AREAS CHECKED, BY, DATE

30
25
20
15
10
5

E-7
STA. 61+95 (26' LT.)
CONST. INLET TYPE C (NO SLOTS)
INDEX NO. 5046
GRATE EL. 20.0
FL EL. 16.4

88'
CONST. 98
OF 12" PIPE

E-2
STA. 60+00 (45' LT., RAMP B)
CONST INLET TYPE Z
INDEX NO. 5049
GRATE EL. 19.8
FL EL 17.3

EXIST. 30"

℄ PLATT ST.

STA. 13+90 (24' LT.) PLATT
EXISTING INLET
FL EL. 11.1

10.05

FL. EL. 15.4

CONST. 44' OF 18" PIPE
48'

CONST. 112' OF 18" PIPE
15"

17.3

17.5

E-3
STA. 13+90 (PLATT ST.)
CONST. INLET TYPE P-5
INDEX NO. 5047
FL EL 15.8

Note, 15" Pipe placed in Error by Contractor
Engineer allowed it to remain.

EXIST. 30"

E-1
STA. 59+00 (RAMP B)
CONST. INLET TYPE Y
INDEX NO. 5086
FL. EL. 22.45

℄ "B"

7.09'

4:1

CONST. 105' OF 15" PIPE
110'

E-1
E-2
E-3
E-7

E-4
STA. 63+53.17 (RAMP B)
CONST. INLET TYPE P-6
INDEX NO. 5047
FL EL. 14.00

Exist. 36"

11.8

Exist 30"

CONST. 72' OF 15" PIPE

STA. 16+35 (24' LT.) PLATT ST.
EXIST. INLET
FL. EL. 10.1

D-40
STA 262+00
CONST INLET TYPE Y
INDEX NO. 5086
FL. EL. 40.8

E-4

CONST 48' OF
15" C.M.P.
(INCLUDES ELBOW)

CONST ELBOW

262+00 D-40
D-41

D-41
STA 262+00
CONST U-TYPE ENDWALL
WITH BAFFLES
INDEX NO. 1129
FL EL. 19.0

AS BUILT
APR 21 1978
Contract No. 4.

84
1

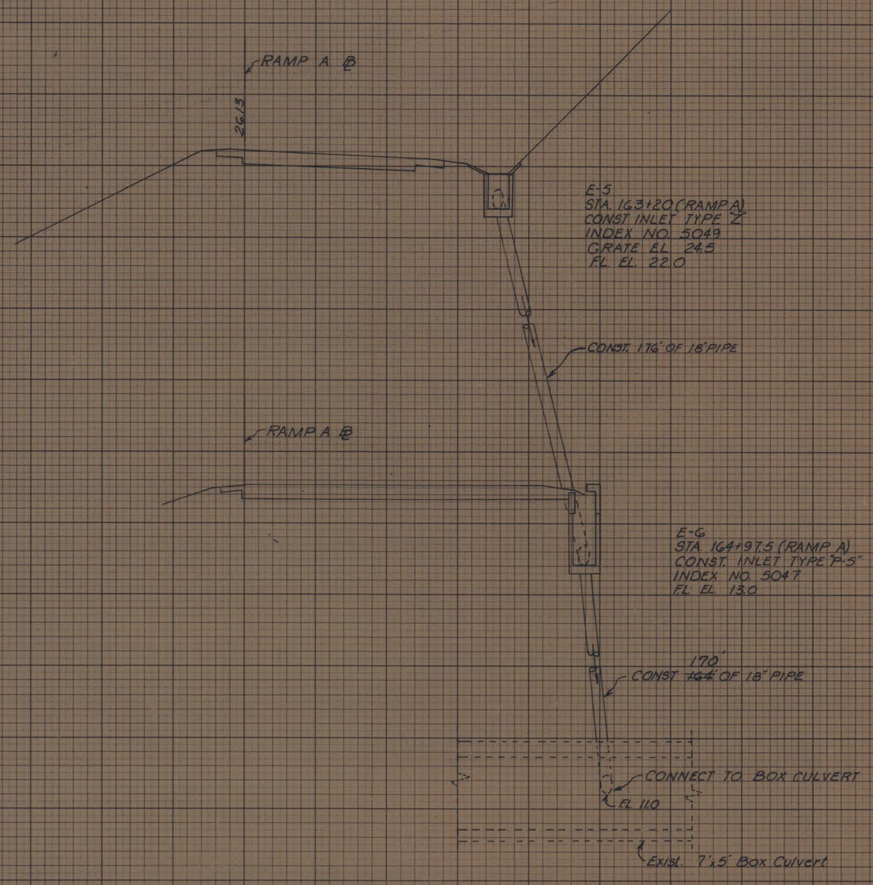
K•E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.

SCALE 1" = 5' VERT.
1" = 10' HORIZ.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		28
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1973

FINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE

ORIGINAL SURVEY
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
NOTE BOOK
NO.
BY
DATE



163+20 RAMP A

E-5
E-6

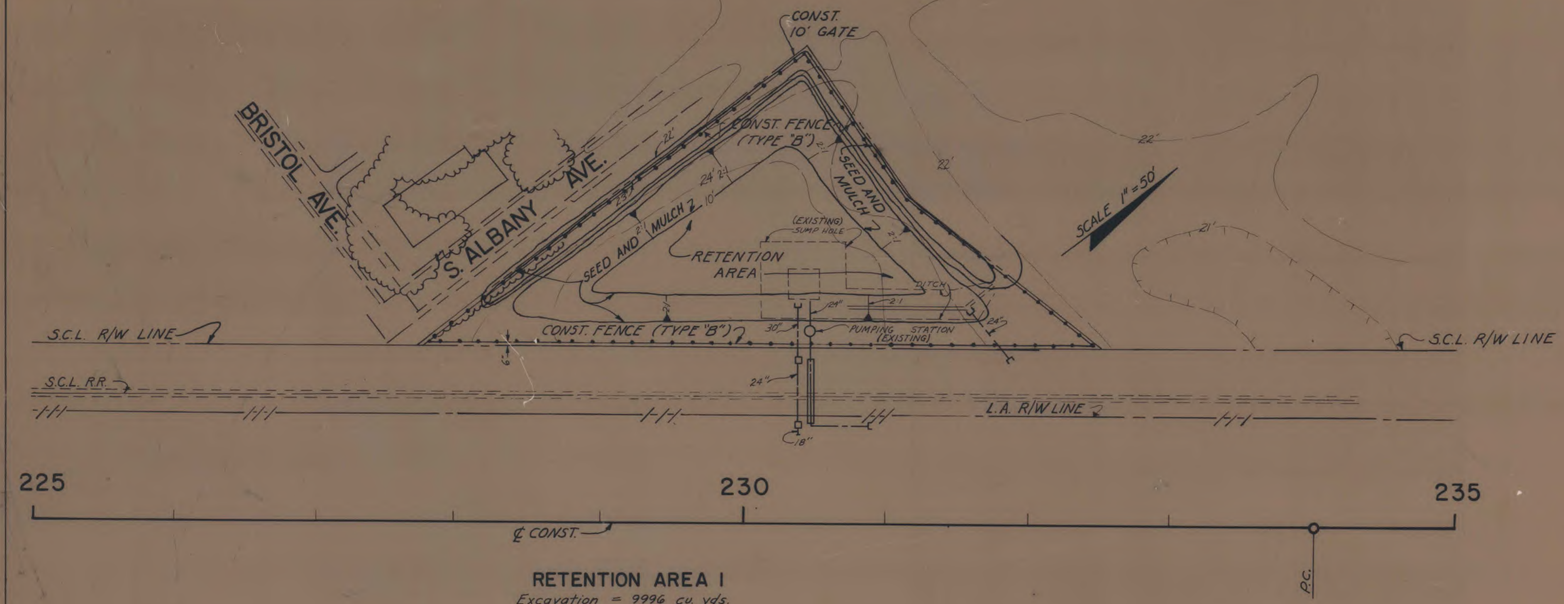
164+97.5 (RAMP A)

AS BUILT
APR 21 1976

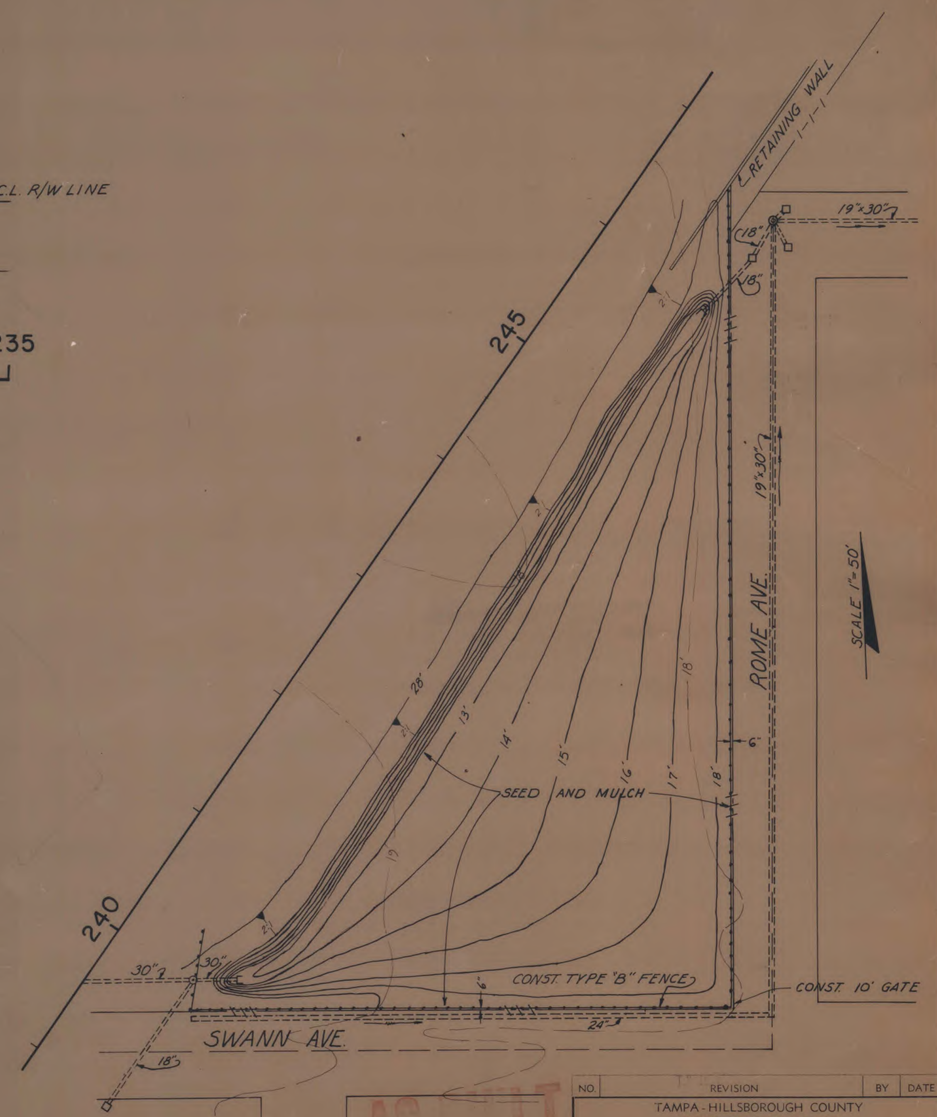
Contract No. 4.

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3504		70
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1973



RETENTION AREA 1
Excavation = 9996 cu. yds.



RETENTION AREA 2
Excavation = 10,992 cu. yds.

LEGEND

EXISTING CONTOURS ——— 18' ———
PROPOSED CONTOURS ——— 24' ———

AS BUILT

AS BUILT

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RETENTION AREA DETAILS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE S.U. DATE 1973 | TRACED S.U. DATE 1973
CHECKED J.N.C. DATE 1973 | SCALE 1" = 50'

84
1

Contract No. 4.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET
10002	3505		1
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

THIS CONTRACT INCLUDES:

1. ROADWAY PLANS
2. SIGNING PLANS
3. SIGNALIZATION PLANS
4. LIGHTING PLANS
5. BRIDGE AND RETAINING WALL PLANS
6. WATER LINE RELOCATION PLANS
7. SANITARY SEWER RELOCATION PLANS
8. RIGHT-OF-WAY MAPS

FOR INDEX OF PLANS, SEE APPROPRIATE PLAN SETS

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

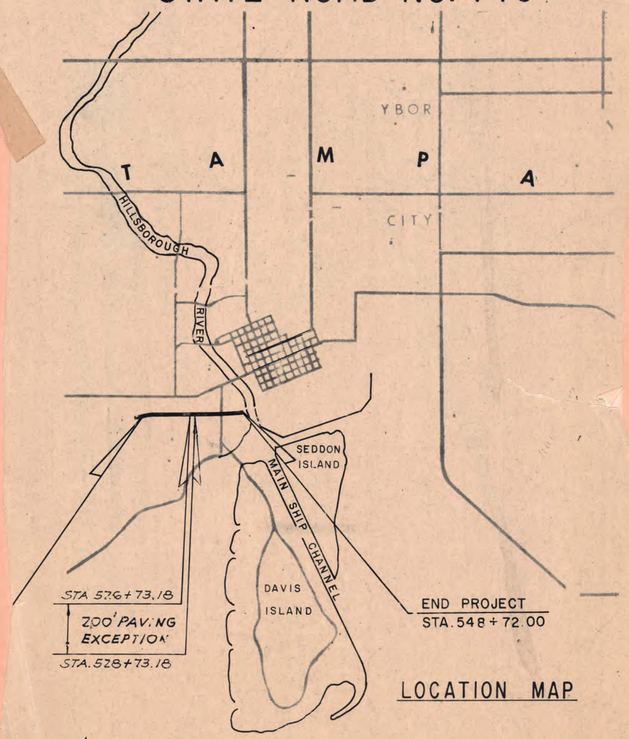
—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002-3505-032

STATE ROAD NO. 449



LOCATION MAP

CONTRACT NO. 5

WILLOW AVENUE TO BAYSHORE BOULEVARD

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY

Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority

P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 5 - State Job No. 10002-3505

Description	Drawing Number Sheet No.
Cover Sheet - Willow Ave. to Bayshore Boulevard	1
Drainage	2 & 3
Typical Sections	4,5 & 6
Miscellaneous Details	7
Summary of Quantity	8
Plan and Profiles	9
Alignment Control	10 and 11
Plan and Profile	12 through 15
Drainage Profiles	16 through 26
Willow Ave. Interchange Layout	27
Terminal Detail Ramp "C"	28 & 29
Terminal Detail Ramp "D"	30 & 31
Plan & Profile - Ramp "C" Willow Ave. Interchange	32
Plan & Profile - Ramp "D" Willow Ave. Interchange	33
Plan & Profile Interchange Layout	34
Terminal Details Ramp "E"	35 & 36
Terminal Details Ramp "F"	37 & 38
Plan & Profiles Plant Ave. Interchange Ramp "E"	39
Plan & Profiles Plant Ave. Interchange Ramp "F"	40
Brorein St. Widening Details	41
Brorein St. Widening Profiles	42
Special Profiles for Toll Plaza Transitions	43
Cardy Street Plan and Profile	44
12'x5' Box Culvert Sta. 508+4.13	BC-1 & 2
Cover Sheet Waterline Relocation	WL-1
Waterline Quantities	WL-2
Standard Details	WL-3 & WL-4
Plan and Profile	WL-5,6 & 7
Cover Sheet Sanitary Sewer Relocation	
Summary of Quantities	SS-1
Location Map	SS-2
Plan and Profile	SS-3 through 6A
Miscellaneous Details	SS-7
Cover Sheet Willow Ave. to Bayshore Blvd.	T-1
Summary of Quantities	T-2
General Notes Signalization	T-3
Conventional Signal Symbols	T-4
Typical Installation Details	T5,6 & 7
Pole Schedule	T-8
Signalization Plan Platt St. & Willow Ave.	T-9
Signalization Plan Brorein, Plant, Hyde Park	T-10
Prestressed Concrete Pole	T-11
Steel Pole Detail	T-12

Total No. Mylar Sheets 58.

AS BUILT

34/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3505		1
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

THIS CONTRACT INCLUDES:

1. ROADWAY PLANS
2. SIGNING PLANS
3. SIGNALIZATION PLANS
4. LIGHTING PLANS
5. BRIDGE AND RETAINING WALL PLANS
6. WATER LINE RELOCATION PLANS
7. SANITARY SEWER RELOCATION PLANS
8. RIGHT-OF-WAY MAPS

FOR INDEX OF PLANS, SEE APPROPRIATE PLAN SETS

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002-3505-032

STATE ROAD NO. 449

INDEX OF ROADWAY PLANS

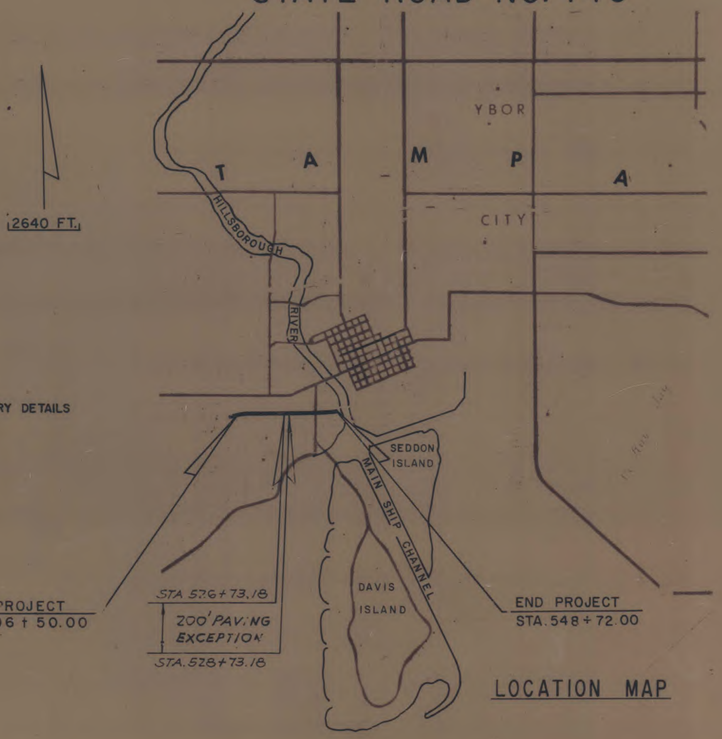
SHEET NO	SHEET DESCRIPTION
1	KEY MAP
2-3	DRAINAGE MAPS
4-6	TYPICAL SECTIONS
7	MISCELLANEOUS DETAILS
8	SUMMARY OF QUANTITIES
9	MASS DIAGRAM
10-11	ALIGNMENT CONTROL
12-15	PLAN AND PROFILE
16-26	DRAINAGE STRUCTURES
27-42	INTERCHANGE DETAILS AND PROFILES
43-44	SPECIAL PROFILES
45-83	ROADWAY CROSS-SECTIONS
84-93	APPROACH SLAB DETAILS
94	PROJECT INFORMATION SIGN
95	BORROW AREA ONE
96	MAIN LINE TOLL PLAZA GRADING PLAN
97	DRAINAGE DETAILS INLET TYPE BW
BC1-BC2	BOX CULVERTS

INDEX OF STANDARDS

STANDARD DRAWING NO.	
INDEX NO. 194	STANDARD ABBREVIATIONS (2 SHEETS)
INDEX NO. 195	STANDARD SYMBOLS FOR KEY MAPS AND PLAN SHEETS (3 SHEETS)
INDEX NO. 1101-W	MISC. ROADWAY CONST. DETAILS (2 SHEETS)
INDEX NO. 1331-C	SUPPLEMENTARY DETAILS FOR INLET BOXES
INDEX NO. 2300-R	GUARDRAIL CONSTRUCTION (4 SHEETS)
INDEX NO. 5010-H	SUPERELEVATION DETAILS
INDEX NO. 5046-D	STANDARD DITCH BOTTOM INLET TYPES C,D,E,& H AND SUPPLEMENTARY DETAILS
INDEX NO. 5047-G	INLET, MANHOLE, AND JUNCTION BOX TYPES P AND J (2 SHEETS)
INDEX NO. 5048-B	INLET TYPE X
INDEX NO. 5049-A	INLET TYPE Z
INDEX NO. 5061-E	MISC. DRAINAGE DETAILS (2 SHEETS)
INDEX NO. 5072-G	DETAILS OF FENCING (2 SHEETS)
INDEX NO. 5073-L	STANDARD DETAILS FOR RAMP TERMINALS (3 SHEETS)
INDEX NO. 5080-G	CURB, CURB & GUTTER & TRAFFIC SEPARATOR (2 SHEETS)
INDEX NO. 5086-A	SHOULDER GUTTER INLET TYPE Y

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION-1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.



LOCATION MAP



LENGTH OF PROJECT		
	LIN. FT.	MILES
ROADWAY	3,232.00	0.612
BRIDGES	990.00	0.187
NET LENGTH	4,222.00	0.799
EXCEPTIONS	0.00	0.000
GROSS LENGTH	4,222.00	0.799

LOCATION OF BRIDGES			
STRUCTURE	BEGIN STA.	END STA.	LENGTH
EXPRESSWAY OVER WILLOW AVENUE	507+55.13	509+26.13	171.00'
EXPRESSWAY OVER SOUTH BOULEVARD	521+04.78	522+58.78	154.00'
EXPRESSWAY OVER HYDE PARK AVE. & PLANT AVENUE	536+04.59	542+69.59	665.00'

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

AS BUILT
NOV 26 1975

APPROVAL RECOMMENDED _____

BY _____

APPROVED _____

BY _____
CHAIRMAN

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 5

WILLOW AVENUE TO BAYSHORE BOULEVARD

J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS

WATSON AND COMPANY
TAMPA, FLORIDA

SUBMITTED William D. Foster DATE 4/15/74

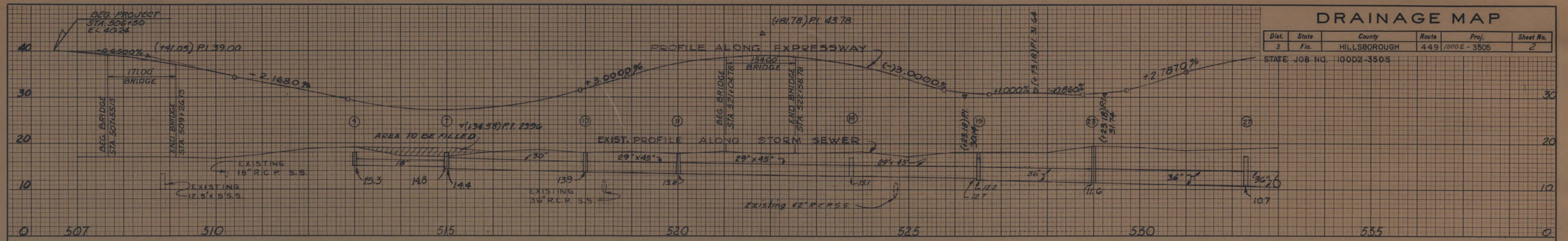
AS BUILT

84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002 - 3505	2

STATE JOB NO. 10002-3505



E-1 Manhole 36" R.C.P. F.L. S. 9.58

E-2 Manhole 36" R.C.P. F.L. N. 6.66

E-3 Manhole 42" R.C.P. F.L. S. 9.09

E-4 Manhole 42" R.C.P. F.L. N. 7.56

E-5 Inlet 18" R.C.P. W 15" R.C.P. N. F.L. 12.53

KENNEDY BLVD.

BEGIN JOB STA. 506 + 50 STATE No. 10002-3505

CLEVELAND AVE.

PLATT ST.

ORLEANS AVE.

WILLOW AVE.

NEWPORT AVE.

DELAWARE AVE. (TO BE CLOSED)

EDISON AVE. (TO BE CLOSED)

SOUTH BLVD.

FIELDING AVE. (TO BE CLOSED)

BREVARD AVE. (TO BE CLOSED)

MAGNOLIA AVE. (TO BE CLOSED)

CEDAR AVE. (TO BE CLOSED)

RAMP 'A'

RAMP 'B'

BEG. BRIDGE STA. 507+55.13

END BRIDGE STA. 509+26.13

BEG. BRIDGE STA. 521+04.78

END BRIDGE STA. 522+58.78

1.83 Ac.

1.50 Ac.

0.51 Ac.

1.00 Ac.

0.29 Ac.

1.6 Ac.

0.94 Ac.

0.76 Ac.

1.02 Ac.

0.58 Ac.

0.50 Ac.

0.42 Ac.

0.64 Ac.

0.20 Ac.

0.59 Ac.

0.39 Ac.

0.22 Ac.

0.50 Ac.

0.044 Ac.

0.057 Ac.

0.56 Ac.

0.50 Ac.

0.22 Ac.

0.73 Ac.

2.9 Ac.

Future Edge of Toll Plaza

Scale 1" = 100'

LEGEND

Exist. Manhole	○
Exist. Inlet	⊠
Exist. Storm Sewer	------
Exist Str. No.	E-4
Proposed Manhole	●
Proposed Inlet	■
Proposed Storm Sewer	———
Direction Of Flow	~~~→
Drainage Boundary	▭▭▭
Proposed Str. No.	(20)

AS BUILT NOV 26 1975

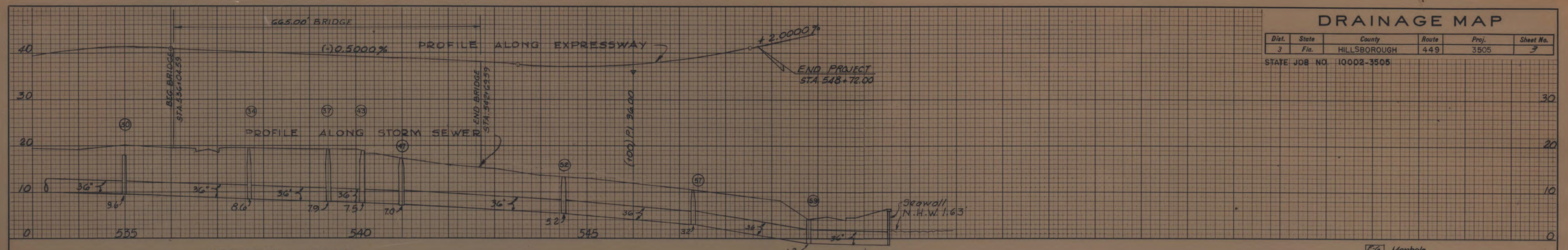
Contract No. 5

84/1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	3

STATE JOB NO. 10002-3505





E-6 Manhole
18" R.C.P.
F.L. EL. 14.71

E-7 Inlet
15" R.C.P.
F.L. EL. 11.67

LEGEND

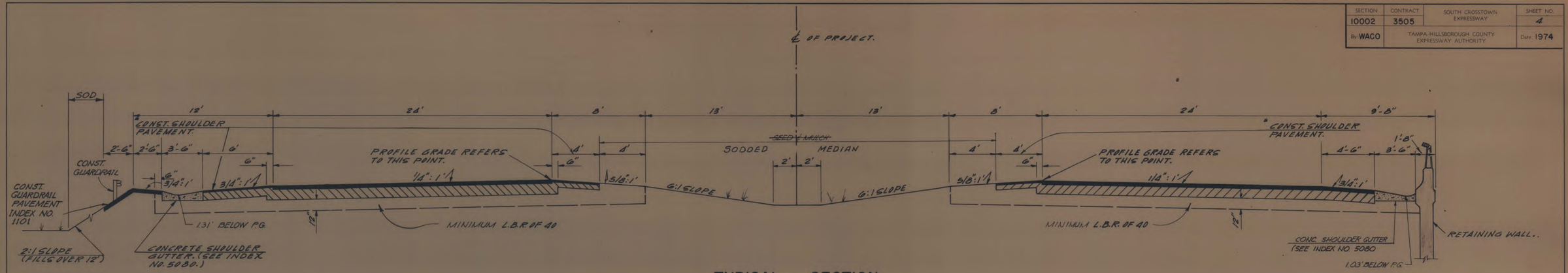
Exist. Manhole	○
Exist. Inlet	⊡
Exist. Storm Sewer	
Exist. Str. No.	E-6
Proposed Manhole	●
Proposed Inlet	■
Proposed Storm Sewer	
Direction Of Flow	
Drainage Boundary	
Proposed Str. No.	(20)

AS BUILT
NOV 26 1975

Contract No. 5

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		4
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1974



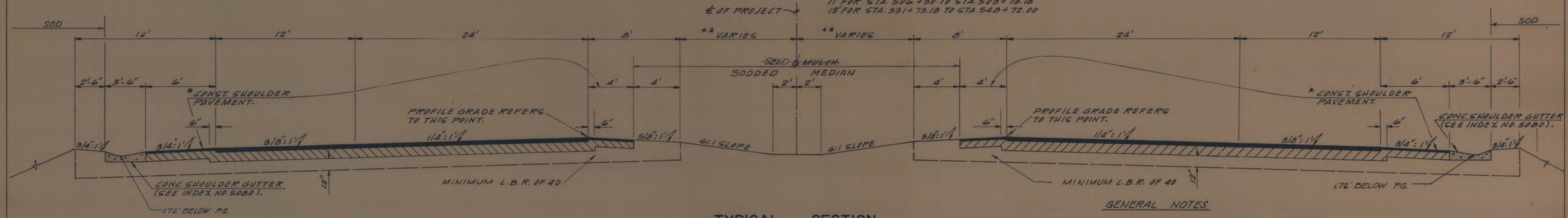
TYPICAL SECTION

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONC. (2" THICK.) AND ASPHALTIC CONC. WEARING COURSE (1" THICK).

DESIGN SPEED 50 M.P.H.

* NOTE - SHOULDER PAVEMENT SHALL BE EITHER LIMEROCK BASE (8" THICK) PRIMED, WITH TYPE S-I ASPHALTIC CONC. (1" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK) (ALT "E") OR (ALT "G") SAND-ASPHALT HOT MIX (6" THICK) (800 LB. STABILITY) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK).
Note ALT. "F" WAS USED FOR SHOULDER BASE

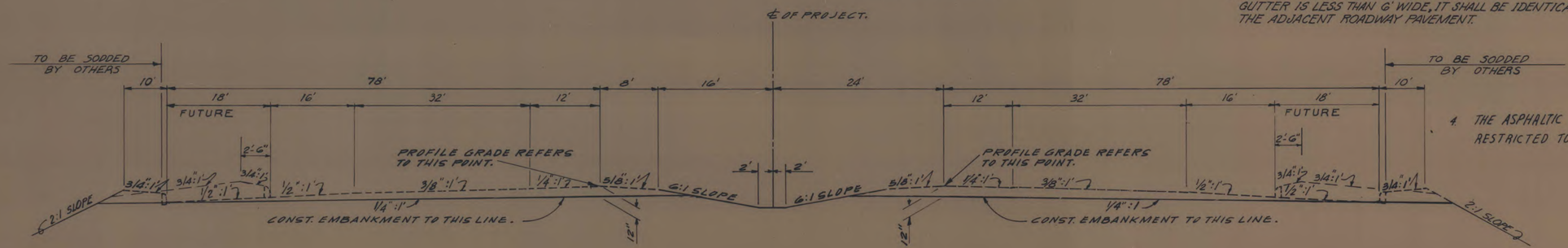
** NOTE:
11' FOR STA. 506+30 TO STA. 523+78.18
13' FOR STA. 531+78.18 TO STA. 548+72.00



EXPRESSWAY WITH ADDED SPEED CHANGE LANES

TYPICAL SECTION

DESIGN SPEED 50 M.P.H.



TYPICAL SECTION THRU TOLL PLAZA

TYPICAL SECTION THRU TOLL PLAZA
STA. 526+73.18 TO STA. 528+73.18

GENERAL NOTES

1. SOD ALL SLOPES STEEPER THAN 4:1 FROM EDGE OF PAVED SHOULDER TO TOE OF SLOPE, EXCLUDING SHOULDER GUTTER AND GUARDRAIL PAVEMENT.
2. SOD 2' ADJACENT TO PAVED SHOULDER IN SUPERELEVATION SECTIONS WHEN ROADWAY WATER DRAINS TO MEDIAN DITCH.
3. WHERE SHOULDER PAVEMENT ADJACENT TO SHOULDER GUTTER IS LESS THAN 6' WIDE, IT SHALL BE IDENTICAL TO THE ADJACENT ROADWAY PAVEMENT.
4. THE ASPHALTIC CONCRETE WEARING COURSE IS RESTRICTED TO ALTERNATES 1, 2 OR 3

NOTE - PAVEMENT NOT INCLUDED IN THIS CONTRACT.

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

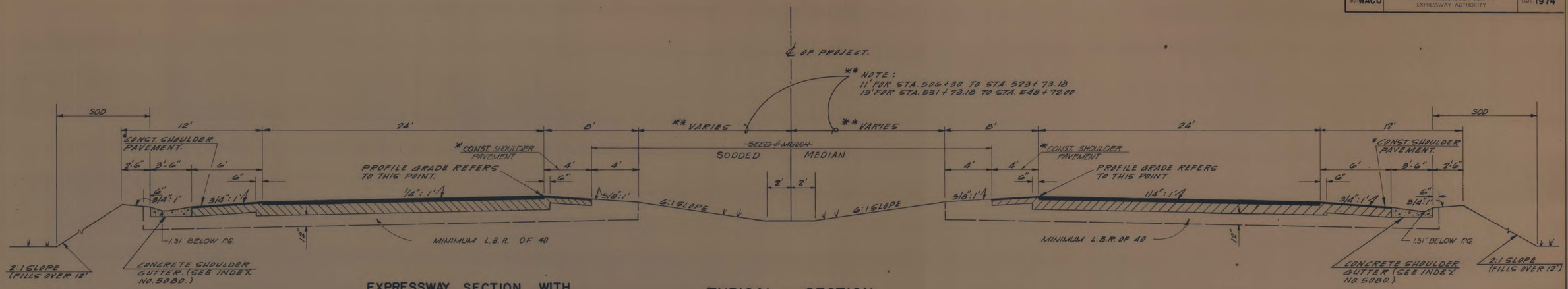
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE J.H. DATE 1974 | TRACED H.L. DATE 1974
CHECKED J.N.G. DATE 1974 | SCALE NOT TO SCALE

64/1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		5
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974



EXPRESSWAY SECTION WITH SHOULDER GUTTER

TYPICAL SECTION

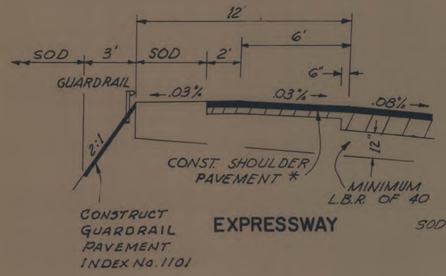
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONC. (2" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK).

DESIGN SPEED 50 M.P.H.

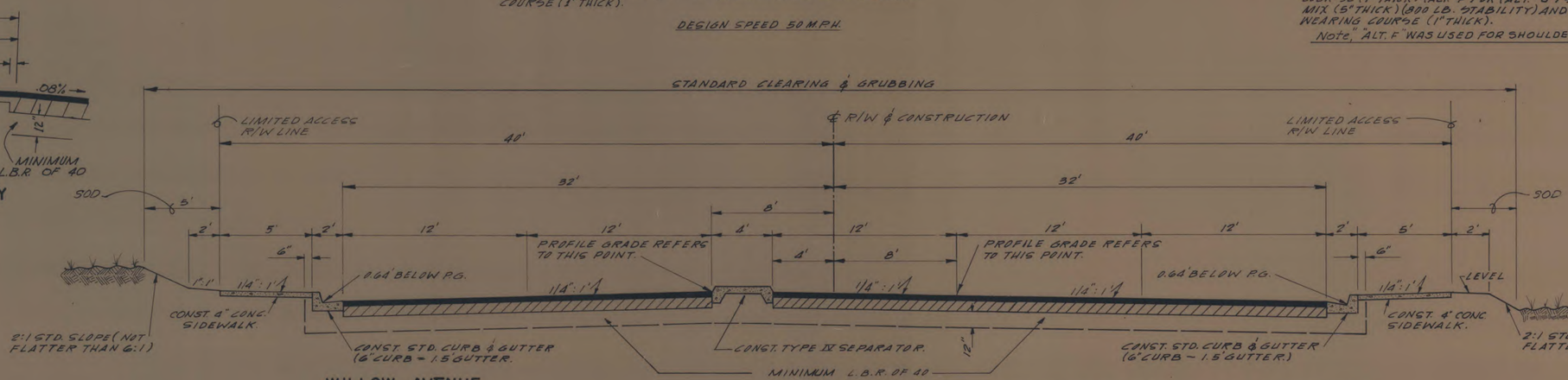
* NOTE

SHOULDER PAVEMENT SHALL BE EITHER LIMEROCK BASE (5" THICK) PRIMED, WITH TYPE S-I ASPHALTIC CONC. (1" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK) (ALT "F") OR (ALT "G") SAND-ASPHALT HOT MIX (5" THICK) (800 LB. STABILITY) AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK).

Note, "ALT. F" WAS USED FOR SHOULDER BASE



EXPRESSWAY

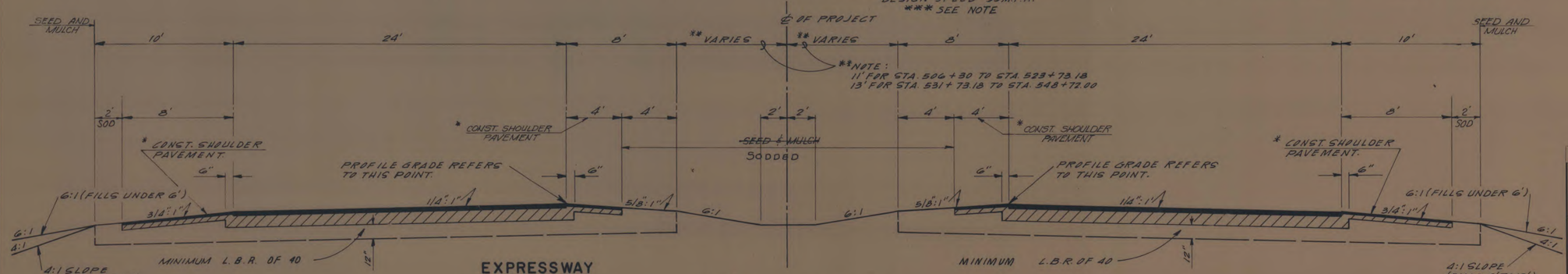


WILLOW AVENUE

*** NOTE: LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED WITH TYPE S-I ASPHALT CONC. (3" THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICK - TOP LAYER 1½" THICK).

TYPICAL SECTION

DESIGN SPEED 35 M.P.H.
*** SEE NOTE



EXPRESSWAY

LIMEROCK BASE (10" THICK, DOUBLE COURSE), PRIMED, WITH TYPE S-I ASPHALTIC CONC. (2" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK)

TYPICAL SECTION

DESIGN SPEED 50 M.P.H.

AS BUILT
NOV 28 1975

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

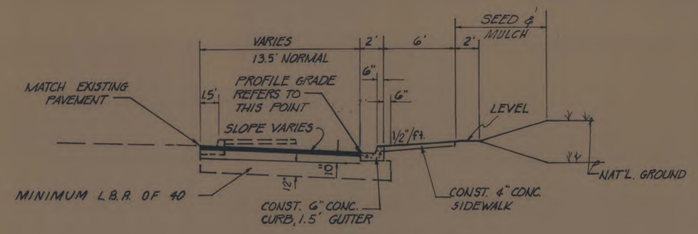
TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE J.H.	DATE 1974	TRACED H.L.	DATE 1974
CHECKED J.N.C.	DATE 1974	SCALE NOT TO SCALE	84/1

Contract No. 5

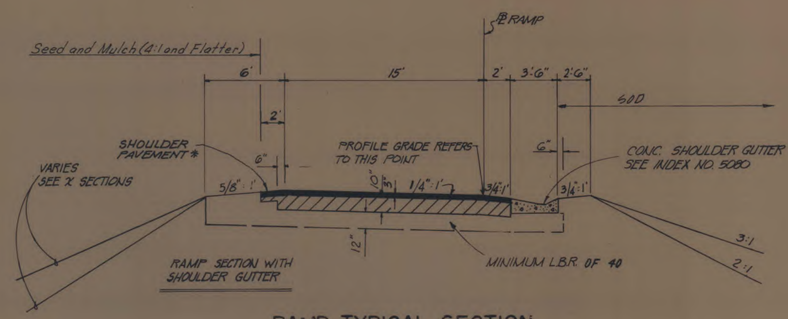
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		6
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974



BROREIN STREET
TYPICAL SECTION

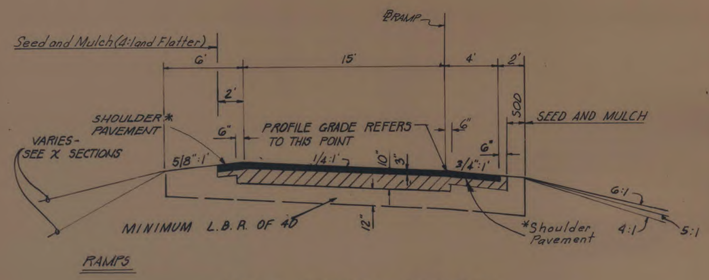
LIMEROCK BASE 9"THICK DOUBLE COURSE) PRIMED WITH TYPE S-1 ASPHALTIC CONCRETE (3"THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICK, TOP LAYER 1½" THICK)

DESIGN SPEED 35 M.P.H.



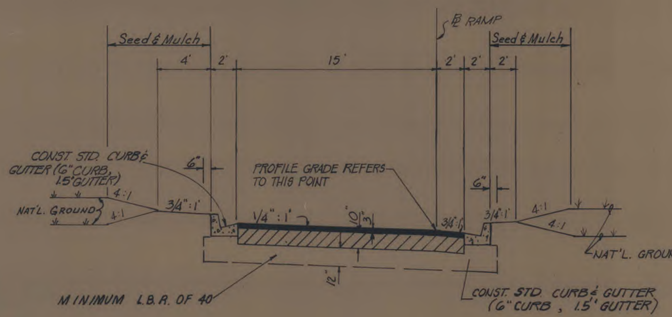
RAMP TYPICAL SECTION

DESIGN SPEED 35 M.P.H.



RAMP TYPICAL SECTION

DESIGN SPEED 35 M.P.H.

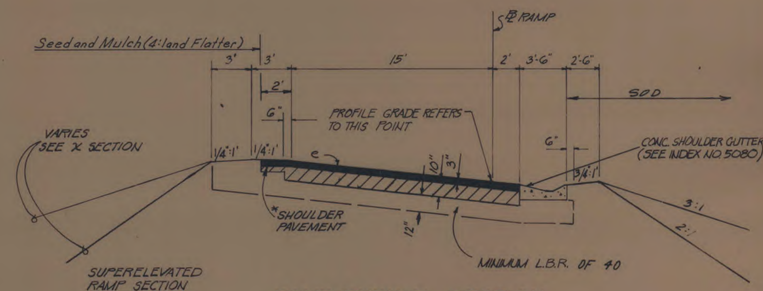


RAMP SECTION WITH STANDARD CURB & GUTTER

RAMP TYPICAL SECTION

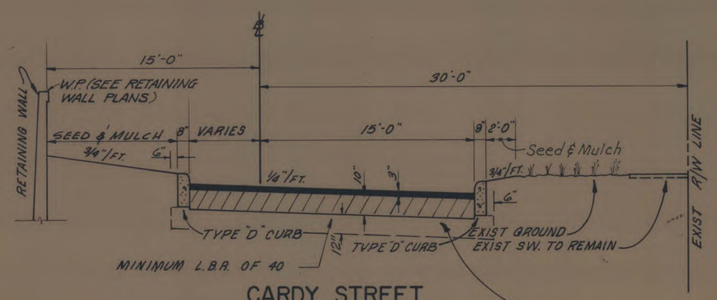
LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) AND ASPHALTIC CONC. WEARING COURSE (1" THICK)

DESIGN SPEED 35 M.P.H.



RAMP TYPICAL SECTION

DESIGN SPEED 35 M.P.H.



CARDY STREET
TYPICAL SECTION

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICH, TOP LAYER 1½" THICK).

Note, Stabiligation Was Deleted on Cardy St. due to high utility lines, also low traffic Volume. Stabiligation was not required by City Standards.

* For Shoulder Pavement Notes See Sheet # 4

AS BUILT

NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

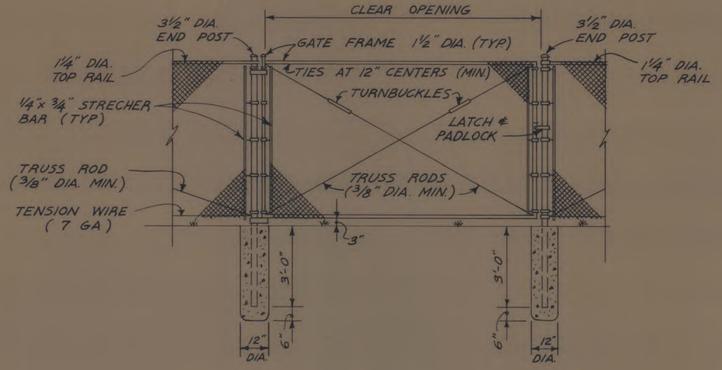
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.H. DATE 1974 TRACED H.L. DATE 1974
CHECKED J.N.C. DATE 1974 SCALE NOT TO SCALE

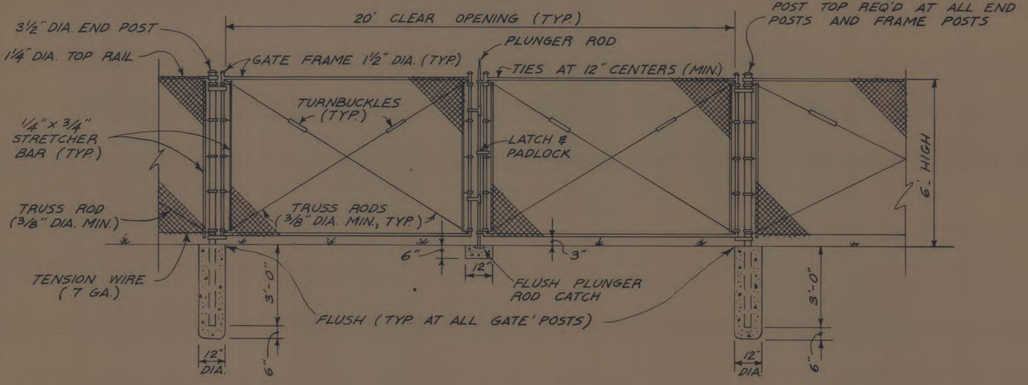
04
1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		7
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974



DETAILS OF 4' OR 10' GATE
NO SCALE
(2-4' 1-10')



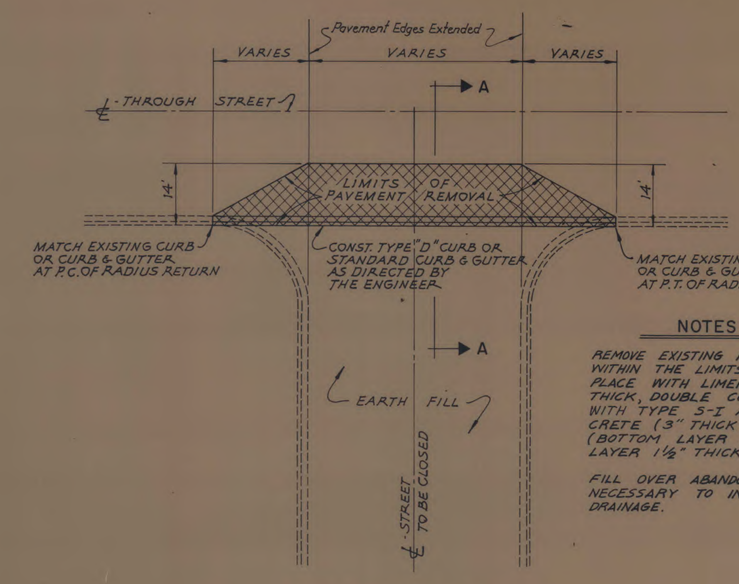
DETAILS OF 20' GATE
NO SCALE
(1 REQUIRED)

UTILITY OWNERS

1. Tampa Electric Co.
2. Peoples Gas System
3. General Telephone Co.
4. City of Tampa Water Dept.
5. City of Tampa Sanitary Sewer Dept.

GENERAL NOTES

1. B.M. Datum U.S.C. & G.S.
2. All utilities shown on the plans are taken from information supplied by utility owners. These are shown for information purposes only and the contractor will be responsible for verification of the exact location of all utilities.
3. Except for City of Tampa water and sewer lines, all utilities are to be adjusted by others as directed by the engineer.
4. Toll Plaza Site work to be completed within 90 days after notice to proceed.
5. Grades shown are finished grades.

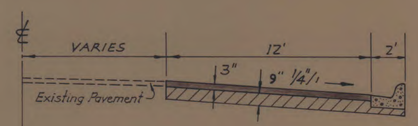


STREET TERMINAL DETAILS
Not to Scale

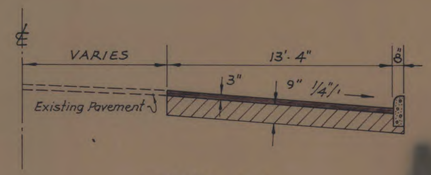
NOTES

REMOVE EXISTING PAVEMENT & BASE WITHIN THE LIMITS SHOWN & REPLACE WITH LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE) (BOTTOM LAYER 1½" THICK, TOP LAYER 1½" THICK).

FILL OVER ABANDONED STREET AS NECESSARY TO INSURE PROPER DRAINAGE.



SECTION A-A
(STANDARD CURB & GUTTER)



SECTION A-A
(TYPE D CURB)

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

MISCELLANEOUS DETAILS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.H. DATE 1974 TRACED H.L. DATE 1974
CHECKED J.N.G. DATE 1974 SCALE NOT TO SCALE

84
1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		8
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 1974

SUMMARY OF ROADWAY QUANTITIES

ITEM NO.	ITEM	AS BUILT QUANTITY	UNIT	QUANTITY
101-1	MOBILIZATION		LUMP SUM	1
102-1	MAINTENANCE OF TRAFFIC		LUMP SUM	1
102-4	CALCIUM CHLORIDE FOR DUST CONTROL	0	TON	23
104-1	ARTIFICIAL COVERINGS	0	SQ. YD.	887
104-2	MULCHING (TEMPORARY)	4435	SQ. YD.	4435
104-3	SODDING (TEMPORARY)	0	SQ. YD.	4435
104-4	MOWING	7	ACRE	5
104-5	SANDBAGGING	10.5	CU. YD.	20
104-6	SLOPE DRAINS (TEMPORARY)	51	LIN. FT.	85
110-1	CLEARING AND GRUBBING	1	LUMP SUM	1
120-6	EMBANKMENT	394,565	CU. YD.	383,648
120-8	FINAL DRESSING	1	LUMP SUM	1
160-4	TYPE B STABILIZATION	45,617	SQ. YD.	48,648
200-1-8	LIMEROCK BASE (5" THICK)	6756	SQ. YD.	6,572
300-1-1B (Sh'ld. ALT. F)	BITUMINOUS MATERIAL (PRIME COAT)	763	GAL.	978
300-1-3B (Sh'ld. ALT. F)	BITUMINOUS MATERIAL (TACK COAT)	521	GAL.	261
300-1-13B (Sh'ld. ALT. F)	BITUMINOUS MATERIAL (PLANT MIX) (AC-20)	5651	GAL.	4,987
331-1-1	TYPE S-1 ASPHALTIC CONCRETE (1" THICK)	8164	SQ. YD.	7,160
300-1-3C (Sh'ld. ALT. G)	BITUMINOUS MATERIAL (TACK COAT)		GAL.	261
335-1-61 (Sh'ld. ALT. G)	SAND-ASPHALT HOT MIX (5" THICK) (800 LB. STABILITY)	9396	SQ. YD.	6522
200-1-3	LIMEROCK BASE (10" THICK) [DOUBLE COURSE]	28,297	SQ. YD.	27,974
200-1-7	LIMEROCK BASE (9" THICK) [DOUBLE COURSE]	9396	SQ. YD.	6,853
300-1-1A	BITUMINOUS MATERIAL (PRIME COAT)	5015.	GAL.	5,224
300-1-3A	BITUMINOUS MATERIAL (TACK COAT)	2164	GAL.	1,393
300-1-13A	BITUMINOUS MATERIAL (PLANT MIX) (AC-20)	97,612	GAL.	90,752
331-1-5	TYPE S-1 ASPHALTIC CONCRETE (2" THICK)	28,403	SQ. YD.	28,548
331-1-9	TYPE S-1 ASPHALTIC CONCRETE (3" THICK) [DOUBLE COURSE]	8,365	SQ. YD.	6,853
300-1-13C (Sh'ld. ALT. G)	BITUMINOUS MATERIAL (PLANT MIX) (AC-20)		GAL.	23,019
338-70-1	ASPHALTIC CONCRETE WEARING COURSE (1" THICK)	41,370	SQ. YD.	35,708
339-70	MISCELLANEOUS ASPHALT PAVEMENT [PAVEMENT UNDER GUARDRAIL]	398.28	TON	383
360-1	CONCRETE APPROACH SLABS	12	EACH	12
400-1-15	CLASS I CONCRETE (MISCELLANEOUS)	0.65	CU. YD.	10
400-2-1	CLASS II CONCRETE (CULVERTS)	415.28	CU. YD.	485
415-1-1	REINFORCING STEEL (ROADWAY)	46,602	POUND	55,616
425-1-1	INLETS (CURB)	12	EACH	12
425-1-2	INLETS (DITCH BOTTOM)	22	EACH	23
425-1-3	INLETS (SPECIAL) [TYPE BW]	1	EACH	1
425-2	MANHOLES	15	EACH	21
425-2-9	MANHOLES (PARTIAL)	4	EACH	3
425-74	SHOULDER GUTTER INLETS	16	EACH	16
430-1-22	CONCRETE PIPE CULVERT (15") [STORM SEWER]	854	LIN. FT.	85:
430-1-23	CONCRETE PIPE CULVERT (18") [STORM SEWER]	2,220	LIN. FT.	2,224
430-1-25	CONCRETE PIPE CULVERT (30") [STORM SEWER]	298	LIN. FT.	298
430-1-26	CONCRETE PIPE CULVERT (36") [STORM SEWER]	2500	LIN. FT.	2,498
430-1-56	CONCRETE PIPE CULVERT (36") (SPECIAL) [STORM SEWER]	280	LIN. FT.	282
430-1-57	CONCRETE PIPE CULVERT (42") (SPECIAL) [STORM SEWER]	348	LIN. FT.	315
ALT. 430-2-22	CORRUGATED STEEL PIPE CULVERT (15") [GUTTER DRAIN]	494	LIN. FT.	494
430-8-22	CORRUGATED ALUMINUM PIPE CULVERT (15") [GUTTER DRAIN]		LIN. FT.	494
430-14-6	ELLIPTICAL CONCRETE PIPE CULVERT (29"×45") [STORM SEWER]	844	LIN. FT.	543
430-15-12	CAST IRON PIPE CULVERT (6") [HEAVY]	135	LIN. FT.	90
520-1-1	CONCRETE CURB AND GUTTER (6" CURB - 15" GUTTER)	3169	LIN. FT.	2,945
520-1-7	CONCRETE CURB AND GUTTER (TYPE E)	92	LIN. FT.	92
520-2-4	CONCRETE CURB (TYPE D)	2685	LIN. FT.	2,176
520-6	CONCRETE SHOULDER GUTTER	4183.32	LIN. FT.	4,073
520-70-41	CONCRETE TRAFFIC SEPARATOR (TYPE III) (4' WIDE)	183	SQ. YD.	183
522-1	CONCRETE SIDEWALK, 4" THICK	1982	SQ. YD.	741
524-1-1	CONCRETE DITCH PAVEMENT (3" THICK)	794.68	SQ. YD.	628
536-1-1	GUARDRAIL (ROADWAY)	7249.4	LIN. FT.	6900
536-6	END ANCHORAGE ASSEMBLIES, TYPE II	15	EACH	6
550-2	FENCING, TYPE B	8295	LIN. FT.	9,099
550-3-2	CORNER POST ASSEMBLIES (TYPE B FENCE)	33	EACH	74
550-4-2	PULL AND END POST ASSEMBLIES (TYPE B FENCE)	45	EACH	19
550-70-2	FENCE GATES (TYPE B FENCE)	8	EACH	4
570-2	SEEDING AND MULCHING	45.624	SQ. YD.	90,524
570-3	GRASS SEED (PERMANENT TYPE)	956	POUND	1870
570-4	MULCH MATERIAL	11.78	TON	75
570-5	FERTILIZER	7.10	TON	10
570-9	WATER FOR GRASSING	142.5	M. GALS.	138
570-10	GRASS SEED (QUICK-GROWING TYPE)	400	POUND	280
575-1	SODDING	41,528	SQ. YD.	17,777

SUMMARY OF GUARDRAIL

STATION TO STATION	RT. ROADWAY LT.	RT. ROADWAY RT.	LT. ROADWAY LT.	LT. ROADWAY RT.	TOTAL	AS BUILT QUANTITY
506+18 - 507+50	225				225.0	
506+50 - 507+40			87.5		~~87.5~~	95
506+50 - 507+65			125		125.0	
509+15 - 513+00		375			~~375.0~~	390
509+35.12 - 510+60				225	225.0	
509+35.48 - 513+60			437		437.0	
517+97.95 - 520+97.95			300.0		300.0	
517+97.95 - 520+97.95		362.5			362.5	
522+65.61 - 526+65.61			412.5		~~412.5~~	500
522+65.61 - 524+90.61				225.0	~~225.0~~	275
522+65.61 - 526+53.11		412.5			412.5	
528+79.23 - 535+91.73		725			~~725.0~~	800
529+00.00 - 536+00.00			725		725.0	
533+82.00 - 535+94.50	200				200.0	
542+74.25 - 544+86.75				212.5	212.5	
542+79.75 - 546+04.75			387.5		~~387.5~~	461.4
546+77.50 - 548+77.50	187.5				187.5	
243+84.00 Ramp "E" - 548+84.00			500.0		500.0	
144+03.00 Ramp "F" - 548+78.00		475.0			~~475.0~~	517
Dead End Streets & Driveways					~~300.0~~	298.5
Total Lin. Ft.					~~6899.5~~	7249.4

Note: Guardrail, Sodding, and Ditch Pavement Stations are approximate only and are to be adjusted in the field, if necessary, as directed by the Engineer.

SUMMARY OF SODDING

STATION TO STATION	LT.	MED.	RT.	TOTAL	AS BUILT QUANTITY
506+50 - 511+37		M		108.	321
509+50 - ~~514+50~~ 520+00		M		222.	3691
~~515+50 - 520+00~~ 509+24 - 517+10		M		200.	2350
522+90 - 526+50		M		160.	1447
529+00 - 533+00		M		178.	2694
506+50 - 507+20			R	245.	563
506+50 - 507+40	L			537.	828
509+44 - 513+00		R		1223	3854
518+00 - 520+87 & 543+00 - 549+00	L		R	2615.	9592
522+79 - 526+73	L		R	2302.	3753
529+70 - 535+80	L		R	5286.	7013
542+95 - 546+00	L			1084.	4045
147+00 - 148+00 (RAMP "F")			R	622.	2605
246+98 - 248+00 (RAMP "E")	L			521.	357
20+75 - 24+90 (WILLOW AVE.)			R	230.	0
20+30 - 24+69 (WILLOW AVE.)	L			244.	0
CONTINGENCY				1500	0
TOTAL S.Y.				17,777	41,528

SUMMARY OF DITCH PAVEMENT

STATION TO STATION	LT.	MED.	RT.	TOTAL	
215+08 - 217+00 (RAMP "C")	128			128.00	88.9
113+96 - 116+87 (RAMP "D")			194	194.00	132.44
142+97 - 145+00 (RAMP "E")			135.33	135.33	141.77
142+84 - 145+55 (RAMP "F")	180.67			180.67	241.77
CARDY ST. RET. WALL					69.15
BROREIN ST. RET. WALL					120.50
TOTAL				638.00	794.68

FOR QUANTITIES OF
SIGNING AND PAVEMENT MARKING ITEMS
SIGNALIZATION ITEMS
LIGHTING ITEMS
BRIDGE AND RETAINING WALL ITEMS
WATER LINE RELOCATION ITEMS
SANITARY SEWER RELOCATION ITEMS

SEE SUMMARY OF QUANTITIES SHEETS IN THEIR APPROPRIATE PLAN SETS.

GENERAL NOTES:

ITEM NOS. 104-1 THROUGH 104-6 ARE ESTIMATED QUANTITIES FOR PREVENTION, CONTROL, AND ABATEMENT OF SOIL EROSION AND WATER POLLUTION. TO BE USED AT LOCATIONS DESIGNATED BY THE ENGINEER.

ITEM NO. 120-6 ANY BORROW EXCAVATION REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR FROM AREAS PROVIDED BY HIM AND/OR BORROW AREA ONE AS SHOWN ON SHEET NUMBER 95 AND THE COST OF FURNISHING SUCH MATERIAL IS TO BE INCLUDED IN THE PRICE FOR EMBANKMENT.

ITEM NO. 524-1-1 INCLUDES 10 SQ.YD'S. FOR CONTINGENCIES TO BE USED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

ITEM NO. 570-2 INCLUDES 18,105 SQ.YD'S. FOR TEMPORARY GRASSING.
ITEM NO. 570-3 INCLUDES 374 LB'S. FOR TEMPORARY GRASSING.
ITEM NO. 570-5 INCLUDES 1.7 TONS FOR TEMPORARY GRASSING.
ITEM NO. 570-9 INCLUDES 37.4 M. GAL'S. FOR TEMPORARY GRASSING.
ITEM NO. 570-10 INCLUDES 112 LB'S. FOR TEMPORARY GRASSING.

ITEM NO. 575-1 INCLUDES 1,500 SQ.YD'S. FOR CONTINGENCIES TO BE USED, IF NECESSARY, AS DIRECTED BY THE ENGINEER.

FOR SUMMARY OF EARTHWORK SEE SHEET NO. 9.

THE COST OF INFORMATIONAL SIGNS IS TO BE INCLUDED IN THE OVERALL BID. (SEE SHEET NO. 94).

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

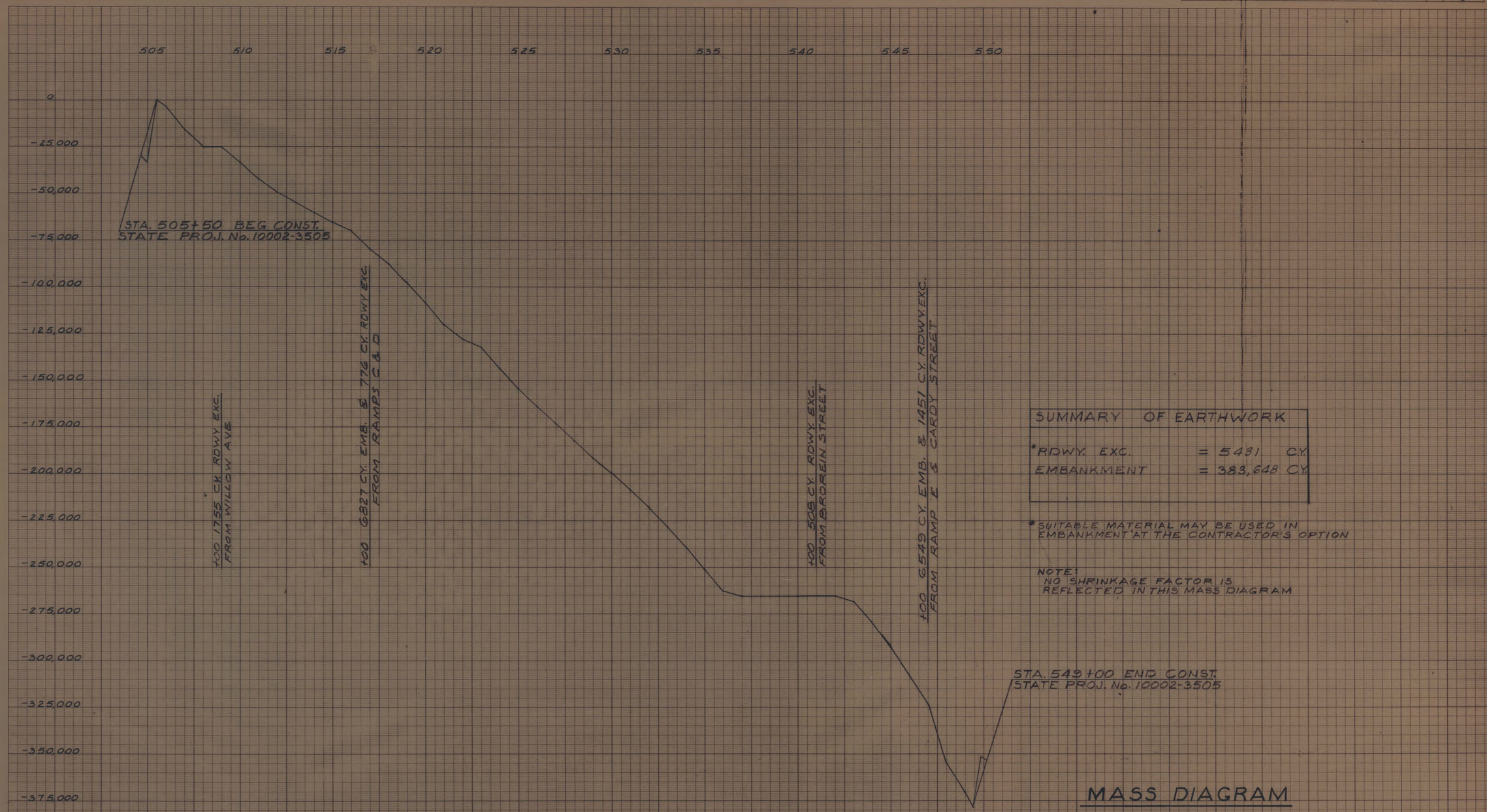
MADE M.F. DATE 1974 | TRACED H.L. DATE 1974
CHECKED J.N.C. DATE 1974 | SCALE

84/1

Contract No. 5

CROSS SECTIONS

Fed. Road Div. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	10002-3505	9



SUMMARY OF EARTHWORK

*RDWY. EXC.	= 5431 C.Y.
EMBANKMENT	= 383,648 C.Y.

* SUITABLE MATERIAL MAY BE USED IN EMBANKMENT AT THE CONTRACTOR'S OPTION

NOTE:
NO SHRINKAGE FACTOR IS REFLECTED IN THIS MASS DIAGRAM

MASS DIAGRAM

AS BUILT
NOV 26 1975

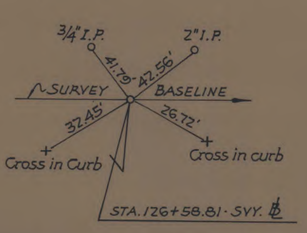
Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

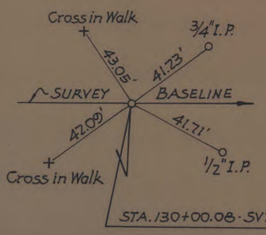
K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

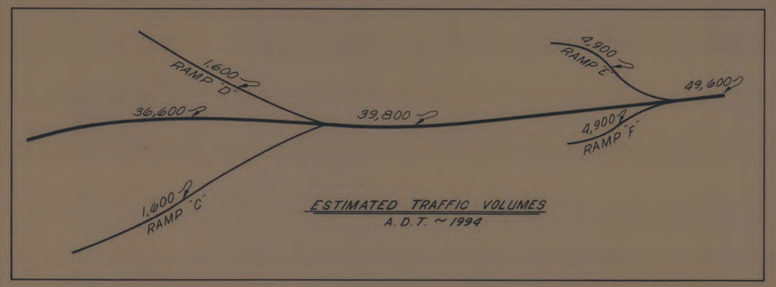
Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		10
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1972







CURVE No.2 DATA
P.I. STA. 114+62.40
Δ = 9°30'00" LT.
D = 3°30'00"
T = 136.03
L = 271.43
R = 1637.02
P.C. STA. 113+26.36
P.T. STA. 115+97.80

Scale: 1" = 100'

NOTE:
COORDINATES ARE BASED ON U.S.C. & G.S PLANE COORDINATE SYSTEM, TRANSVERSE-MERCATOR PROJECTION, WEST ZONE OF FLORIDA 1927 N.A.D.

CURVE No.1 DATA
P.I. STA 505+05.59
Δ = 55°11' 35 RT.
D = 4°00'00"
T = 748.72
L = 1,378.82
R = 1,432.39
P.C. STA 497+56.87
P.T. STA 511+36.69

CURVE No. 3 DATA.
P.I. STA. 210+48.64
Δ = 20°00'00" LT.
D = 08°00'00"
T = 126.29'
L = 250.00'
R = 716.20'
P.C. STA. 209+22.35
P.T. STA. 211+72.35

CURVE No. 4 DATA
P.I. STA. 216+89.66
Δ = 25°20' 59" RT.
D = 04°00'00"
T = 322.15
L = 633.74
R = 1,432.39
P.C. STA. 213+67.51
P.T. STA. 220+01.25

COORDINATE DATA

POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST	POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST	POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST
1	255+60.74 SVY. ℄	1,311,430.67	346,410.22	13	138+64.79 SVY. ℄	1,312,168.16	348,531.92	24	210+48.64 P.T. No. 3	1,311,632.52	347,571.71
2	497+56.87 P.C. No.1	1,311,416.08	346,430.52	14	520+50.00 ℄ CONST.	1,311,998.18	348,529.27	25	211+72.35 P.T. No. 3	1,311,734.80	347,686.67
3	123+24.30 SVY ℄	1,312,192.18	346,991.62	15	505+05.59 P.I. No. 1	1,312,024.10	346,867.44	26	213+67.51 P.C. No. 4	1,311,815.60	347,864.32
4	504+87.79 ℄ CONST.	1,311,877.73	346,986.97	16	122+90.61 SVY. ℄ P.I. 2	1,312,192.90	346,957.95	27	216+89.66 P.I. No. 4	1,311,948.97	348,157.57
5	126+58.81 SVY. = 20+00 WILLOW AVE.	1,312,186.96	347,326.09	17	123+08.50 SVY. ℄ P.I. 4	1,312,192.43	346,975.83	28	220+01.25 P.T. No. 4	1,311,943.94	348,479.68
6	508+43.18 ℄ CONST.	1,311,986.99	347,324.19	18	511+36.69 P.T. No. 1	1,312,012.42	347,616.08	29	520+01.25 ℄ CONST.	1,311,998.93	348,480.53
7	130+98.08 SVY. 171+73.87 SVY. ℄	1,312,181.64	347,667.32	19	113+26.37 P.C. No. 2	1,312,142.89	347,813.02	30	120+43.22 ℄ "D"	1,312,053.27	348,523.35
8	511+87.00 ℄ CONST.	1,312,011.64	347,666.38	20	114+62.40 P.I. No. 2	1,312,107.93	347,944.48	31	520+43.22 ℄ CONST.	1,311,998.28	348,522.50
9	133+32.50 SVY. ℄	1,312,176.45	347,999.70	21	115+97.80 P.T. No. 2	1,312,095.14	348,079.91				
10	515+19.40 ℄ CONST.	1,312,006.45	347,998.74	22	207+97.29 ℄ C 22+24.00 WILLOW AVE.	1,311,652.99	347,321.12				
11	136+64.26 SVY. ℄	1,312,171.27	348,331.42	23	209+22.35 P.C. No. 3	1,311,672.71	347,445.80				
12	518+48.82 ℄ CONST.	1,312,001.30	348,328.12								

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

ALIGNMENT CONTROL

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 1-4-72 | TRACED E.J. DATE 1-5-72
CHECKED J.L.H. DATE 1-6-72 | SCALE 1"=100'

Contract No. 5

84
1

30H

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		11
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1972

SCALE: 1" = 100'

CURVE No.5 DATA
P.I. STA. 531+57.76
Δ = 4°30'46" LT.
D = 0°30'00"
T = 451.51'
L = 902.56'
R = 11,459.16'
P.C. STA. 527+06.25
P.T. STA. 536+08.81

CURVE No.8 DATA
P.I. STA. 244+49.99
Δ = 7°31'36" RT.
D = 4°00'00"
T = 94.22
L = 188.17
R = 1432.39
P.C. STA. 243+55.77
P.T. STA. 245+43.94

CURVE No. 9 DATA
P.I. STA. 248+05.94
Δ = 14°00'00" LT.
D = 8°00'00"
T = 87.93'
L = 175.00'
R = 716.20'
P.C. STA. 247+18.01
P.T. STA. 248+93.01

Match Line see sheet No.

STA. 138+64.79 SVY. ℄

STA. 139+97.55 SVY. ℄ = STA. 20+00 ℄ DED. S. BOULEVARD

STA. 142+94.61 SVY. ℄ = STA. 20+00 ℄ DED. FIELDING AVE.

STA. 145+90.47 SVY. ℄ = STA. 20+00 ℄ DED. BREVARD AVE.

STA. 148+88.44 SVY. ℄ = STA. 20+00 ℄ DED. MAGNOLIA AVE.

STA. 151+84.61 SVY. ℄ = STA. 20+00 ℄ DED. CEDAR ST.

STA. 154+93.46 SVY. ℄ STA. 20+00 ℄ DED. HYDE PARK AVE.

P.I. No.5 STA. 155+64.36 SVY. ℄

STA. 158+73.01 SVY. ℄ STA. 20+00 ℄ DED. PLANT AVE. ℄ STA. 240+30.31 ℄ E

P.I. No.6 STA. 159+63.88 SVY. ℄

P.C. STA. 243+55.77 CURVE No.8

P.I. STA. 244+49.99 CURVE No.8

P.T. STA. 245+43.94 CURVE No.8

STA. 164+47.01 SVY. ℄ = STA. 20+00 ℄ DED. PARKER ST.

P.C. STA. 247+18.01 CURVE NO. 9 SURVEY ℄

P.T. CURVE No.9 STA. 248+93.01 END ℄ "E" 57' LT. STA. 548+93.01 ℄ CONST.

STA. 168+06.19 SVY. ℄ = STA. 20+00 ℄ DED. BAYSHORE BLVD.

P.I. No.7 STA. 170+07.53 SVY. ℄

P.I. STA. 248+05.94 = 57' LT. STA. 548+05.94 ℄ CONST.

STA. 520+50.00 ℄ CONST.

STA. 521+81.78 ℄ CONST.

STA. 524+79.71 ℄ CONST.

P.C. STA. 527+06.25 ℄ CONST.

STA. 527+76.08 ℄ CONST.

P.I. STA. 531+57.76 ℄ CONST.

STA. 530+73.75 ℄ CONST.

P.T. STA. 536+08.81 ℄ CONST.

STA. 536+79.87 ℄ CONST.

STA. 537+60.65 ℄ CONST.

STA. 533+70.31 ℄ CONST.

STA. 540+47.58 ℄ CONST.

STA. 140+38.55 STA. 22+69.93 PLANT AVE.

STA. 541+51.12 ℄ CONST.

P.C. STA. 142+59.03 CURVE NO.6

P.I. STA. 143+36.42 CURVE NO.6

P.T. STA. 144+13.42 CURVE NO.6

STA. 546+20.11 ℄ CONST.

P.C. STA. 147+52.11 CURVE NO.7

CURVE No.7 P.I. STA. 148+30.74 57 RT. STA. 548+30.62 ℄ CONST.

STA. 549+01.13 ℄ CONST.

STA. 550+12.02 ℄ CONST.

STA. 551+92.00 ℄ CONST.

CURVE NO. 7 P.T. STA. 149+09.25 END ℄ F 57' RT. STA. 549+09.25

COORDINATE DATA

POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST	POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST	POINT NO.	STATION	COORDINATES NORTH	COORDINATES EAST
13	138+64.79 SVY. ℄	1,312,168.16	348,531.92	51	164+47.01 SVY. ℄	1,312,246.02	351,098.75	71	549+01.13 ℄ CONST.	1,312,090.98	351,377.25
14	520+50.00 ℄ CONST.	1,311,998.18	348,529.27	52	546+20.11 ℄ CONST.	1,312,073.24	351,096.79	72	149+09.25 P.T. #7	1,312,034.60	351,388.95
33	139+97.55 SVY. ℄	1,312,166.09	348,664.67	53	168+06.19 SVY. ℄	1,312,242.53	351,457.91	73	248+05.94 P.I. #9	1,312,141.81	351,277.79
34	521+81.78 ℄ CONST.	1,311,996.13	348,661.04	54	550+12.02 ℄ CONST.	1,312,097.98	351,487.92				
35	142+94.61 SVY. ℄	1,312,161.45	348,961.69	55	170+07.53 SVY. ℄ P.I. #7	1,312,240.58	351,659.24				
36	524+79.71 ℄ CONST.	1,311,991.47	348,958.93	56	551+92.00 ℄ CONST.	1,312,109.34	351,667.53				
37	145+90.47 SVY. ℄	1,312,156.84	349,257.52	57	527+06.25 P.C. #5	1,311,987.94	349,185.44				
38	527+76.08 ℄ CONST.	1,311,987.06	349,255.30	58	531+57.76 P.I. NO.5	1,311,980.91	349,636.89				
39	148+88.44 SVY. ℄	1,312,152.19	349,555.45	59	536+08.81 P.T. NO.5	1,312,009.39	350,087.51				
40	530+73.75 ℄ CONST.	1,311,988.10	349,552.95	60	247+18.01 P.C. #9	1,312,157.65	351,191.30				
41	151+84.61 SVY. ℄	1,312,147.57	349,851.59	61	140+38.55 ℄ F 22+69.93 Plant Ave.	1,311,956.00	350,524.19				
42	533+70.31 ℄ CONST.	1,311,996.83	349,849.38	62	243+55.77 P.C. #8	1,312,210.69	350,833.31				
43	154+93.46 SVY. ℄	1,312,142.76	350,160.40	63	142+59.03 P.C. #6	1,311,952.48	350,744.65				
44	536+79.87 ℄ CONST.	1,312,013.88	350,158.43	64	244+49.99 P.I. #8	1,312,206.00	350,927.40				
45	155+64.36 SVY. ℄ P.I. #5	1,312,141.65	350,231.29	65	143+36.42 P.I. #6	1,311,951.23	350,822.02				
46	537+60.65 ℄ CONST.	1,312,018.98	350,239.05	66	245+43.94 P.T. #8	1,312,189.02	351,020.08				
47	158+73.01 SVY. ℄ = 240+30.31 ℄ E 20+00	1,312,225.90	350,528.21	67	144+13.42 P.T. #6	1,311,963.50	350,898.44				
48	540+47.58 ℄ CONST.	1,312,037.10	350,525.40	68	147+52.11 P.C. #7	1,312,017.18	351,232.85				
49	159+63.88 SVY. ℄ P.I. #6	1,312,250.71	350,615.64	69	148+30.74 P.I. #7	1,312,029.64	351,310.48				
50	541+51.12 ℄ CONST.	1,312,043.64	350,628.74	70	248+93.01 P.T. #9	1,312,147.36	351,365.54				

CURVE No.6 DATA
P.I. STA. 143+36.42
Δ = 10°02'08" LT.
D = 6°30'00"
T = 77.39
L = 154.39
R = 881.47
P.C. STA. 142+59.03
P.T. STA. 144+13.42

CURVE No.7 DATA
P.I. STA. 148+30.74
Δ = 5°30'00" RT.
D = 3°30'00"
T = 78.63
L = 157.14
R = 1637.02
P.C. STA. 147+52.11
P.T. STA. 149+09.25

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

ALIGNMENT CONTROL

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 1-4-72 TRACED E.J. DATE 1-5-72
CHECKED J.L.H. DATE 1-6-72 SCALE 1" = 100' 84/1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		12
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 197*

STATE JOB NO. 10002-3505

Scale: 1"=50'

"NOTE" STREET & ALLEY TERMINALS WERE SHOWN AS 6" CURB 1.5' GUTTER BUT WAS ACTUALLY TYPE "D" CURB. 246 L.F. OF TYPE "D" WAS CONSTRUCTED ON CLEVELAND ST.

CONSTRUCTED 194 S.Y. 5' CONC. S.W. WILLOW ST. TO SOUTH BLVD.

CLEVELAND STREET

STA. 126+58.81 SURVEY ℄ = STA. 20+00 ℄ DED. WILLOW AVE.

STA. 111+75.61 ℄ "D" EXTENDED = STA. 130+00.08 SURVEY ℄

STA. 507+55.13 BEGIN BRIDGE

STA. 509+26.13 END BRIDGE

STA. 521+04.78 BEGIN BRIDGE

STA. 506+50 BEGIN STATE JOB NO. 10002-3505
END STATE JOB NO. 10002-3504

WILLOW AVE.

NEWPORT AVE.

DELAWARE AVE.

EDISON AVE.

RAMP "C"

RAMP "D"

PLATT ST.

STA. 25+24.00 WILLOW AVE CONSTRUCTED 39 S.Y. CONC. S.W.
STA. 17+34.88 PLATT ST. ℄
STA. 207+07.29 ℄ "C"

CONST. STREET TERMINAL - SEE SHEET NO. 7

CONST. STREET TERMINAL SEE SHEET NO. 7

CONST. 171 L.F. OF L.A. R/W LINE 6" CURB & 1'-6" GUTTER

CONST. 30 L.F. OF (VARIOUS) 6" CURB & 1'-6" GUTTER

CONST. 12 L.F. OF 6" CURB & 1'-6" GUTTER

CONST. TYPE "B" FENCE

CONST. 5' SIDEWALK

CONST. APPR. SLABS SEE SHEET NO. 86188

CONST. APPR. SLABS SEE SHEET NO. 85192

CONST. APPR. SLABS, SEE SHEET NO. 89190

CONST. 125 L.F. GUARDRAIL

CONST. 225 L.F. GUARDRAIL

CONST. 375 L.F. GUARDRAIL

CONST. 300 L.F. GUARDRAIL

CONST. 200 L.F. GUARDRAIL

CONST. 362.5 L.F. GUARDRAIL

CONST. 12.5 L.F. GUARDRAIL

CONST. 28.5 L.F. GUARDRAIL

CONST. 2'BW DITCH

CONST. SPEC. 2'BW DITCH PAVED 0.5' HIGH

CONST. SPEC. 1'BW DITCH PAVED 0.5' HIGH

CONST. CONC. SPILLWAY INDEX 5061

CONST. 200 L.F. OF 36" SPEC. PIPE (IN PLACE OF EXIST. 36" PIPE)

REMOVE EXIST. PIPES & INLETS

REMOVE EXIST. PIPE & INLET

REMOVE INLET & 15" PIPE

ADJUST INLET TOP

TOLL PLAZA BY OTHERS

CONST. 12'-5" BOX CULVERT

℄ OF CONSTRUCTION

PROPOSED CONTOURS

NOTE: SITE GRADE INFIELD AREAS TO PROPOSED CONTOURS

CURVE NO. 1 DATA
P.I. STA. 505+85.59
Δ = 95°11'35" RT.
D = 4°00'00"
T = 748.72'
L = 1379.82'
R = 1432.39'
P.C. STA. 497+56.87
P.T. STA. 511+36.69
℄ = 0.08'↓

NOTE: FOR DETAILS OF WILLOW AVENUE - SEE SHEET NO. 13

NOTE: FOR GRADING OF INTERCHANGE - SEE CROSS SECTIONS.

NOTE: FOR INTERCHANGE DETAILS SEE SHTS. 27-33

CONST. 171.00' BRIDGE

CONST. 400' V.C.

CONST. 500' V.C.

CONST. 600' V.C.

B.M. No. 16a
Square cut in Curb
N.W. Cor. Cleveland & Willow
El. 15.521

B.M. No. 15a
Square cut in Curb
N.E. Cor. Cleveland & Newport
El. 18.567

B.M. No. 14a
Sq. Cut in Curb
N.W. Cor. Cleveland & Delaware
El. 18.057

B.M. No. 13a
Sq. Cut in Curb
N.E. Cor. Cleveland & Edison
El. 17.967

CONST. STD. MEDIAN DITCH 1.5' BELOW LOW SHOULDER

CONST. STD. MEDIAN DITCH 1.5' BELOW SHOULDER

CONST. MED. DITCH 0.5' BELOW SHOULDER

10' MED. DITCH TRANSITION

SOD MED. DITCH

AS BUILT

NOV 26 1975

520 Contract No. 15

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		13
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

STATE JOB NO. 10002-3505

SCALE: 1"=50'

CURVE NO. 5 DATA
P.I. STA. 531+57.76
Δ = 04°30'46" LT.
D = 01°30'00"
T = 451.51'
L = 902.56'
R = 11,459.16'
e = R.C.
P.C. STA. 527+06.25
P.T. STA. 536+08.81

CONSTRUCTED TYPE "D" CURB AT STREET TERMINALS SEE NOTE ON SH. 12

CONSTRUCTED 272 S.Y. 5' CONC. S.W. S. BLVD. TO HYDE PARK.

CONSTRUCTED 112 LF TYPE "D" CURB AT SOUTH BLVD.

CONSTRUCTED 230 S.Y. 5' CONC. S.W.

CLEVELAND STREET

SURVEY BASELINE

S 89°06'-23"E

SOUTH BLVD.

FIELDING AVE. (TO BE CLOSED)

BREVARD AVE. (TO BE CLOSED)

MAGNOLIA AVE.

CEDAR AVE.

CONST. STREET TERMINAL SEE SHEET NO. 7

CONST. 112 L.F. OF 6" CURB & 1'-6" GUTTER

CONST. 35 L.F. OF 6" CURB & 1'-6" GUTTER

REMOVE INLETS & PIPE

REMOVE PIPES & INLETS

PLUG

P.T. STA. 536+08.8

CONST. 315' OF 42" SPEC. PIPE (IN PLACE OF EXIST. 42" PIPE)

CONST. 382 L.F. OF GUARDRAIL

TO BE ADJUSTED - SEE SHT. NO. W-6

300' PAVED SHOULDER TRANSITION (6' TO 0')

300' PAVED SHOULDER TRANSITION (0' TO 6' LT. 0' TO 8' RT.

L.A. R/W LINE

CONST. TYPE "B" FENCE

STA. 522+58.78 END BRIDGE

STA. 521+04.78 BEGIN BRIDGE

CONST. APPROACH SLABS, SEE SHEET NO. 82439

CONST. 275 LF. OF GUARDRAIL

525

530

535

TOLL PLAZA (BY OTHERS)

200' PAVING EXCEPTION BASE, PAVEMENT AND STABILIZATION BY OTHERS

SLOPE SODDED BY OTHERS

CONST. 412.5 L.F. OF GUARDRAIL

CONST. 375 L.F. GUARDRAIL

CONST. 72.5 L.F. GUARDRAIL

CONST. TYPE "B" FENCE

CONST. 72.5' L.F. GUARDRAIL

CONST. 6 x 20' GATE SEE SHEET NO. 7

CONSTRUCTED RET. WALL FOR TREE PROTECTION SEE SH. NO. W-12

CONST. SHOULDER GUTTER

CONST. 725 L.F. OF GUARDRAIL

CONST. 200 L.F. OF GUARDRAIL To Be Abandoned

CONST. 54' L.F. GUARDRAIL

CONST. 125' L.F. GUARDRAIL

CONST. 375' L.F. GUARDRAIL

CONST. 75' L.F. GUARDRAIL.

NOTE: FOR PROFILES OF LINES A THROUGH H AND LINES A, THROUGH H, - SEE SHEET NO. 43

B.M. NO. 12a
Sq. cut in curb
N.W. Cor. Cleveland & So. Boulevard
El. 16.781

B.M. NO. 11a
Sq. cut in curb
N.E. Cor. Cleveland & Fielding
El. 17.453

B.M. NO. 10a
Sq. cut in curb
N.W. Cor. Cleveland & Brevard
El. 17.920

B.M. NO. 9a
Sq. cut in curb
N.W. cor. Cleveland & Magnolia
El. 18.546

B.M. NO. 8
Sq. cut in curb
N.W. Cor. Cleveland & Cedar.
El. 19.087

600' V.C.

500' V.C.

100' V.C.

90' V.C.

+3.000%

-3.000%

+1.000%

-0.860%

+2.787%

-0.5000%

+0.40%

154.00' BRIDGE

SPEC. 3' B.W. DITCH - Rt.

SPEC. MED. DITCH

CONST. 29" x 45" PIPE

CONST. 42" S.S.

CONST. 36" PIPE

CONST. STD. MEDIAN DITCH

CONST. STD. MEDIAN DITCH 1.83' BELOW SHOULDER

30D MED. DITCH

AS BUILT
NOV 26 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		14
BY: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		DATE 1974

STATE JOB NO. 10002-3505

SCALE 1" = 50'

P.I. NO. 5
STA. 155+64.36 SVY ℄
N 1,312,141.65
E 350,231.29

P.I. NO. 6
STA. 159+63.88 SVY ℄
N 1,312,250.71
E 350,619.64

W. BROREIN STREET

HYDE PARK AVE.

PLANT AVE.

CARDY STREET

PARKER ST.

BAYSHORE BLVD.

RAMP "E"

RAMP "F"

BEGIN BRIDGE STA. 536+04.59

END BRIDGE STA. 542+69.59

665.00' BRIDGE

CONSTRUCTED 249 L.F. TYPE "D" CURB AT HYDE PARK & PLANT ST'S.

CONSTRUCTED 373 L.F. OF TYPE "B" FENCE TO KEEP CHILDREN & ANIMALS FROM CLIMBING SLOPE

CONSTRUCTED 112 L.F. OF 6" C.I.P.

CONSTRUCTED 53 SY. 4" CONC. S.W.

CONSTRUCTED 27 SY. 5" CONC. S.W.

CONSTRUCTED 23' OF 6" CURB & 1'-6" GUTTER

CONSTRUCTED 186 SY. 5" CONC. S.W.

CONSTRUCTED 221 SY. 5" CONC. S.W.

CONST. 212.5 L.F. GUARDRAIL

CONST. 187.5 L.F. GUARDRAIL

CONST. 425 L.F. OF GUARDRAIL

CONST. 500 L.F. OF GUARDRAIL

CONST. 461.4 L.F. OF GUARDRAIL

CONST. RETAINING WALL

CONST. RET. WALL DRAIN

CONST. RETAINING WALL DRAIN (INDEX NO. 5061)

CONST. PAVED DITCH

CONST. PAVED GUTTER INDEX NO. 5061-E

CONST. 15 L.F. END BRIDGE 6" CURB & 1'-6" GUTTER

CONST. TYPE "B" FENCE

CONST. 6'x35' GATE SEE SHEET NO. 7

CONST. 6'x10' GATE SEE SHEET NO. 7

CONST. APPROACH SLABS SEE SHEET NO. 91 & 92

CONST. APPR. SLABS-SEE SHEET NO. 3552A

FUTURE SERVICE ROAD

REMOVE INLET & PIPE

REMOVE INLET

DELETED

TOLL BOOTH (BY OTHERS)

PROPOSED CONTOURS

℄ OF CONSTRUCTION

L.A. R/W LINE

L.A. R/W LINE CONST. TYPE "B" FENCE

CONST. STREET TERMINAL SEE SHT. NO. 7

SURVEY ℄

T.E. Co. Cable (69 KV)

S-31 S-33 S-34 S-38 S-39 S-40

W-25 W-26

TO BE RELOCATED, SEE SH. W-7

NOTE: DUE TO LOCATION OF ELECTRICAL VAULT 36" STORM WAS CHANGED AS SHOWN & STD. M.H. CONSTRUCTED. SEE SHEET 37 & 23

NOTE:
1. FOR W. BROREIN ST. PLAN AND PROFILE SEE SHT. NO. 41 & 42
2. FOR INTERCHANGE DETAILS SEE SHT. NOS. 38-40

NOTE: FOR CARDY STREET DETAILS SEE SHEET NOS. 37 & 38

NOTE: BRIDGES APPROACH SLABS, BARRIER WALL & SLOPE PAVING BY OTHERS. PAVEMENT ADJACENT TO APPROACH SLAB AND GUARDRAIL ATTACHMENT TO WING WALLS ARE INCLUDED IN THIS CONTRACT.

END STATE JOB NO. 10002-3505 STA. 548+12.00

San Sewer Pump Station

B.M. No 1a
Sq. Cut in Curb
N.W. Cor. Brorein and Hyde Park
EL. 10.812

B.M. No 2a
Sq. Cut in Catch Basin Lid
W. Side of Bayshore, 100' S. of Brorein
EL. 4.684

B.M. No 3a
Sq. Cut in Catch Basin Lid
N. Side Brorein 100' W. of Exist Bridge
EL. 5.176

B.M. No 4a
Sq. Cut in Curb
N.W. Cor. Brorein and Parker
EL. 9.493

B.M. No 5a
Sq. Cut in Curb
N. Side Brorein, 1/2 Way Between Parker and Plant
EL. 16.363

B.M. No 6a
Sq. Cut in Curb
N.W. Cor. Brorein and Plant
EL. 17.647

P.V.T. (400) EL. 41.00

-0.500%

+0.300%

-0.300%

+1.000%

500' V.C.

M.D.P.I. (400) EL. 34.81

M.D.P.I. (450) EL. 34.66

M.D.P.I. (455) EL. 34.66

SPEC. GUTTER PROFILE LT. & RT.

SPEC. MEDIAN DITCH

CONST. 36" PIPE

CONST. STD. MEDIAN DITCH 0.6' BELOW SHOULDER

10' MED. DITCH TRANSITION

CONST. STD. MED. DITCH 1.85' BELOW SHOULDER

CONST. MED. DITCH 0.6' BELOW SHOULDER

Seawall M.H.W. 1.6'

8" W.M. (TO BE ADJUSTED) SEE SHEET NO. W-7

45° Sch

AS BUILT

NOV 26 1975

Contract No. 5

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		15
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1972

SCALE - 1" = 20'

STREET — SURVEY BASELINE — 127

CLEVELAND — 126

PLATT — 17

WILLOW AVENUE

STA. 7+71.37 ℄ A.
STA. 20+00 ℄ WILLOW AVE.
= STA. 126+58.61 SURVEY BASELINE

STA. 20+19.50
BEGIN CONST.

STA. 22+00 WILLOW AVE. =
STA. 508+43.18 EXPRESSWAY

STA. 25+24.00 WILLOW AVE.
= STA. 17+34.88 PLATT ST. ℄
STA. 207+97.29 ℄ 'C' EXT.

STA. 25+01.50
END CONST.

MATCH EXIST. CURB

2-Story Fr. Apartment

1-Story Fr. Res

1-Story C.B. Store

Exist. 12' x 5' S.S.

CONST. 5' SIDEWALK

CONST. 18" PIPE

6" San (TO BE ABANDONED)

6" WM - (TO BE ABANDONED)

4' CONC. TRAFFIC SEPARATOR TYPE IV (INDEX NO. 5060)

REMOVE CURB INLET AND CONST. DBI AT SAME FL.

CONST. 18" PIPE

CONST 12' x 5' RCB

CONST. 6" CURB 15" GUTTER

Nursery

1-St. Fr. Res.

2-Story Fr. Res.

1-Story Fr. Res.

2-Story C.B. Stucco Apartmt.

2-Story Apartmt.

1-Story Liquor Store

WILLOW AVENUE

Fill Placed in Contract 3505

"B" A" Profile

Stations along ℄ A.

Existing Grade along ℄

Profile Grade

Additional fill material (see index 5060)

6" MUCK TO BE ABANDONED

Special grade at curb

AS BUILT

NOV 25 1975

Contract No. 5

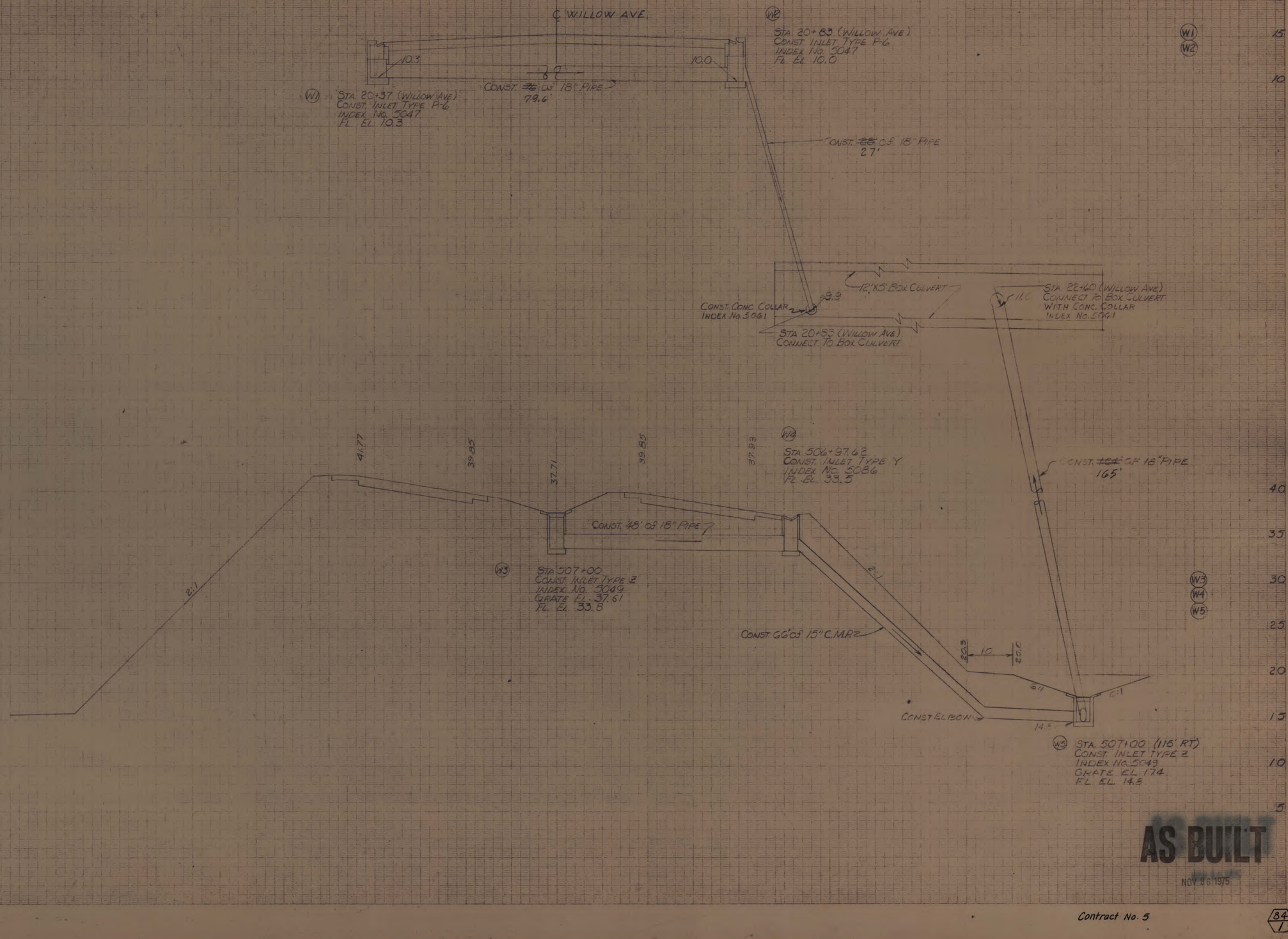
84
1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 " Horiz.

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	16

STATE JOB NO. 10002-3505



AS BUILT
NOV 26 1975

Application No.
Plans No.
Original Plotted by
" Checked by
Tracings by
Area by
Prints Plotted by
" Checked by
Area by
" Checked by

A. R. CODDWELL
JACKSONVILLE, FLA.

Contract No. 5

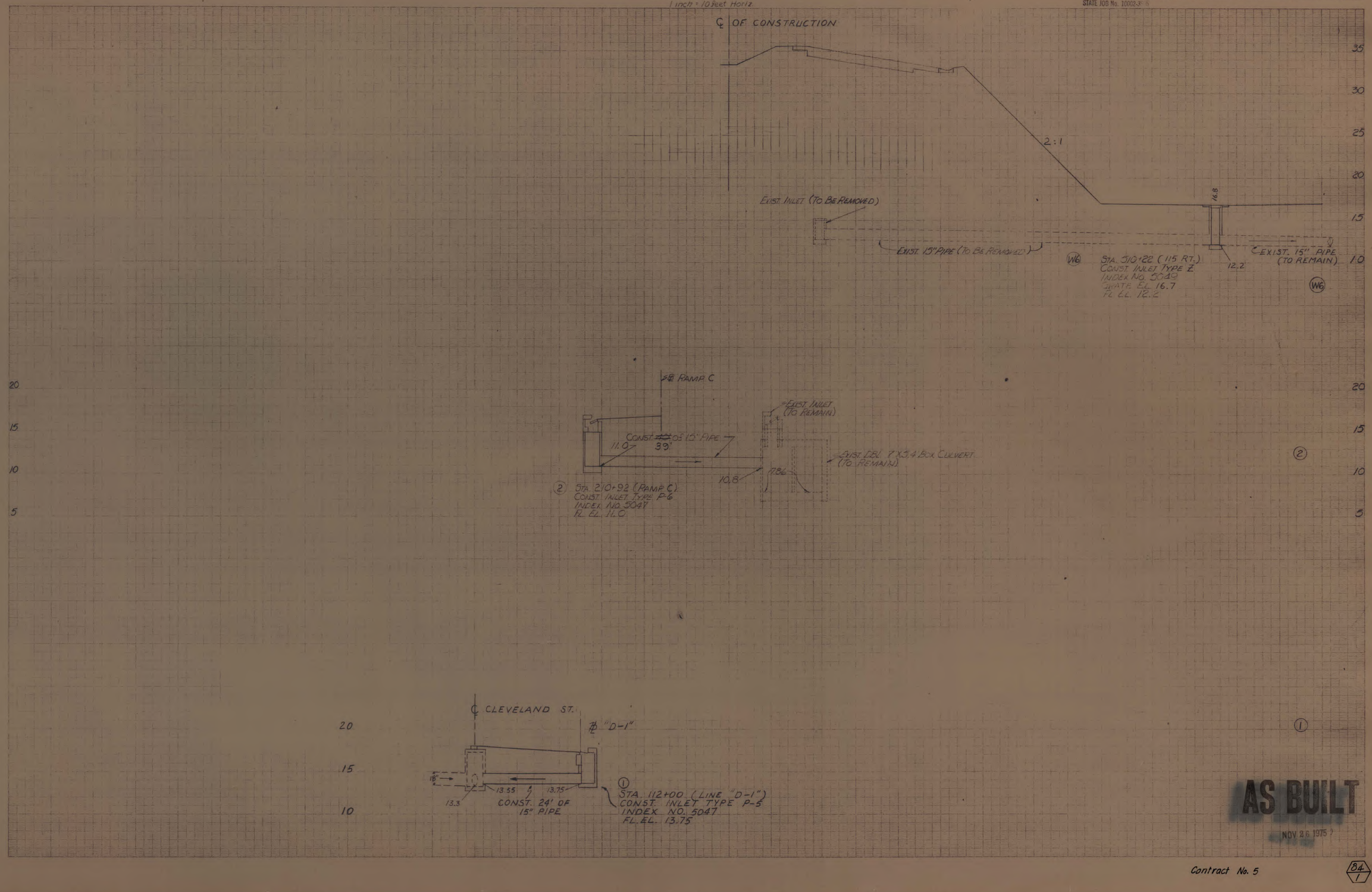
84
1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Prof. Proj. Surv. No.	State	County	Route	Proj. No.	Sheet No.
7	Fla.	HILLSBOROUGH	449	3505	17

STATE JOB No. 10002-3505



AS BUILT

NOV 26 1975

Contract No. 5

84/1

A. N. CORDWELL
JACKSONVILLE, FLA.

CROSS SECTIONS

Scale 1 inch = 5 feet Vert
1 inch = 10 feet Horiz

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	35059	18

STATE JOB NO. 10002-3505

⑧ STA. 118+00 (RAMP D)
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 25.9

31.92 31.92

25.9

CONST. 148' OF 18" PIPE

⑨ STA. 218+00 (RAMP C)
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 25.4

4:1

25.4

CONST. ~~55~~ 53' OF 15" C.M.P.

EXIST. GROUND

TO ⑪

CONST. 29"x45" PIPE

⑧ ⑨ ⑩

⑩ STA. 518+00 (130' RT)
CONST. M.H. TYPE "J" ALT. "B"
WITHOUT RISER
CONST. INLET TYPE "Z"
IN TOP SLAB
INDEX NO. 5047, 5049.
GRATE EL. 17.9
FL. EL. 13.9
(BID AS DITCH BOTTOM INLET)

5:1 5:1

14.8

13.9

⑥ STA. 514+95
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 24.96
FL. EL. 15.5

27.11 27.11 26.61

⑤ STA. 514+00
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 18.5
FL. EL. 16.2

4:1

RAMP -D-

CONST. ~~124~~ 130' OF 18" PIPE

15.5

CONST. 92' OF 18" PIPE

⑦ STA. 515+00 (94' RT.)
CONST. INLET TYPE "X"
INDEX NO. 5048
GRATE EL. 17.9
FL. EL. W. 14.8
FL. EL. E. 14.4

5:1

CONST. ~~298~~ 296.9' OF 30" PIPE

⑤ ⑥ ⑦

6:1

14.8 W.
14.4 E.

15.2

CONST. ~~200~~ 198' OF 18" PIPE

③ STA. 513+00
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 24.2

29.06 28.26

4:1

④ STA. 513+00 (97' RT.)
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 17.90
FL. EL. 15.3

③ ④

CONST. 44' OF 15" C.M.P.

15.3

AS BUILT

NOV 26 1975

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

KAE CO. ORLANDO, FLA. ORDER STOCK # 1994

Contract No. 5

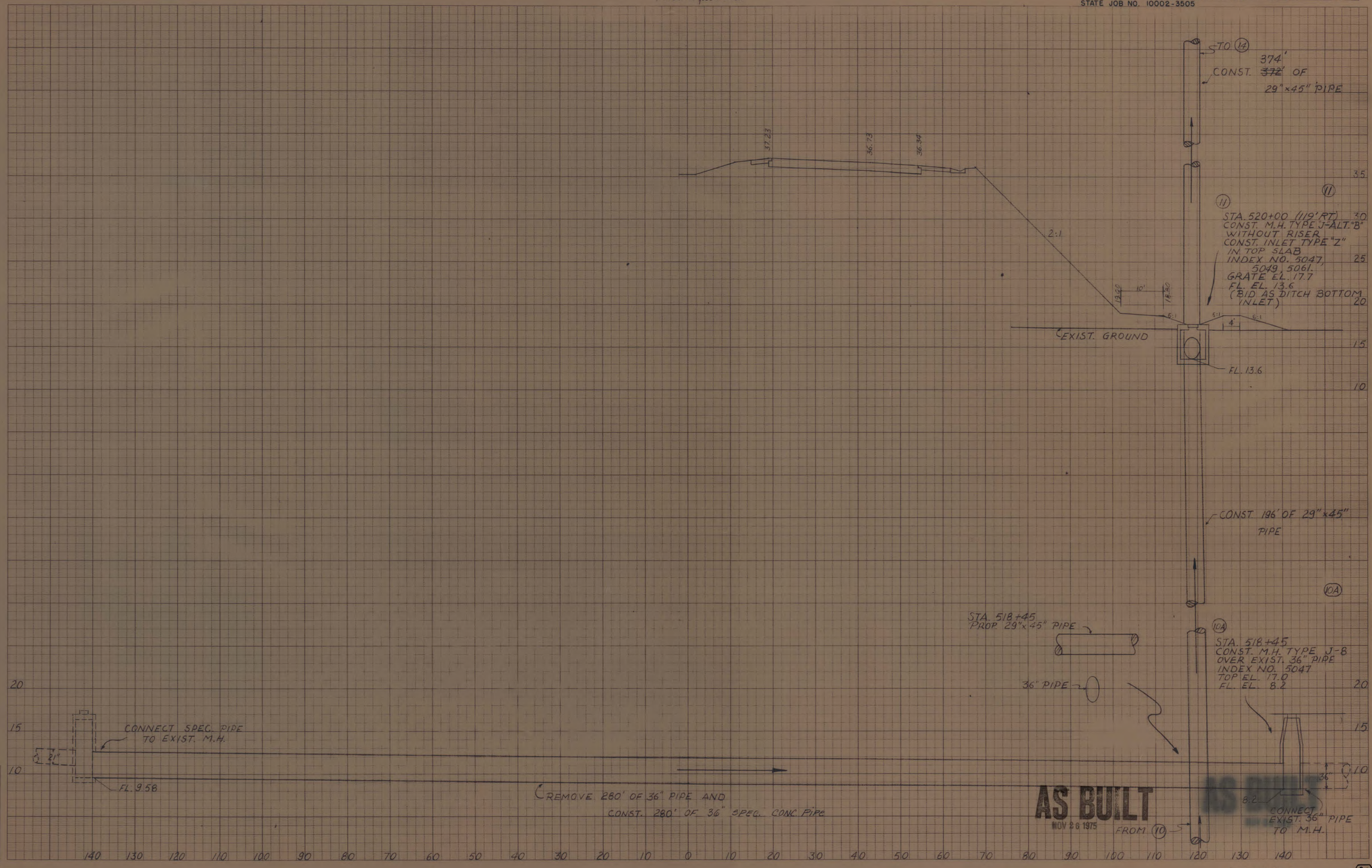
84/1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	19

STATE JOB NO. 10002-3505



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK @ 1904

Contract No. 5

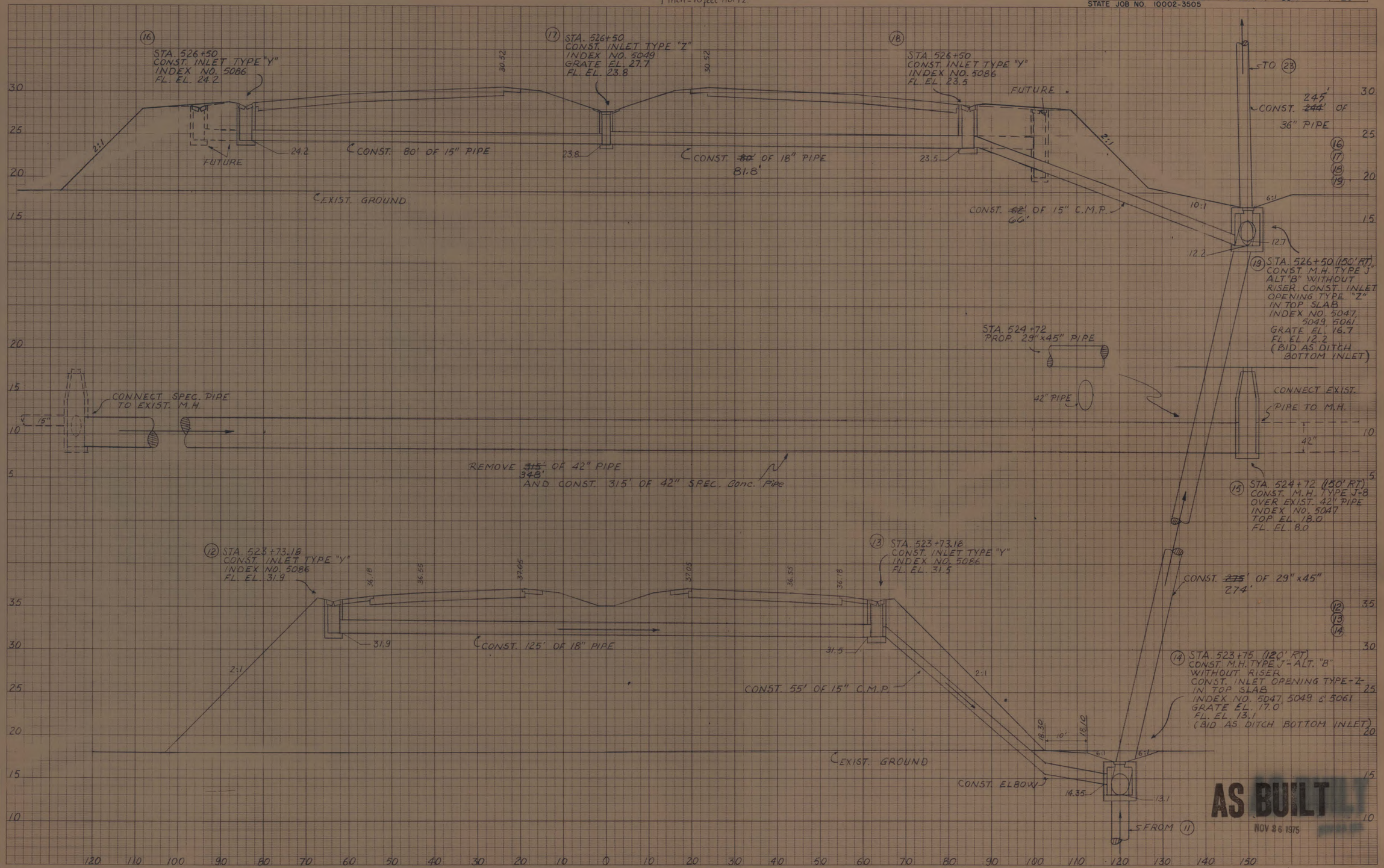
84/1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	20

STATE JOB NO. 10002-3505



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

Contract No. 5

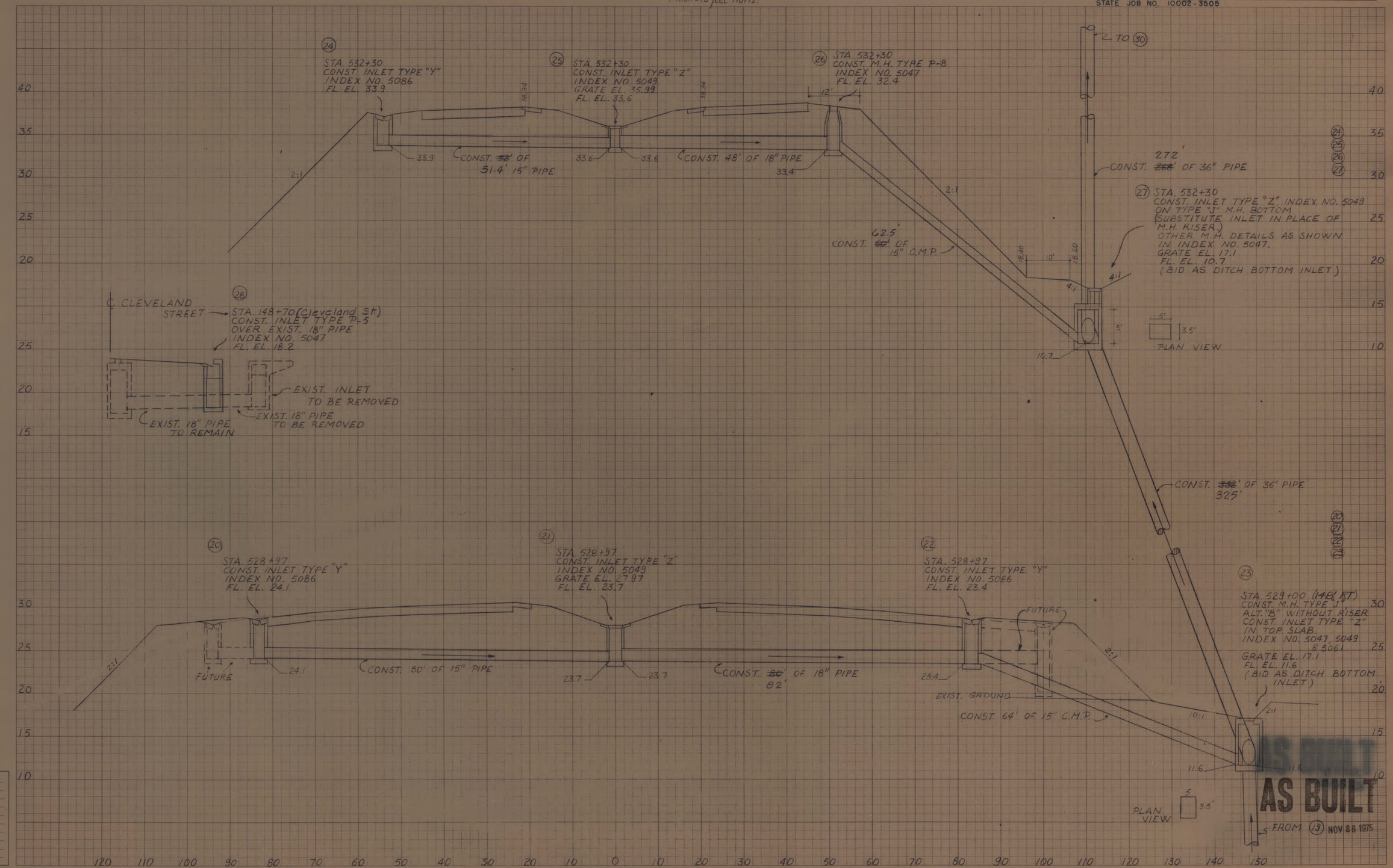
84/1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	21

STATE JOB NO. 10002-3505



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Prints Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

Contract No. 5

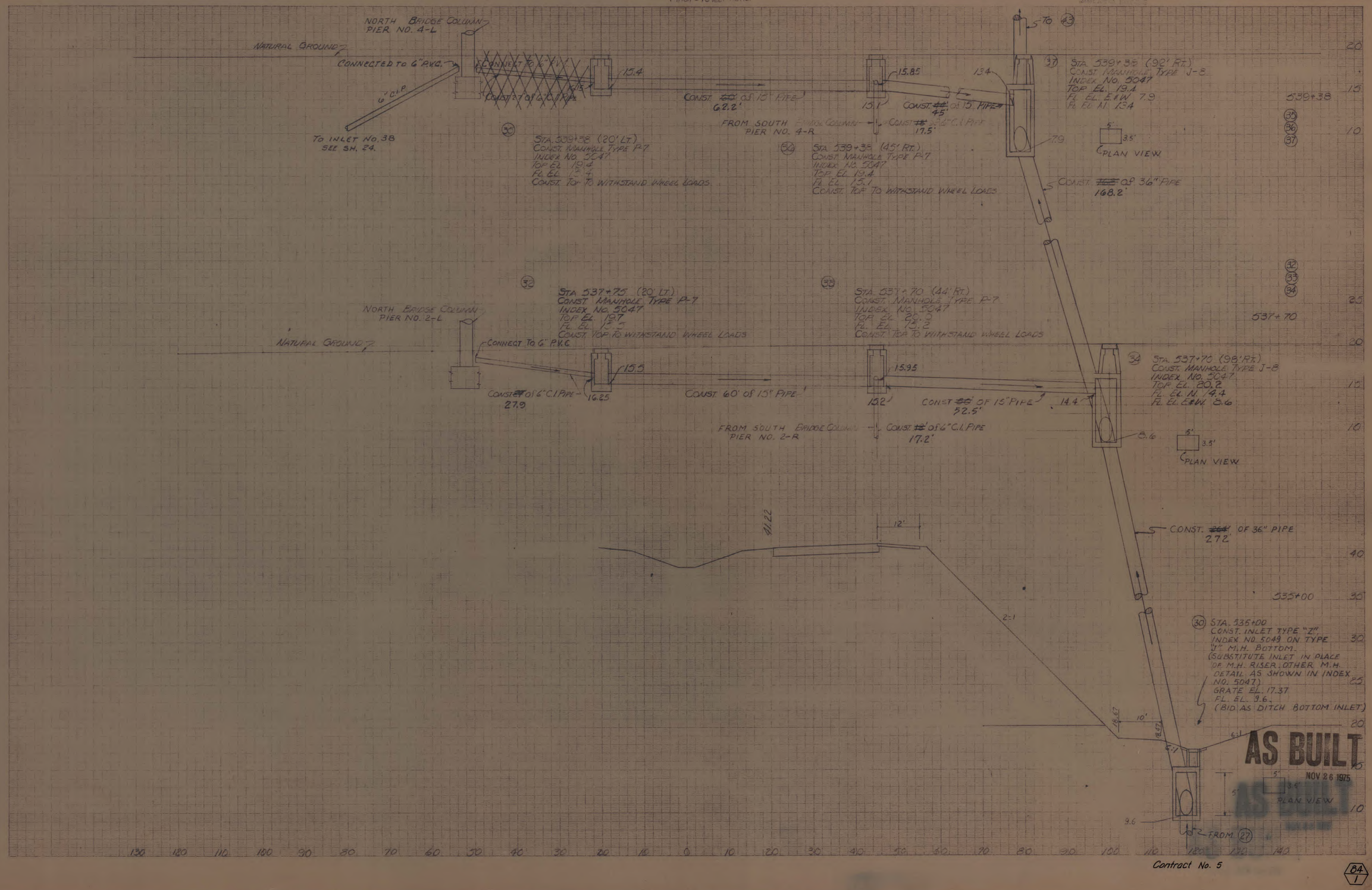
84/1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
9	Fla.	HILLSBOROUGH	449	3505	22

STATE ROAD DEPARTMENT



Application No.
Route No.
Original Plotted by
" Checked by
Template by C.W.S.
Area by
Profile Plotted by
" Checked by
Area by
" Checked by

R. M. GOODWILL
JACKSONVILLE, FLA.

Contract No. 5

84
1

CROSS SECTIONS

Scale 1 inch. = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
9	Fla.	HILLSBOROUGH	449	3505	23

STATE JOB No. 10060-3505

(44) STA. 243+82 (RAMP E)
CONST. INLET TYPE 'Y'
INDEX NO. 5086
FL. EL. 15.0

RAMP E

30

CONST. ~~108~~ 104' OF 15" PIPE

132'

12.9

CONST. 154' OF 18" PIPE

1.5' 1.5'

3" DITCH PAVEMENT

(45) STA. 542+97 (100' LT.)
CONST. INLET TYPE "C"
INDEX NO. 5046
GRATE EL. 15.5
FL. EL. 12.9

34' OF 18" PIPE

Note, This Pipe added in Field See SH. 24, 14, & 35

FROM 39

STA. 541+40 (103' LT.)
CONST. INLET TYPE "C"
INDEX NO. 5046
GRATE EL. 16.6
FL. EL. 12.5

CONST. 70' OF 18" PIPE

NORTH BRIDGE COLUMN PIER NO. 6-L

NATURAL GROUND

14.5

12.3

CONST. 18' OF 6" C.I. PIPE

(40) STA. 541+19 (33' LT.)
CONST. MANHOLE TYPE P-7
INDEX NO. 5047
TOP EL. 17.7
FL. EL. 12.3
CONST. TOP TO WITHSTAND WHEEL LOADS

81.5'
CONST. ~~66~~ OF 18" PIPE

13.0

FROM SOUTH BRIDGE COLUMN PIER NO. 6-R

12.0

CONST. 50' OF 18" PIPE

CONST. 18' OF 6" C.I. PIPE

(41) STA. 541+15 (62' RT.)
CONST. MANHOLE TYPE P-7
INDEX NO. 5047
TOP EL. 18.2
FL. EL. 12.0
CONST. TOP TO WITHSTAND WHEEL LOADS

FROM (51)

CONST. 18" PIPE

53.5'
CONST. ~~54~~ OF 18" PIPE

RET. WALL

12.93

(44) STA. 542+84 (62' R.T.)
CONST. INLET TYPE "Z"
INDEX NO. 5046
GRATE EL. 19.0
FL. EL. 13.0

6.85

CONST. 340' OF 36" PIPE

STA. 542+80
CONNECT TO 36" PIPE WITH CONC. COLLAR
INDEX NO. 5041
FL. EL. OF 18" PIPE 6.85

(47) STA. 10+70 (CARDY ST.) 6' LT.
CONST. MANHOLE TYPE J-8
INDEX NO. 5047
TOP EL. 17.5
FL. EL. 7.0

100

5'

5'

CONST. 90' OF 36" PIPE

CONSTRUCTED 90' OF 36" PIPE

(43) STA. 9+76.5 (CARDY ST.) 7' LT.
CONST. INLET TYPE J-5
INDEX NO. 5041
FL. EL. 7.5

NOTE, THIS INLET WAS DELETED AND A NEW TOP WAS CONSTRUCTED OVER EXIST. INLET. SEE SHEET 37

STA. 9+76.5 (CARDY ST)
7' LT. CONSTRUCTED MANHOLE
TYPE J-8
TOP EL. 17.5
FL. EL. 7.5

CONSTRUCTED 76' OF 36" PIPE

60' OF 36" PIPE

FROM (37)

AS BUILT

(44) (45) (45A) (46)

(40) (41) (42) (43)

76 (52)

20 15 10 5 0 5 10 15 20

120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120

Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Tracings by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. E. CORDWELL
ENGINEERING, INC.

Contract No. 5

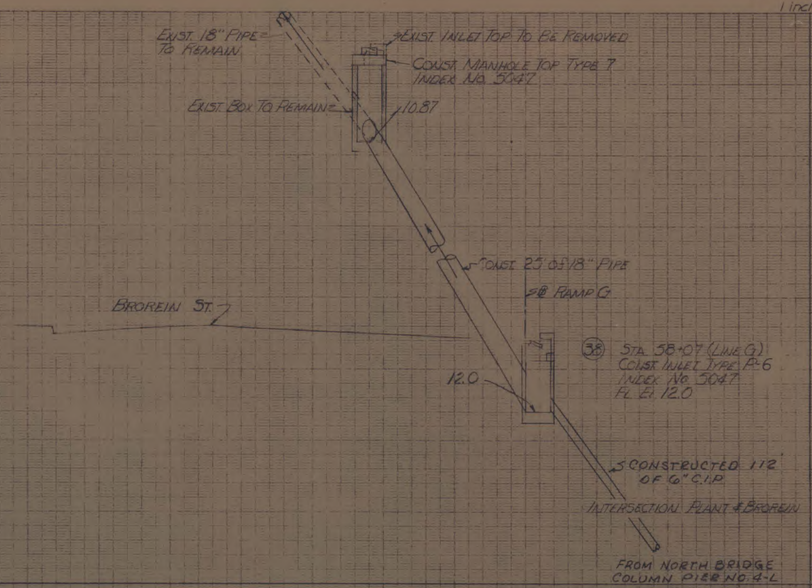
84/1

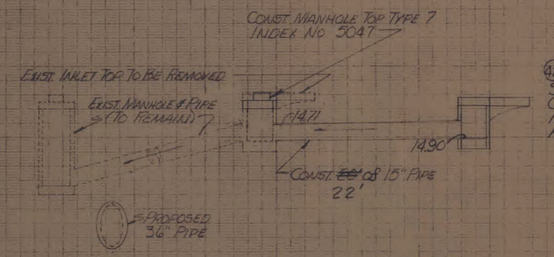
CROSS SECTIONS

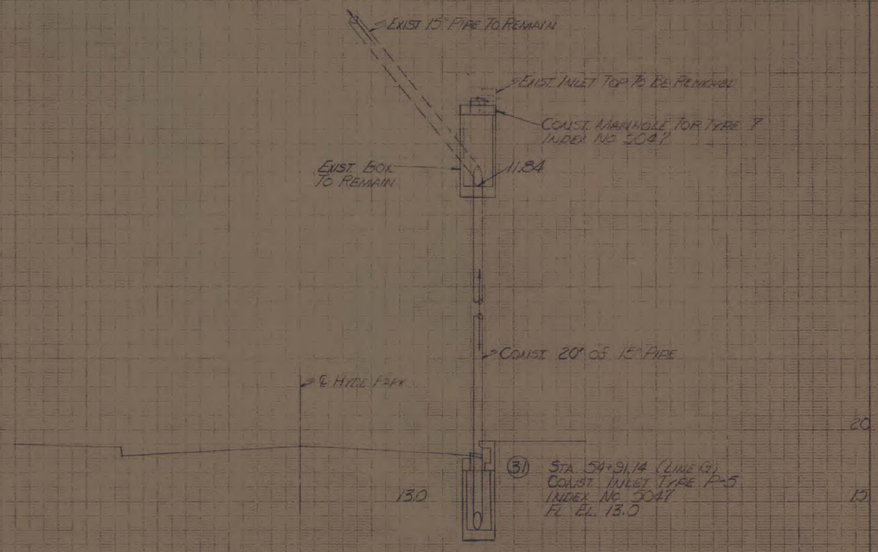
Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

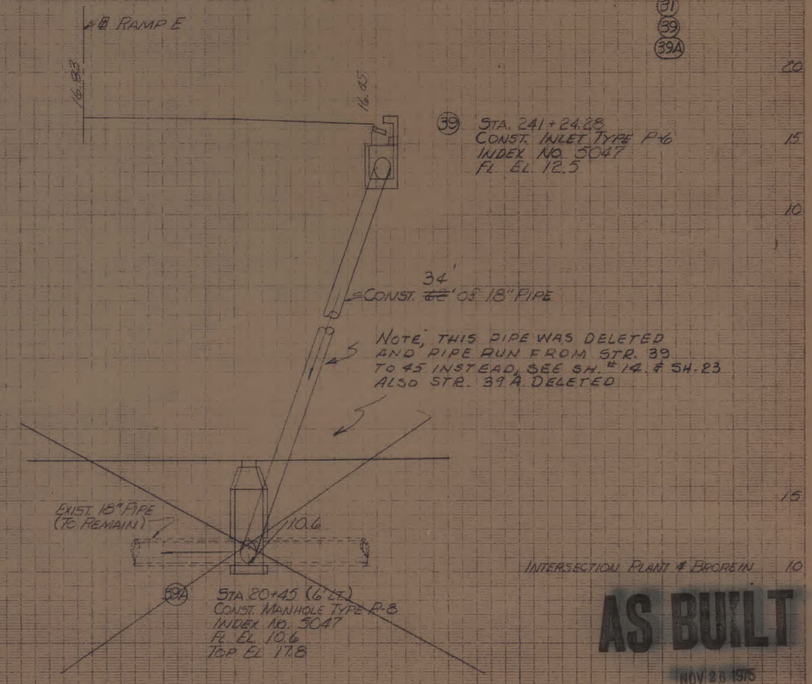
Fed. Road Desc. No.	State	County	Route	Proj. No.	Sheet No.
9	Fla.	HILLSBOROUGH	449	3505	24

STATE JOB No. 10002-3505









AS BUILT
NOV 26 1975

Contract No. 5

84/1

A. B. CORNWELL
JACKSONVILLE, FLA.

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla	HILLSBOROUGH	449	0002-3505	25

(54) STA 247+30 (RAMP E) "Y"
CONST. INLET TYPE
INDEX NO. 5086
FL EL. 32.2

(55) STA. 547+30
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 36.61
FL. EL. 31.3

(56) STA. 147+30 (RAMP F) "Y"
CONST. INLET TYPE
INDEX NO. 5086
FL EL. 31.0

TO (39)

CONST. 271' OF 36" PIPE

54 55 56 57

38.96 38.96

32.2 CONST ~~77~~ 70' OF 15" PIPE 31.3 CONST ~~70~~ 77' OF 18" PIPE 31.0

℄ BROREIN ST.

INLET & PIPE TO BE REMOVED

15" (TO REMAIN) 5.15 15" 5.37

(53) STA. 164+55 (BROREIN ST.)
CONST. INLET TYPE P-5
OVER EXIST. 15" PIPE
INDEX NO. 5047
FL. EL. 5.25±

CONST 280' OF 18" PIPE

2:1

CONST ~~68'~~ 90' OF 15" C.M.P.

CARDY ST. ℄

(57) STA. 16+95 (10' RT.)
CONST. M.H. TYPE J-7
INDEX NO. 5047
TOP EL. 8.66
FL. EL. 3.2

10'

8" SAN. SEWER

CONST. ELBOW

3.2

282.5'
CONST. ~~278'~~ OF 36" PIPE

(49) STA. 544+50
CONST. INLET TYPE "Z"
INDEX NO. 5049
GRATE EL. 34.65
FL. EL. 32.2

(48) STA. 544+50
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 32.5

(50) STA. 544+50
CONST. INLET TYPE BW
STD. DRAWING NO. 21
FL. EL. 32.5

37.08 37.08

RET. WALL

(51) STA. 144+50 (LINE F)
CONST. INLET TYPE "Y"
INDEX NO. 5086
FL. EL. 25.4

RAMP "F"

℄ 8" San. Sewer

PROP. 36" PIPE
STA. 15+74

48 49 50 51 52

32.5 CONST. 50' OF 15" PIPE 32.2 CONST. ~~58'~~ 49' OF 15" PIPE 32.5

2:1

RET. WALL

CONST ~~164'~~ 168' OF 18" PIPE

CARDY ℄ ST

10'

(52) STA. 14+13 (CARDY ST.) (10' RT.)
CONST. M.H. TYPE J-8
INDEX NO. 5047
TOP EL. 12.2
FL. EL. 5.2

TO (46)

CONST. 36" PIPE

FROM (49)

AS BUILT
NOV 26 1975

40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 125 130 135 140 145 150 155 160

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK © 1964

Contract No. 5

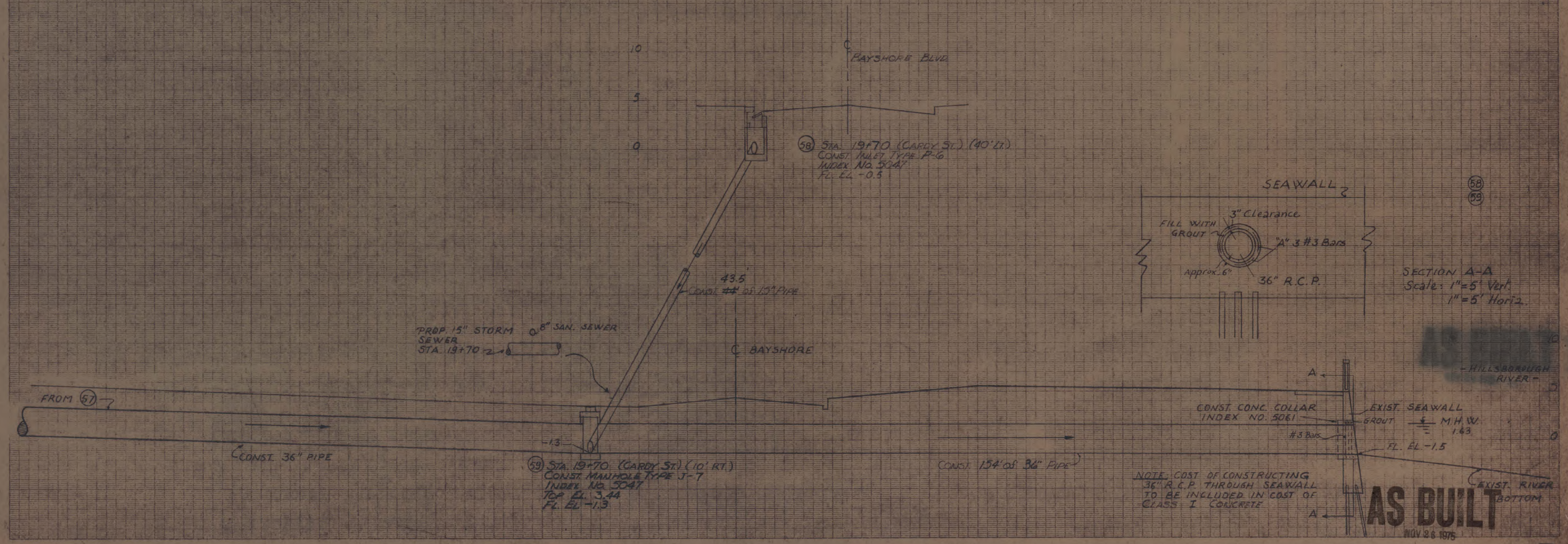
84/1

CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

Fed./State/Proj. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	26

STATE JOB No. 10002-3505



AS BUILT
NOV 26 1975

Contract No. 5

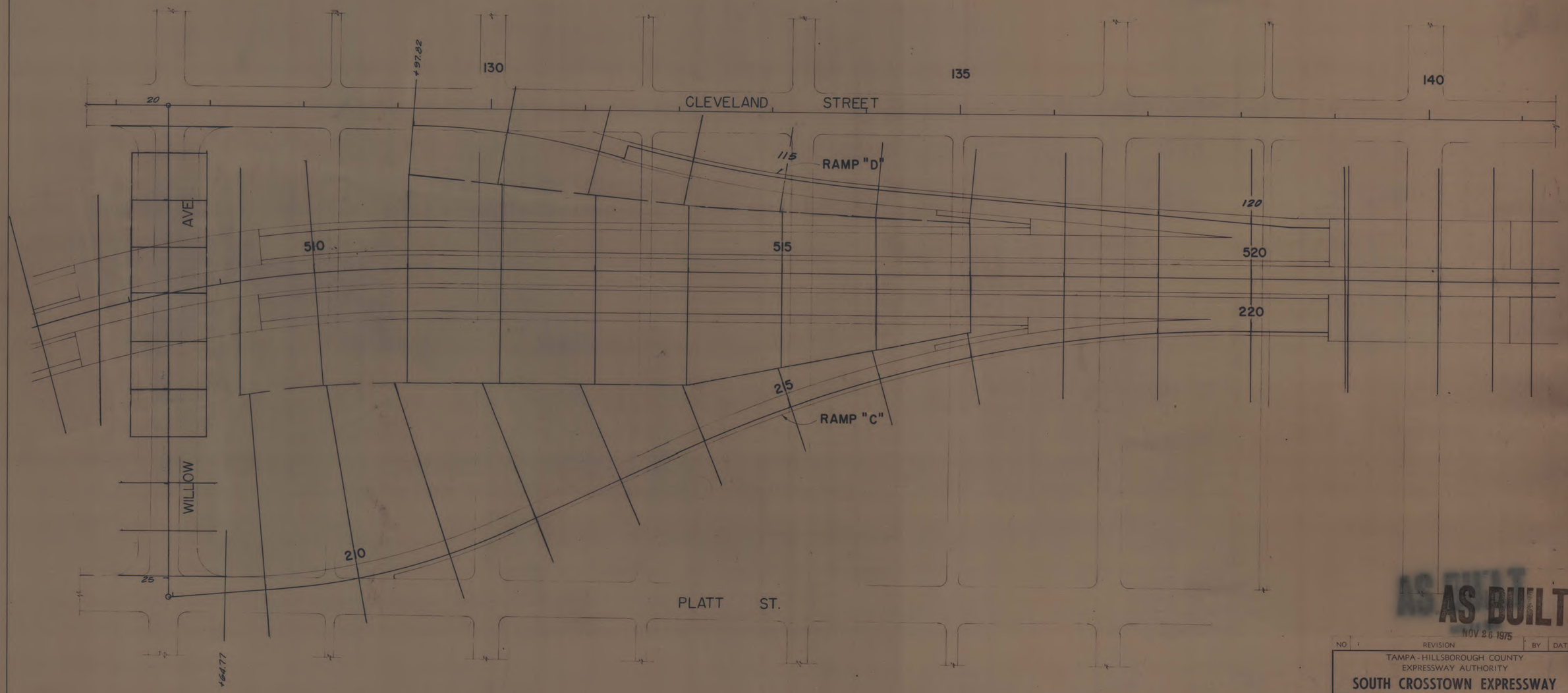
84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by CWS
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

A. K. CORDWELL
MADISONVILLE, FLA.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3505		27
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1972

SCALE: 1" = 50'



AS BUILT
NOV 26 1975

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

WILLOW AVE. INTERCHANGE
CROSS-SECTION LAYOUT

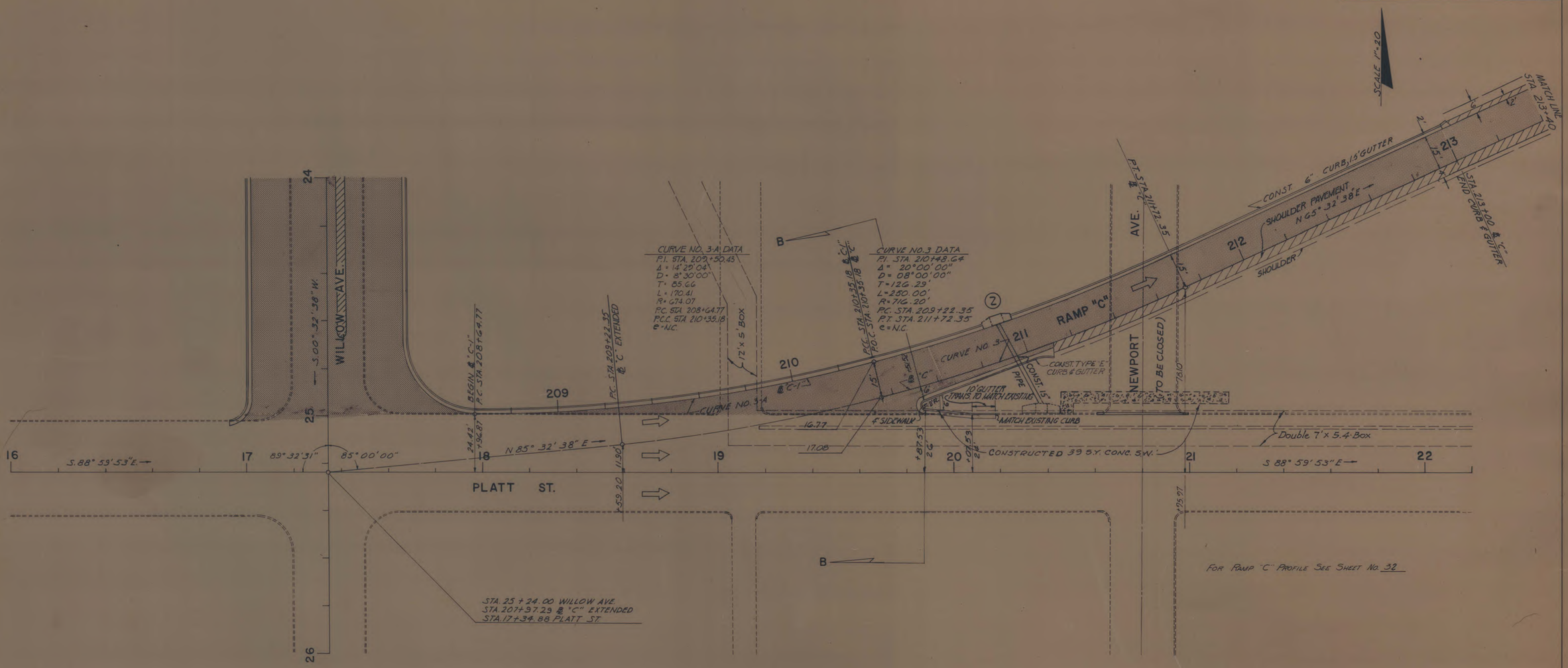
J. E. GREINER COMPANY — CONSULTING ENGINEERS — WATSON & COMPANY — TAMPA, FLORIDA

MADE	J.H.	DATE 1972	TRACED	H.L.	DATE 1972
CHECKED	J.H.	DATE 1972	SCALE	1" = 50'	

Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		28
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974



NOTE:

1. FOR WILLOW AVE. PLAN & PROFILE SEE SHEET NO. 15

AS BUILT
NOV 26 1975

AS BUILT

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "C"

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.H. DATE 1972 TRACED H.L. DATE 1972
CHECKED J.N.C. DATE 1973 SCALE 1" = 20'

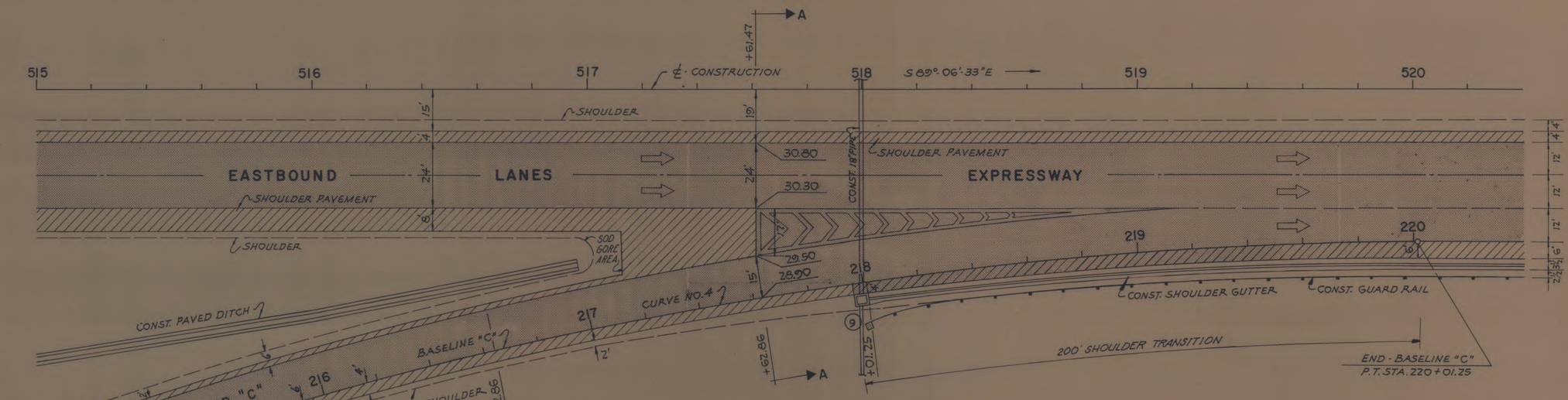
Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		29
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

STATE JOB NO. 10002-3505

SCALE 1" = 20'



CURVE NO. 4 DATA

P.I. STA. 216+89.66
Δ = 25° 20' 59"
D = 4° 00' 00"
T = 322.15'
L = 633.74'
R = 1432.39'
e = 0.04'/'
P.C. STA. 213+67.51
P.T. STA. 220+01.25

FOR RAMP "C" PROFILE - SEE SHEET NO. 32

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "C"

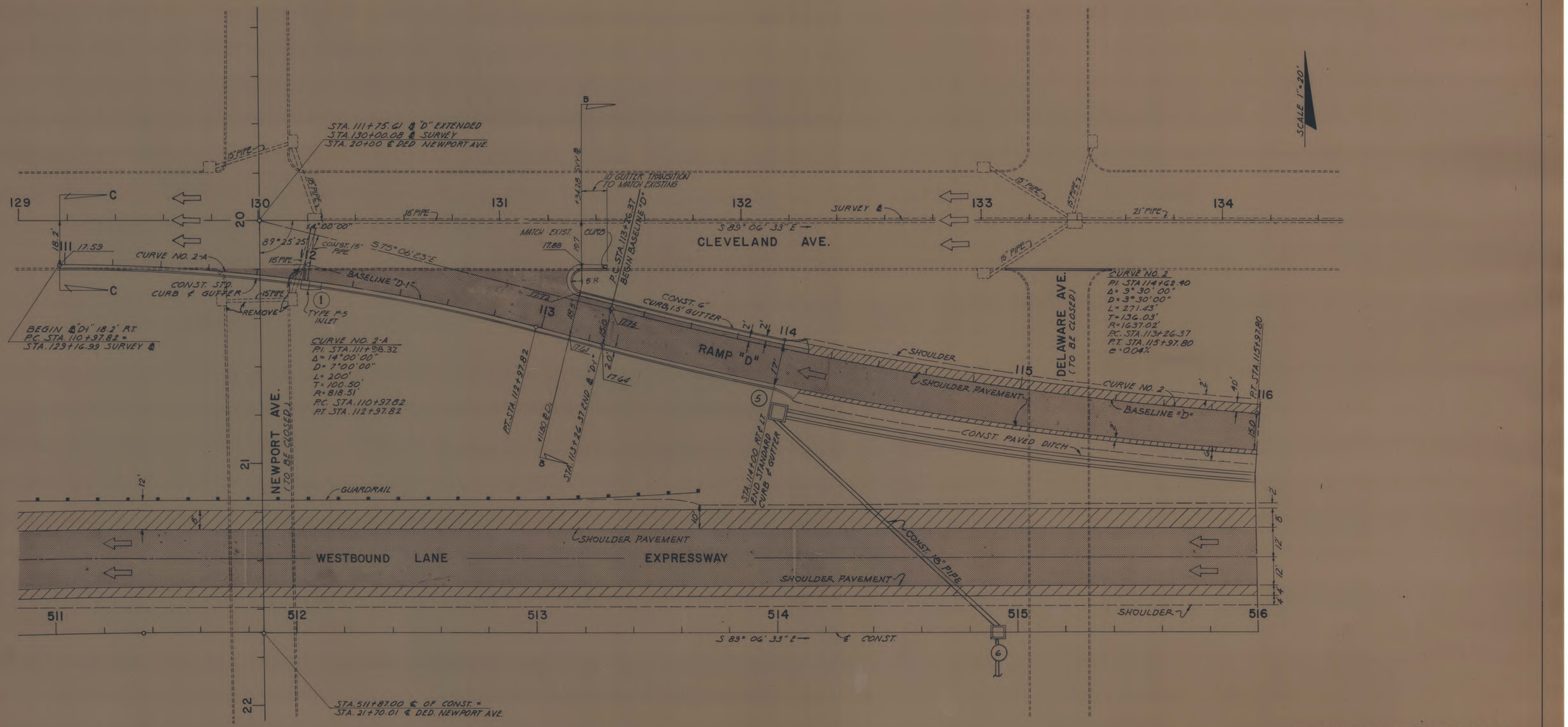
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 1972 | TRACED R.B. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1" = 20'

84
1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		30
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974



FOR RAMP "D" PROFILE - SEE SHEET NO. 33

AS BUILT
NOV 26 1973

NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS
RAMP "D"

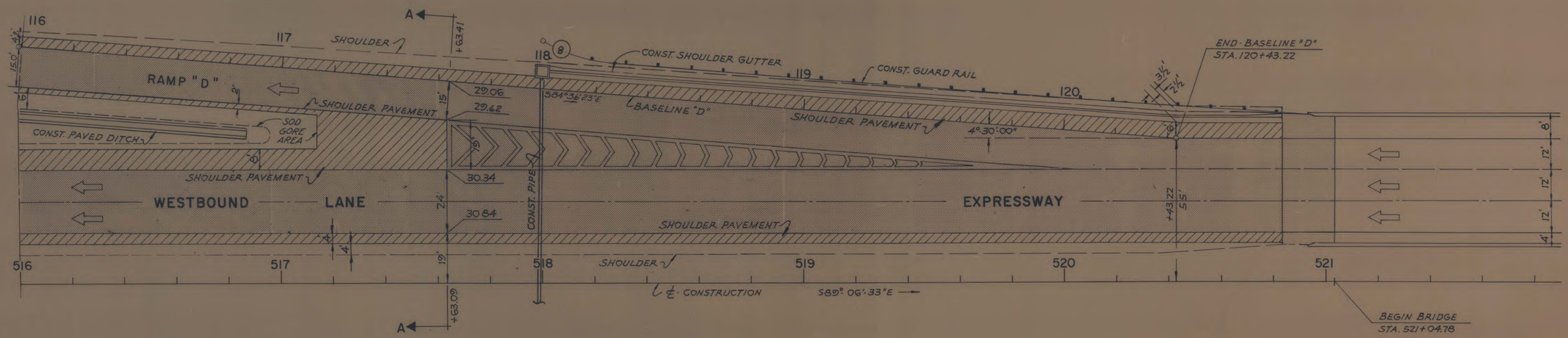
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 1972 | TRACED A.B. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1" = 20' | 64/1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		31
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

SCALE 1" = 20'



FOR RAMP "D" PROFILE - SEE SHEET NO. 33

AS BUILT
NOV 26 1975

NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "D"

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.L.H. DATE 1972 | TRACED A.B. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1" = 20'

84/1

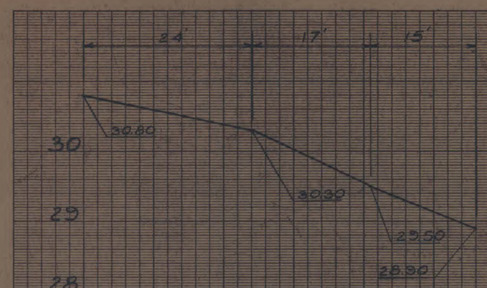
Contract No. 5

CROSS SECTIONS

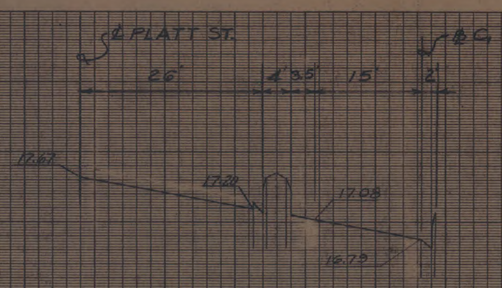
Scale 1 inch = 8 feet

Fed. Road Dsrn. No.	State	County	Route	Proj. No.	Sheet No.
8	Fla.	HILLSBOROUGH	419	3505	32

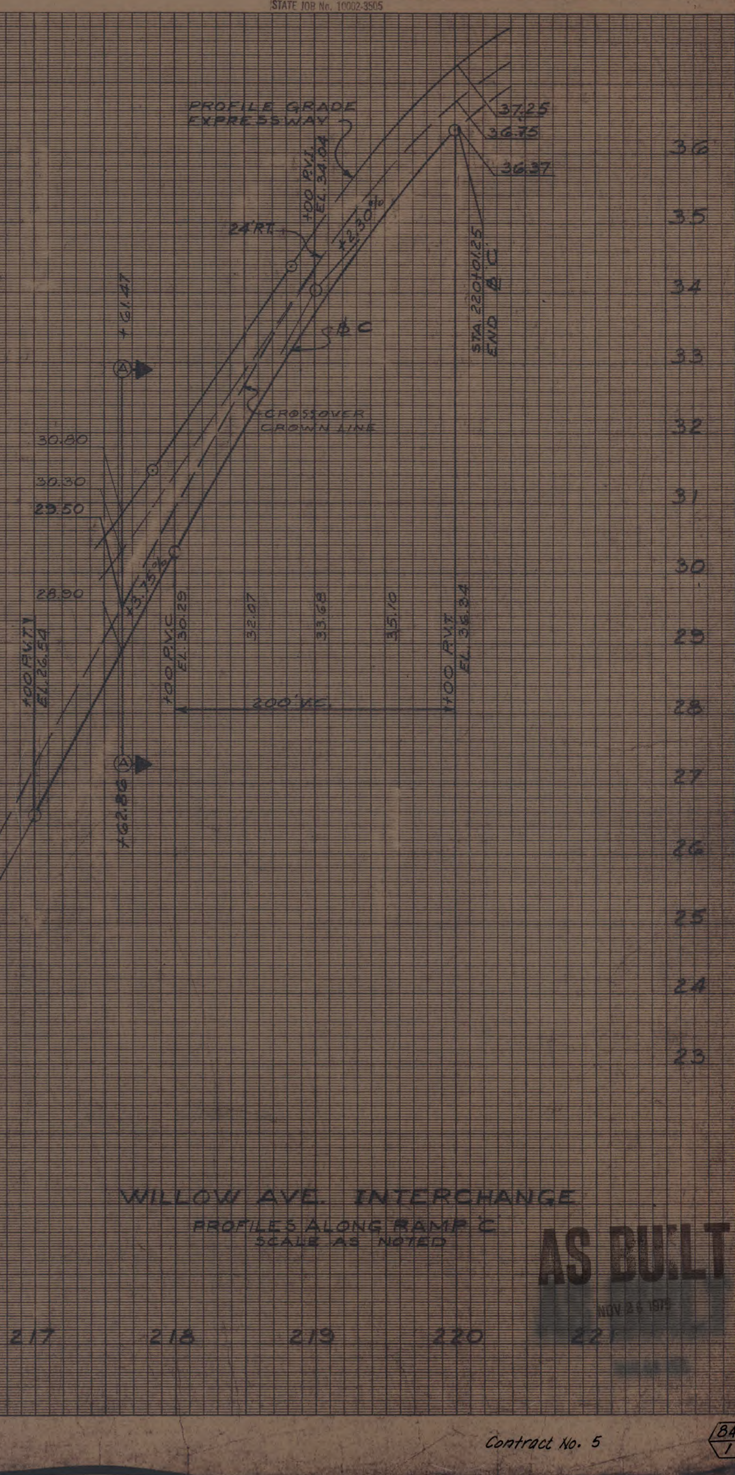
STATE JOB No. 10002-3505



SECTION A-A
SCALE ~ 1" = 10' HOR. 1" VERT.



SECTION B-B
SCALE ~ 1" = 10' HOR. 1" VER.

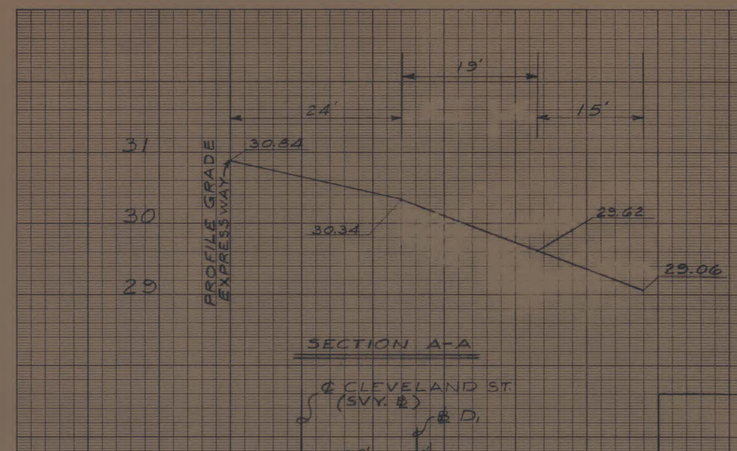

PROFILE GRADE EXPRESSWAY
37.25
36.75
36.37
100 P.V.I. EL. 34.04
24' RT.
℄ C
CROSSOVER CROWN LINE
STA. 220+25 END ℄ C
30.80
30.30
23.50
28.90
100 P.V.I. EL. 30.29
100 P.V.I. EL. 36.34
200' V.C.
100 P.V.I. EL. 26.54
100 P.V.I. EL. 21.56
200 V.C.
22.33
23.42
24.82
IDENTICAL POINT
100 P.V.I. EL. 22.79
℄ C
15' LT.
℄ C
℄ C
℄ C

CROSS SECTIONS

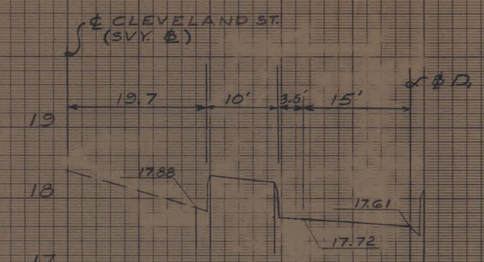
Scale 1 inch = 5 feet

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	33

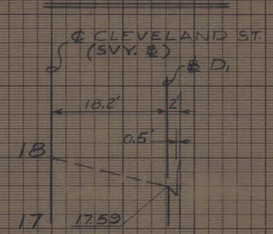
STATE JOB No. 10002-3505



SECTION A-A



SECTION B-B

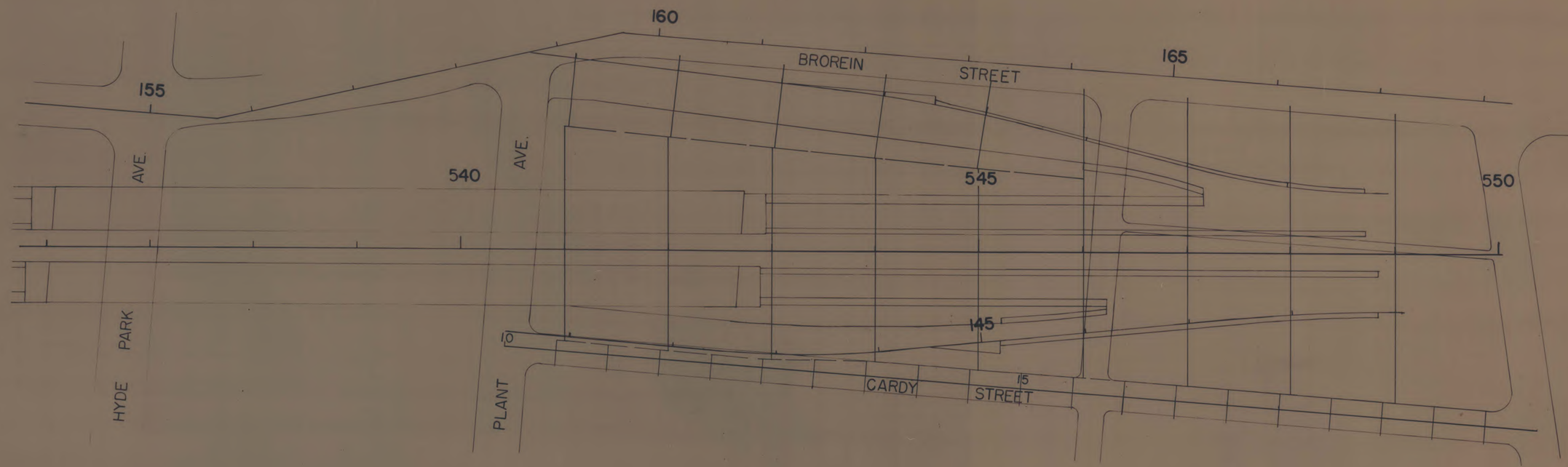


SECTION C-C

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		34
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1972

STATE JOB No. 10002-3505

SCALE: 1"=50'



AS BUILT

NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PLANT AVE. INTERCHANGE CROSS-SECTION LAYOUT

J. E. GREINER COMPANY, CONSULTING ENGINEERS — WATSON & COMPANY, TAMPA, FLORIDA

MAIN J.L.H.	DATE 1972	DRAFTS H.L.	DATE 1972
CHECKED J.L.H.	DATE 1972	SCALE 1"=50'	84/1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		35
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1972

STATE JOB No. 10002-3505

CURVE NO. 8 DATA
P.I. STA. 244+49.99
Δ = 7°-31'-36" RT.
D = 4°-00'-00"
T = 94.22'
L = 188.17'
R = 1432.39'
e = NO SUPERELEVATION
P.C. STA. 243+55.77
P.T. STA. 245+43.94

SCALE 1"=20'

240+50.31 - BASELINE "E"
158+73.01 - SURVEY ℄ =
20+00.00 - PLANT AVE.

P.I. NO. 6
STA. 159+63.88 - SURVEY ℄

W. BROREIN ST.

15" PIPE
30" PIPE
24" PIPE
18" PLUG
18" PIPE (TO REMAIN)
N 74°-09'-31" E
18°-41'-44"
106°-41'-44"
MATCH EXIST. CURB
STD. CURB & GUTTER
REMOVE INLET
CONST. 18" PIPE
18" PIPE & MH DELETED
N 0°-51'-15" E
PLANT AVE.
CONSTRUCTED 34 L.F. 18" PIPE
FENCE AND GATE
4' GATE
CONST. 18" PIPE
CONSTRUCTED 5' CONC. S.W.
CONST. 6" C.I. PIPE
STA. 541+14
6 SPA. @ 10'-60'
REMOVE CURB
PARKING AREA (Limerock Base with 3" Type S-1 Surface Course)
BRIDGE PIER (TYP)
TYPE 'B' FENCE IN TOLL PLAZA CONTRACT
3 GATE
℄ CONSTRUCTION
STA. 540+47.58 - ℄ CONST. = STA. 21+88.82 - PLANT AVE.
END BRIDGE STA. 542+69.59
CONSTRUCTED 4' CONC. S.W.
NOTE, THIS ITEM WAS DEDUCTED FROM CONTRACT 7 & ADDED to CONTRACT 5.
FENCE AND GATES
4' GATE

100' PAVING EXCEPTION
TOLL PLAZA (BY OTHERS)

BEGIN RETAINING WALL
CONST. RET. WALL
BEGIN TAPER
S 87°-08'-45" E
CONST. 15" PIPE
SHOULDER PAVEMENT
CURVE NO. 8
P.C. STA. 243+55.77
TERMINAL SECTION
CONST. RETAINING WALL GUTTER (INDEX 506)
CONST. SHOULDER GUTTER
CONST. GUARD RAIL
RAMP "E"
BASELINE "E"
P.T. STA. 245+43.94
400' TAPER (42" to 18")
CONST. PAVED DITCH
6" V.C.P. (SEE BRIDGE PLANS)
MATCH LINE STA 245+50
100' END 2'-8" W. PAVED DITCH & BEGIN PAVED V-BOTTOM DITCH
CONST. GUARD RAIL
SHOULDER PAVEMENT
CONST. PIPE
SHOULDER
N 86°-22'-51" E

FOR W. BROREIN ST. WIDENING DETAILS - SEE SHEET NO. 42.

FOR RAMP "E" PROFILE - SEE SHEET NO. 39.

AS BUILT

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "E"

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE V.L.H. DATE 1972 | TRACED H.L. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1" = 50' | 84/1

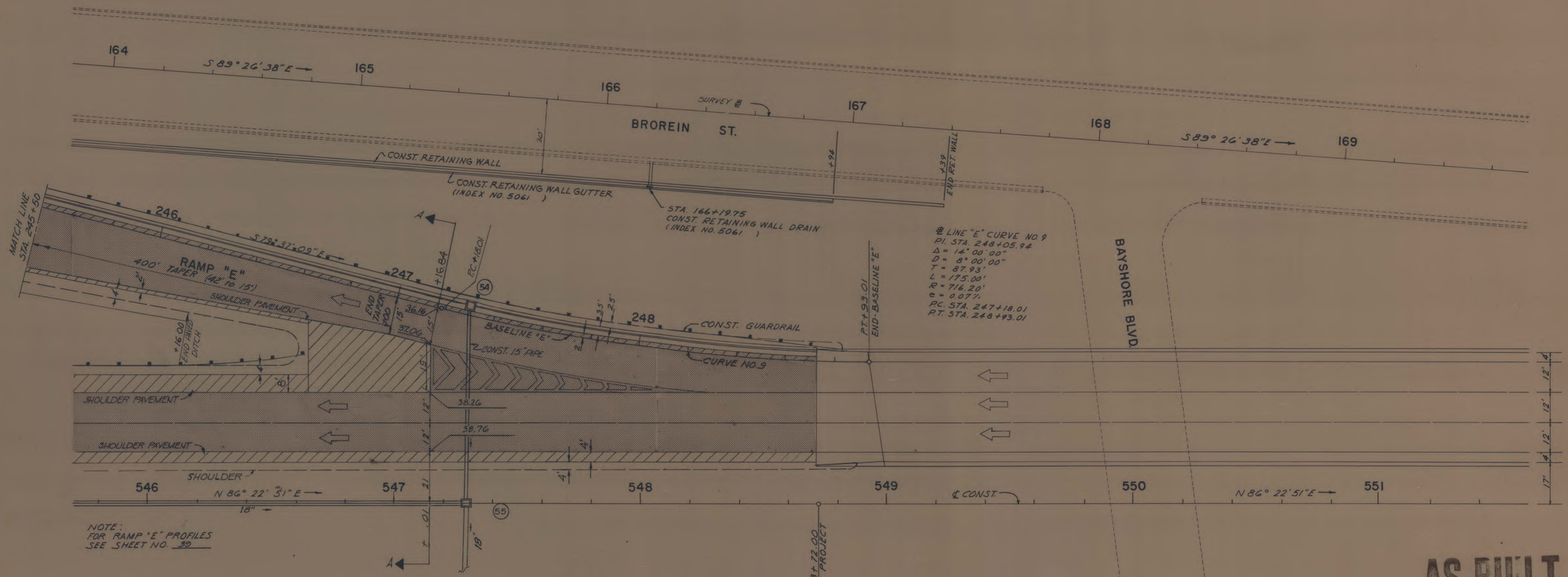
Contract No. 5

AS BUILT
NOV 26 1975

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		36
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

STATE JOB No. 10002-3505

SCALE 1"=20'



NOTE:
FOR RAMP "E" PROFILES
SEE SHEET NO. 39

AS BUILT
NOV 26 1975

NO	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "E"

J. E. GREINER COMPANY → WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE J.L.H. DATE 1972
CHECKED J.N.C. DATE 1973
TRACED H.L. DATE 1972
SCALE 1" = 20'

84
1

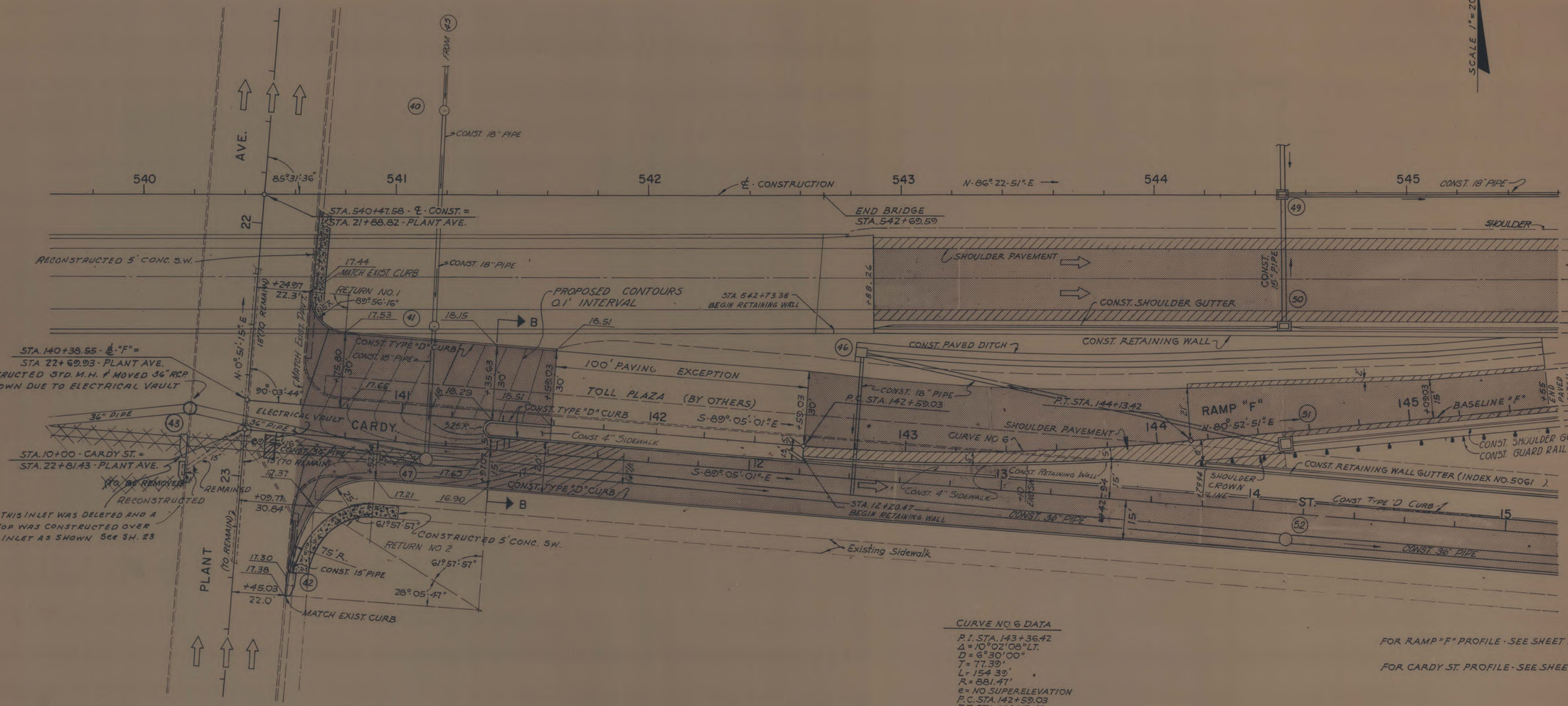
Contract No. 5

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		37
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

STATE JOB NO. 10002-3505

SCALE 1"=20'



CURVE NO 6 DATA

P.I. STA. 143+36.42
Δ = 10°02'08" LT.
D = 6°30'00"
T = 77.39'
L = 154.39'
R = 881.47'
e = NO SUPERELEVATION
P.C. STA. 142+59.03
P.T. STA. 144+13.42

FOR RAMP "F" PROFILE - SEE SHEET NO. 40.

FOR CARDY ST. PROFILE - SEE SHEET NO. 44.

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "F"

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

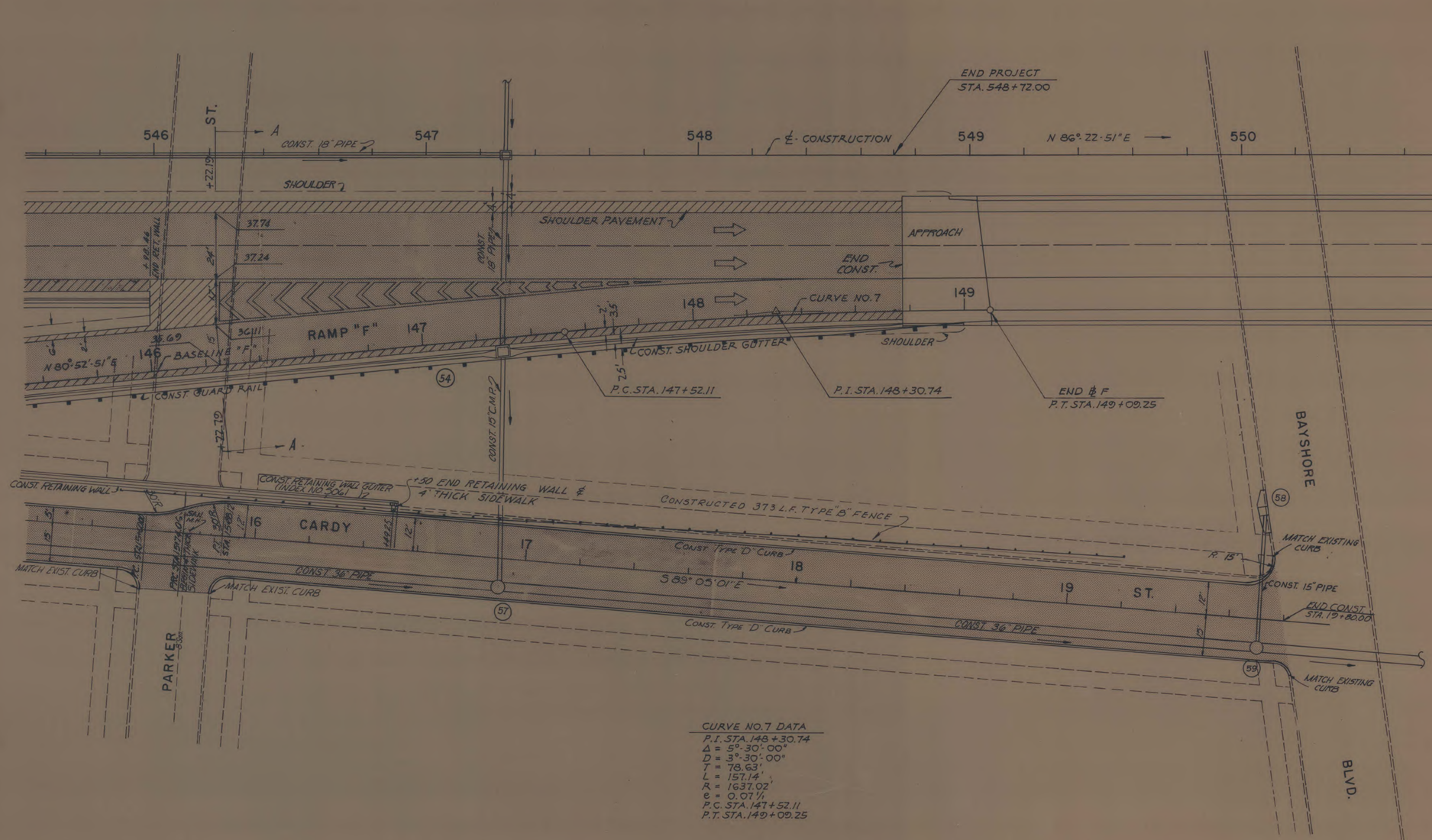
MADE J.H. DATE 1972 | TRACED H.L. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1" = 20'

Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		38
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

STATE JOB NO. 10002-3505



CURVE NO. 7 DATA
P.I. STA. 148+30.74
Δ = 5°-30'-00"
D = 3°-30'-00"
T = 78.63'
L = 157.14'
R = 1637.02'
e = 0.07 ft.
P.C. STA. 147+52.11
P.T. STA. 149+09.25

AS BUILT
NOV 26 1975

FOR RAMP "F" PROFILE - SEE SHEET NO. 40.
FOR CARDY ST. PROFILE - SEE SHEET NO. 44.

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TERMINAL DETAILS RAMP "F"

AS BUILT

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE J.H. DATE 1972 | TRACED H.L. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1" = 20' | 84/1

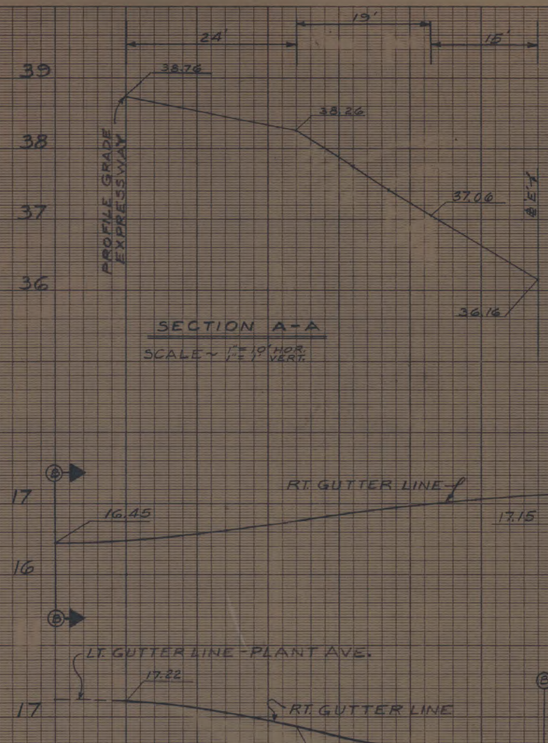
Contract No. 5

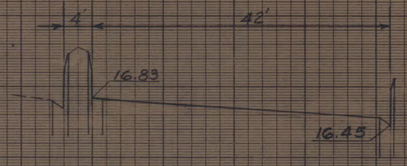
CROSS SECTIONS

Scale: 1 inch = 5 feet

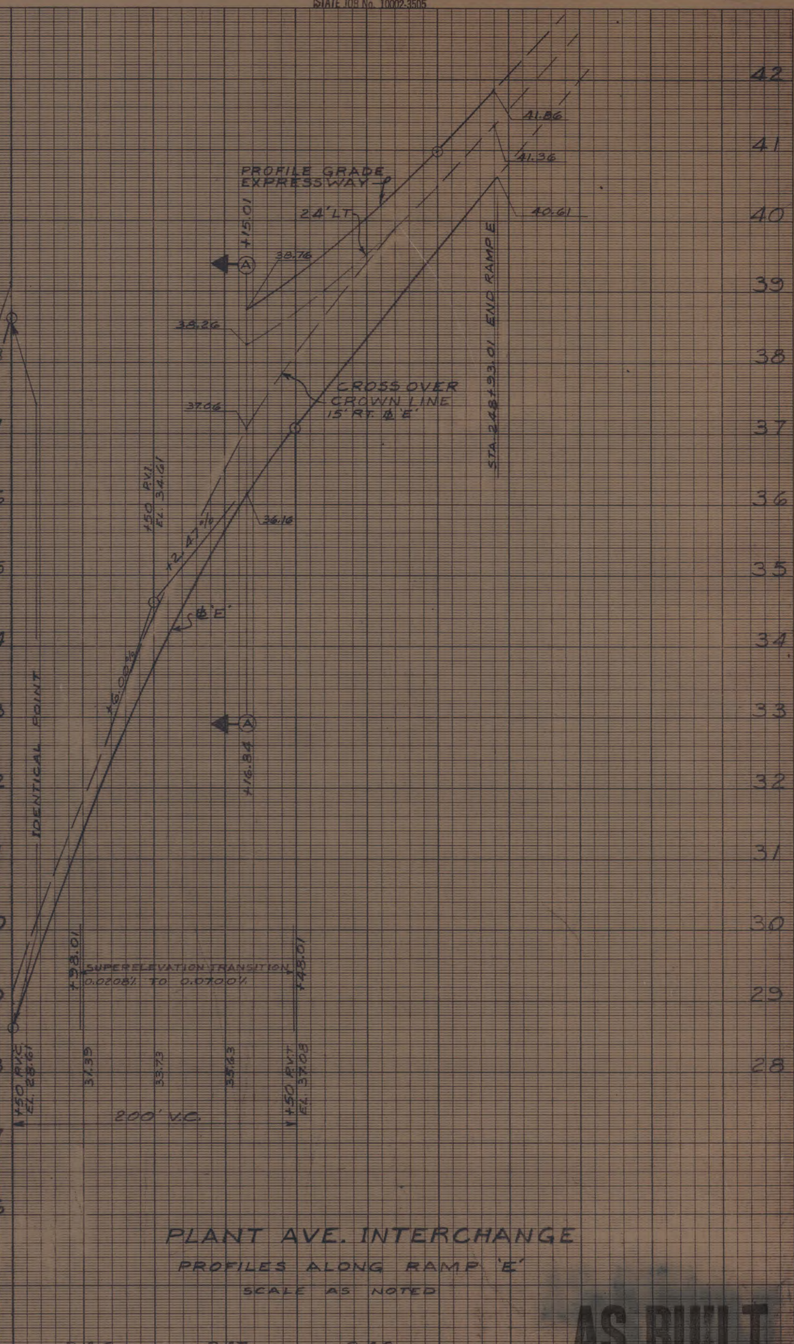
Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	39

STATE JOB No. 10002-3505









PLANT AVE. INTERCHANGE

PROFILES ALONG RAMP 'E'

SCALE AS NOTED

AS BUILT

NOV 26 1975

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1994

Contract No. 5

84/1

CROSS SECTIONS

Scale 1 inch = 5 feet

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	40

STATE JOB No. 10002-3505



PLANT AVE. INTERCHANGE

PROFILES ALONG RAMP 'F'

SCALE AS NOTED

AS BUILT

NOV 26 1975

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1604

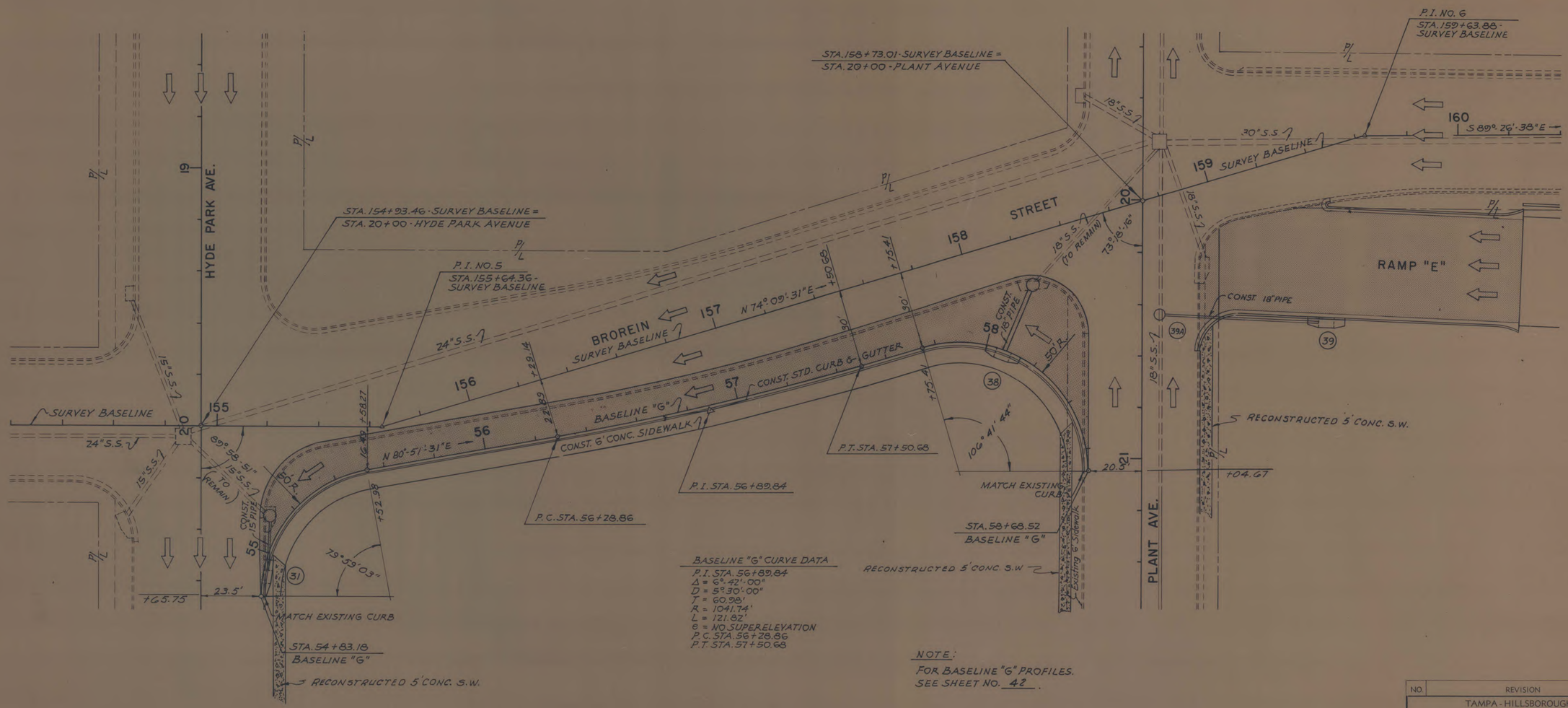
Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		41
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

STATE JOB NO. 10002-3505

SCALE 1"=20'



BASELINE "G" CURVE DATA

P.I. STA. 56+89.84
Δ = 6°-42'-00"
D = 5°-30'-00"
T = 60.38'
R = 1041.74'
L = 121.82'
e = NO SUPERELEVATION
P.C. STA. 56+28.86
P.T. STA. 57+50.68

NOTE:
FOR BASELINE "G" PROFILES.
SEE SHEET NO. 42.

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

BROREIN STREET WIDENING DETAILS

J. E. GREINER COMPANY — WATSON G. COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

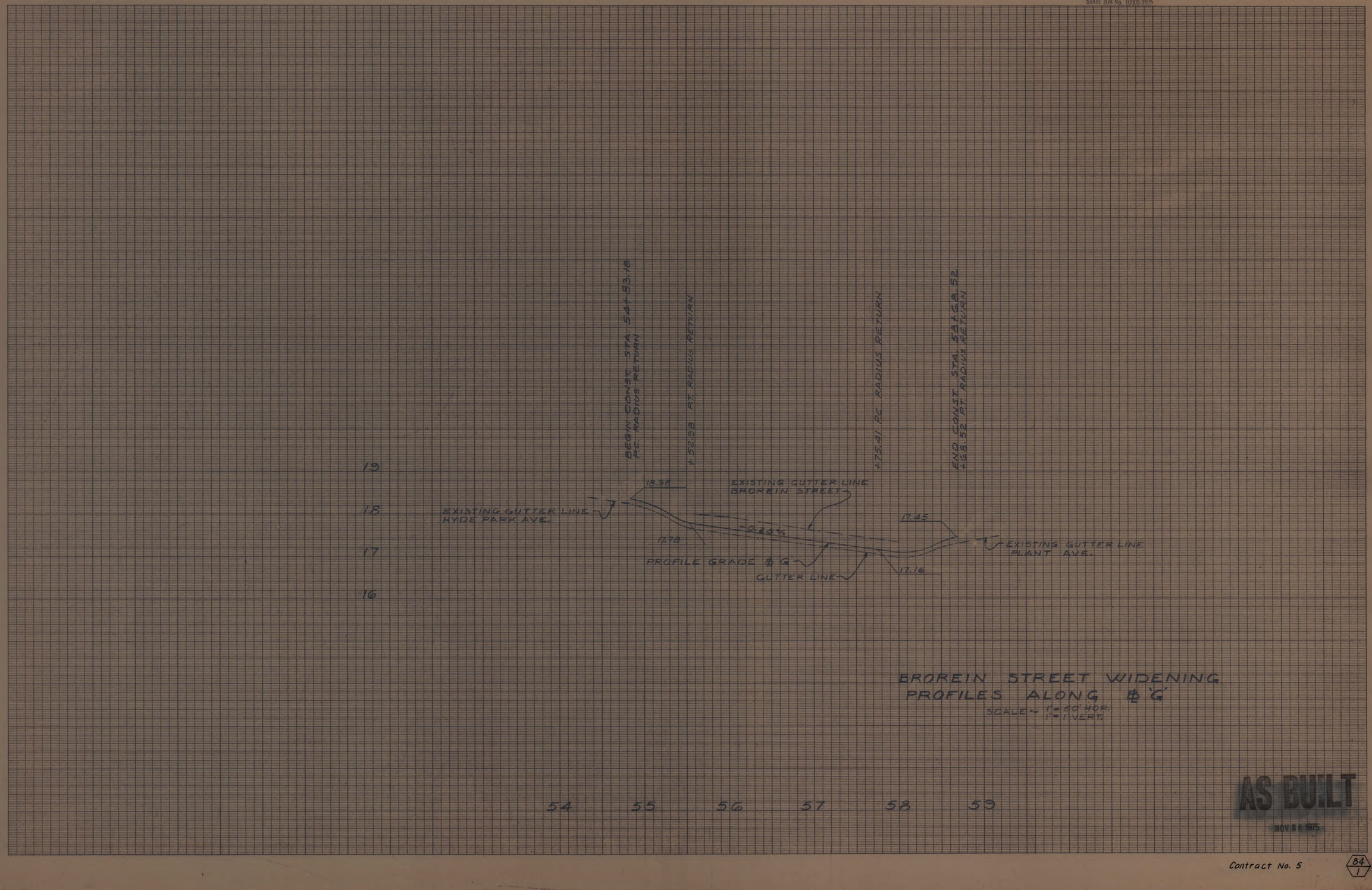
MADE J.H. DATE 1972 | TRACED H.L. DATE 1972
CHECKED J.N.C. DATE 1973 | SCALE 1"=20' | 84/1

Contract No. 5

~~CROSS SECTIONS~~
~~Scale 1 inch = 5 feet~~

Fed. Road Serv. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	3505	42

STATE JOB No. 10002-3505



BROREIN STREET WIDENING
PROFILES ALONG ℄ G
SCALE ~ 1"=50' HOR.
1"=1' VERT.

AS BUILT
NOV 8 0 1975

Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. R. COGSWELL
JACKSONVILLE, FLA.

Contract No. 5

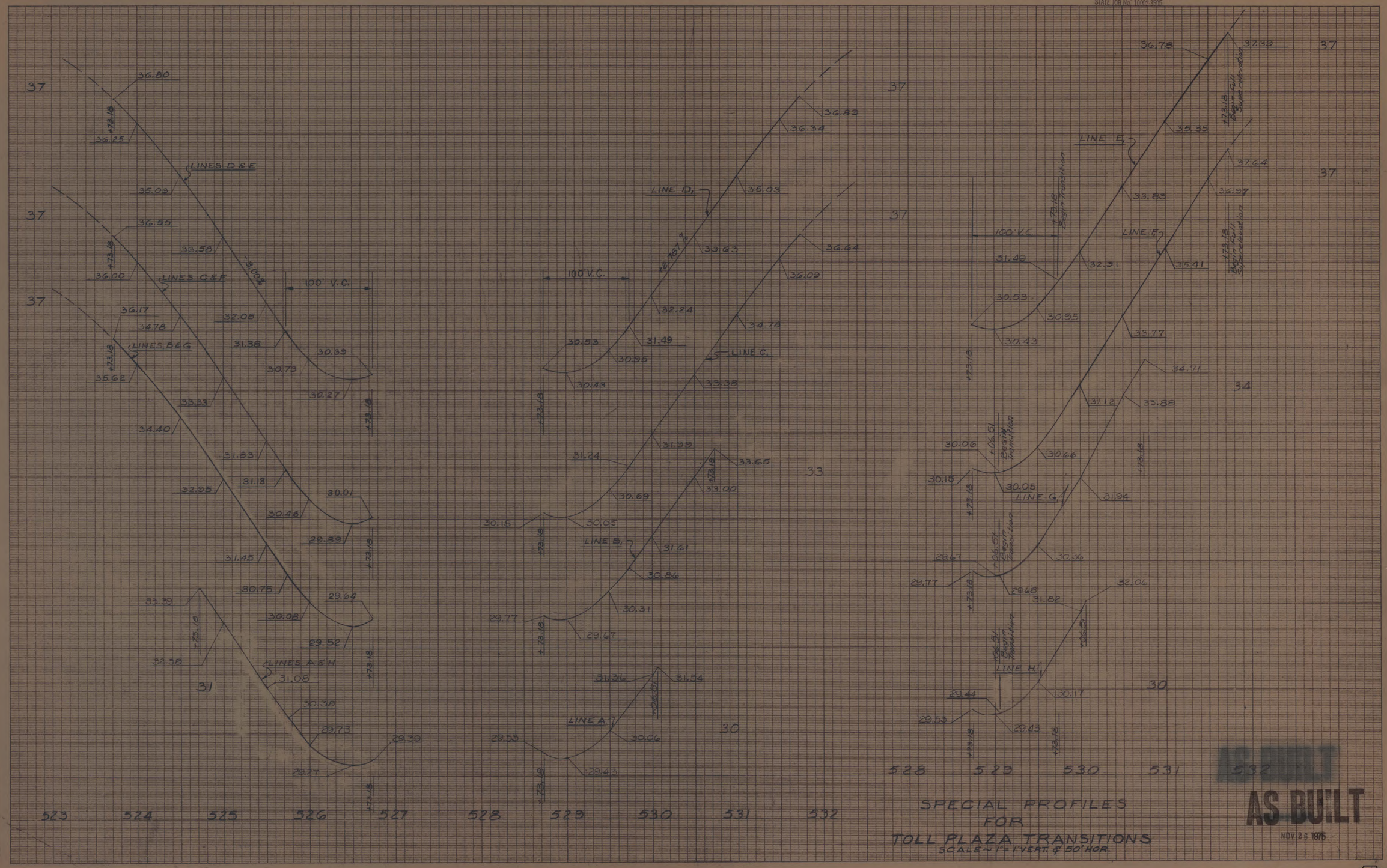
84
1

CROSS SECTIONS

Scale 1 inch = 6 feet

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	3505	449	43

STATE JOB No. 10002.3505



AS BUILT

NOV 26 1975

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

A. R. COGSWELL
JACKSONVILLE, FLA.

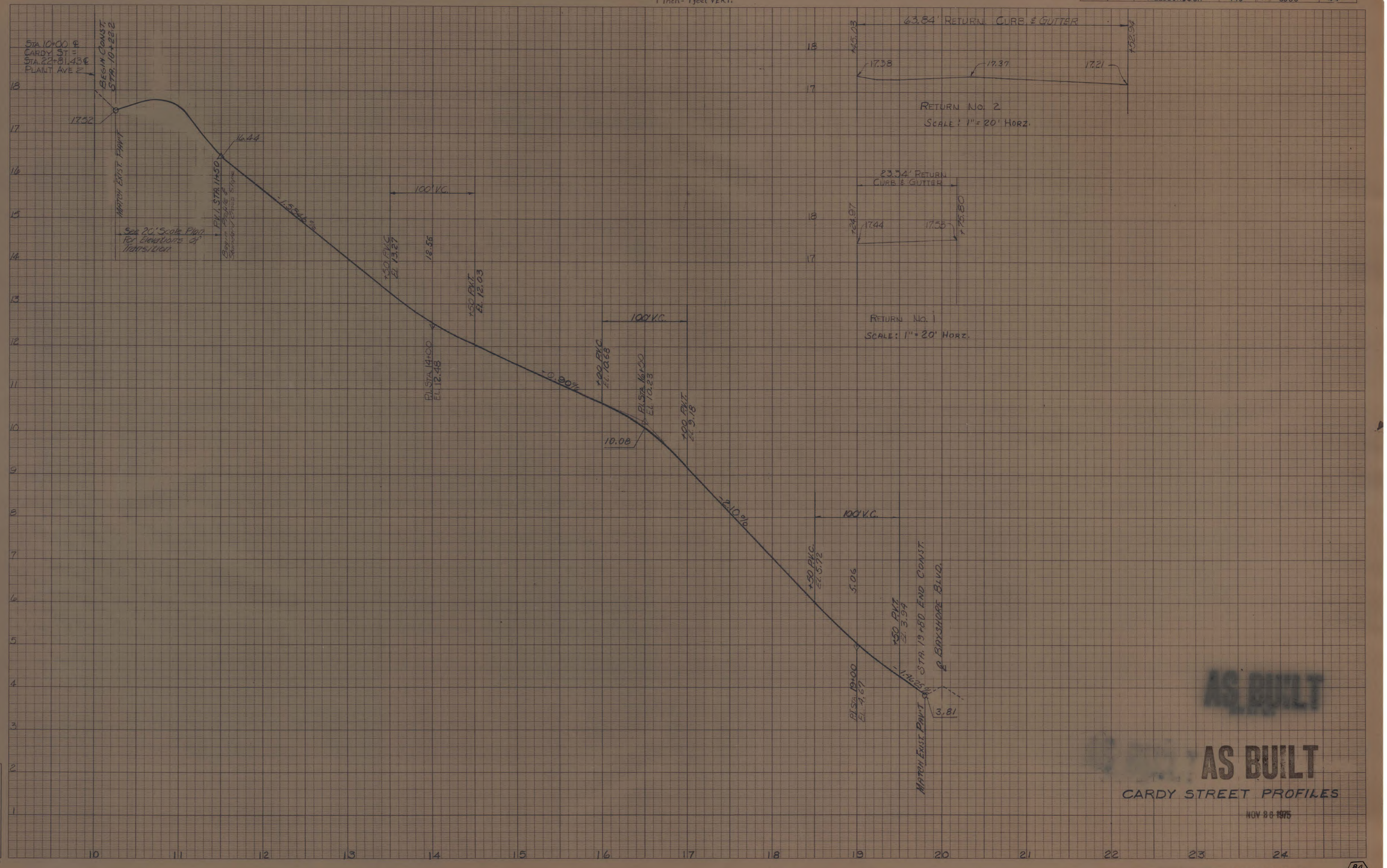
Contract No. 5

84
1

CROSS SECTIONS

Scale 1 inch = 50feet HORZ.
1 inch = 1 feet VERT.

Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449	0052-3505	44



AS BUILT

AS BUILT

CARDY STREET PROFILES

NOV 8 6 1975

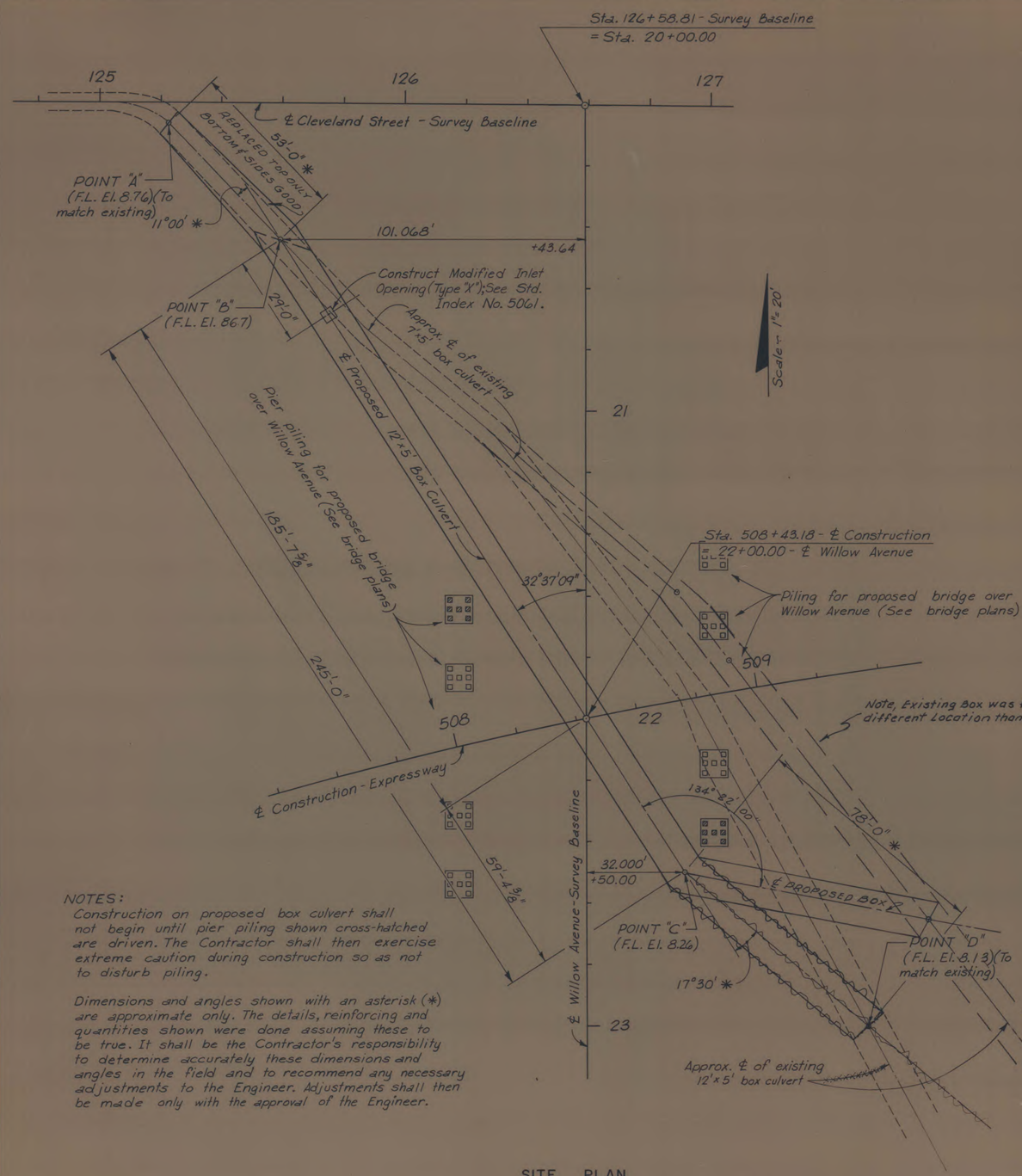
Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

Contract No. 5

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		BC-1
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1972



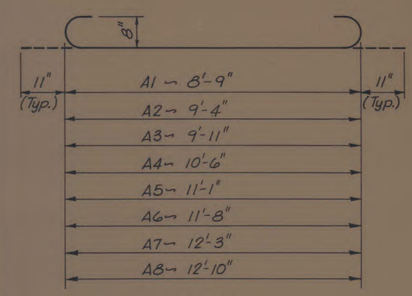
SITE PLAN

NOTES:

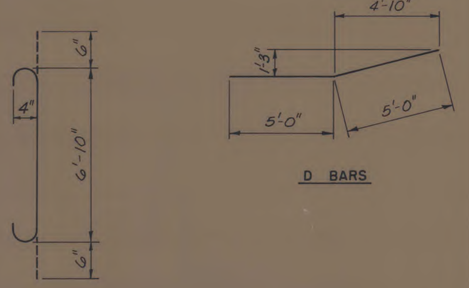
Construction on proposed box culvert shall not begin until pier piling shown cross-hatched are driven. The Contractor shall then exercise extreme caution during construction so as not to disturb piling.

Dimensions and angles shown with an asterisk (*) are approximate only. The details, reinforcing and quantities shown were done assuming these to be true. It shall be the Contractor's responsibility to determine accurately these dimensions and angles in the field and to recommend any necessary adjustments to the Engineer. Adjustments shall then be made only with the approval of the Engineer.

BENDING DIAGRAM



A BARS



B BARS D BARS

NOTE: All bar dimensions are out-to-out.

BILL OF REINFORCING STEEL

MARK	SIZE	NO. REQ'D	LENGTH	BENDING
A1	8	18	10'-7"	See Diagram
A2	8	18	11'-2"	"
A3	8	18	11'-9"	"
A4	8	18	12'-4"	"
A5	8	18	12'-11"	"
A6	8	18	13'-6"	"
A7	8	18	14'-1"	"
A8	8	784	14'-8"	"
B	4	910	7'-10"	See Diagram
C1	5	380	24'-11"	Straight
C2	5	190	25'-10"	"
D	5	76	10'-0"	See Diagram
E	6	64	2'-3"	Straight
		OR AS NEEDED		

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITIES
Class II Concrete	Cu. Yd.	~~485~~
Reinforcing Steel	Lb.	~~55,616~~
Removal of Existing Structures	Lump Sum	1
		415.28
		44,602

GENERAL NOTES

SPECIFICATIONS:

FLORIDA DEPT. OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, dated 1973, and special provisions.

DESIGN:

Designed in accordance with the 1969 edition of the A.A.S.H.O. STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES with approved revisions.

LOADING:

HS20-44.

MATERIAL STRESSES:

Class II Concrete - f'_c = 3,400 psi ; f_c = 1,360 psi
Reinforcing Steel - f_y = 40,000 psi (min.) ; f_s = 20,000 psi

CHAMFER:

All edges and corners to be chamfered 3/4" unless otherwise noted.

REMOVAL OF EXISTING STRUCTURE:

The existing box culvert shall be removed completely within the limits of construction of the proposed box culvert and the piling for the proposed bridge. In other areas the Contractor shall either completely remove the existing box, or he may elect to destroy the top slab, allowing it to fall into the box, and then fill and compact in a manner to be approved by the Engineer.

GROUT:

The cost of non-shrink grout shall be included in the unit price bid for Class II Concrete.

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

12'X5' BOX CULVERT

AT STA. 508 + 43.18

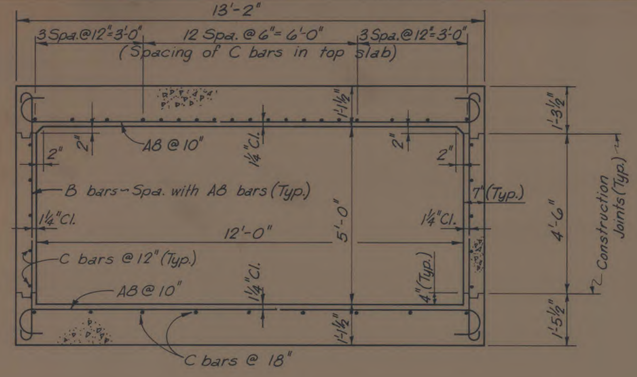
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE HoM DATE Nov., '72 TRACED HoM DATE Nov. '72
CHECKED J.L.H. DATE 4 '73 SCALE —

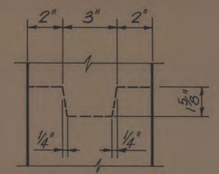
84
1

Contract No. 5

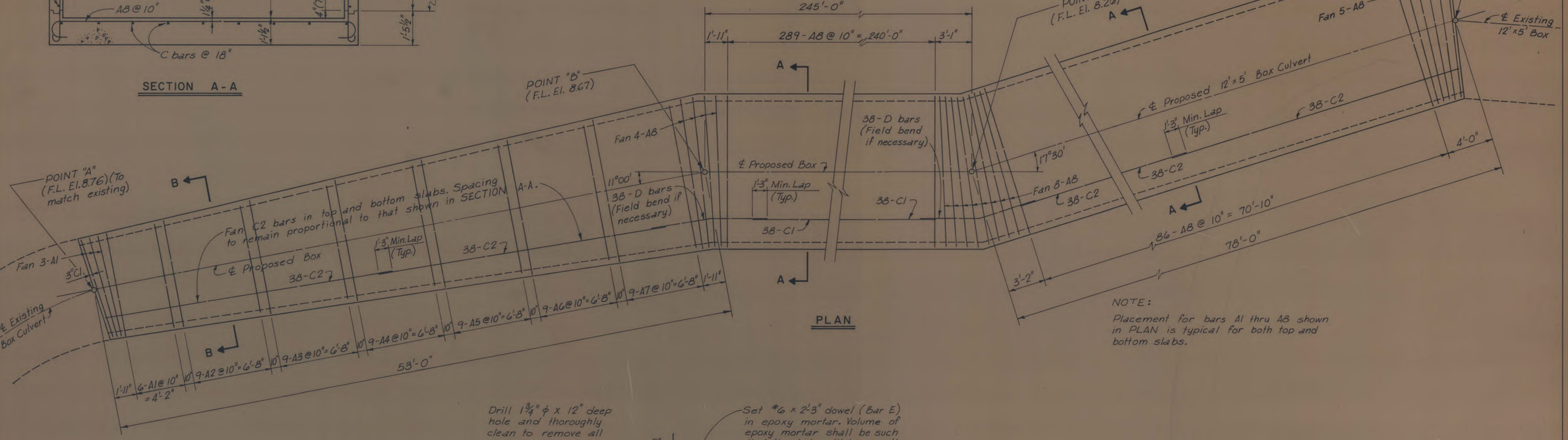
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		BC-2
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1972



SECTION A-A

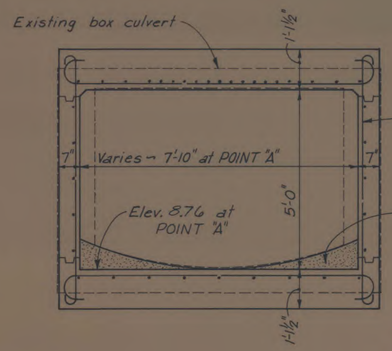


KEY DETAIL



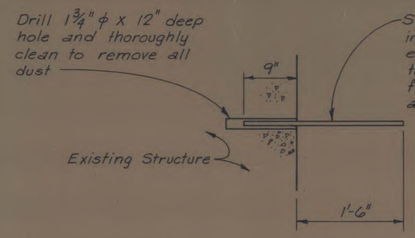
PLAN

NOTE:
Placement for bars A1 thru A8 shown in PLAN is typical for both top and bottom slabs.



NOTE:
For additional details see SECTION A-A and PLAN.

SECTION B - B



DOWEL DETAIL

Dowel bars E shall be set in existing top and bottom slabs and in each sidewall at a spacing of not more than 12 inches. At least 28 dowels will be required at POINT "A" and at least 36 required at POINT "D".

AS BUILT
NOV 26 1975

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

12'X5' BOX CULVERT

AT STA. 508 + 43.18

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE HoM DATE Nov. '72 | TRACED HoM DATE Nov. '72
CHECKED J.L.H. DATE APRIL '73 | SCALE —

84
1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		T-1
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 1974

STATE OF FLORIDA STATE BOARD OF SANITARY SEWER CONSTRUCTION

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

STATE JOB NO.10002-3505
HILLSBOROUGH COUNTY TAMPA, FLORIDA
STATE ROAD NO. 449

TRAFFIC SIGNALS

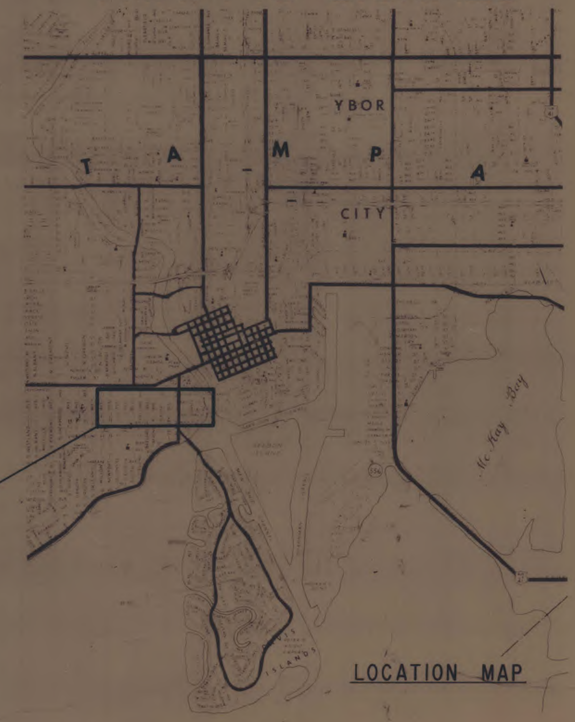


SHEET NO.	INDEX OF SHEETS
T-1	KEY SHEET
T-2	BILL OF MATERIALS & SUMMARY OF QUANTITIES.
T-3	GENERAL NOTES.
T-4	CONVENTIONAL SIGNAL SYMBOLS.
T-5 - T-7	INSTALLATION DETAILS.
T-8	POLE SCHEDULE.
T-9 - T-10	SIGNALIZATION PLAN.
T-11	INDEX NO. 9821 - PRESTRESSED CONCRETE POLES.
T-12	STEEL STRAIN POLE DETAIL.

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

REVISIONS
SHEETS T-2, T-8, T-9 & T-10 (REVISED 4-7-74)



AS BUILT
NOV 26 1975

APPROVAL RECOMMENDED _____ BY _____	APPROVED _____ BY _____ CHAIRMAN TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	CONTRACT NO. 5 WILLOW AVENUE TO BAYSHORE BOULEVARD	AS BUILT APPROVED _____ DATE _____ Contract No. 5

84

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		T-2
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

BILL OF MATERIALS

ITEM	DESCRIPTION	UNIT	QUANTITY LOCATION 1	LOCATION 2	LOCATION 3	TOTAL
1	CONTROLLER: 3 PHASE, FULLY ACTUATED, SOLID STATE MODULAR DESIGN TO BE HOUSED IN ~~POLE~~ PAD MOUNTED CABINET	EACH			1	1
2	CONTROLLER: 2 PHASE, FULLY ACTUATED, SOLID STATE MODULAR DESIGN TO BE HOUSED IN POLE MOUNTED CABINET	EACH		1		1
3	CONTROLLER: 4 PHASE, FULLY ACTUATED, SOLID STATE MODULAR DESIGN TO BE HOUSED IN ~~POLE~~ PAD MOUNTED CABINET	EACH	1			1
4	DETECTOR ASSEMBLY: (VEHICLE) LOOP TYPE	EACH	4	2	3	9
5	DETECTOR ASSEMBLY: (PEDESTRIAN) PUSH BUTTON	EACH	2	4	2	8
6	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES (RED, YELLOW, GREEN)	EACH	7	4	4	15
6A	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES (RED, YELLOW, GREEN) OPTICALLY PROGRAMED	EACH	1	-	-	1
7	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES (RED, YELLOW, GREEN ARROW)	EACH	-	2	3	5
7A	SIGNAL ASSEMBLY: 3 SECTION 1-WAY WITH 12" LENSES (RED, YELLOW, GREEN ARROW) OPTICALLY PROGRAMED	EACH	1	-	1	2
8	SIGNAL ASSEMBLY: 4 SECTION 1-WAY WITH 12" LENSES (RED, YELLOW, GREEN, GREEN ARROW)	EACH	2	-	-	2
9	SIGNAL ASSEMBLY: 4 SECTION 1-WAY WITH 12" LENSES (RED, YELLOW, GREEN ARROW, GREEN ARROW) OPTICALLY PROGRAMED	EACH	-	-	1	1
10	SIGNAL ASSEMBLY: PEDESTRIAN 1-WAY	EACH	2	8	6	16
11	POLES: PRESTRESSED CONCRETE, TYPE II	EACH	2	2 ~~3~~	3	8
12	POLES: PRESTRESSED CONCRETE, TYPE III	EACH	1	-	-	1
13	PEDESTAL: CONCRETE TYPE II-12'	EACH	1	1	1 ~~2~~	4
◆ 14	CONDUIT	LIN.FT.	*	*	*	*
◆ 15	DETECTOR LOOP WIRE: NO. 12 AWG.-UF STRANDED COPPER	LIN.FT.	*	*	*	*
◆ 16	MESSENGER WIRE: 1/4" DIA.	LIN.FT.	*	*	*	*
◆ 17	MESSENGER WIRE: 3/8" DIA.	LIN.FT.	*	*	*	*
◆ 18	CABLE: SOLID COPPER CONDUCTOR	LIN.FT.	*	*	*	*
◆ 19	SIGNAL LAMPS: 150 WATTS CLEAR 125 VOLTS MIN.	EACH	26	18	21	65
◆ 20	PULL BOXES: METER TYPE-CONCRETE	EACH	1	1	2	4
◆ 21	INTERCONNECT CABLE	LIN.FT.		*	*	*
◆ 22	GROUND RODS	EACH	3	3	3	9
	REMOVAL OF EXISTING SIGNAL EQUIPMENT	L.S.		1	1	1
	STEEL STRAIN POLE (ALTERNATE TO CONCRETE POLES)	EACH	3	3	3	9

* TO BE FIGURED FROM PLANS AND JOB SITE BY CONTRACTOR AND SHALL BE SUFFICIENT QUANTITY FOR COMPLETE INSTALLATION. COST SHALL BE INCLUDED IN BID ITEM NO. G75-47 OF THE SUMMARY OF QUANTITIES.

◆ SEE NOTE UNDER SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES

ITEM NO.	ITEM	UNIT	QUANTITY
G75-32-2	CONTROLLER (TWO PHASE) [FULLY ACTUATED, SOLID STATE MODULAR DESIGN, HOUSED IN POLE MOUNTED CABINET]	EACH	1
G75-32-3	CONTROLLER (THREE PHASE) [FULLY ACTUATED, SOLID STATE MODULAR DESIGN, HOUSED IN ~~POLE~~ PAD MOUNTED CABINET]	EACH	1
G75-32-4	CONTROLLER (FOUR PHASE) [FULLY ACTUATED, SOLID STATE MODULAR DESIGN, HOUSED IN ~~POLE~~ PAD MOUNTED CABINET]	EACH	1
G75-33A	DETECTOR [VEHICLE, LOOP TYPE]	EACH	9
G75-33B	DETECTOR [PEDESTRIAN, PUSH BUTTON]	EACH	8
G75-37A	TRAFFIC SIGNAL ASSEMBLY [3 SECTION 1-WAY WITH 12" LENSES]	EACH	20
G75-37B	TRAFFIC SIGNAL ASSEMBLY [3 SECTION 1-WAY WITH 12" LENSES OPTICALLY PROGRAMED]	EACH	3
G75-37C	TRAFFIC SIGNAL ASSEMBLY [4 SECTION 1-WAY WITH 12" LENSES]	EACH	2
G75-37D	TRAFFIC SIGNAL ASSEMBLY [4 SECTION 1-WAY WITH 12" LENSES OPTICALLY PROGRAMED]	EACH	1
G75-39	PEDESTRIAN TRAFFIC SIGNAL ASSEMBLY	EACH	16
G75-40-2	CONCRETE STRAIN POLES (TYPE II)	LIN.FT.	~~286~~ 251
G75-40-3	CONCRETE STRAIN POLES (TYPE III)	LIN.FT.	38
G75-42	CONCRETE PEDESTAL [TYPE II]	LIN.FT.	~~48~~ 36
G75-47	ACCESSORY MATERIAL	LUMP SUM	1
G75-48	PULL BOXES [METER TYPE-CONCRETE]	EACH	4
G75-54A	STEEL STRAIN POLES [28' LENGTH]	EACH	5
G75-54B	STEEL STRAIN POLES [30' LENGTH]	EACH	3
G75-54C	STEEL STRAIN POLES [32' LENGTH]	EACH	1
G75-G3	REMOVE EXISTING EQUIPMENT	LUMP SUM	1

ALTERNATES

NOTE: ◆ ITEMS LISTED IN BILL OF MATERIALS SHALL BE INCLUDED IN THE COST OF CONTRACT BID ITEM NO. G75-47

ITEM G75-42 QUANTITY CHANGED FROM 36 TO 48
ITEM G75-39 QUANTITY CHANGED FROM 9 TO 16

NO.	REVISION	BY	DATE

AS BUILT
NOV 26 1975

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

BILL OF MATERIALS AND SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE JNC DATE 1974 | TRACED R.B. DATE 1974
CHECKED MF DATE 1974 | SCALE -

64/1

Contract No. 5

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3505		T-3
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 11-73

GENERAL NOTES

GENERAL

G-1 NO CHANGES SHALL BE MADE IN THE SIGNALIZATION PLANS WITHOUT THE APPROVAL OF THE RESIDENT ENGINEER.

G-2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE PROJECT ENGINEER TWO (2) COPIES OF SUBMITTAL DATA FOR EACH ITEM OF PROPOSED EQUIPMENT TO BE USED AND SHALL HAVE APPROVAL OF SUBMITTAL DATA PRIOR TO THE INSTALLATION.

G-3 ALL EQUIPMENT MUST MEET AND BE INSTALLED IN ACCORDANCE WITH THE D.O.T. PUBLICATION "STANDARD SPECIFICATIONS FOR TRAFFIC SIGNALS AND AUXILIARY EQUIPMENT" REVISED.

G-4 THE CONTRACTOR SHALL REQUIRE THE CONTROLLER MANUFACTURER OR SUPPLIER TO FORWARD THE MAKE, MODEL AND SERIAL NUMBERS OF EACH CONTROLLER, REFERENCED BY JOB NUMBER AND LOCATION NUMBER AS SHOWN ON THE SIGNAL PLANS TO THE RESIDENT ENGINEER.

G-5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SPECIFYING THE SIZE AND NUMBER OF CONDUCTOR RUNS (PLUS 4 SPARES) AND CONDUIT REQUIRED TO COMPLETELY AND SATISFACTORILY WIRE THE SIGNAL SYSTEM AS OUTLINED AND SHOWN ON THE PLANS. IN ALL INSTANCES, THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND AUXILIARY EQUIPMENT" TOGETHER WITH THE LATEST METHODS OF THE NATIONAL ELECTRICAL CODE SHALL BE STRICTLY ADHERED TO. ANY DEVIATIONS OR EXCEPTIONS TO THE ABOVE MUST BE SUBMITTED IN WRITING TO THE RESIDENT ENGINEER FOR HIS REVIEW AND SUBSEQUENT DECISION.

G-6 THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING THE SERVICE GROUND TO HAVE A RESISTANCE TO GROUND NOT TO EXCEED 25 OHMS AS MEASURED WITH A GROUND "MEGGER".

G-7 THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE RESIDENT ENGINEER TWO (2) COPIES OF A SCHEMATIC SHOWING THE CONDUCTOR RUNS, THE POINTS OF CHANGES AND THE NUMBER OF CONDUCTORS REQUIRED AT EACH POINT.

CONTROLLER

C-1 THE OUTSIDE DOOR AND AUXILIARY DOOR OF ALL CONTROLLER CABINETS TO BE EQUIPPED WITH DIFFERENT CYLINDER LOCKS, TWO KEYS TO EACH LOCK.

C-2 IN ALL CABINETS CONTAINING ACTUATED CONTROLLERS, THERE MUST BE INSTALLED ONE (1) ADDITIONAL SIX (6) TERMINALS STRIP FOR THE ACCOMMODATION OF LOOP TYPE DETECTOR LEADS.

C-3 THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTING THE PROPER SIZE FOUNDATION, ACCORDING TO MANUFACTURER'S SPECIFICATIONS, FOR BASE MOUNTED CONTROLLER CABINETS.

C-4 THE CONTROLLER CABINETS SHALL BE OF THE FOLLOWING LISTED MINIMUM OUTSIDE DIMENSIONS. POLE MOUNTED: HEIGHT 31" INCHES, WIDTH, 19½ INCHES DEPTH 13" INCHES BASE MOUNTED, HEIGHT, 47 INCHES, WIDTH, 28 INCHES, DEPTH, 15 INCHES. THE EQUIPMENT, PROPOSED AND FUTURE, SHALL NOT OCCUPY MORE THAN 70% OF THE CABINET CAPACITY.

C-5 THE CONTROLLER BID SHALL HAVE BUILT-IN NON-LOCKING DETECTION CAPABILITIES OR SHALL HAVE INCLUDED IN THE BID A TIME DELAY RELAY TO EFFECT A TIME DELAY FOR OPENING AND CLOSING A CIRCUIT WITHIN A SPECIFIED TIME LIMIT. THE TIME DELAY SHALL BE ADJUSTABLE FROM 2 TO 60 SECONDS. THE RELAY SHALL BE INSERTED ONLY INTO THE CIRCUIT BETWEEN THE CONTROLLER AND THE DETECTOR SPECIFIED.

C-6 ALL SOLID STATE CONTROLLERS ARE REQUIRED TO HAVE AN ADEQUATE NUMBER OF EXTERNAL JACK MOUNTED, HEAVY DUTY TYPE, SIGNAL LIGHT LOAD SWITCHES WITH SUB-BASE TO CARRY THE AMPERAGE FOR THE MAXIMUM NUMBER OF 150 WATT BULBS THAT SHALL BE DISPLAYED AT ANY ONE INTERVAL.

C-7 ALL CONTROLLLERS THAT DO NOT HAVE A BUILT-IN FEATURE TO ELIMINATE CONFLICTING SIGNAL INDICATIONS SHALL HAVE A SOLID STATE DEVICE (WITH A VARIABLE TIME DELAY FEATURE WHICH PREVENTS ERRONEOUS REACTIONS) TO MONITOR THE SIGNAL INDICATIONS AT THE POINT WHERE THE LOAD SWITCHES FEED THE SIGNAL CABLE SO THERE WILL BE NO CONFLICTING SIGNAL INDICATIONS DISPLAYED. IF THIS CONDITION EXISTS, THE UNIT WILL TRANSFER THE SIGNAL TO AN ALL RED INDICATION, PROCEEDED BY A FLASHING OPERATION DISPLAYING A YELLOW FLASHING SIGNAL TO THE ARTERY AND RED FLASHING SIGNAL TO THE SIDE STREET OR STREETS. THE FLASHING CONDITION WILL REMAIN UNTIL THE SYSTEM IS RESET MANUALLY.

C-8 CONTROLLERS SPECIFIED TO OPERATE AS MULTI-PHASE WILL BE COMPLETELY SOLID STATE WITH NO ELECTRO-MECHANICAL RELAYS OR OTHER MOVING PARTS. SOLID STATE PHASE TIMING MODULES SHALL BE INTERCHANGEABLE BETWEEN DIFFERENT CONTROLLERS OF THE SAME MANUFACTURER. EACH MODULE PROVIDES ALL FUNCTIONS FOR A SINGLE TRAFFIC MOVEMENT OF PHASE. EACH CONTROLLER SHALL BE FURNISHED WITH THE APPROPRIATE INTERVAL SEQUENCE UNIT, PHASE SEQUENCE UNIT, CONNECTING CABLE, SWITCHING RELAYS, SOLID STATE FLASHER, SPECIAL SEQUENCE RELAYS AS REQUIRED, VEHICLE DETECTOR RELAYS AND MISCELLANEOUS HARDWARE AND EQUIPMENT. ALL TIMING INTERVALS SHALL BE SELECTABLE OVER THE ENTIRE TIMING RANGE, WITHOUT THE USE OF MULTIPLICATION SWITCHES.

C-9 WHEN SPECIFIED, MULTI-PURPOSE CONTROLLERS PROVIDING FOR ADDITIONAL PHASE CAPACITY BY THE ADDITION OF MODULAR UNITS SHALL DO SO WITHOUT THERE BEING ANY ADDITIONAL WIRING OR CHANGE IN WIRING TO THE CONTROLLER AND/OR FRAME. ALL MOUNTING FRAMES SHALL BE CAPABLE OF ACCEPTING ADDITIONAL FUNCTIONAL OR PHASE MODULES REGARDLESS OF THEIR FUNCTIONAL CHARACTERISTICS. ALL CABINET WIRING REQUIRED FOR FUTURE OPERATION AS SHOWN ON THE OPERATION PLAN SHALL BE INCLUDED SO THAT ALL ACCESSORY UNITS MAY BE ADDED BY JACK MOUNTING OR PLUGGING UNITS. SUFFICIENT NUMBER OF CONDUCTORS SHALL BE FURNISHED TO WIRE FUTURE SIGNAL HEADS AS SHOWN ON THE PLANS, FROM THE CONTROLLER TO THE FIRST DISCONNECT HANGER.

C-10 THE CONTRACTOR MAY BE REQUIRED TO PROVIDE, INSTALL, AND OPERATE ALL PHASE MODULES (PROPOSED AND FUTURE) AS OUTLINED BY THE SIGNAL OPERATION PLAN. AT THE END OF THE OPERATION CHECK BY THE ENGINEER, THE CONTRACTOR SHALL REMOVE ALL FUTURE PHASE MODULES AND INSTALL COVER PLATES.

DETECTOR

D-1 THE CONTRACTORS SHALL BE RESPONSIBLE FOR INSTALLING THE CORRECT PHASE DETECTOR UNITS REQUIRED FOR SEMI-ACTIVATED CONTROLLERS. WHERE MULTIPLE-PHASE DETECTION IS REQUIRED, AS WITH FULL-ACTUATED MULTI-PHASE CONTROLLERS, THE DETECTORS SHALL BE CAPABLE OF DETECTING EACH AND EVERY SEPARATE MOVEMENT AS SHOWN IN THE SIGNAL OPERATING PLAN.

D-2 THE CONTRACTOR SHALL FURNISH ONE DETECTOR UNIT WITH SUFFICIENT POWER SUPPLIES FOR EACH WIRE LOOP DETECTION TO BE IMBEDDED IN ROADWAY. METHODS FOR TUNING MUST BE EXTERNAL AND EASILY ACCESSIBLE. THERE MUST BE PROVIDED ON THE FRONT OF THE DETECTOR UNIT A VISUAL INDICATOR OR LIGHT TO SHOW WHEN ACTUATIONS ARE BEING RECEIVED. THE DETECTOR UNIT (BY MEANS OF A FRONT PANEL MOUNTED SWITCH) MUST BE CAPABLE OF MOTION DETECTION. PRESENCE DETECTION MUST DETECT VEHICLES ENTERING, STATIONARY, IN, LEAVING THE LOOP OR A COMBINATION OF THESE.

D-3 LOOP LOCATION AND SIZE ARE SHOWN ON THE PLANS FOR THE PURPOSE OF GENERAL LOCATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE CORRECT SIZE LOOPS TO BE PLACED IN ROADWAY AND CORRECT SIZE A.W.G. WIRE AS REQUIRED BY MANUFACTURER'S SPECIFICATIONS IN ORDER TO ASSURE PROPER OPERATION. WHERE LOOP CONDUCTOR IS RUN OVERHEAD SHIELDED WIRE MUST BE USED.

POLES

P-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING THE AMOUNT OF RAKE TO BE USED ON POLES AT THE TIME OF INSTALLATION.

P-2 IN ACCORDANCE WITH GENERAL NOTE NO. G-3, STRAIN INSULATORS ARE HEREWITH DELETED. ALL TRAFFIC SIGNAL POLES SHALL BE GROUNDED IN ACCORDANCE WITH SECTION 715-11 AS SHOWN IN FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 1973. ALL SPAN WIRES MUST BE GROUNDED WITH NO. 6 (MIN.) COPPER WIRE.

P-3 CONCERNING PEDESTRIAN PUSH BUTTON DETECTORS, TYPE VII, PARAGRAPH "C", PAGE 84 OF THE "STANDARD SPECIFICATIONS FOR TRAFFIC CONTROL SIGNALS AND AUXILIARY EQUIPMENT" IS HEREWITH DELETED.

TRAFFIC SIGNAL ASSEMBLY

T-1 ALL TRAFFIC SIGNAL ASSEMBLIES TO BE FURNISHED WITH TWELVE INCH (12") LENSES, STANDARD VISORS, DISCONNECT HANGERS, BULBS (150 WATTS, 125 VOLTS) AND HARDWARE FOR SPAN WIRE MOUNTING UNLESS OTHERWISE SPECIFIED IN THE PLANS.

T-2 THERE SHALL BE PROVIDED BY THE MANUFACTURER OF TRAFFIC SIGNAL HEADS A METHOD OF POSITIVE LOCKING. THE METHOD USED SHALL PREVENT ANY MIS-ALIGNMENT DUE TO STRONG WINDS OR OBJECTS WHICH MAY COME IN CONTACT WITH THE SIGNAL HEAD AT THE POINT OF ENTRANCE INTO ANY SIGNAL HEAD A SURE GASKETING METHOD SHALL BE USED TO PREVENT THE ENTRANCE OF ANY WATER.

T-3 THOSE TRAFFIC SIGNAL ASSEMBLY HEADS SHOWN AS FUTURE, SHALL NOT BE INSTALLED DURING THE CHECKOUT OF THE CONTROLLER.

REMOVAL OR ADJUSTMENT OF EXISTING EQUIPMENT

R-1 THE CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATING ANY EXISTING TRAFFIC SIGNAL EQUIPMENT OR SIGNAL POLES IF NECESSARY TO ACCOMMODATE THE CONSTRUCTION WORK AND STILL PROVIDE ADEQUATELY SAFE TRAFFIC CONTROL. ALL SUCH RELOCATIONS OR ADJUSTMENTS SHALL HAVE THE APPROVAL OF THE RESIDENT ENGINEER.

R-2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EXISTING TRAFFIC SIGNAL EQUIPMENT (SIGNAL HEADS, POLES, SIGNAL HARDWARE AND CONTROLLER) ON THE PROJECT THAT IS NOT INCORPORATED IN THE NEW INSTALLATION AND DELIVER IT DURING NORMAL WORKING HOURS TO:

CITY OF TAMPA
SIGNAL & SIGN MAINTENANCE SHOP
2300 MARITIME BLVD.
TAMPA, FLORIDA 33605

NOTIFICATION TO UTILITIES AND ARRANGEMENTS FOR SAFEGUARDS

N-1 CHAPTER 8AS-4, REGULATION REQUIRING PROTECTIONS IN CLOSE PROXIMITY OF OVERHEAD HIGH-VOLTAGE POWER LINES. WHEN ANY OPERATIONS ARE TO BE PREFORMED IN CLOSE PROXIMITY (6 FEET) OF ANY POWER LINE, THE PERSON OR PERSONS RESPONSIBLE FOR THE WORK TO BE DONE SHALL PROMPTLY NOTIFY THE UTILITY COMPANIES INVOLVED. THEY SHALL ALSO BE RESPONSIBLE FOR THE COMPLETION OF THE SAFETY MEASURES REQUIRED IN SECTION 4.04 THROUGH 4.07 BEFORE PROCEEDING WITH ANY ACTIVITY WHICH MAY NOT CONFORM TO THE REQUIRED CLEARANCES OR OTHER REQUIREMENTS.

GENERAL AUTHORITY: 440.56(2) FLORIDA STATUTES
LAW IMPLEMENTED: 440.56 FLORIDA STATUTES
HISTORY: AMENDED 4-1-71, 5-1-72

THE FOLLOWING NOTES ARE TO BE DELETED FROM THIS PROJECT

P-3
T-3

NOV 26 1975

AS BUILT

AS BUILT

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE	DATE	TRACED	DATE
CHECKED	DATE	SCALE	

Contract No. 5

84 / 1

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			T-4

State Job No. 10002-3505

- RIGHT-OF-WAY LINE
- LIMITED ACCESS LINE
- RAILROADS
- SIGNAL CABLE OVERHEAD ON MESSENGER WIRE
- INTERCONNECT CABLE (AERIAL)
- CABLE IN CONDUIT
- DETECTOR CABLE - PAVEMENT SAW CUT
- LOOP VEHICLE DETECTOR CABINET (POLE MOUNTED)
- SIGNAL POLE REQUIRED
- SIGNAL POLE IN PLACE
- SIGNAL HEAD, SPAN WIRE MOUNTED
- SIGNAL HEAD, MAST ARM MOUNTED
- PEDESTRIAN SIGNAL HEAD, POLE MOUNTED
- PEDESTRIAN SIGNAL HEAD, PEDESTAL MOUNTED
- PEDESTRIAN DETECTOR, POLE MOUNTED
- PEDESTRIAN DETECTOR, PEDESTAL MOUNTED
- VEHICLE DETECTOR, LOOP TYPE - MOTION
- P — VEHICLE DETECTOR, LOOP TYPE - PRESENCE
- VEHICLE DETECTOR, PRESSURE SENSITIVE
- CONTROLLER, POLE MOUNTED
- CONTROLLER, BASE MOUNTED

- JUNCTION BOX
- PULL BOX
- (8) ITEM NUMBER
- [5] SIGNAL FACE NUMBER
- R.R. MILE POST (M.P. NO. 0.00)

	EXISTING	PROPOSED
POWER POLE	◇	◆
TELEPHONE POLE	○	●
COMBINATION POLE	◈	◈
LIGHT STANDARD	✕	●

AS BUILT

NOV 26 1975

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS

CONVENTIONAL SIGNAL SYMBOLS

REVISIONS		ROAD NO.	COUNTY	PROJECT NO.
Dates	Descriptions			

	Names	Dates
Detailed by		
Checked by		
Quantities by		
Checked by		
Traced by		

Recommended For Approval by _____ Engineer of Traffic Operations

APPROVED BY _____ Deputy Design Engineer

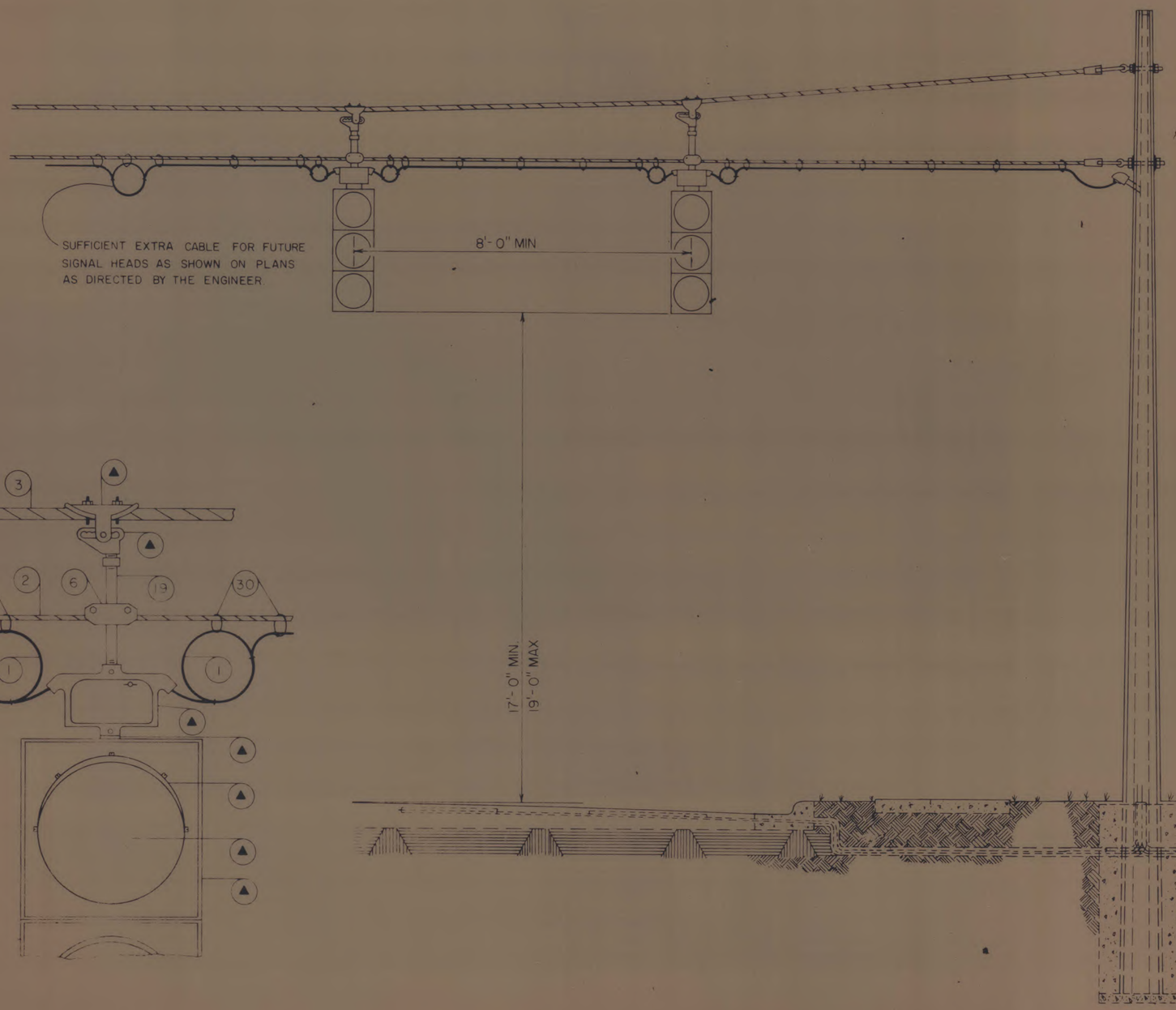
Drawing No. _____ SHEET NO. _____ OF _____

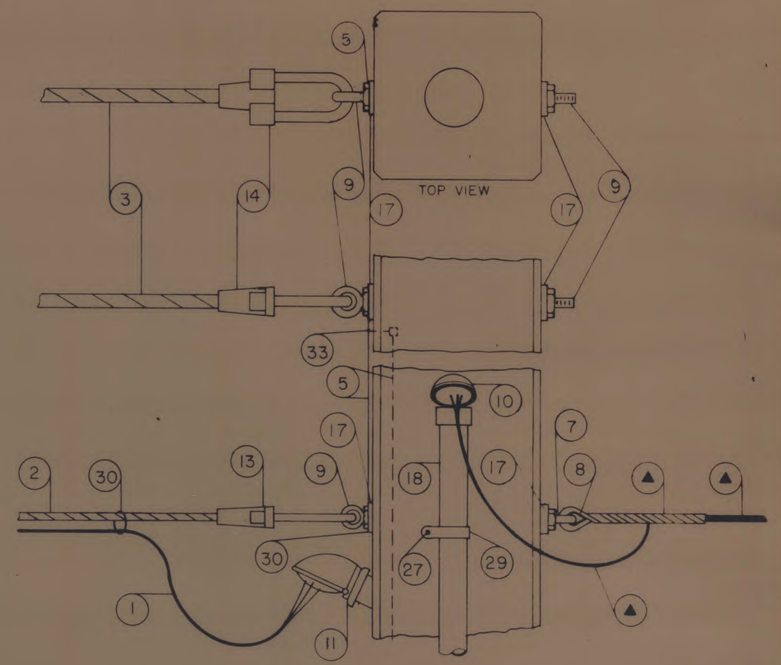
Contract No. 5

84/1

T-8

PROJECT No.	FISCAL YEAR	SHEET No.
10002-3505		T-5





AS BUILT

NOV 26 1975

FLORIDA DEPARTMENT OF TRANSPORTATION
Traffic Operations

TYPICAL INSTALLATION DETAILS

REVISIONS			INITIALS	DATES
Dates	Descriptions	Detailed by		
		Checked by		
		Quantities by		
		Checked by		
		Supervised by		

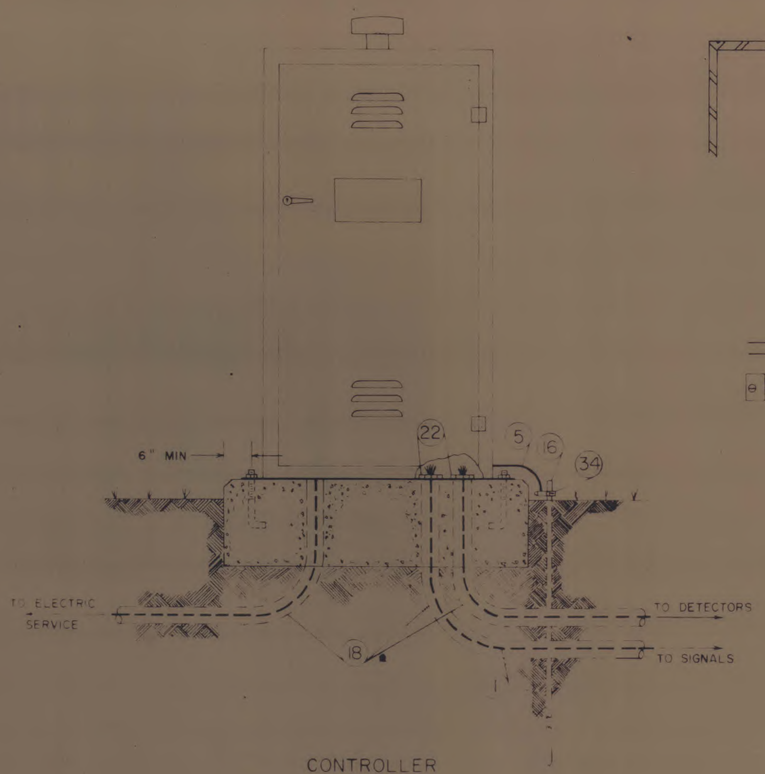
DRAWING NO. 84 INDEX NO. 1

Contract No. 5

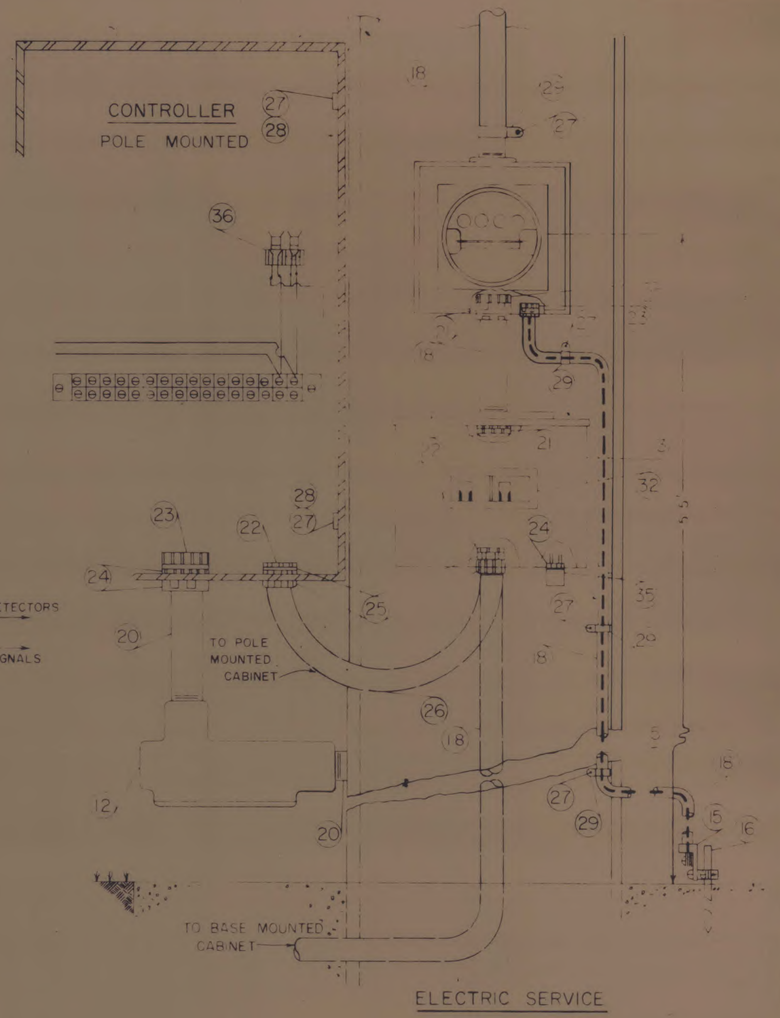
STATE PROJECT NO.	SHEET NO.
10002-3505	T-6

ITEM NO	DESCRIPTION
1	CONDUCTOR, TRAFFIC CONTROL CABLE
2	MESSENGER WIRE (1/4")
3	MESSENGER WIRE (3/8")
4	STRANDED "THWN" WIRE (#12 AWG)
5	STRANDED BARE (GROUND)(#4 AWG)
6	OZ GROUNDING DEVICE
7	EYELET (5/8")
8	THIMBLE (GALV)(5/8")
9	EYEBOLT WITH TWO NUTS (GALV.)
10	WEATHERHEAD - SERV. ENTR. (GALV)
11	WEATHERHEAD (1 1/4" ENTR. HEAD WITH SLIP FITTER FOR 2" PIPE)
12	UNILET, BODY, COVER, AND GASKET (2")
13	PREFORMED GRIP (1/4")
14	PREFORMED GRIP (3/8")
15	GROUND CLAMP WITH 1/2" HUB (3/4")
16	GROUND ROD (3/4" MIN DIA) COPPER
17	WASHER, GALV (2"X2"X1/8")(11/16")
18	CONDUIT, RIGID (GALV)
19	IRON PIPE, GALV (1 1/4")
20	NIPPLE, GALV IRON PIPE (2" DIA)
21	HUB (SCRU-TITE)
22	BUSHING, GROUNDING
23	BUSHING (MOLDED, NON-METALLIC)
24	LOCK NUTS (2")
25	CONNECTOR (SEAL-TITE) STRAIGHT
26	FLEXIBLE CONDUIT (METAL, LIQUID TIGHT)
27	CAULKING ANCHOR
28	MACHINE BOLT (5/8"X18) HEX HEAD BOLT, (1 1/2")
29	STRAP, CONDUIT
30	O-RING
31	CIRCUIT BREAKER BOX (EXTERIOR) 70 AMP, 120 VOLTS
32	CIRCUIT BREAKER ~~20~~ 30 AMP (SQUARE "D" TYPE)
33	CONNECTOR, CABLE (SPLIT TYPE OR SQUEEZE-ON)
34	GROUND CLAMP
35	LIGHTNING ARRESTOR
36	GASFILLED SURGE VOLTAGE PROTECTOR, AL-F 90, BUTTON TYPE

▲ INCLUDED IN BILL OF MATERIALS



CONTROLLER
BASE MOUNTED



ELECTRIC SERVICE

AS BUILT

NOV 26 1975

FLORIDA DEPARTMENT OF TRANSPORTATION
Traffic Operations

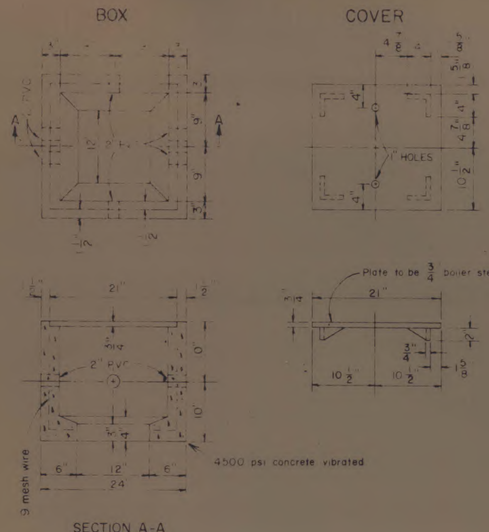
TYPICAL INSTALLATION DETAILS

REVISIONS			INITIALS	DATES
Dates	Descriptions	Detailed by		
		Checked by		2-7
		Quantities by		
		Checked by		
		Supervised by		

Recommended for approval
By _____
District Traffic Operations Engr.
Approved
By _____
State Traffic Operations Engr.
DRAWING NO. | INDEX NO.

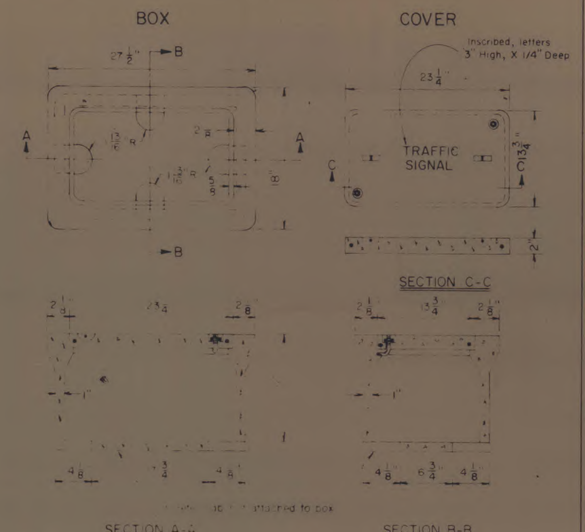
Contract No. 5

84
1



TRAFFIC TYPE PULL BOX DETAIL

NO SCALE

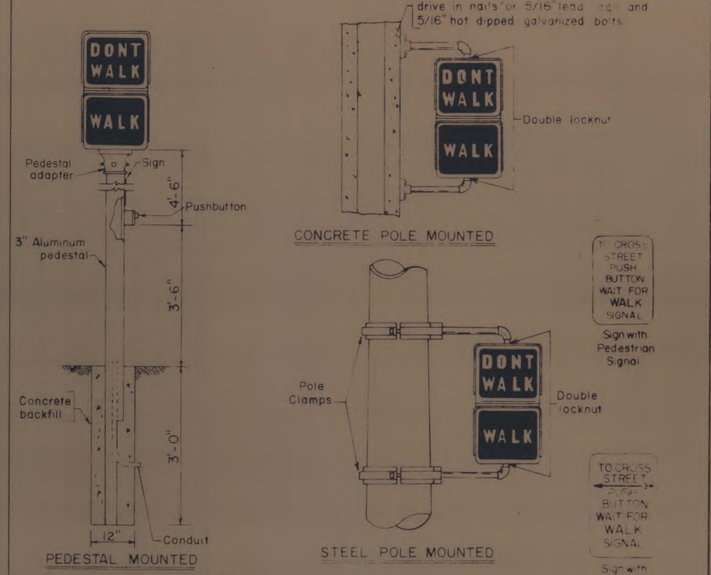


NOTES

1 - Two galvanized lift eyes per cover required.
2 - Cover to have 6 gauge welded wire frame.
3 - Brass "L" bolts and nuts in diagonal corners, two required.
4 - Cover to be marked TRAFFIC SIGNAL.

METER TYPE PULL BOX DETAIL

SCALE



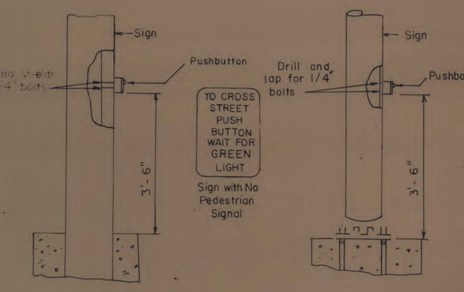
NOTES

1 Provide 8' clearance from signal to surface
2 Aluminum Pedestal (3" I.D., .125" W.T.)-Aluminum association alloy 6061-T or 6351-T5 ASTM B221
3 Assemble signal according to manufacturer's recommendations

PEDESTRIAN SIGNAL MOUNTING

NO SCALE

PROJECT NO. 10002-3505 T-7



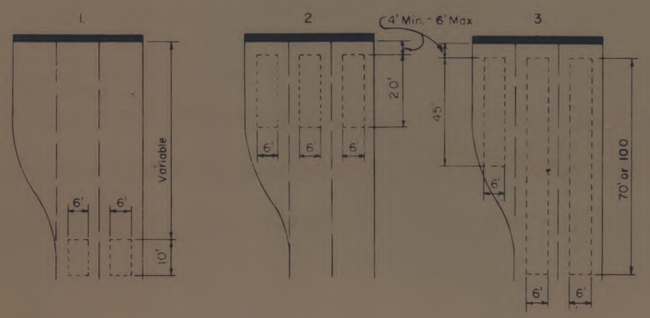
PUSHBUTTON INSTALLATION

NO SCALE

1 - Motion - 6' wide x 10' length or 18' wide x 10' length (Continuous Cut)
2 - Presence - 6' wide x 20' length per lane only
3 - Loop Occupancy* - 6' wide x 70' min - 100' max length per thru lane only
Left turn only - 6' wide x 45' length (Standard Requirement)

Suggested placement behind Stop Bar - 4' min, 6' max

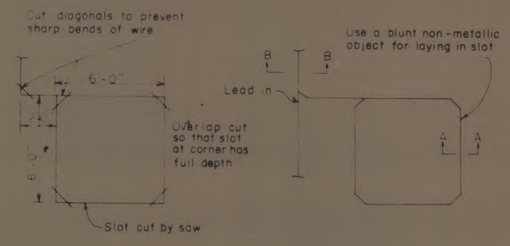
TYPICAL SKETCHES SHOWING APPLICATION

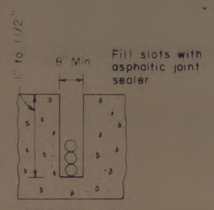


NOTES 1. X. Thru lane loop lengths are determined by approach speed 0-34 MPH = 70' 35-45 MPH = 100'
2. Left turn slots constructed only at locations as shown on plans.

VEHICULAR LOOP STANDARDS

SCALE





DETECTION LOOP CONSTRUCTION DETAIL

NO SCALE

AS BUILT

AS BUILT

NOV 26 1975

FLORIDA DEPARTMENT OF TRANSPORTATION
Traffic Operations

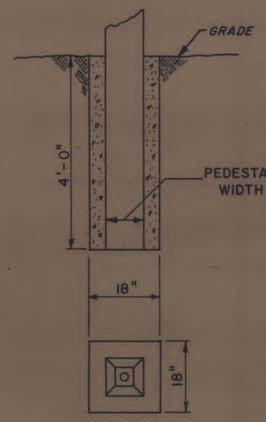
TYPICAL INSTALLATION DETAILS

REVISIONS			INITIALS	DATES
Number	Descriptions	Detailed by		
		Checked by		
		Approved by		
		Supervised by		

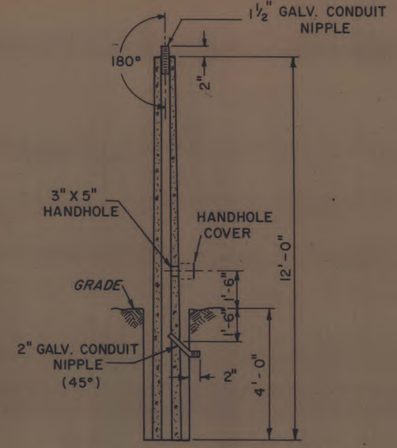
Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		T-8
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974



DETAIL OF CONCRETE PEDESTAL BASE

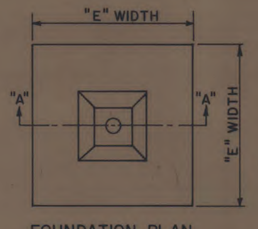


CONCRETE PEDESTAL TYPE II

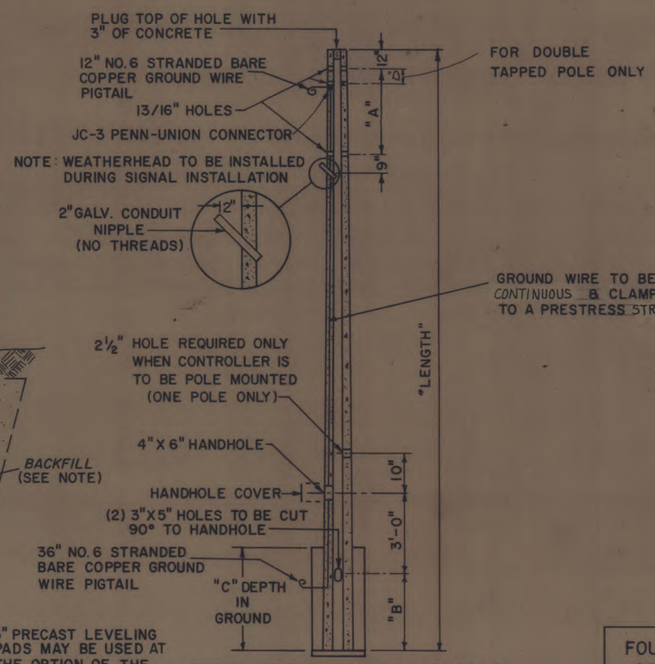
2 - REQ'D

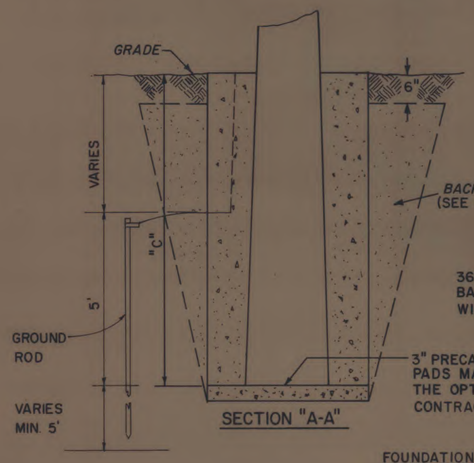
POLE SCHEDULE

LOCATION	POLE NO	NO REQ'D	LENGTH	CLASS	A	B	C	D	ELEVATION TOP OF BASE
PLATT ST.	1	1	35'	V	5'-5"	5'-6"	7'-0"	—	18.97
&	2	1	38'	VI	8'-3"	6'-9"	8'-3"	2'-10"	20.05
WILLOW AVE.	3	1	38'	V	8'-3"	5'-9"	7'-3"	—	19.05
BROREIN ST.	4	1	34'	V	4'-11"	6'-1"	7'-7"	—	19.11
&	5	1	35'	V	5'-11"	6'-1"	7'-7"	1'-0"	19.11
HYDE PARK AVE.	6	1	35'	V	5'-11"	6'-1"	7'-7"	—	19.11
BROREIN ST.	7	1	37'	V	6'-5"	5'-11"	7'-5"	—	17.45
&	8	1	37'	V	6'-5"	5'-11"	7'-5"	2'-2"	17.45
PLANT AVE.	9	1	35'	V	4'-3"	6'-2"	7'-8"	—	17.53



FOUNDATION PLAN

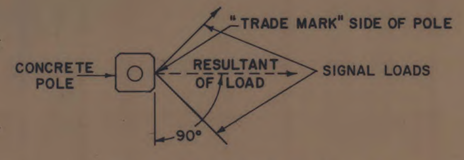




SECTION "A-A"

DETAIL OF PRESTRESSED CONCRETE STRAIN POLES; TYPE V, VI, & VII

FOUNDATION SIZE REQUIREMENTS		
POLE TYPES	"E" WIDTH	"C" DEPTH
V	3'-0"	7'-0"
VI	3'-6"	8'-0"
VII	4'-0"	8'-0"
NOTE: THE DIMINSIONS ABOVE ARE MINIMUM.		



POLE PLACEMENT PLAN

FOUNDATION NOTES

EXCAVATION & BACKFILL EXCAVATION AND BACKFILL FOR FOOTINGS SHALL BE IN ACCORDANCE WITH SECTION 125-8.2 WITH THE FOLLOWING EXCEPTION. IN LIEU OF THE REQUIREMENTS FOR OBTAINING THE SPECIFIED DENSITY, THE BACKFILL MAY BE HAND TAMPED IN FOUR INCH MAXIMUM LAYERS OR MACHINE TAMPED IN SIX INCH MAXIMUM LAYERS. THE MATERIAL SHALL BE NEITHER DRY NOR SATURATED. BACKFILLING MAY BE DONE WITH POURED CONCRETE AT THE OPTION OF THE CONTRACTOR.

CONCRETE FOOTING: TO BE POURED WITH CLASS "I" CONCRETE.

FORMS: SHALL BE IN ACCORDANCE WITH ARTICLE 700-8.3 (IF THE FOOTING IS POURED IN AN OVERSIZED HOLE, THE CONCRETE IN TOP SIX INCHES SHALL BE PLACED IN A FORM AND ALL EXPOSED SURFACES SHALL BE TROWELED TO A SMOOTH FINISH.

AS BUILT

NOV 26 19[illegible]

NO.	REVISION	BY	DATE
	CORRECTED SPELLING IN POLE NOTE		6-7-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

POLE SCHEDULE

J.E. GREINER COMPANY—WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.C. DATE 1974 TRACED G.T. DATE 1974
CHECKED J.C. DATE 1974 SCALE NOT TO SCALE

Contract No. 5

84

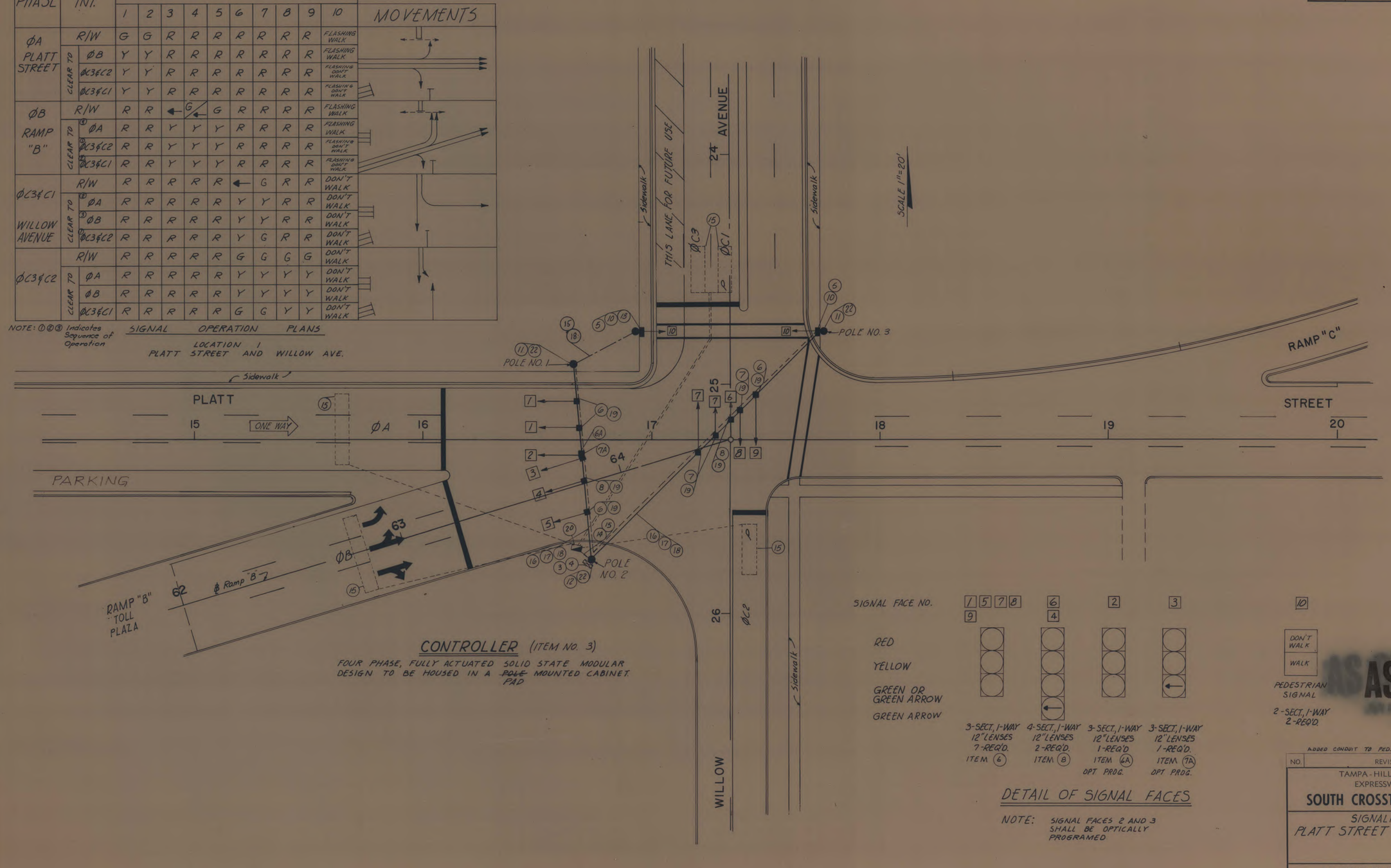
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		T-9
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1974

PHASE	INT.	SIGNAL FACE NUMBERS 1	2	3	4	5	6	7	8	9	10	MOVEMENTS
ØA PLATT STREET	R/W	G	G	R	R	R	R	R	R	R	FLASHING WALK	
	CLEAR TO ØB	Y	Y	R	R	R	R	R	R	R	FLASHING WALK	
	CLEAR TO ØC3&C2	Y	Y	R	R	R	R	R	R	R	FLASHING DON'T WALK	
	CLEAR TO ØC3&C1	Y	Y	R	R	R	R	R	R	R	FLASHING DON'T WALK	
ØB RAMP "B"	R/W	R	R	←	G/←	G	R	R	R	R	FLASHING WALK	
	CLEAR TO ① ØA	R	R	Y	Y	Y	R	R	R	R	FLASHING WALK	
	CLEAR TO ② ØC3&C2	R	R	Y	Y	Y	R	R	R	R	FLASHING DON'T WALK	
	CLEAR TO ③ ØC3&C1	R	R	Y	Y	Y	R	R	R	R	FLASHING DON'T WALK	
ØC3&C1 WILLOW AVENUE	R/W	R	R	R	R	R	←	G	R	R	DON'T WALK	
	CLEAR TO ① ØA	R	R	R	R	R	Y	Y	R	R	DON'T WALK	
	CLEAR TO ② ØB	R	R	R	R	R	Y	Y	R	R	DON'T WALK	
	CLEAR TO ③ ØC3&C2	R	R	R	R	R	Y	G	R	R	DON'T WALK	
ØC3&C2	R/W	R	R	R	R	R	G	G	G	G	DON'T WALK	
	CLEAR TO ØA	R	R	R	R	R	Y	Y	Y	Y	DON'T WALK	
	CLEAR TO ØB	R	R	R	R	R	Y	Y	Y	Y	DON'T WALK	
	CLEAR TO ØC3&C1	R	R	R	R	R	G	G	Y	Y	DON'T WALK	

NOTE: ①②③ Indicates Sequence of Operation

SIGNAL OPERATION PLANS

LOCATION 1
PLATT STREET AND WILLOW AVE.



CONTROLLER (ITEM NO. 3)

FOUR PHASE, FULLY ACTUATED SOLID STATE MODULAR DESIGN TO BE HOUSED IN A ~~POLE~~ PAD MOUNTED CABINET.

DETAIL OF SIGNAL FACES

NOTE: SIGNAL FACES 2 AND 3 SHALL BE OPTICALLY PROGRAMED

AS BUILT
NOV 26 1975

NO.	REVISION	BY	DATE
1	ADDED CONDUIT TO PED. PEDESTAL		6-7-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SIGNALIZATION PLAN
PLATT STREET AND WILLOW AVENUE

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE JNC DATE 1974 | TRACED EAJ DATE 1974
CHECKED MF DATE 1974 | SCALE

Contract No. 5

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3505		T-10
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 1974

SIGNAL OPERATION PLAN

PHASE	INT.	SIGNAL FACE NUMBERS 10	11	12	13	14	15	16	MOVEMENTS
ØA BROREIN ST. and CLEVELAND ST.	R/W	←	G	↑	R	R	DON'T WALK	FLASHING WALK	
	CLEAR TO ØB	Y	Y	Y	R	R	DON'T WALK	FLASHING DON'T WALK	
ØB HYDE PARK AVE.	R/W	R	R	R	↑	G	FLASHING WALK	DON'T WALK	
	CLEAR TO ØA	R	R	R	Y	Y	FLASHING DON'T WALK	DON'T WALK	

LOCATION 2

BROREIN ST. AND HYDE PARK AVE.

CONTROLLER (ITEM 2)

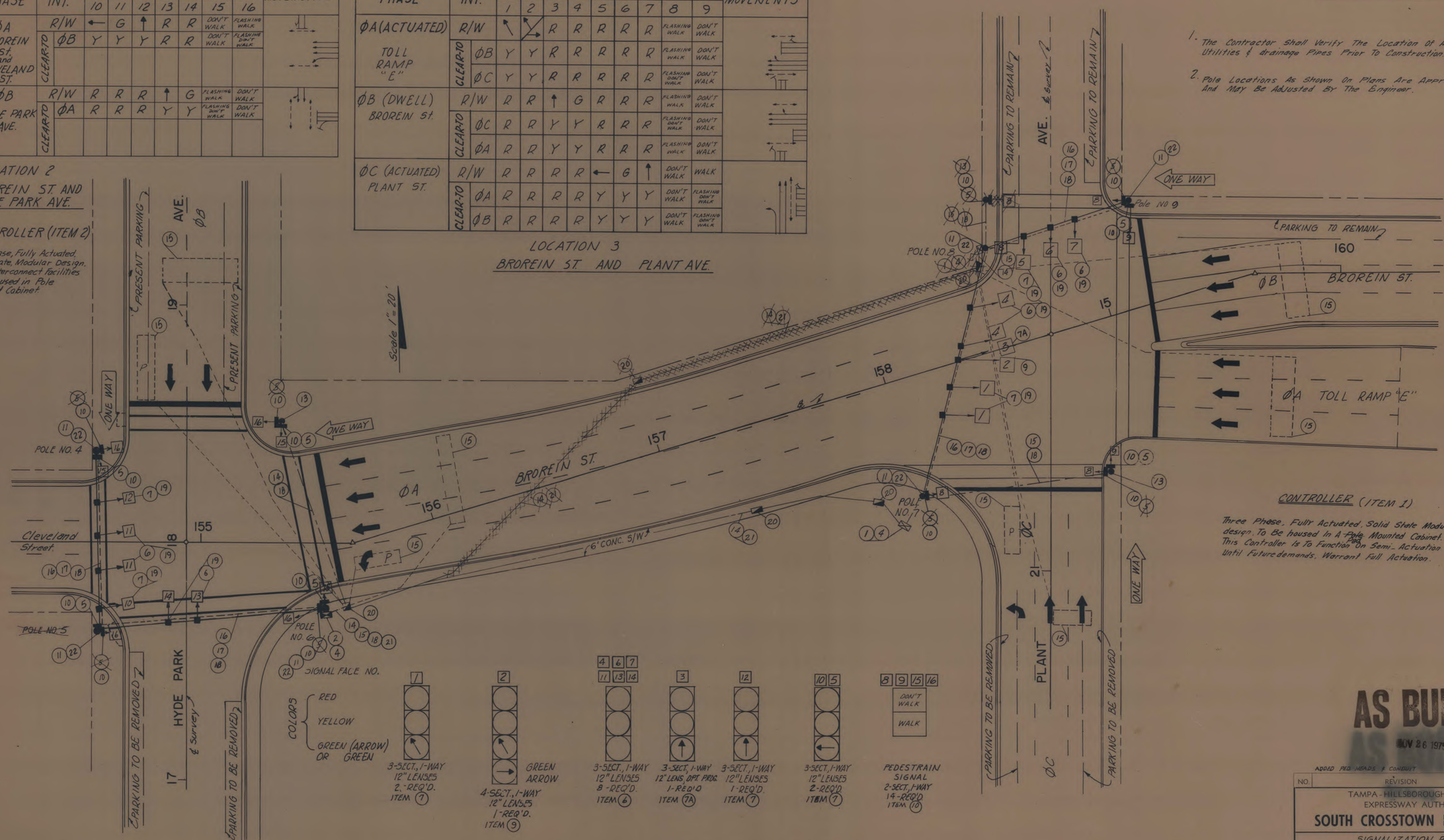
Two Phase, Fully Actuated, Solid State, Modular Design, With Interconnect Facilities To be Housed in Pole Mounted Cabinet.

SIGNAL OPERATION PLAN

PHASE	INT.	SIGNAL FACE NUMBERS 1	2	3	4	5	6	7	8	9	MOVEMENTS
ØA (ACTUATED) TOLL RAMP "E"	R/W	↖	↗	R	R	R	R	R	FLASHING WALK	DON'T WALK	
	CLEAR TO ØB	Y	Y	R	R	R	R	R	FLASHING WALK	DON'T WALK	
	CLEAR TO ØC	Y	Y	R	R	R	R	R	FLASHING DON'T WALK	DON'T WALK	
ØB (DWELL) BROREIN ST.	R/W	R	R	↑	G	R	R	R	FLASHING WALK	DON'T WALK	
	CLEAR TO ØC	R	R	Y	Y	R	R	R	FLASHING DON'T WALK	DON'T WALK	
	CLEAR TO ØA	R	R	Y	Y	R	R	R	FLASHING WALK	DON'T WALK	
ØC (ACTUATED) PLANT ST.	R/W	R	R	R	R	←	G	↑	DON'T WALK	WALK	
	CLEAR TO ØA	R	R	R	R	Y	Y	Y	DON'T WALK	FLASHING DON'T WALK	
	CLEAR TO ØB	R	R	R	R	Y	Y	Y	DON'T WALK	FLASHING DON'T WALK	

LOCATION 3

BROREIN ST. AND PLANT AVE.



DETAIL OF SIGNAL FACES

NOTE: SIGNAL FACES 2 AND 3 SHALL BE OPTICALLY PROGRAMED

1. The Contractor Shall Verify The Location Of All Utilities & drainage Pipes Prior To Construction.
2. Pole Locations As Shown On Plans Are Approximate And May Be Adjusted By The Engineer.

CONTROLLER (ITEM 1)

Three Phase, Fullr Actuated, Solid State Modular design. To Be housed in A Pole Mounted Cabinet. This Controller Is To Function On Semi-Actuation Until Future demands, Warrant Full Actuation.

AS BUILT

NOV 26 1975

NO	REVISION	BY	DATE
	ADDED PED HEADS & CONDUIT		4-7-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SIGNALIZATION PLAN

BROREIN ST. AND PLANT AVE.

BROREIN ST. AND HYDE PARK AVE.

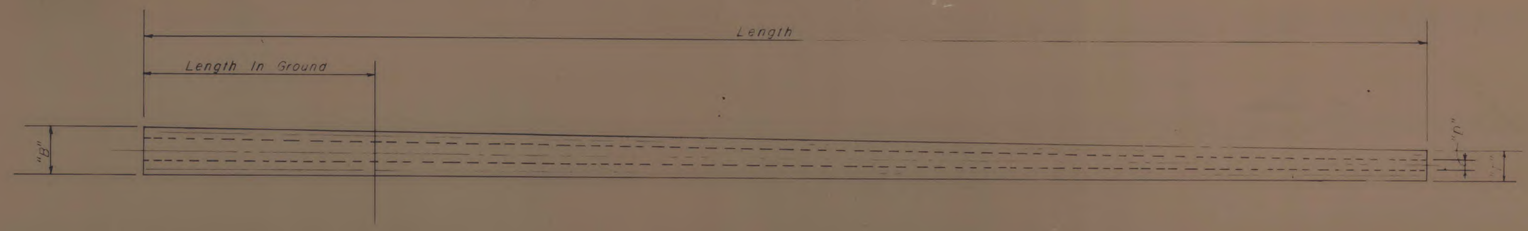
J. E. GREINER COMPANY — WATSON & COMPANY CONSULTING ENGINEERS TAMPA, FLORIDA

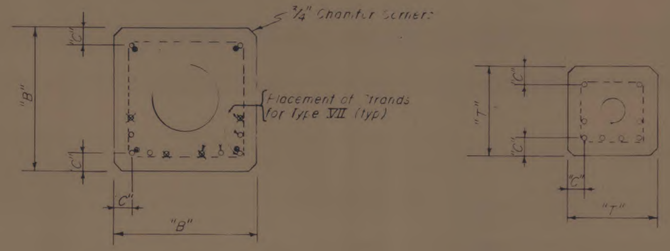
MADE J. H. DATE NOV. '72 | TRACED DJR DATE 1974

CHECKED JNC DAT 1974 | SCALE NOT TO SCALE

84 / 1

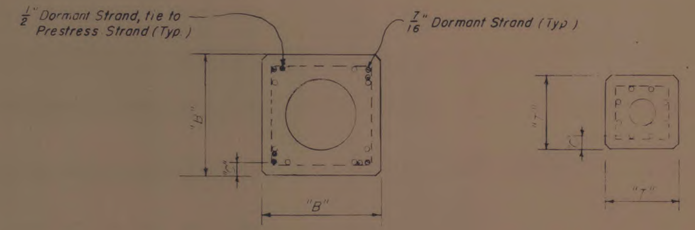
Contract No. 5





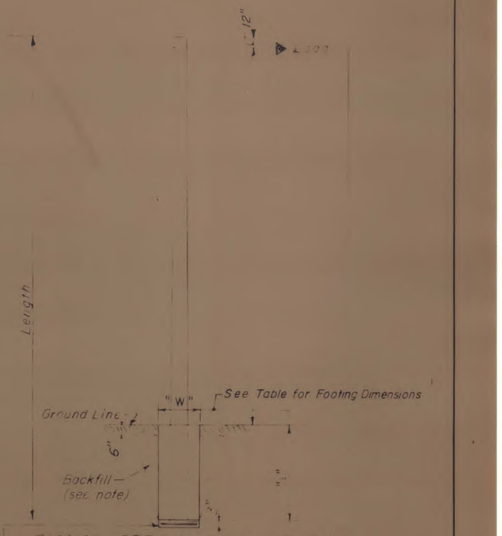
SECTION AT BOTTOM SECTION AT TOP

TYPICAL SECTION FOR TYPE V, VI and VII
(STRANDS ECCENTRICALLY PLACED)



SECTION AT BOTTOM SECTION AT TOP

TYPICAL SECTION FOR TYPE [illegible]
(STRANDS SYMMETRICALLY PLACED



SIGNAL STRAIN POLE LOADINGS

[illegible]

TYPE	DESIGNATION	SIZE AT TOP "T"	SIZE AT BOTTOM "B"	OUTSIDE POLE TAPER	HOLE DIA. "D" AT TOP	MANDREL DETAIL	STRAND TAPER "C"	NO. OF STRANDS	SIZE * and TYPE STRAND	LOAD WITH NO CRACKING	MINIMUM ULTIMATE LOAD CAPACITY	APPLICATION OF LOAD	f'c	fy	FOOTING DIMENSIONS W B L"	SHIELDING (From Top)	SHEAR REINFORCING (From Bottom)	DORMANT STRAND
SIGNAL STRAIN POLES	VII	14" Sq.	Size at Top + (Lg. x Taper)	.6"/Ft.	2.87" ϕ (Per Mandrel Detail)	Per Pres. MFG	Min. Cover 1" of Conc.	12	1/2" ϕ Strands 270 K	7000#	10,000 ± # (Min.)	12 Inches From Top	6000psi	4000psi	3.5'x3.5'x9.0'	Shield 2 at 10' Shield 2 at 26'	3 Wire @ 3" @ 9' up 5 Ga Spiral @ 6" Remainder	4 - 1/2" ϕ Tie to Corner
	VI	[illegible]	Size at Top + (Lg. x Taper)	.6"/Ft.	3" ± ϕ (Per Mandrel Detail)	Per Pres. MFG	Min. Cover 1" of Conc.	8	1/2" ϕ Strands 250 K	5000#	7500 ± # (Min.)	12 Inches From Top	6000psi	4000psi	3.5'x3.5'x8.0'	Shield 2 at 12'	3 Wire @ 3" @ 9' up 5 Ga Spiral @ 6" Remainder	4 - 1/2" ϕ Tie to Corner
	V	[illegible]	Size at Top + (Lg. x Taper)	.6"/Ft.	2.87" ± ϕ (Per Mandrel Detail)	Per Pres. MFG	Min. Cover 1" of Conc.	8	1/2" ϕ Strands 250 K	3500#	6000 ± # (Min)	12 Inches From Top	6000psi	4000psi	3'x3'x7.0'	Shield 2 at 6' Shield 2 at 21'	3 Wire @ 3" @ 9' up 5 Ga Spiral @ 6" Remainder	4 - 1/2" ϕ Tie to Corner
	IV	~ 8.25" Sq.	Size at Top + (Lg. x Taper)	.6"/Ft.	3" ± ϕ (Per Mandrel Detail)	Per Pres. MFG	Min. Cover 1" of Conc.	8	1/2" ϕ A.S.T.M. 250 K	1850 *	3000 ± # (Min.)	12 Inches From Top	6000psi	4000psi	3'x3'x6.0'	Shield 2 at 6' Shield 2 at 12'	5 Ga Spiral @ 6"	4 - 1/2" ϕ to Corner 4 - 1/2" ϕ Tie To Prest.
LIGHT POLES	II	6" Sq.	Size at Top + (Lg. x Taper)	.6"/Ft.	2" ϕ (Per Mandrel Detail)	Per Pres. MFG	Min. Cover 1" of Conc.	4	7/16" ϕ A.S.T.M. 250 K	900#	1200 ± # (Min.)	2 Feet From Top	6000psi	4000psi	3'x3'x6.0'		9 Ga Spiral @ 6"	8 - #4 Bars
	II	64" Round	Size at Top + (Lg. x Taper)	.6"/Ft.	2" ϕ (Per Mandrel Detail)	Per Pres. MFG	Min. Cover 1" of Conc.	4	1/2" ϕ A.S.T.M. 250 K	900#	1200 ± # (Min.)	2 Feet From Top	6000psi	4000psi	3'x3'x6.0'	Shield 2 at 6' Shield 2 at 12'		4 - #4 Bars



SECTION AT BOTTOM SECTION AT TOP

TYPICAL SECTION FOR TYPE II
(STRANDS SYMMETRICALLY PLACED)

* Steel strand used to prestress the Concrete shall not be tensioned above 70% of the rated ultimate strength.

SYMBOLS

O Placement of Prestressed Strands
⊗ Placement of Prestressed Strands for Type VII
● Placement of Dormant Strands

FOOTING NOTES

EXCAVATION AND BACKFILL

Excavation and Backfill for the Footings shall be in accordance with section 125-8.2 with the exception that for the Backfill, in lieu of the requirements for obtaining the specified density, The Backfill may be hand tamped in four inch maximum layers or may be tamped in six inch maximum layers, the material should be neither dry nor saturated. At the Contractors option Backfilling may be done with poured concrete.

FORMS Shall be in accordance with Section 700-8.3

AS BUILT

NOV 26 1968

SIGNAL STRAIN POLE & LIGHT POLE

STATE ROAD DEPARTMENT OF FLORIDA
STRUCTURES DIVISION

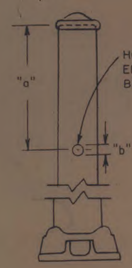
PRESTRESSED CONCRETE POLES

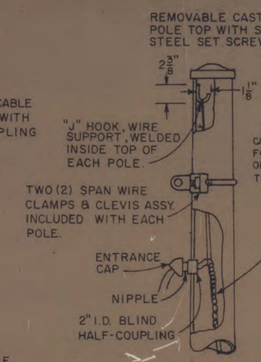
REVISION
07-68 Revised Pile Footing
08-68 Revised Footing Dimension
09-68 Revised Shaft Reinforcement
02-70 Revised Footing Dimension
08-71 250 K in Lieu 270 K

C.W.O. 5-15-68

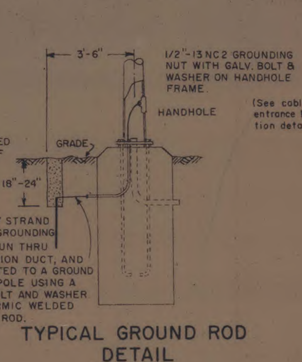
Contract No. 5 | 1 of 1 | 982 | 84 / 1

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.	10002-3505		T-12

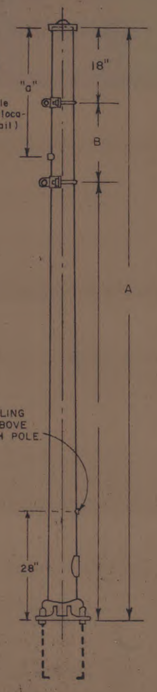




TYPICAL CABLE STRAIN RELIEF & ENTRANCE CAP DETAILS



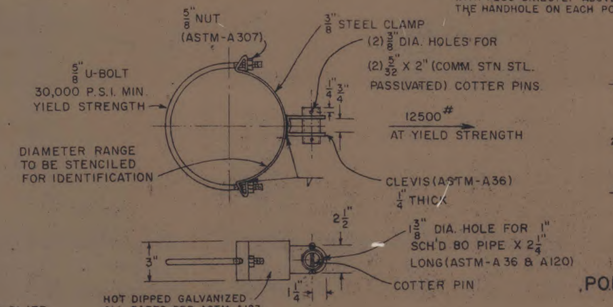
TYPICAL GROUND ROD DETAIL



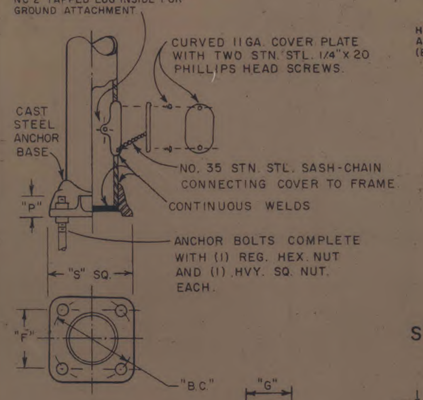
POLE DETAIL

CONFIG.	"a"	"b"	"c"
A	30"	2"	90°
B	30"	2"	180°
C	30"	2"	270°
D	48"	2"	90°
E	48"	2"	180°
F	48"	2"	270°
G	NO HOLE REQUIRED		

CABLE ENTRANCE LOCATION DETAIL



NOTE:
2" I.D. BLIND HALF-COUPLING WITH PLUG DIRECTLY ABOVE THE HANDHOLE ON EACH POLE.



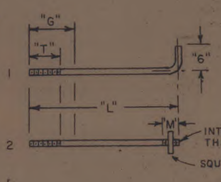
ANCHOR BASE DATA					ANCHOR BOLT DATA						SQUARE PLATE SIZE
POLE DIA.	"B.C."	"F"	"S"	"P"	SIZE	"L"	"T"	"G"	"M"	TYPE	
10" †	13-1/2"	9-9/16"	14-1/8"	3-3/8"	1-1/2" x 60"	54"	9"	14"	—	1	—
11" †	15"	10-5/8"	15-5/8"	3-5/8"	1-3/4" x 90"	84"	9"	14"	—	1	—
12" †	16"	11-5/16"	17"	4"	1-3/4" x 90"	84"	9"	14"	—	1	—
13" †	18"	12-3/4"	18-1/2"	4-1/4"	2" x 90"	90"	9"	15"	1-3/4"	2	1" x 4"
14" †	20"	14-1/8"	20-1/2"	4-3/4"	2" x 90"	90"	9"	15"	3/4"	2	1" x 4"
14" *	22"	15-1/2"	23"	5-1/4"	2-1/4" x 96"	96"	10"	16"	2"	2	1-1/4 x 4-1/2"ø

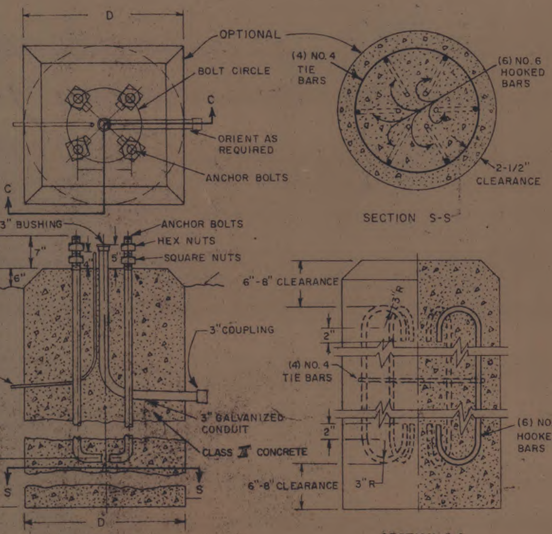
* 2 ply 7 Ga. † 3 Ga. & 0 Ga.

TYPICAL HANDHOLE, ANCHOR BASE & ANCHOR BOLT DETAILS

TYPE	RANGE MIN.	RANGE MAX.	NOM. CLAMP SIZE
I	5.2"	5.8"	5"
II	5.8"	6.8"	6"
III	6.8"	7.9"	7"
IV	7.9"	9.0"	8"
V	9.0"	10.1"	9"
VI	10.1"	11.3"	10"
VII	11.3"	12.1"	11"
VIII	12.1"	13.4"	12"

SPAN WIRE CLAMP DETAILS





TYPICAL STRAIN POLE FOUNDATION

SECTION C-C
TYPICAL REINFORCING STEEL SECTIONS

FOUNDATION DATA

POLE TYPE	"C"	"D"
A	6'-0"	30"
B	7'-0"	30"
C	7'-0"	36"
D	8'-0"	36"
E	8'-0"	42"
F	6'-0"	30"
G	7'-0"	30"
H	7'-0"	36"
I	8'-0"	36"
J	8'-0"	42"
K	8'-0"	42"

POLE SCHEDULE

LOCATION NO.	POLE NO.	(POLE LENGTH) "A"	POLE TYPE	"B"	CABLE ENTRANCE CONFIGURATION	"C"	"D"	CLAMP TYPE Upper	CLAMP TYPE Lower	NUMBER REQUIRED POLES	NUMBER REQUIRED CLAMPS Upper	NUMBER REQUIRED CLAMPS Lower
1	1	28	A	5'-5"	G	6'-0"	30"	II	III	1	1	1
1	2	30	C	8'-3"	E	7'-0"	36"	III	V	1	2	1
1	3	32	B	9'-3"	G	7'-0"	30"	II	IV	1	1	1
2	4	28	A	5'-11"	G	6'-0"	30"	II	III	1	1	1
2	5	28	A	5'-11"	G	6'-0"	30"	II	III	1	1	1
2	6	28	A	5'-11"	F	6'-0"	30"	II	III	1	1	1
3	7	30	A	6'-5"	G	6'-0"	30"	II	III	1	1	1
3	8	30	A	6'-5"	E	6'-0"	30"	II	III	1	2	1
3	9	28	A	4'-5"	G	6'-0"	30"	II	III	1	1	1

STEEL POLES TO BE ALTERNATE TO PRESTRESSED CONCRETE POLES.

ANCHOR BASE TYPE
STEEL STRAIN POLE CHART

OVERALL LENGTH	TYPE	BASE DIAMETER (INCHES)	WALL THICKNESS (GAUGE)	LOAD AT YIELD STRESS (LBS.)	DEFLECTION PER 100 LBS (INCHES)
26 Ft.	A	10	.2500 (3 Ga.)	3400	.45
	B	11		4160	.32
	C	12		4960	.24
	F	10	.3125 (0 Ga.)	4180	.37
	G	11		5120	.26
	H	12		6100	.19
28 Ft.	A	10	.2500 (3 Ga.)	3140	.57
	B	11		3840	.41
	C	12		4590	.31
	H	12	.3125 (0 Ga.)	5640	.25
	I	13		6650	.19
	J	14		7750	.15
30 Ft.	A	10	.2500 (3 Ga.)	2920	.74
	B	11		3560	.53
	C	12		4260	.39
	D	13		5030	.30
	H	12	.3125 (0 Ga.)	5250	.32
	I	13		6200	.24
	J	14		7200	.19
32 Ft.	B	11	.2500 (3 Ga.)	3335	.66
	C	12		3990	.49
	D	13		4700	.37
	H	12	.3125 (0 Ga.)	4910	.40
	I	13		5800	.30
	J	14		6760	.24
	K	14	.3586 (2 ply 7 Ga.)	7650	.21
34 Ft.	C	12	.2500 (3 Ga.)	3740	.61
	D	13		4420	.46
	E	14		5140	.36
	H	12	.3125 (0 Ga.)	4610	.50
	I	13		5440	.38
	J	14		6340	.30
	K	14	.3586 (2 ply 7 Ga.)	7000	.26
36 Ft.	C	12	.2500 (3 Ga.)	3530	.75
	D	13		4160	.57
	E	14		4840	.44
	H	12	.3125 (0 Ga.)	4340	.61
	I	13		5120	.46
	J	14		5970	.36
	K	14	.3586 (2 ply 7 Ga.)	6790	.31
38 Ft.	C	12	.2500 (3 Ga.)	3330	.92
	D	13		3930	.69
	E	14		4570	.53
	H	12	.3125 (0 Ga.)	4100	.77
	I	13		4830	.58
	J	14		5630	.45
	K	14	.3586 (2 ply 7 Ga.)	6420	.38

MATERIAL SPECIFICATIONS

1. Tapered tubes (S.A.E.-1020 Steel processed to minimum yield stress of 55,000 lbs. P.S.I., & galv. as per ASTM-A123.
2. Cast anchor base and handhole frame, ASTM-A 27, Grade 65-35.
3. Handhole cover plate, 11 gauge steel, S.A.E.-1015.
4. Cast aluminum pole top, aluminum alloy 43.
5. Span wire clamp, low alloy, high strength steel ASTM-A 242 or 375, load producing distortion 12,500 lbs. direct tension.
6. All bolts and nuts less than 5/8" diameter passivated stainless steel AISI-300 series, commercial grade.
7. All bolts and nuts 5/8" dia. and over, ASTM-A 307 and galvanized in accordance with ASTM-A 153.
8. Anchor base and U-bolts, high strength steel minimum yield stress 55,000 lbs. P.S.I.
9. Welding rod, ASTM-A 233, class E60XX or 70XX.
10. Galvanizing, as per ASTM-A123.
11. Painting, when specified, inside of poles red lead primer. Outside of poles zinc chromate, iron oxide primer.
12. The taper shall be 0.14 of an inch per linear foot, measured as change in diameter.

AS BUILT

NOV 26 1975

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS

STEEL STRAIN POLE DETAIL

REVISIONS Dates	REVISIONS Descriptions

ROAD NO.	COUNTY	PROJECT NO.

	Names	Dates
Detailed by		
Checked by		
Quantities by		
Checked by		
Traced by		

Recommended For Approval by: R. H. Conley, Traffic Operations Engineer
APPROVED BY: State Traffic Operations Engineer

Drawing No. 1 OF 1 | Sheet No. 84

Contract No. 5

A. B. GOODWILL CO., JACKSONVILLE

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		1
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

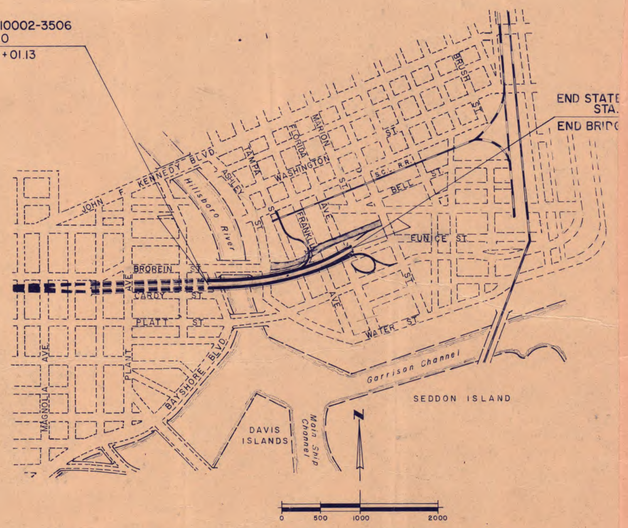
HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002 - 3506-032

STATE ROAD NO. 449

N STATE JOB NO. 10002-3506
T. STA. 548+72.00
I BRIDGE STA 549+01.13

END STATE STA.
END BRID



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED INFORMATION

CONTRACT NO. 6
BAYSHORE BLVD. TO MORGAN ST.

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 6 - State Job No. 10002-3506

Description	Drawing Number Sheet No.
Cover Sheet (Bayshore Blvd. to Morgan St.)	1
Drainage Map	2
Typical Sections	8 and 9
Plan and Profile	12 through 18
Interchange Layout	19
Plan View Ramp "G" (Tampa St. Connector)	20
Plan View Ramps "H" & "H-1"(Florida & Platt Connector)	21
Water Line Relocation Cover Sheet	WL-1
Summary of Water Line Quantities	WL-2
Standard Details	WL-3 and 4
Plan and Profile	WL-5, 6 and 7
Plan View Ramps "H" & "H-1"(Florida & Platt Connector)	WL-8
Cover Sheet Sanitary Sewer Relocation	SS-1
Summary of Quantities	SS-2
Plan and Profile	SS-3
Miscellanecus Details	SS-4 and SS-5
Key Map	RW/1
Right-of-way Map	RW/2, 3 and 4

TOTAL No. MYLAR SHEETS 15.

AS BUILT

APR 21 1976

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		1
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002 - 3506-032

STATE ROAD NO. 449



THIS CONTRACT PLAN SET INCLUDES:

ROADWAY PLANS	1 - 64
SIGNING AND PAVEMENT MARKING PLANS	SI - S49
SIGNALIZATION PLANS	TI - TII
LIGHTING PLANS	LI - L8
STRUCTURE PLANS	BI - B14! -WI - W4
WATER LINE RELOCATION PLANS	WLI - WL8
SANITARY SEWER RELOCATION PLANS	SSI - SS5
RIGHT-OF-WAY MAPS	R/WI - R/W4

FOR INDEX OF PLANS, SEE APPROPRIATE PLAN SETS.

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	COVER SHEET
2	DRAINAGE MAP
3	GRADING AND CONTOUR SHEET
4	BASE TRAVERSE CONTROL MAP
5-7	SPIRAL STAKE-OUT AND CURVE DATA
8-9	TYPICAL SECTION
10	END OF BRIDGE BARRICADE
11	SUMMARY OF QUANTITIES
12-18	PLAN AND PROFILES
19	INTERCHANGE LAYOUT SHEET
20	RAMP "G" - TAMPA ST. CONNECTOR
21	RAMP "H" & "H-1" - FLORIDA AVE. & PLATT ST. CONNECTORS
22-32	DRAINAGE STRUCTURE SECTIONS
33-38	SPECIAL PROFILES
39-59	CROSS SECTIONS
60-62	APPROACH SLAB DETAILS
63	PROJECT INFORMATION SIGN
64	BORROW AREA ONE

STANDARD DRAWINGS

INDEX NO.	STANDARD DRAWINGS
194	STANDARD ABBREVIATION (2 SHEETS)
195	STANDARD SYMBOLS FOR KEY MAPS AND PLANS SHEETS (3 SHEETS)
1101-W	MISCELLANEOUS ROADWAY CONSTRUCTION DETAILS (2 SHEETS)
1129-G	U-ENDWALLS FOR PIPE CULVERTS (3 SHEETS)
2300-R	GUARDRAIL CONSTRUCTION (4 SHEETS)
5010-H	SUPERELEVATION DETAILS
5016-B	TURNOUT DETAILS
5047-G	INLET, MANHOLE, AND JUNCTION BOX TYPE P AND J (2 SHEETS)
5049-A	INLET TYPE "Z"
5061-E	MISCELLANEOUS DRAINAGE DETAILS (2 SHEETS)
5072-G	DETAILS OF FENCING (2 SHEETS)
5080-G	CURB, CURB AND GUTTER, AND TRAFFIC SEPARATOR (2 SHEETS)

BEGIN STATE JOB NO. 10002-3506
P.O.T. STA. 548+72.00
BEGIN BRIDGE STA 549+01.13

END STATE JOB NO. 10002-3506
STA. 567+65.36
END BRIDGE STA 567+65.36



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED INFORMATION

LENGTH OF JOB

	STATE JOB NO. 10002 - 3506	
	LIN. FT.	MILES
ROADWAY	0.00	0.00
BRIDGES	1664.23	0.31
NET LENGTH	1664.23	0.31
EXCEPTIONS	0.00	0.00
GROSS LENGTH	1664.23	0.31

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 1973, OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS

APRIL 21 1976
AS BUILT

APPROVAL RECOMMENDED 1-3-74

BY W. Dale Lester
J.E. GREINER CO., INC. - WATSON AND COMPANY

APPROVED 1-3-74

BY Bob Lester
CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 6
BAYSHORE BLVD. TO MORGAN ST.

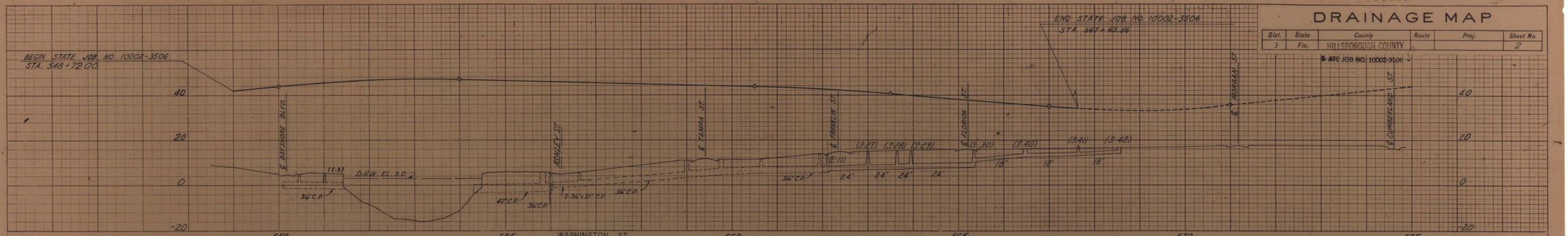
J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS
TAMPA, FLORIDA

SUBMITTED BY Donald R. McDiarmid DATE 1-3-74

84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
7	Fla.	HILLSBOROUGH COUNTY			2





LEGEND

- PROPOSED STORM SEWERS
- EXISTING STORM SEWERS
- PROPOSED STORM SEWERS ADJOINING PROJECTS
- DRAINAGE DIVIDES

EXISTING DRAINAGE STRUCTURES

1. MANHOLE - TOP EL. 5.15
   36" C.P. N.W. F.L. UNKNOWN
   18" C.P. S.W. F.L. 0.29
   36" C.P. E. F.L. -1.48
2. 42" R.C.F. THROUGH RIPRAP SEAWALL
   F.L. -3.18
3. MANHOLE - TOP EL. 12.02
   24" C.P. W. F.L. 8.40
   18" C.T. N. F.L. 8.27
   24" C.P. S. F.L. 7.99
4. CURB INLET - TOP EL. 5.77
   GUTTER EL. 5.06
   15" C.P. N. F.L. 2.95
5. CURB INLET - 36" C.P.
   E & W F.L. 3.60
6. CURB INLET - TOP EL. 10.00
   GUTTER EL. 9.07
   36" C.P. S.E. F.L. 4.36
   36" C.P. W. F.L. 4.28

7A. MANHOLE - TOP EL. 9.80
   24" C.P. E, W & SE.
   24" C.P. W. BLOCKED
   24" C.P. E. F.L. 5.33
   STANDING WATER IN M.H. AT EL.7.7

7B. CURB INLET: TOP EL. 10.62
   GUTTER EL. 9.79
   24" C.P. W. F.L. 5.67
   STANDING WATER IN INLET AT EL.7.7

8. MANHOLE - TOP EL. 11.86
   24" C.P. E. F.L. 7.56
   24" C.P. NE. F.L. 7.59
   STANDING WATER IN M.H. AT EL. 7.7
9. MANHOLE - TOP EL. 11.97
   24" C.P. SW. F.L. 7.65
   30" C.P. N. F.L. 5.68
   36" C.P. SE. F.L. 5.33
   36" C.P. W. F.L. 5.17
10. DROP INLET - TOP EL. 10.39
    24" C.P. N. F.L. 5.90
    30" C.P. S. F.L. 5.89
11. MANHOLE - TOP EL. 10.65
12. MANHOLE - TOP EL. 12.28
    18" C.P. SE. F.L. 10.01
    24" C.P. N. F.L. 8.71
    24" C.P. W. F.L. 8.88
13. MANHOLE - TOP EL. 12.02
    24" C.P. W. F.L. 8.40
    18" C.P. N. F.L. 8.27
    24" C.P. S. F.L. 7.99
14. MANHOLE - TOP EL. 11.80
    24" C.P. E. F.L. 7.72
    24" C.P. SE. F.L. 7.70
15. MANHOLE - TOP EL. 13.17
    24" C.P. E. F.L. 7.44
    24" C.P. N. F.L. 7.39
    18" C.P. SE. F.L. 6.68
    36" C.P. SW. F.L. 6.34

16. MANHOLE - TOP EL. 13.22
    24" C.P. NW. F.L. 7.71
    36" C.P. S. F.L. 6.14
    36" C.P. NE. F.L. 6.10
17. MANHOLE - TOP EL. 13.66
    36" C.P. S. F.L. 5.84
    36" C.P. NW. F.L. 5.77
    0.07 WATER IN BOT.
18. MANHOLE - TOP EL. 13.73
    36" C.P. N. F.L. 6.35
    S.W. F.L. 5.28
19. MANHOLE - TOP EL. 16.20
    24" C.P. W. F.L. 8.77
    24" C.P. N. F.L. 8.80
    18" C.P. SE. F.L. 8.65

20. MANHOLE - TOP EL. 16.66
    24" C.P. S. F.L. 10.98
21. MANHOLE - TOP EL. 15.36
    18" C.P. E. F.L. 9.28
    18" C.P. S. F.L. 9.28
    18" C.P. W. F.L. 9.21
22. MANHOLE - TOP EL. 15.31
    18" C.P. SE. F.L. 10.97
    18" C.P. N. F.L. 10.26

APRIL 21 1976

AS BUILT

Contract No. 6

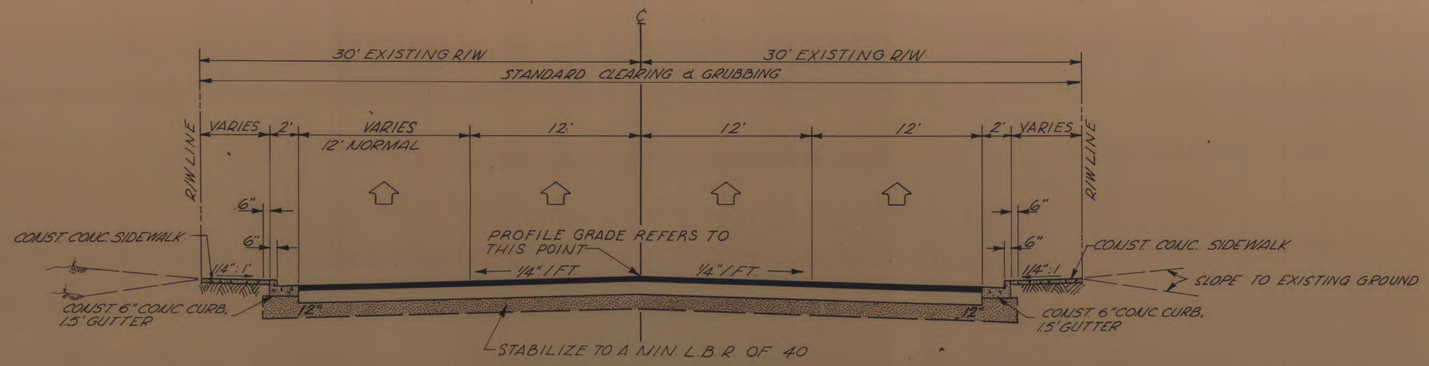
84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		8
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE JOB No. 10002-3506

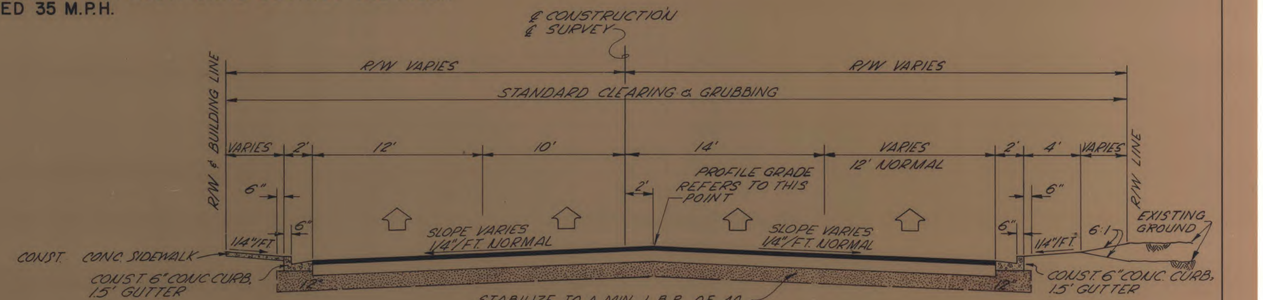
GENERAL NOTES
SLOPES BACK OF SIDEWALK OR BACK OF CURB SHALL BE 2:1, OR TO SUIT PROPERTY OWNERS, NOT FLATTER THAN 6:1.

*SOLID SOD ON ALL SLOPES GREATER THAN 4:1, SEED AND MULCH ON SLOPES 4:1 AND LESS



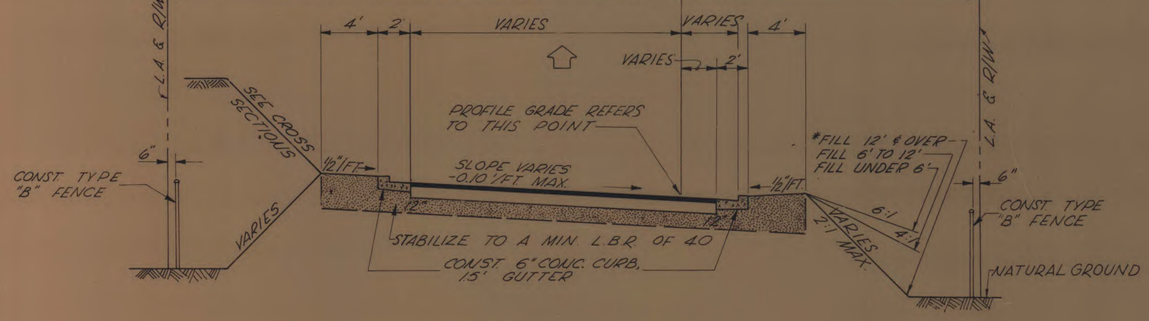
TYPICAL SECTION
BROREIN STREET

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1, 2, 3, OR 4). FOR ADDITIONAL DETAILS SEE INDEX No's. 1101, 5010, 5016, & 5080. DESIGN SPEED 35 M.P.H.



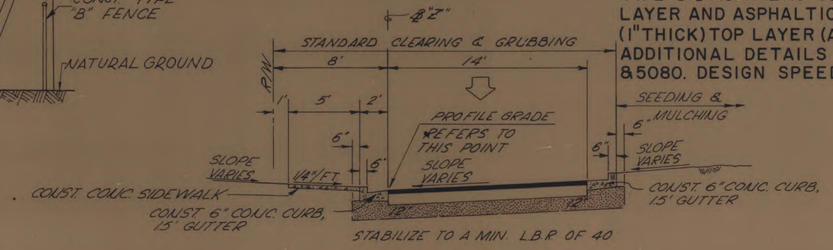
TYPICAL SECTION
FLORIDA AVE.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1, 2, 3, OR 4). FOR ADDITIONAL DETAILS SEE INDEX Nos. 1101, 5010, 5016, & 5080. DESIGN SPEED 35 M.P.H.



TYPICAL RAMP SECTION

LIMEROCK BASE (10" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1, 2, 3, OR 4). FOR ADDITIONAL DETAILS SEE INDEX No's. 1101, 5010, 5072, & 5080. DESIGN SPEED 20 M.P.H.



TYPICAL SECTION ℄ "Z"

LIMEROCK BASE (9" THICK, DOUBLE COURSE), PRIMED TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1, 2, 3, OR 4). FOR ADDITIONAL DETAILS SEE INDEX No's. 1101, 5016, & 5080.

AS BUILT
APRIL 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

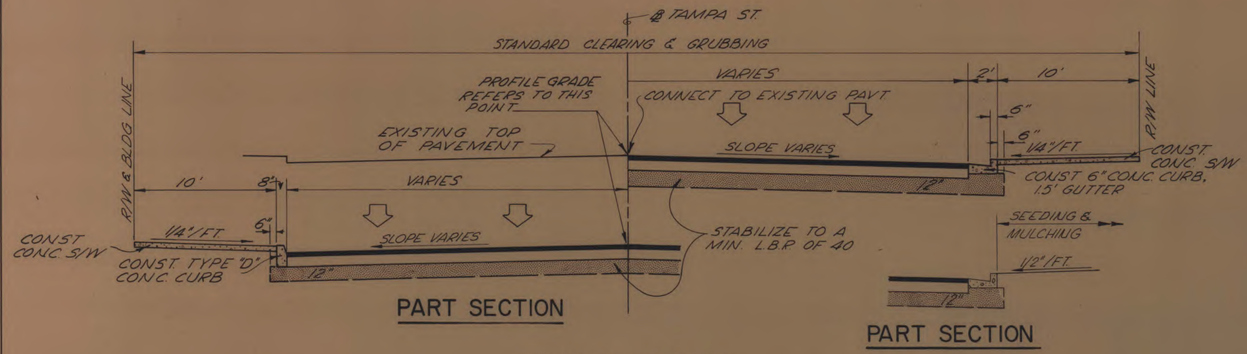
MADE J.K.P. DATE 4-79 | TRACED ____ DATE ____
CHECKED W.J.B. DATE 5-79 | SCALE ____

Contract No. 6

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		9
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE JOB NO. 10002-3506

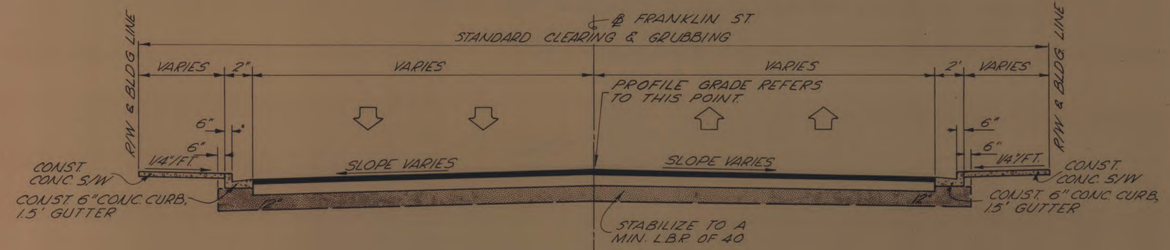


PART SECTION

PART SECTION

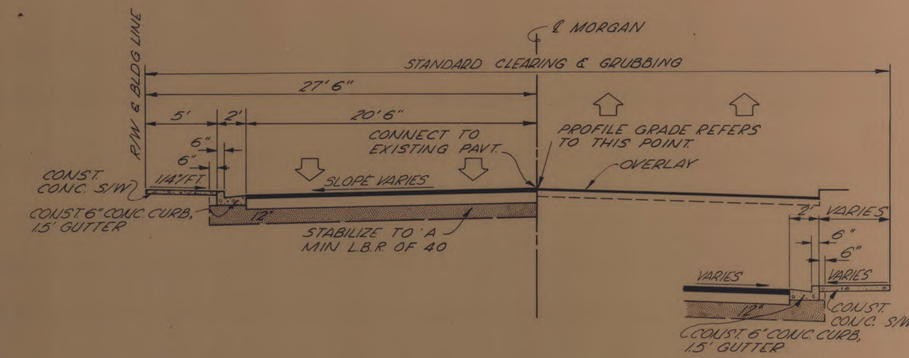
TYPICAL SECTION
TAMPA STREET

LIMEROCK BASE (9" THICK, DOUBLE COURSE PRIMED TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1,2,3, OR 4). FOR ADDITIONAL DETAILS, SEE INDEX NO'S 1101, 5016, & 5080
DESIGN SPEED 35 M.P.H.



TYPICAL SECTION
FRANKLIN STREET

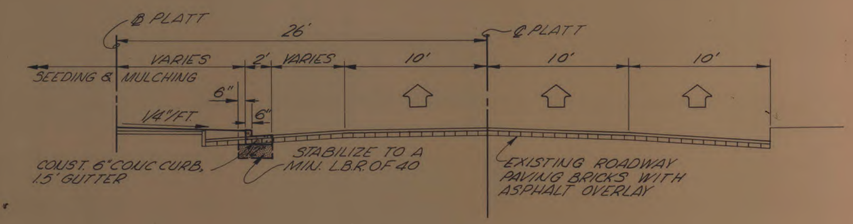
LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1,2,3, OR 4) FOR ADDITIONAL DETAILS, SEE INDEX NO'S 1101, 5016, & 5080
DESIGN SPEED 35 M.P.H.



PART SECTION

TYPICAL SECTION
MORGAN STREET

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1,2,3, OR 4). FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016, & 5080
DESIGN SPEED 35 M.P.H.



TYPICAL SECTION
PLATT STREET

AS BUILT
APRIL 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE JKP DATE 4-73 | TRACED ____ DATE ____
CHECKED MJB DATE 5-73 | SCALE ____

84/1

Contract No. 6

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		12
BY J.E.G.	TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		DATE:

STATE JOB NO. 10002-3506

BEGIN CONSTRUCTION
BEGIN STATE JOB NO. 10002-3506
STA. 548+72.00

BEGIN APPROACH SLAB
STA. 548+72.00

STA. 168+06.69 ℄ BROREIN ST.
STA. 10+00.00 ℄ BAYSHORE BLVD.

P.I. STA. 170+07.53 ℄ BROREIN ST.

POT. STA. 177+17.57 ℄ BROREIN ST.
POT. STA. 30+00.00 ℄ TAMPA ST.

POT. STA. 177+17.93 ℄ CONST. BROREIN ST.
POT. STA. 29+96.84 ℄ TAMPA ST.

STA. 174+34.01 ℄ BROREIN ST.
STA. 20+00.00 ℄ WATERS ST.
STA. 175+00.00 ℄ SURVEY
STA. 175+00.00 ℄ CONST.

175 ℄ CONST. BROREIN ST.
℄ BROREIN ST.

P.C. STA. 177+87.08

P.I. STA. 177+46.63 ℄ BROREIN

P.I. STA. 561+21.31
Δ = 22°-11'-36.0"
D = 3°-00'-00"
R = 1909.86
LC = 288.78
T1 = 600.35
T2 = 600.35
LS1 = 450.00
S ANG 1 = 5°-45'-00"
TS1L = 300.22
TS1S = 150.00
LS2 = 450.00
S ANG 2 = 6°-45'-00"
TS2L = 300.22
TS2S = 150.20
SE = 0.07%

P.C. STA. 560+41.10

P.C. STA. 562+00.00

P.O.T. STA. 559+70.91

POS STA. 559+41.38 ℄ PROJECT
POT STA. 28+83.25 TAMPA ST.

POS STA. 556+10.82 ℄ PROJECT
POT STA. 18+65.25 ℄ ASHLEY

MATCH LINE STA. 562+00

FOR PROFILES OF TAMPA ST. SEE SHEET NO. 37

BAM No. 16
CUT EVE ON CURB
NE COR. PLAT 2
BAYSHORE DR
EL. 5.730'

BAM No. 28
SQ CUT IN CATCH
BASIN LID, W SIDE OF
BAYSHORE 100' S
OF BROREIN
EL 4.684

BAM No. 38
SQ CUT IN CATCH
BASIN LID, N SIDE
BRORIEN 100' W
OF BRIDGE
EL 5.176'

BAM No. 18
SQ CUT IN CURB SE
COR OF WATERS AVE
℄ BROREIN ST
EL 3.809

BAM No. 23
SQ CUT IN CURB NW
COR OF FRANKLIN ST
℄ BROREIN ST
EL 13.222'

AVI STA 552+00
EL 48.00

PROFILE GRADE
21' Left ℄ PROJECT

-0.5000%

+2.0000%

PVI STA 550+00.00
EL. 44.00

PVI STA 554+00.00
EL 42.00

PVC STA 560+50.00
EL 43.95

400' VC

300' VC

4432 4559 4630 4675 4705 4719 4717 4845 4807 4259

BEGIN CONSTRUCTION
BEGIN STATE JOB NO. 10002-3506
STA 548+72.00

UTILITY OWNERS
1. TAMPA ELECTRIC CO.
2. PEOPLES GAS CO.
3. GENERAL TELEPHONE CO.
4. CITY OF TAMPA WATER DEPT.
5. CITY OF TAMPA FIRE DEPT.
6. CITY OF TAMPA SANITARY SEWERS.

GENERAL NOTES

1. B.M. DATUM U.S.C.&G.S.
2. ALL EXISTING DRAINAGE STRUCTURES WITHIN LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. FOR LIMITED ACCESS LINE & RIGHT-OF-WAY GEOMETRY, SEE RIGHT-OF-WAY MAPS.
4. ALL BUILDINGS WITHIN THE LIMITS OF RIGHT OF WAY WILL BE REMOVED BY OTHERS.
5. PARCEL 135.1-R (TAMPA ARMATURE WORK) WILL NOT BE AVAILABLE TO THE CONTRACTOR UNTIL OCTOBER 31, 1974. NO WORK MAY BEGIN ON THIS PARCEL UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE ENGINEER.
6. A U.S. COAST GUARD NAVIGATIONAL PERMIT IS REQUIRED FOR CONSTRUCTION WITHIN THE LIMITS OF THE HILLSBOROUGH RIVER. THE TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY ARTHORITY HAS APPLIED FOR THE PERMIT AND EXPECTS TO RECEIVE IT PRIOR TO THE CONTRACTOR BEGINNING CONSTRUCTION. SHOULD THE PERMIT BE DELAYED BEYOND THE BEGINNING OF CONSTRUCTION A CONTRACT TIME EXTENSION EQUAL TO THE DAYS OF DELAY WILL BE GRANTED. IF SUCH A DELAY OCCURS THE PORTION OF BRIDGE AFFECTED WILL BE THE FENDER SYSTEM, WATER PIERS AND ADJACENT SUPERSTRUCTURE WHICH INCLUDE PIERS 4, 5, 6 AND 7, EASTBOUND AND WESTBOUND AND SPANS 4, 5, 6, 7 AND 8, EASTBOUND AND WESTBOUND

AS BUILT
APRIL 27 1976

Contract No. 6

84
7

FINAL SURVEY — SURVEYED BY, PLOTTED, TEMPLATE, NOTE BOOK, AREAS, AREAS CHECKED, NO., DATE, BY

ORIGINAL SURVEY — SURVEYED BY, PLOTTED, TEMPLATE, NOTE BOOK, AREAS, AREAS CHECKED, NO., DATE, BY

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		19
BY JEG	TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		DATE:

STATE JOB No. 10002-3506

FINAL SURVEY	DATE
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
AREAS CHECKED	
NO.	

ORIGINAL SURVEY	BY
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS	
AREAS CHECKED	
NO.	

AS BUILT NOTES
1. DELETED
2. ADDED 96'-24" PIPE
3. ADDED 64'-24" PIPE

AS BUILT

APRIL 21 1970

Contract No. 6

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		14.
By JEG.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date:

STATE JOB No. 10002-3506

FINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, AREAS, AREAS CHECKED, NO., DATE, BY

ORIGINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, NO., DATE, BY

CURVE NO "M-1"
P.I. STA. 179+05.94
Δ = 27°-14'-40"
D = 10°-00'-00"
R = 572.96'
L = 272.44'
T = 138.85'
SE SEE PROFILE

CURVE NO "S-1"
P.I. STA. 160+23.09
Δ = 81°-12'-6"
D = 38°-11'-50"
R = 150.00'
LC = 137.59'
T1 = 201.99'
T2 = 134.84'
LSI = 150.00
SANG 1 = 28°-38'-52"
TSIL = 101.34'
TSIS = 51.22
SE SEE PROFILE

POC STA. 10+17.77 & "Z"
POT STA. 45+91.76 FRANKLIN ST.
END BRIDGE
STA. 162+12.80

POC STA. 177+67.39
POT STA. 29+96.84 TAMPA ST.

POC STA. 180+13.11 & CONST. BROREIN
POT STA. 44+48.30 & FRANKLIN ST. (E.L.)

POT STA. 159+89.10
POT STA. 28+90.00 TAMPA ST.

POS STA. 559+41.28 & PROJECT
POT STA. 28+65.25 TAMPA ST.

POC STA. 160+13.11
POT STA. 44+48.30 & FRANKLIN ST.

POC STA. 162+78.69 & RAMP "G"

SC STA. 160+41.10

RETURN #160

RETURN #2

RETURN #161

CURVE 161

RAMP "G"

N 85°-37'-14" E

N 86°-24'-14" E
BEGIN CONSTRUCTION
POT STA. 177+17.83 & CONST. BROWN ST.

STA. 175+00.00 & SURVEY
STA. 175+00.00 & CONST.

& SURVEY TAMPA ST.

& SURVEY FRANKLIN ST.

& PROJECT

MATCH LINE STA. 181+00.00 & CONSTRUCTION

FOR PROFILES OF TAMPA ST. SEE SHEET NO. 37

FOR SPECIAL PROFILE 24" LT. & PT. & CONST. SEE SHEET NO. 38

BEGIN CONST. STA. 177+17.83 & SURVEY BROREIN ST.

PVI STA. 177+00.00 EL. 12.22

PVC STA. 178+50.00 EL. 11.88

PVT STA. 179+40.00 EL. 13.30

+1.68OT %

-1.77OT %

100' VC

EXIST. 36" R.C.P.

CONST. 24" PIPE

CONST. 15" PIPE

CONST. 6" C.I. PIPE

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

TO BE REMOVED

TO BE REMOVED

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

CONST. 15" PIPE

CONST. 24" PIPES

CONST. 6" C.I. PIPES

CONST. 15" PIPES

CONST. 15" PIPE

CONST. 6" C.I. PIPE

CONST. 6" C.I. PIPES

CONST. 15" PIPES

CONST. 6" C.I. PIPES

CONST. 6" C.I. PIPE

CONST. 15" PIPE

CONST. 6" C.I. PIPE

CONST. 15" PIPE

CONST. 15" PIPE

CONST. 6" C.I. PIPE

CONST. 15" PIPE

CONST. 6" C.I. PIPE

CONST. 15" PIPE

CONST. 6" C.I.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		15
By JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE JOB No. 10002-3506

SCALE 1"=20'

CURVE NO. "M-2"
P.I. STA 183+68.10
Δ = 9°-47'-09"
D = 5°00'00"
R = 1,145.92'
L = 195.71'
T = 98.10'
S.E. - SEE PROFILE

P.T. STA 184+63.72 & CONST BROWEIN STA 1+63.72 @ "Z" 24' LT

MATCH LINE STA 181+00.00 & CONSTRUCTION

MATCH LINE STA 187+00.00 & CONSTRUCTION

FOR PROFILES OF @ "Z" SEE SHEET NO. 36

@ SCL. RR TRACKS TO BE REMOVED

MATCH EXISTING PAV'T, CURB & GUTTER

10' CURB TRANS. TO MATCH EXIST.

Driveway

P.O.T. STA. 12+96.11 @ "Z"
P.O.T. STA. 10+20.32 FLORIDA AVE.

RETURN # 4
Shell & Dirt Parking Lot

P.O.T. STA. 182+88.30 BROREIN ST.
P.O.T. STA. 10+00.00 FLORIDA AVE.

TO BE REMOVED

10' CURB TRANS. TO MATCH EXIST.

Shell Parking Lot

2-Sty. Mas. Comm.

2-Sty. Mas. Warehouse Comm.

Shrubs

10" Palms

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

CONST. 24" PIPE

CONST. 15" PIPE

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

CONST. 6" CONC. CURB & GUTTER

CONST. 2000' OF GUARDRAIL

CONST. 175.0' OF GUARDRAIL

CONST. TYPE "B" FENCE

CONST. 24" PIPE

CONST. 15" PIPE

CONST. 6" CONC. CURB & GUTTER

CURVE NO. "I"
P.I. STA. 64+58.85
Δ = 6°-18'-51"
D = 4°-0'-0"
R = 1432.39'
L = 157.85'
T = 79.01'
S.E. SEE PROFILE

CURVE NO. "I-1"

CURVE NO. "M-2"

N 68°-35'-31" E

N 68°-36'-12" E

@ CONSTRUCTION BROREIN ST.

N 63°-20'-37" E

N 59°-09'-34" E

N 59°-13'-58" E

P.O.T. STA. 8+86.96 FLORIDA AVE.
P.O.C. STA. 65+14.06 @ RAMP "I"

P.T. STA. 65+37.69

END BRIDGE
STA. 66+27.04

@ RAMP "I" SHIFTS 15.5' RT.
STA. 67+95.96

P.O.C. STA. 182+95.49 & CONST. BROREIN ST.
P.O.T. STA. 9+83.90 FLORIDA AVE.

"I" RETURN "3"

1-1/2-Sty. Tin Comm.

1-Sty. Tin Gar.

1-Sty. Tin Mot. Comm.

Asph. Parking Lot

FOR PROFILES OF RAMP "I" SEE SHEET NO. 35

FOR PROFILES ON RAMP "I" SEE SHEET NO. 35

E 552,200

E 553,000

E 553,250

PLAN NO. 38
150' CUT IN CURB N.W. COR. OF FLORIDA AVE. & BROREIN ST.
EL. 16.59'

FOR SPECIAL PROFILE 20' LT. & RT. @ CONST., SEE SHEET NO. 38

PAVT. STA 181+50.00
EL. 19.65

PAVT. STA 184+63.72
EL. 16.33

EL. 13.06

+1.1700 %

+0.2000 %

PROFILE GRADE @ CONSTRUCTION BROREIN ST.

EL. 12.3

EXIST. 24" R.C.P.

EXIST. 18" R.C.P.

EXIST. 15" R.C.P.

CONST. 24" PIPE

CONST. 24" PIPE

6" W.M.

6" W.M. Bored

45° R.C.P.

20' Sod

100' V.C.

AS BUILT

APRIL 19 19 M

Contract No. 6

84/1

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO / BY / DATE

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED / NOTE BOOK / NO / BY / DATE

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		16
By JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE JOB No. 1C002-3506

SCALE 1"=20'

FOR CONSTRUCTION DETAILS EAST OF MORGAN ST.- SEE CONTRACT No. 6-A SHEET No. 5 of 27

N 1,312,750

E 353,250

E 350,720

MATCH LINE STA. 187+00.00 ℄ CONSTRUCTION

POT. STA. 187+85.15 ℄ SURVEY BROREIN
POT. STA. 188+00.00 ℄ SURVEY MORGAN ST. EX.
POT. STA. 188+85.52 ℄ SURVEY MORGAN
12° TURN @ 25
10' CURB TRANS. TO MATCH EXIST.

P.C. STA. 187+53.77

POT. STA. 188+85.52 ℄ SURVEY CUMBERLAND
POT. STA. 189+88.52 ℄ SURVEY MORGAN

POC STA. 188+98.26 ℄ CONST. BRORIEN ST.
POT. STA. 188+89.79 MORGAN ST.

P.T. STA. 189+93.24

℄ SURVEY CUMBERLAND

1-Sty. Mas. Church

Driveway

CONST. 18" PIPE

CONST. 4" CONC. SW.

CONST. 6" CONC. CURB & GUTTER

(S-40)

(S-42)

CONST. 15" PIPE

8" San. ℄ SURVEY

N 68°-56'-42" E

187

188

189

10' GUTTER TRANS.

CURVE No M-3

P.I. No. 10

EXISTING CURB TO REMAIN

CONST. TYPE "E" CURB & GUTTER

N. 59°-13'-58" E.

70

CONST. 4" CONC. SW.

CONST. TYPE "B" FENCE

CONST. 6" CONC. CURB & GUTTER

(S-41)

CONST. 15" PIPE

Asph. Blk., Dirt & Shl Parking Lot

2-Sty. Mas. Comm.

1-Sty. Tin & Mas. Comm.

FOR PROFILES OF MORGAN ST. SEE SHEET Nos. 36 & 37

CURVE NO "M-3"
P.I. STA. 188+13.69
Δ = 5°-59'-13"
D = 5°-00'-00"
R = 1,145.92'
L = 119.74'
T = 59.92'
SE.- SEE PROFILE

CURVE NO "M-4"
P.I. STA. 189+33.43
Δ = 5°-59'-13"
D = 5°-00'-00"
R = 1,145.92'
L = 119.74'
T = 59.92'
SE.- SEE PROFILE

BM NO 45
SQ CUT IN CURB N.W. COR OF MORGAN ST & BRORIEN ST
EL. 17.345'

PROFILE GRADE ℄ CONSTRUCTION BRORIEN ST.

+0.20000%

(S-40) (S-42) (S-43)

6" San

6" NM

8" NM

CONST. 18" PIPE

(CONST. 15" PIPE)

20 15 10 5 0

187 188 189

AS BUILT

APRIL 21 1976

Contract No. 6

84

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
By: JEG	6	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	17
			Date:

STATE JOB No. 10002-3506

SCALE 1"=20'

3-Sty. Mas. Comm.

1-Sty. Mas. Comm.

1 Sty. Mas. Comm.

2-Sty. Mas. Comm.

STA. 20+54.80 PLATT ST.
STA. 40+00.00 FRANKLIN ST.
℄ SURVEY PLATT ST.

℄ SURVEY FRANKLIN ST.
MATCH EXISTING PAVT

℄ PROJECT

CONST. 6" C.I. PIPE

CONST. 15" PIPE

CONST. 4" CONC. S/W

10' CURB TRANS TO MATCH EXISTING

CONST. 6" CONC. CURB & GUTTER

CONST. 24" PIPE

CONST. 15 PIPE

CONST. 4" CONC S/W

CONST. 6" CONC CURB & GUTTER

P.O.C. STA. 562+33.48 ℄ PROJECT
P.O.T. STA. 43+23.20 FRANKLIN ST.

C.S. STA. 562+60.75

P.O.T. STA. 10+17.17 ℄ 2

P.O.T. STA. 45+31.76 FRANKLIN ST.

℄ SURVEY FRANKLIN ST. N 21°-00'-52" W

CONST. 15" PIPE (S-22) CONST. 4" CONC. S/W

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W Handicap Marker

CONST. 24" RCP

CONST. RETAINING WALL

CONST. TYPE 'B' FENCE

RETURN 2

℄ RAMP 'C'

END BRIDGE STA. 162+12.80

CURVE NO. C-2

TO BE REMOVED

P.O.T. STA. 180+93.23 TO BE REMOVED

P.O.T. STA. 180+13.11 ℄ CONST. BRODEIN ST.

P.O.C. STA. 180+13.11 ℄ CONST. BRODEIN ST. STA. 44+48.30 ℄ FRANKLIN ST.

CONST. BRODEIN ST.

Driveway

Driveway

2-Sty. Mas. Comm.

2-Sty. Mas. Comm.

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

PROFILE GRADE ℄ FRANKLIN ST. -0.16% ±

TOP OF EXISTING PAVEMENT

BEGIN CONSTRUCTION STA. 42+00.00

PVC STA. 43+65.00 EL. 14.58

PVT STA. 44+14.00 EL. 14.30

60'-0" C-C

CONST. 15" PIPE

℄ CONST. BRODEIN ST.

℄ SURVEY BRODEIN

RT. EDGE OF PAVT.

-0.87481% -1.90082%

TOP OF EXISTING PAVEMENT

-0.54482%

LT. EDGE OF PAVT.

END CONSTRUCTION STA. 45+17.00

Top Exist. 36" Pipe

Existing 24" RCP

AS BUILT NOTES
1. DELETED
2. ADDED 36"-24" PIPE
3. ADDED 64"-24" PIPE

AS BUILT
APRIL 2, 1976

Contract No. 6

84
17


SOUTH CROSSTOWN EXPRESSWAY
CONTRACT 6
SHEET NO. 18
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
STATE JOB No. 10002-3506
SCALE: 1" = 20'
MATCH EXISTING CURB
℄ SURVEY PLATT ST.
2-Sty. Mas. Comm.
1-Sty. Mas. Comm.
1-Sty. Tin Comm.
1-1/2 Sty. Tin Comm.
CONST. 6" CONC. CURB & GUTTER
CONST. 4" CONC. S/W
STA. 23+33.54 PLATT ST.
STA. 4+88.46 FLORIDA AVE.
STA. 7+32.43 FLORIDA AVE.
STA. 10+00.00 EUNICE ST.
℄ SURVEY FLORIDA AVE.
N 21°-03'-58" W
10:1 TAPER
CONST. TYPE "B" FENCE
12' Gate
℄ RAMP "H"
CURVE NO. H-2
CONST. 15" PIPE
CONST. 18" PIPE
24" OAK
SEE NOTE, SHEET NO. 21
P.O.T. STA. 7+40.12 FLORIDA AVE.
P.O.T. STA. 5+12.42 RAMP "H"
P.T. STA. 13+47.00 ℄ "H"
N 68°-56'-54" E
N 72°-53'-12" E
N 68°-53'-48" E
CONST. 24" PIPE
P.O.T. STA. 8+15.24 FLORIDA AVE.
P.O.S. STA. 565+12.17 ℄ PROJECT
P.O.T. STA. 8+86.96 FLORIDA AVE.
P.O.C. STA. 65+14.06 RAMP "I"
℄ RAMP "I"
CURVE No. "I-1"
EXIST. MH & PIPE TO BE REMOVED
TO BE REMOVED
18" RCP
CONST. 6" C.I. PIPE
P.T. STA. 65+37.69
P.O.C. STA. 182+95.49 ℄ CONST. BROREIN
P.O.T. STA. 9+83.90 FLORIDA AVE.
RETURN # 3
P.C. STA. 182+70.01
Asph. Park. Lot
CONST. 4" CONC. S/W
P.O.T. STA. 10+00.00 FLORIDA
P.O.T. STA. 182+88.30 BROREIN ST.
10' CURB TRANS. TO MATCH EXISTING
MATCH EXIST. PAVT. STA. 10+80.00
24" RCP
8" San.
Shell Park. Lot
RETURN #4
Shell & Dirt Park. Lot
℄ CONST. BROREIN ST.
℄ SURVEY BROREIN ST.
CURVE NO. M-2
P.O.T. STA. 12+96.11 ℄ "Z"
P.O.T. STA. 10+20.32 FLORIDA AVE.
Driveway
BEGIN CONST. STA. 4+88.46
RT. EDGE OF PAV'T. ON 10:1 TAPER
EXISTING TOP OF PAV'T.
0.2000%
PROFILE GRADE 2' RT. ℄ SURVEY FLORIDA AVE.
LT. & RT. EDGE OF PAV'T.
EXIST. 15" R.C.P.
8" W.M.
EXIST. 18" R.C.P.
40' V.C.
35' V.C.
P.V.C. STA. 9+20.00 EL. 15.92
P.V.I. STA. 9+40.00 EL. 15.96
P.V.T. STA. 9+60.00 EL. 16.17
+1.0640%
-1.0616%
℄ CONST. BROREIN
P.V.C. STA. 10+10.00 EL. 16.16
P.V.I. STA. 10+27.50 EL. 15.97
P.V.RC. STA. 10+45.00 EL. 16.10
P.V.I. STA. 10+62.50 EL. 16.25
+0.7428%
-0.1142
EXIST. TOP OF PAV'T.
LT. EDGE OF PAV'T.
RT. EDGE OF PAV'T.
P.V.T. STA. 10+80.00 CONNECT TO EXIST.
San. M.H.
6" W.M.
EXIST. 24" R.C.P.
AS BUILT
APRIL 21 1976
Contract No. 6
84/1
FINAL SURVEY
ORIGINAL SURVEY

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		19
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE JOB No. 10002-3506

1" = 50'

E SURVEY WHITING ST
STA 36+30.54 TAMPA ST.
STA 10+00.00 WHITING ST.
ST STA 167+70.71 ℄ RAMP "G"
℄ SCLRR
CS STA 166+70.71 ℄ RAMP "G"
RAILS TO BE REMOVED WITHIN LIMITS OF R/W
CONNECT TO EXIST FENCE
CONST. 186' OF 18" PIPE
℄ RAMP "G" SHIFTS 11.5' Rt.
STA 164+19.86
TO BE REMOVED
CONST. 30' OF 24" PIPE (SPECIAL)
CONST. 30' OF 15" CM PIPE
1 PONS #8 18" PIPE TO BE REMOVED
CONST. 86' OF 18" PIPE TO BE REMOVED
END BRIDGE STA 168+14.28
N 21°00'57" W
℄ FRANKLIN ST.
CONST. TYPE "D" CURB
CONST. 4' CONC. ST. W.
N 1,312,750
N 1,312,500
N 1,312,250
N 1,312,000
SEE SHEET 20 FOR MORE DETAILS OF TAMPA ST & RAMP "G"
FOR PROFILES OF TAMPA ST, SEE SHEET NO. 37
PI STA 177+46.63 ℄ BRORIEN ST.
POT STA 177+17.57 BRORIEN ST.
POT STA 29+96.84 TAMPA ST.
POT STA 177+17.93 ℄ CONST. BRORIEN ST.
POT STA 29+96.84 TAMPA ST.
POC STA 180+19.11 ℄ CONST. BRORIEN
POT STA 44+48.30 ℄ FRANKLIN
PCC STA 46+78.69
RAMP "G"
PC STA 177+87.08
CONST. 10' OF 15" PIPE
CONST. 20' OF 15" PIPE
CONST. 44' OF 15" CM PIPE
POT STA 44+96.15 FRANKLIN ST
PI STA 180+54.16 ℄ BRORIEN ST
POT STA 180+09.45 BRORIEN ST.
CONST. 20' OF 15" PIPE
Driveway
POT STA 10+17.77 ℄ "Z"
POT STA 45+31.76 FRANKLYN ST.
POT STA 12+96.11 ℄ "Z"
POT STA 10+20.32 FLORIDA AVE
CONST. 48' OF 15" PIPE
CONST. 212' OF 24" PIPE
CONST. 4' OF 15" PIPE
CONST. 194' OF 24" PIPE
CONST. 130' OF 18" PIPE
CONST. 52' OF 15" PIPE
CONST. 31' OF 15" PIPE
CONST. 212' OF 24" PIPE
CONST. 68' OF 24" PIPE
CONST. 48' OF 15" PIPE
CONST. 128' OF 18" PIPE
CONST. 116' OF 18" PIPE
CONST. 122' OF 18" PIPE
CONST. 60' OF 18" PIPE
CONST. 44' OF 15" CM PIPE
CONST. 54' OF 18" PIPE
CONST. 208' OF 18" PIPE
CONST. 100' OF 18" PIPE
CONST. 38' OF 15" PIPE
CONST. 68' OF 15" PIPE
CONST. 51' OF 15" PIPE
CONST. 19' OF 15" PIPE
CONST. 4' OF 15" PIPE
CONST. 64' OF 24" PIPE
CONST. 36' OF 24" PIPE
CONST. 30' OF 24" PIPE
CONST. 68' OF 15" PIPE
CONST. 64' OF 15" PIPE
CONST. 60' OF 15" PIPE
CONST. 36 OF 6" C.I. PIPE
CONST. 37' OF 6" C.I. PIPE
CONST. 39' OF 6" C.I. PIPE
CONST. 87' OF 6" C.I. PIPE
CONST. 30' OF 6" C.I. PIPE
CONST. 38' OF 6" C.I. PIPE
CONST. 100' OF 15" PIPE
CONST. 28' OF 6" C.I. PIPE
CONST. 48' OF 15" PIPE
CONST. 68' OF 15" PIPE
CONST. 64' OF 15" PIPE
CONST. 44' OF 15" CM PIPE
CONST. 35' OF 6" C.I. PIPE
CONST. 68' OF 6" C.I. PIPE
CONST. 70' OF 6" C.I. PIPE
CONST. 60' OF 15" PIPE
CONST. 4' OF 15" PIPE
CONST. 136' OF 24" PIPE
CONST. 32' OF 6" C.I. PIPE
CONST. 19' OF 15" PIPE
CONST. 96'-24" PIPE & 64'-24" PIPE
CONST. 18' OF 6" C.I. PIPE
CONST. 64' OF 15" PIPE
CONST. 104' OF 15" PIPE
CONST. 30' OF 6" C.I. PIPE
CONST. 60' OF 15" PIPE
CONST. 36 OF 6" C.I. PIPE
CONST. 68' OF 15" PIPE
POC STA 562+33.48 ℄ PROJECT
POT STA +3+23.20 FRANKLIN ST
POS STA 559+71.97
POS STA 559+41.38 ℄ PROJECT
POT STA 28+63.25 TAMPA ST.
SEE SHEET 17 FOR MORE DETAILS OF FRANKLIN ST
SEE SHEET 18 FOR MORE DETAILS OF FLORIDA AVE.
SEE SHEET 15 FOR MORE DETAILS OF BRORIEN ST. & RAMP "I"
POT STA 10+00.00 ℄ SURVEY CUMBERLAND
POT STA 189+88.52 ℄ SURVEY MORGAN
℄ SURVEY CUMBERLAND AVE
PT STA 189+93.24
POC STA 188+93.26 ℄ CONST. BROREIN ST.
POT STA 188+89.79 MORGAN ST.
POT STA 183+85.15 ℄ SURVEY BROREIN
POT STA 10+00.00 ℄ SURVEY MORGAN ST BK.
POT STA 188+85.15 ℄ SURVEY MORGAN ST AH.
℄ SURVEY BROREIN ST.
CONSTRUCTION
℄ RAMP "I"
CURVE I-1
CURVE I-2
CURVE I-3
CURVE I-4
POT STA 7+16.87 RAMP "F"
POT STA 9+73.19 MORGAN ST.
STA. 7+61.55 MORGAN ST.
STA. 10+00.00 EUNICE ST.
℄ E. EUNICE ST.
STA. 7+32.99 MORGAN ST. AH.
STA. 10+00.00 MORGAN ST. BK.
STA. 15+96.71 EUNICE ST.
FOR PROFILES OF MORGAN ST., SEE SHEET NO.S 36 & 37
STA 29+29.82 PLATT ST.
STA. 7+55.52 MORGAN ST.
PT STA 32+04.09 ℄ "H-1"
POC STA 31+60.81 ℄ RAMP "H-1"
POT STA 29+09.41 PLATT ST.
℄ RAMP "H"
℄ RAMP "F"
℄ RAMP "I"
℄ RAMP "G"
℄ "H"
℄ "Z"
℄ PLATT ST.
℄ FLORIDA AVE.
℄ BROREIN ST.
℄ FRANKLIN ST.
POT STA 182+88.30 BROREIN ST.
POT STA 10+00.00 FLORIDA AVE.
POT STA 65+67.69
POT STA 65+14.06 RAMP "I"
POT STA 8+66.96 RAMP "I"
POT STA 7+40.12 FLORIDA AVE
POT STA 5+12.42 RAMP "H"
POT STA 13+37.00 ℄ "H"
POT STA 162+95.49 ℄ CONST. BROREIN
POT STA 9+83.90 FLORIDA AVE
POT STA 8+15.24 FLORIDA AVE
POS STA 562+60.72
POS STA 565+12.17 ℄ PROJECT
℄ "H" STA 2+35.25
57' Rt ℄ PROJECT
STA 562+33.48
STA 7+32.43 FLORIDA
STA 10+00.00 EUNICE
CONST. 32' OF 6" C.I. PIPE
EXISTING BRIDGE TO BE REMOVED
END BRIDGE STA 66+27.04
END BRIDGE STA 67+63.36
END CONSTRUCTION STA 567+63.36
END CONSTRUCTION STA 567+10.75
LEAD BRIDGE STA 7+50.00
LEAD BRIDGE STA 6+46.01
POC STA 10+53.82
POT STA 13+47.00 ℄ "H"
POT STA 182+54.30
POT STA 10+00.00 FLORIDA AVE
POT STA 65+67.69
POT STA 65+14.06 RAMP "I"
POT STA 8+66.96 RAMP "I"
POT STA 7+40.12 FLORIDA AVE
POT STA 5+12.42 RAMP "H"
POT STA 13+47.00 ℄ "H"
POT STA 162+95.49 ℄ CONST. BROREIN
POT STA 9+83.90 FLORIDA AVE
POT STA 8+15.24 FLORIDA AVE
POS STA 562+60.72
POS STA 565+12.17 ℄ PROJECT
STA 23+33.54 PLATT ST.
STA 4+86.40 FLORIDA AVE.
STA 20+34.80 PLATT ST.
STA 40+00.00 FRANKLIN
N 68°-56'-54" E
N 85°-57'-14" E
N 86°-24'-14" E
N 72°-53'-15" E
N 68°-53'-48" E
S 65°-28'-54" E
S 72°-53'-15" E
S 68°-56'-54" W
S 21°-15'-37" W
S 85°-57'-14" W
S 86°-24'-14" W
S 72°-53'-15" W
S 68°-53'-48" W
N 21°-00'-57" W
E 352,250
E 352,500
E 352,750
E 353,000
E 353,250
E 353,500
N 2,353,750

AS BUILT NOTES

NO.	REVISION	BY	DATE
1	DELETED	B.B.	7/76
2	ADDED 96'-24" PIPE & 64'-24" PIPE	B.B.	7/76

AS BUILT
APRIL 21, 1976

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

INTERCHANGE LAYOUT

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.J.W. DATE
CHECKED M.J.B. DATE 5/73
TRACED DATE
SCALE

84/1

Contract No. 6

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		20
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date:

STATE JOB No. 10008-3506

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. SIDEWALK

SCALE 1" = 20'

STA 12+92.81 WHITING ST.
STA 51+22.91 FRANKLIN ST.

N 68°-07'-02" E. ℄ SURVEY WHITING ST.

N. 21°-00'-52" W. ℄ SURVEY FRANKLIN ST.

MATCH EXIST. PAVT.

10' CURB TRANS. TO MATCH EXIST.

TAPER TO MATCH EXISTING S/W

CONST. CONC. GUTTER

CONST. RETAINING WALL

CONST. 24" PIPE (SPECIAL) TO BE REMOVED

EUD APPROACH SLAB STA 162+32.80

EUD BRIDGE STA 162+12.80

PT STA 163+09.66 RAMP "G"

PC STA 164+74.06 ℄ RAMP "G"

CONST. 270.0' OF GUARDRAIL

CONST. TYPE B FENCE

CONNECT TO EXISTING FENCE

CONST. 18" PIPE

CONST. 15" CM PIPE

CONST. 15" PIPE

CONST. 30" RCP

CONST. 24" RCP

CONST. 18" RCP

CONST. 15" RCP

CONST. 36" RCP

CONST. 2" CONC. S/W

CONST. 6" CONC. S/W

CONST. TYPE "D" CURB

CONST. TYPE "E" CURB & GUTTER

CONST. 6" CONC. CURB & GUTTER

10' CURB TRANS. TO MATCH EXIST.

SIDEWALK TO BE REMOVED BY CONTRACTOR

SIDEWALK TO REMAIN

MATCH EXISTING PAVT.

8" V.C.P. & 6" V.C.P.

RAILS TO BE REMOVED WITHIN LIMITS OF R/W

SCL R.R. TRACK

STA 166+70.71 ℄ RAMP "G"

CURVE No. 83

CURVE No. 84

CURVE No. 85

CURVE No. 86

CURVE No. 87

P.C. STA 177+67.00

P.T. STA 177+17.93 BROREIN ST.

P.T. STA 178+78.69 ℄ RAMP "G"

N 69°-20'-37" E. BROREIN ST.

N 21°-15'-31" W. ℄ SURVEY TAMPA ST.

BEGIN CONSTRUCTION
POT. STA 177+17.57 BROREIN ST.
POT. STA. 30+00.00 TAMPA ST.

POT. STA. 177+17.93 ℄ CONST. BROREIN ST.
POT. STA. 29+96.84 TAMPA ST.

STA 36+30.54 TAMPA ST.
STA 70+00.00 WHITING ST.

B.E. 10-4" Doors

Existing Rails To Be Removed

3-Sty. Brick Comm.

2-Sty. Brick Comm.

1-Sty. Brick Comm.

Asp. Park Lot

Conc. Wall

2-Sty. Brick Comm.

1-Sty. C.B. Comm.

1 Sty. Mas. Comm.

2 Sty. Mas. Comm.

State Welfare Annex

Personal Parking Lot

Conc. Curb

Drop Inlet

Storm MH.

Driveway

CROWN LINE

P.10

E 352,500

E 352,250

N 1312,750

N 1312,500

FOR PROFILES OF RAMP "G" SEE SHEET NO. 33

FOR PROFILES OF TAMPA ST. SEE SHEET NO. 37

CURVE No "G-2"
P.I. STA 162+50.34
Δ = 57°-43'-27"
D = 44°-04'-25"
R = 130.00'
LC = 130.97'
T = 71.65'
SE = SEE PROFILE

CURVE No "G-3"
P.I. STA 166+03.67
Δ = 36°-59'-56"
D = 15°-01'-0"
R = 381.97
LC = 196.66
T1 = 129.61
T2 = 176.33
LS2 = 100.00
SANG2 = 7°-30'-0"
TS2L = 66.73
TS2S = 33.39
SE SEE PROFILE

AS BUILT
APRIL 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PLAN VIEW RAMP "G" TAMPA STREET CONNECTOR

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.K.P. DATE 4-73 | TRACED DATE
CHECKED M.J.B. DATE 5-73 | SCALE

84/1

Contract No. G

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6		21
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE JOB No. 10002-3506

POT STA 5+12.42 ℄ RAMP "H"
POT STA 7+40.12 FLORIDA AVE.

TO BE REMOVED
N 72°-53'-15" E

8" SAN. ♂
P.I. STA 13+47.00 ℄ "H"

TO BE REMOVED
Drop Inlet

STA 7+32.99 MORGAN ST. AH
STA 10+00.00 MORGAN ST. BK.
STA 15+96.71 EUNICE ST.

CONST. 20' GATE

CONST. TYPE 'B' FENCE

CONST. 175' OF GUARDRAIL ℄ "H"

CONST. 18" PIPE

CURVE NO. "H-2"
P.I. STA. 12+33.87
Δ = 83°-59'-19"
D = 28°-38'-52"
R = 200.00'
LC = 293.18'
T = 180.05'
S.E. SEE PROFILE

FOR PROFILES OF RAMP 'H' & 'H-1' SEE SHEET NO. 34

END BRIDGE STA. 7+50.00
END APPROACH SLAB STA. 7+70.00
P.C. STA. 7+86.07 ℄ "H"

CONST. 875 OF GUARDRAIL

CONST. 15" CM. PIPE +46.5

CURVE NO. "H-1"
P.I. STA. 10+01.82
Δ = 182°-09'-27"
D = 57°-17'-45"
R = 100.00'
LC = 267.75'
LS = 100'
Θ = 28°-38'-52"
LT = 67.56'
ST = 34.15
S.E. SEE PROFILE

CONST. TYPE 'C' CURB & GUTTER

CONST. 18" PIPE

CONST. 15" PIPE

CONST. 6" CONC. CURB & GUTTER

CONST. TYPE 'B' FENCE

CONST. 15" PIPE

CONST. 125.0' OF GUARDRAIL ℄ SURVEY PLATT ST.

30:1 TAPER

CONST. 6" CONC. CURB & GUTTER

CONST. 4" CONC. S/W

FOR PROFILES OF MORGAN ST., SEE SHEET NOS 36 & 37

CURVE NO. "H-3"
P.I. STA. 31+51.08
Δ = 42°-34'-08"
D = 38°-11'-50"
R = 150.00'
LC = 111.45'
T = 58.44'
S.E. SEE PROFILE

CONST. 6" CONC. CURB & GUTTER

POC STA. 31+60.81 ℄ RAMP H-1
POT STA. 29+09.41 ℄ PLATT ST.

STA 23+33.54 PLATT ST.
STA 4+88.48 FLORIDA AVE.

NOTE: THE GROUND AREA WITHIN A 15' RADIUS FROM TRUNK OF TREE SHALL NOT BE DISTURBED, EXCEPT FOR THE REMOVAL OF EXISTING PAVEMENT. ONLY RUBBER TIRE EQUIPMENT SHALL ENTER THIS AREA, AND THE TREE SHALL BE PROTECTED FROM ROOT AND TRUNK DAMAGE.

AS BUILT
APRIL 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PLAN VIEW RAMPS "H" & "H-1" FLA. & PLATT STREET CONNECTOR

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE JKP DATE 4-73 | TRACED DATE
CHECKED M.J.B. DATE 5-73 | SCALE

Contract No. G

RW/2

RW/3

MISSING

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2506		R/W 3
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: APRIL 1973

STATE ROAD NO. 449

SCALE: 1" = 50'

SEC. 24, T29S, R18E

PARCEL NO.	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
116.1-R1	HELEN B. CALDWELL, Executrix-B Trustee	3104 ± SQ. FT.	6868SqFt±	0
117.1-R	MARY E. RENDALL, ESTATE OF	13559? ± SQ. FT.	6159SqFt±	0
118.1	(NOT USED)			
119.1-R2	J.B. HICKEY, et ux.	TEMP. CONST. EASEMENT		
120.1	CITY OF TAMPA	0.78 Ac.	0	0
121.1-R	W.G. NEWSON, et ux	5000± SQ. FT.	0	0
122.1	FREDERICK R. BITTMANN, et ux	10000± SQ. FT.	0	0
123.1-R	DAVID CLARENCE DIOUS JR, et ux	5000 ±SQ. FT.	0	0
124.1	CLAUDE D. LOGAN JR., et al	4996 ±SQ. FT.	0	0
115.1	SEE SHEET 2 OF 4			

NOTE: REMAINDER NOT SHOWN WHEN OWNERSHIP ENCOMPASSES PROPERTIES TOO LARGE TO BE SHOWN AT THIS SCALE

℄ PROJECT

CURVE NO.1
P.I. STA. 561+21.31
Δ = 22°11' 36" LT.
D = 3°00' 00"
R = 1909.86'
Lc = 289.78'
T_1 = 600.35'
T_2 = 600.35'
L_{s_1} = 450.00'
Δ_{s_1} = 6°45' 00"
T_{s_1} = 300.22'
T_{c_1} = 150.20'
L_{s_2} = 450.00'
Δ_{s_2} = 6°45' 00"
T_{s_2} = 300.22'
T_{c_2} = 150.20'

CURVE NO. 2
P.I. STA. 579+49.69
Δ = 66°08' 00" LT.
D = 4°00' 00"
R = 1432.39'
Lc = 1053.33'
T_1 = 1238.95'
T_2 = 1238.95'
L_{s_1} = 600.00'
Δ_{s_1} = 12°00' 00.1"
T_{s_1} = 400.92'
T_{c_1} = 200.64'
L_{s_2} = 600.00'
Δ_{s_2} = 12°00' 00.1"
T_{s_2} = 400.92'
T_{c_2} = 200.64'

℄ RAMP "G"

CURVE NO. G-1
P.I. STA. 160+93.09
Δ = 8°12' 06" LT.
D = 38°11' 49.8"
R = 150.00'
Lc = 137.59'
T_1 = 201.99'
T_2 = 134.84'
L_{s_1} = 150.00'
Δ_{s_1} = 28°38' 52.4"
T_{s_1} = 101.34'
T_{c_1} = 51.22'

CURVE NO. G-2
P.I. STA. 162+50.34
Δ = 57°43' 27.4" LT.
D = 44°04' 25.2"
R = 130.00'
Lc = 130.97'
T = 71.65'
P.C. STA. 161+78.69
P.T. STA. 163+09.66

CURVE NO. G-3
P.I. STA. 166+03.67
Δ = 36°59' 55.5" RT.
D = 15°00' 00.3"
R = 381.97'
Lc = 196.66'
T_1 = 129.61'
T_2 = 176.33'
L_{s_1} = 100.00'
Δ_{s_1} = 7°30' 00.1"
T_{s_1} = 66.73'
T_{c_1} = 33.39'

℄ BROREIN ST.

CURVE NO. M-1
P.I. STA. 179+05.94
Δ = 27° 14' 38.9" LT.
D = 10° 00' 00"
R = 572.96'
Lc = 272.44'
T = 138.85'
P.C. STA. 177+67.09
P.T. STA. 180+39.53

CURVE NO. M-2
P.I. STA. 183+68.10
Δ = 09° 47' 08.7" RT.
D = 5° 00' 00"
R = 1145.92'
Lc = 195.71'
T = 98.10'
P.C. STA. 182+70.01
P.T. STA. 184+65.72

CURVE NO. M-3
P.I. STA. 186+13.69
Δ = 5° 59' 12.7" LT.
D = 5° 00' 00"
R = 1145.92'
Lc = 119.74'
T = 59.92'
P.C. STA. 187+53.77
P.R.C. STA. 188+73.50

CURVE NO. M-4
P.I. STA. 189+33.4
Δ = 5° 59' 12.7" RT.
D = 5° 00' 00"
R = 1145.92'
Lc = 119.74'
T = 59.92'
P.R.C. STA. 188+73.50
P.T. STA. 189+93.24

LEGEND

POWER POLE	
TELEPHONE POLE	
COMBINATION POLE	
LIGHT STANDARD	
GUY WIRE & ANCHOR PIN	
BURIED ELECTRIC POWER CABLE	(ELEC.)
ELECTRIC DUCT	(ELEC. 4 WITDUCTS)
BURIED TELEPHONE CABLE	(TEL. DUCT)
TELEPHONE DUCT	(TEL. DUCTS 4")
WATER MAIN	8" WM
GAS MAIN	12" GM
DRIP POT	
VALVE	
FIRE HYDRANT	
AIR VALVE	
BLOW - OFF	
SANITARY SEWER	8" SAN.
STORM SEWER	18" SS
MANHOLE	
STREET NAME FROM PLAT	W
PUBLIC RECORDS HILLSBOROUGH CO. FLA.	P.R.H.C.F.
PROPERTY LINE	R
IRON PIPE	I.P.O.
IRON ROD	I.R.O.
CONCRETE MONUMENT	C.M.O.
FIELD DIMENSION	(F)
DEED DIMENSION	(D)
CALCULATED DIMENSION	(C)

HENDRY & KNIGHT'S MAP OF THE GARRISON
P.B. 2, PG. 73
P.R.H.C.F.
APRIL 29, 1905

L.W. SMITHS SUBDIVISION OF HENDRY & KNIGHT'S MAP OF THE GARRISON, OF LOT 11, BLOCK 93

"THE GARRISON" SUBDIVISION OF W½ OF LOT 1 BLK. 104
P.B. 11, PG. 78
P.R.H.C.F.
SEPT. 26, 1924

HAMPTON ST.
WHITING ST.
FRANKLIN ST.
TAMPA ST.
BROREIN ST.
PLATT ST.
KRAUSE ST.
COMMERCE ST.

℄ PROJECT
L/A R/W LINE
℄ RAMP "G"
℄ CONST. BROREIN ST.

EQUALITY: P.O.C. STA. 562+33.48 ℄ PROJECT = P.O.T. STA. 43+23.20 ℄ FRANKLIN ST.
EQUALITY: P.O.C. STA. 562+40.75 = P.T. STA. 180+39.53
EQUALITY: P.O.S. STA. 559+41.38 ℄ PROJECT = P.O.T. STA. 28+71.68 ℄ TAMPA ST.
EQUALITY: P.O.S. STA. 558+91.10 ℄ RAMP "G" ℄ PROJECT = P.O.T. STA. 27+61.72 ℄ TAMPA ST.
EQUALITY: L.S. STA. 159+31.10 ℄ RAMP "G" ℄ PROJECT = P.O.S. STA. 558+91.10 ℄ PROJECT
EQUALITY: S.T. STA. 167+70.71 ℄ RAMP "G" = STA. 35+75.00 ℄ TAMPA ST.
EQUALITY: STA. 160+87.78 ℄ RAMP "G" = STA. 178+78.39 ℄ CONST. BROREIN ST.

P.C. STA. 164+74.06
P.C.S. STA. 166+70.71
P.C.C. STA. 161+58.15
P.C. STA. 171+67.05
P.C.C. STA. 160+41.10
S.C. STA. 559+70.97
TEMP. CONST. EASEMENT
RAMP "C" SHIFTS 17.5' RT. STA. 164+45.86
RAMP "C" SHIFTS 17.5' LT. STA. 164+45.86

MATCH LINE, SEE SHEET 4
MATCH LINE, SEE SHEET 2
(PROJECT GOES OVER FRANKLIN ST.)
(PROJECT GOES OVER TAMPA ST.)
OUTSIDE FACE OF STRUCTURE

RIGHT-OF-WAY MAPS ARE FOR THE CONTRACTORS INFORMATION ONLY

NO.	REVISION	BY	DATE
9	REVISED PARCELS 116.1-R1 & 117.1-R	J.E.G.	W.J.M. 12-19-73
8	DRAFTING REVISIONS	J.E.G.	W.J.M. 12-6-73
7	ADDED TEMP. CONST. EASEMENT PARCEL 119.1-R2	J.E.G.	K.E.W. 10-22-73
6	REVISED PARCEL 116.1	J.E.G.	F.J.R. 10-2-73
5	ADDED SUBORDINATION NUMBERS	J.E.G.	F.J.R. 8-20-73
4	REVISED L/A R/W LINE BLK. 93	J.E.G.	K.E.W. 8-7-73
3	REVISED BEARING	J.E.G.	F.J.R. 7-13-73
2	REVISED RAMP "G"	J.E.G.	K.E.W. 7-9-73
1	REVISED PARCEL 119.1	J.E.G.	K.E.W. 7-9-73

AS BUILT
APRIL 21 1976

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M. DATE 11-16-72 | TRACED W.J.M. DATE 3-15-73
CHECKED K.E.W. DATE 4-1-73 | SCALE 1" = 50'

Contract No. G

SHEET 3 OF 4

84/1

6803-6300

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2506		R/W 4
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: APRIL 1973

STATE ROAD 449

PARCEL NO.	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
130.1	WELDON & GRAY, INC.	21,000 ± SQ. FT.	—	—
131.1	BRUCE L. HUMPHREY	18288 ± SQ. FT.	—	—
132.1-RI	LEE TIRE COMPANY OF FLORIDA, INC.	36300 ± SQ. FT.	—	—
133.1	CHAMBERLAIN'S AUDIO PRODUCTS, INC.	6088 ± SQ. FT.	—	—
134.1	LEONARD G. BROOKS, et ux	3050 ± SQ. FT.	—	—
135.1-RI	TAMPA ARMATURE WORKS, INC.	1.50± Ac.	—	—
136.1-RI	ROBERT EUGENE PRIDE, et ux	19,425± SQ.FT.	—	—
137.1-R	GILES MOTOR COMPANY	37,695 ±SQFT.	—	—
138.1-R	ANDERSON REALTY CO. INC.	11,025± SQ.FT.	—	—
139.1	NOT USED		—	—
140.1	NOT USED		—	—

NOTE: REMAINDER NOT SHOWN WHEN OWNERSHIP ENCOMPASSES PROPERTIES TOO LARGE TO BE SHOWN AT THIS SCALE

PARCEL NO.	GRANTOR	AREA IN TAKING	REMAINDER RT. ℄	REMAINDER LT. ℄
125.1	CECYL R. ROUDABUSH	10,000± SQ.FT.	—	—
126.1	JOE REGUEIRA, INC.	15,000± SQ.FT.	10,000SQ.FT.	—
127.1	R.J. GOULD WELDING & ERECTING CO., INC.	13,565± SQ.FT.	—	—
128.1	ETHEL G. SHERMAN	11,265± SQ.FT.	—	—
129.1	NOT USED			

CURVE DATA

℄ RAMP "H"

CURVE NO.1
P.I. STA. NONE
Δ = 182° 03' 26.8" RT.
Dc = 57° 17' 44.8"
R = 100.00'
Lc = 267.75
L_{s_1} = 100.00'
L_{s_2} = 28° 38' 52.4"
T_m = 67.56'
I_{s_2} = 34.15'

℄ RAMP "H-1"

CURVE NO.1
P.I. STA. 31+51.08
Δ = 42° 54' 08" LT.
D = 38° 11' 49.9"
R = 150.00'
Lc = 111.45'
T = 58.44'
P.C. STA. 30+92.65
P.T. STA. 32+04.08

CURVE NO.2
P.I. STA. 12+33.87
Δ = 83° 58' 19.3" RT.
D = 28° 38' 52.4"
R = 200.00'
Lc = 293.18'
T = 180.05'
P.C. STA. 10+53.82
P.T. STA. 13+47.00

℄ RAMP "I"

CURVE NO.1
P.I. STA. 64+58.85
Δ = 6° 18' 50.6" LT.
D = 4° 00' 00"
R = 1432.39'
Lc = 157.85'
T = 79.01'
P.C. STA. 63+79.84
P.T. STA. 65+37.69

CURVE NO.2
P.I. STA. 71+66.85
Δ = 9° 42' 44.3" RT.
D = 7° 04' 55.8"
R = 809.02'
Lc = 137.14'
T = 68.73'
P.C. STA. 71+18.12
P.T. STA. 72+55.25

CURVE NO. M-1
P.I. STA. 179+05.94
Δ = 27° 14' 39.9" LT.
D = 10° 00' 00"
R = 572.96'
Lc = 272.44'
T = 138.85'
P.C. STA. 177+67.09
P.T. STA 180+39.53

℄ BROREIN ST.

CURVE NO. M-2
P.I. STA. 183+68.10
Δ = 09° 47' 08" LT.
D = 5° 00' 00"
R = 1145.92'
Lc = 195.71'
T = 98.10'
P.C. STA. 182+70.01
P.T. STA. 184+65.72

CURVE NO. M-3
P.I. STA. 188+13.69
Δ = 5° 59' 12.7" LT.
D = 5° 00' 00"
R = 1145.92'
Lc = 119.74'
T = 59.92'
P.C. STA. 187+53.77
P.R.C. STA. 188+73.50

CURVE NO. M-4
P.I. STA. 189+33.4
Δ = 5° 59' 12.7" RT.
D = 5° 00' 00"
R = 1145.92'
Lc = 119.74'
T = 59.92'
P.R.C. STA. 188+73.50
P.T. STA. 189+93.24

℄ PROJECT

CURVE NO.1
P.I. STA. 561+21.31
Δ = 52° 11' 36" LT
D = 3° 00' 00"
R = 1909.86'
Lc = 289.78'
T_1 = 600.35'
T_2 = 600.35'
L_{s_1} = 450.00'
Δ_{s_1} = 6° 45' 00"
T_{s_1} = 300.22'
T_{s_2} = 150.20'
L_{s_2} = 450.00'
Δ_{s_2} = 6° 45' 00"
T_{cs} = 300.22'
I_{cs} = 150.20'

CURVE NO.2
P.I. STA. 579+49.69
Δ = 66° 08' 00" LT.
D = 4° 00' 00"
R = 1432.39'
Lc = 1053.33'
T_1 = 1238.95'
T_2 = 1238.95'
L_{s_1} = 600.00'
Δ_{s_1} = 12° 00' 00.1"
T_{s_1} = 400.92'
T_{s_2} = 200.84'
L_{s_2} = 600.00'
Δ_{s_2} = 12° 00' 00.1"
T_{cs} = 400.92'
I_{cs} = 200.84'

SCALE: 1" = 50'

SEC. 24, T29S, R18E

LEGEND

EQUALITY:
STA. 182+36.49 ℄ BROREIN ST. =
STA. 9+83.87 ℄ FLORIDA AVE.

EQUALITY:
STA 188+93.26 ℄ BROREIN ST. =
STA. 188+89.79 ℄ MORGAN ST.

EQUATION:
P.O.T. STA. 10+00.00 ℄ SURVEY MORGAN ST. BK. =
P.O.T. STA. 188+85.15 ℄ SURVEY MORGAN ST. AH.

EQUALITY:
BEGIN R/W PROJECT
SECTION 10002-2512
P.C. STA. 187+53.77 (STA. 0+59.66) ℄ BROREIN ST.

END R/W PROJECT
SECTION 10002-2506
STA. 570+81.97 ℄ PROJECT & ℄ SURVEY

EQUALITY:
P.O.T. STA. 7+16.87 RAMP "I" =
P.O.T. STA. 9+73.19 MORGAN ST.

EQUALITY:
STA. 29+29.82 PLATT ST. =
STA. 7+55.52 MORGAN ST.

EQUATION P.I. NO CURVE
STA. 7+32.99 MORGAN ST. AH. =
STA. 10+00.00 MORGAN ST. BK. =
STA. 15+96.71 EUNICE ST.

EQUALITY:
R.O.C. STA. 31+60.81 ℄ RAMP "H-1" =
P.O.T. STA. 29+09.41 PLATT ST.

EQUALITY:
P.O.T. STA. 3+35.25 ℄ RAMP "H" =
P.O.S. STA. 563+35.25 ℄ PROJECT 56.00 RT.

EQUALITY:
P.O.T. STA. 7+60.12 FLORIDA AVE. =
P.O.T. STA. 3+12.42 "RAMP H"

EQUALITY:
P.O.T. STA. 63+79.84 ℄ RAMP "I" =
P.O.S. STA. 563+79.84 ℄ PROJECT 63.00 LT.

EQUATION:
STA. 23+33.54 PLATT ST. =
STA. 4+88.46 FLORIDA AVE.

EQUALITY:
P.O.T. STA 28+03.50 ℄ RAMP "H-1" = EUNICE ST.
P.O.C. STA. 6+03.50 ℄ RAMP "H-1" 3.00 LT.

HENDRY & KNIGHT'S MAP OF THE GARRISON
P.B. 2, PG. 73 P.R.H.C.F.
APRIL 29, 1905

BELL'S ADDITION TO TAMPA (REV.)

DETAIL "A"
NOT TO SCALE

RIGHT-OF-WAY MAPS ARE FOR THE CONTRACTORS' INFORMATION ONLY.

NO.	REVISION	BY	DATE
9	Drafting Revisions	J.E.G. W.J.M.	12-06-73
8	Revised Parcels 132.1-RI, 135.1-RI, 136.1-RI, 137.1-R & 138.1-R	J.E.G. F.J.R.	9-24-73
7	Removed Remainders Parcels 130.1 & 131.1	J.E.G. F.J.R.	9-11-73
6	Added Dimensions L/A Parcel 132.1-R	J.E.G. F.J.R.	8-22-73
5	Added Subordination Numbers	J.E.G. F.J.R.	8-20-73
4	Revised Parcel 136.1-R	J.E.G. F.J.R.	8-8-73
3	Revised Parcel 135.1-R	J.E.G. F.J.R.	8-8-73
2	Revised Area Parcel 132.1-R	J.E.G. W.J.M.	7-3-73
1	Revised L/A R/W Line	J.E.G. F.J.R.	5-15-73

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT-OF-WAY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M.	DATE 11-11-71	TRACED W.J.M.	DATE 3-31-73
CHECKED K.E.W.	DATE 4-1-73	SCALE 1" = 50'	

Contract No. 6 SHEET 4 OF 4

AS BUILT
APRIL 21 1976

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6B		1
By: G.E.S.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

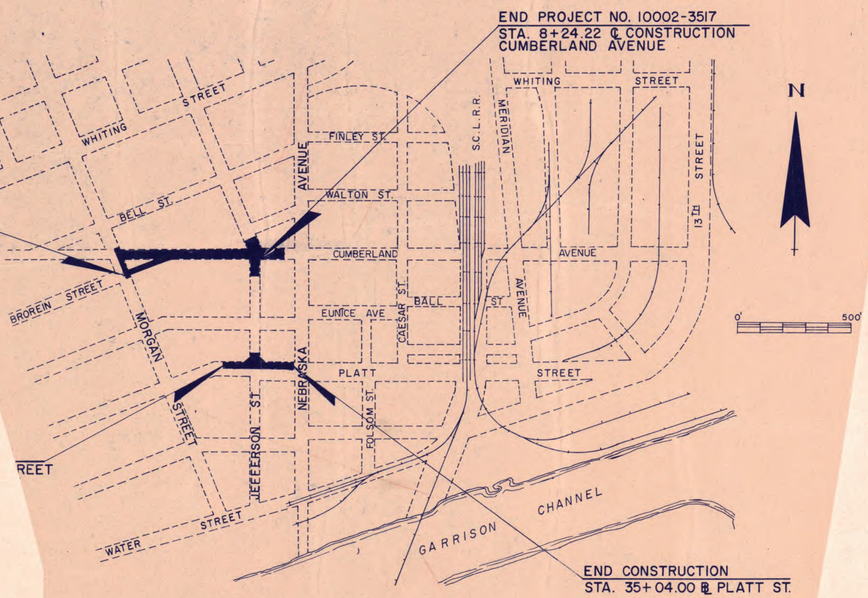
TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE PROJECT NO. 10002 - 3517 - 032



GOVERNING SPECIFICATIONS:

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION DATED 1973 AND SUPPLEMENT THERETO DATED JUNE, 1975 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

CONTRACT NO.

6B

CUMBERLAND AVENUE
(PHASE ONE)
FROM MORGAN ST. TO JEFFERSON ST., AND THE INTERSECTION OF JEFFERSON ST. AND PLATT ST.

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 6B - State Job No. 10002-3517

Description	Drawing Number Sheet No.
Cover Sheet (Cumberland Ave. Phase I)	1
Drainage Map	2
Typical Section	3
Plan and Profile	5
Plan and Profile	6
Drainage Structure Sections	8

TOTAL NO. MYLAR SHEETS 7.

AS BUILT

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6B		1
By: G.E.S.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE PROJECT NO. 10002 - 3517 - 032

THIS CONTRACT PLAN SET INCLUDES:

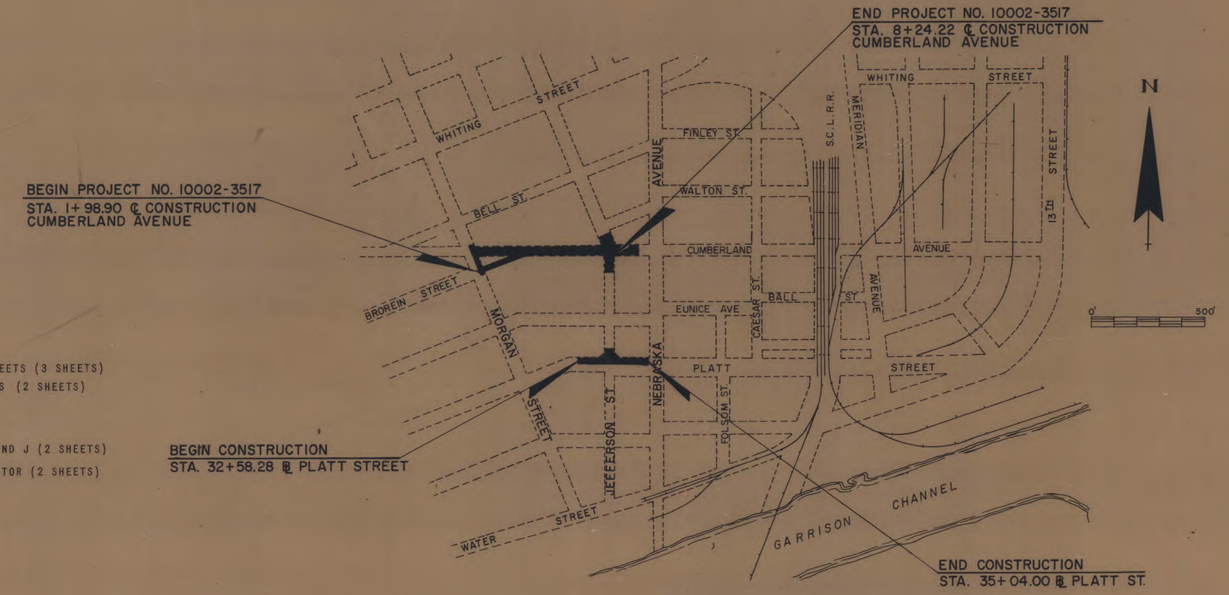
ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
RIGHT-OF-WAY MAP

INDEX OF ROADWAY PLANS:

SHEET NO.	SHEET DESCRIPTION
1	KEY MAP
2	DRAINAGE MAP
3	TYPICAL SECTIONS
4	SUMMARY OF QUANTITIES
5-7	PLAN AND PROFILE SHEETS
8	DRAINAGE STRUCTURE SECTIONS
9-11	SPECIAL PROFILES
12-25	CROSS SECTIONS
26	STORAGE LOT LOCATION
27	MISCELLANEOUS WATER LINE DETAILS
28	MISCELLANEOUS SANITARY SEWER DETAILS
29	PROJECT INFORMATION SIGN

STANDARD DRAWINGS:

INDEX NO.	DRAWING
GSA-01	STANDARD ABBREVIATIONS
195	STANDARD SYMBOLS FOR KEY MAPS AND PLAN SHEETS (3 SHEETS)
1101-W	MISCELLANEOUS ROADWAY CONSTRUCTION DETAILS (2 SHEETS)
5016-8	TURNOUT DETAILS
FTA-01	DETAILS OF FENCING
FTB-01	DETAILS OF FENCING
5047-G	INLET, MANHOLE, AND JUNCTION BOX TYPE P AND J (2 SHEETS)
5061-E	DRAINAGE DETAILS (2 SHEETS)
5080-G	CURB, CURB AND GUTTER, AND TRAFFIC SEPARATOR (2 SHEETS)





AS BUILT

PLANS PREPARED BY:
Greiner Engineering Sciences, Inc.

LENGTH OF PROJECT		
STATE PROJECT NO. 10002 - 3517		
	LIN. FT.	MILES
ROADWAY (CUMBERLAND AVE.)	625.32	0.118
BRIDGES	0.00	0.000
GROSS LENGTH	625.32	0.118
EXCEPTIONS	0.00	0.000
NET LENGTH	625.32	0.118

GOVERNING SPECIFICATIONS:

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION DATED 1973 AND SUPPLEMENT THERETO DATED JUNE, 1975 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

APPROVAL RECOMMENDED 4-16-75
BY W. Dale Lester
GREINER - WATSON

APPROVED 4-16-75
BY [signature]
CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO.
6B
CUMBERLAND AVENUE
(PHASE ONE)
FROM MORGAN ST. TO JEFFERSON ST., AND THE INTERSECTION OF JEFFERSON ST. AND PLATT ST.

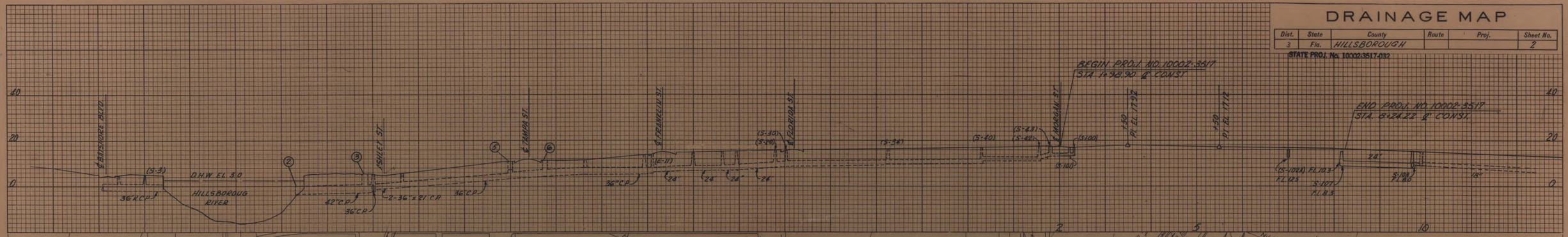
Greiner Engineering Sciences, Inc.
CONSULTING ENGINEERS TAMPA, FLORIDA
SUBMITTED Rene G. Conde DATE 4-14-75

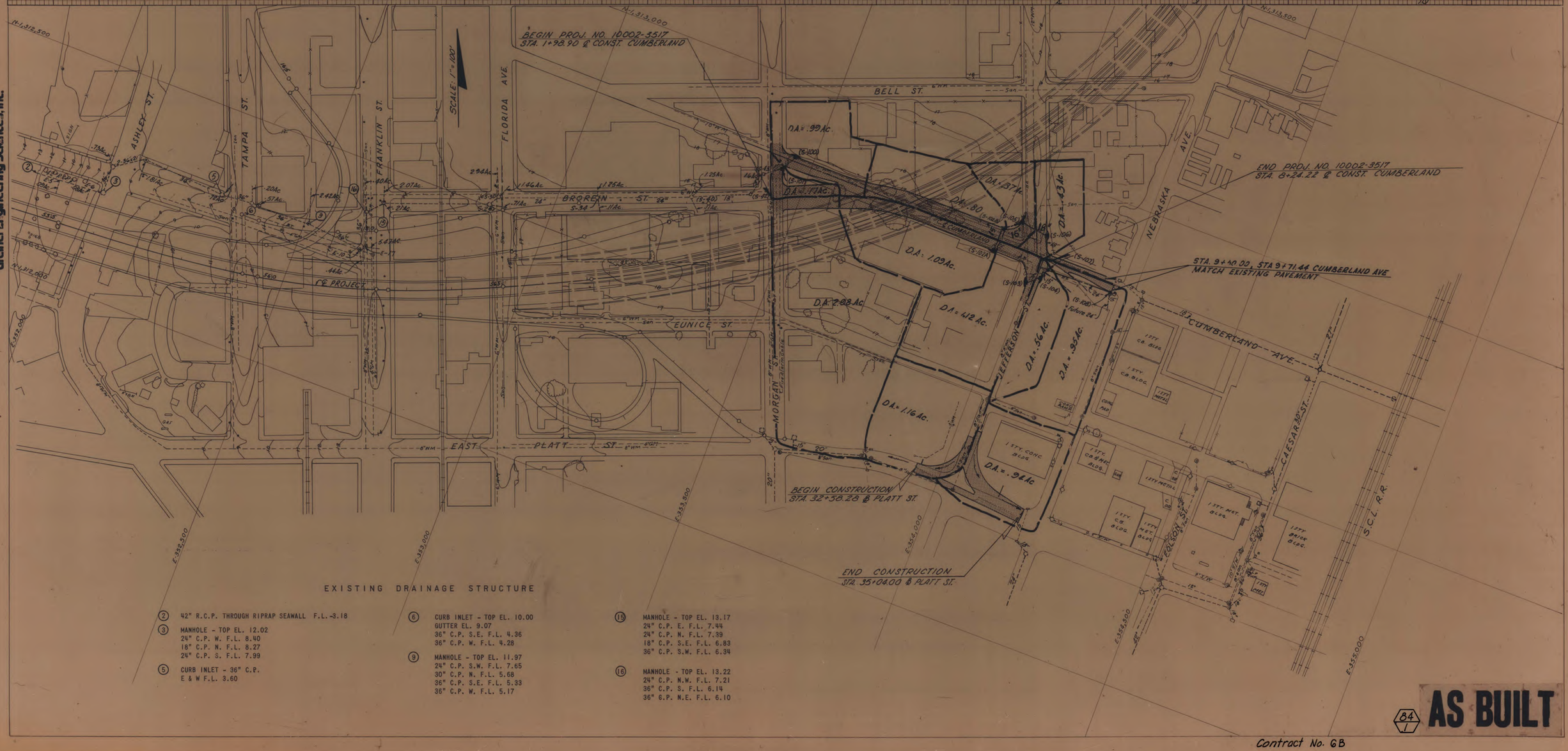
64/1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH			2

STATE PROJ. No. 10002:3517-032





EXISTING DRAINAGE STRUCTURE

(2) 42" R.C.P. THROUGH RIPRAP SEAWALL F.L.-3.18

(3) MANHOLE - TOP EL. 12.02
24" C.P. W. F.L. 8.40
18" C.P. N. F.L. 8.27
24" C.P. S. F.L. 7.99

(5) CURB INLET - 36" C.P.
E & W F.L. 3.60

(6) CURB INLET - TOP EL. 10.00
GUTTER EL. 9.07
36" C.P. S.E. F.L. 4.36
36" C.P. W. F.L. 4.28

(9) MANHOLE - TOP EL. 11.97
24" C.P. S.W. F.L. 7.65
30" C.P. N. F.L. 5.68
36" C.P. S.E. F.L. 5.33
36" C.P. W. F.L. 5.17

(15) MANHOLE - TOP EL. 13.17
24" C.P. E. F.L. 7.44
24" C.P. N. F.L. 7.39
18" C.P. S.E. F.L. 6.83
36" C.P. S.W. F.L. 6.34

(16) MANHOLE - TOP EL. 13.22
24" C.P. N.W. F.L. 7.21
36" C.P. S. F.L. 6.14
36" C.P. N.E. F.L. 6.10

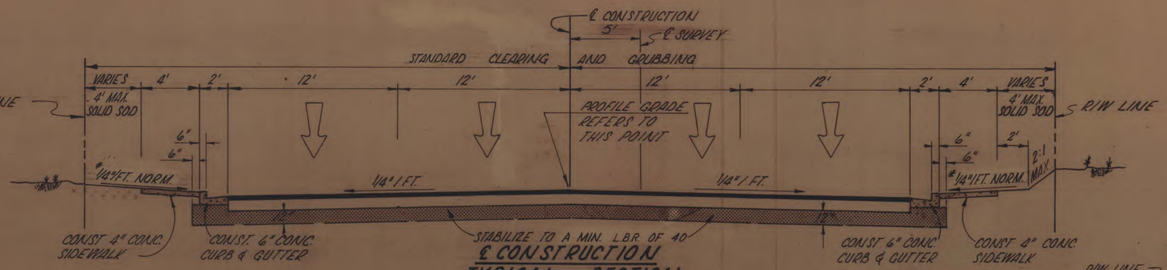
(84/7) **AS BUILT**

Contract No. GB

Greiner Engineering Sciences, Inc.

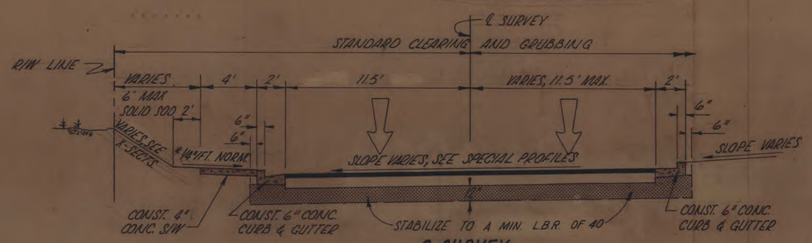
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6B		3
By: GES	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. No. 10002-3517-032



FROM STA 2+33.02
TO STA 8+24.22

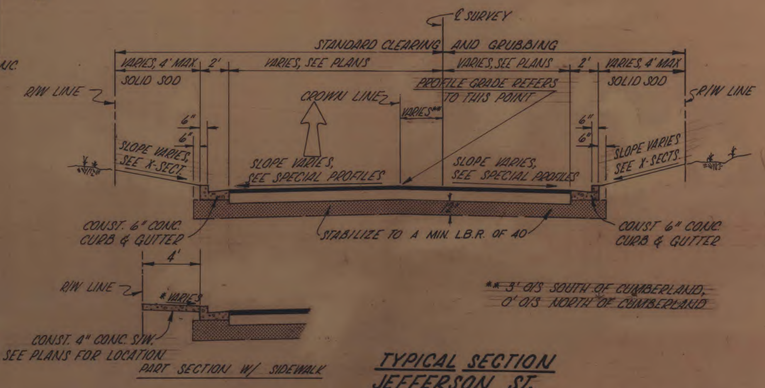
℄ CONSTRUCTION
TYPICAL SECTION
CUMBERLAND AVE.



FROM STA 1+17.48 TO STA 3+45.29
FROM STA 8+73.51 TO STA 9+50.00

℄ SURVEY
TYPICAL SECTION
CUMBERLAND AVE.

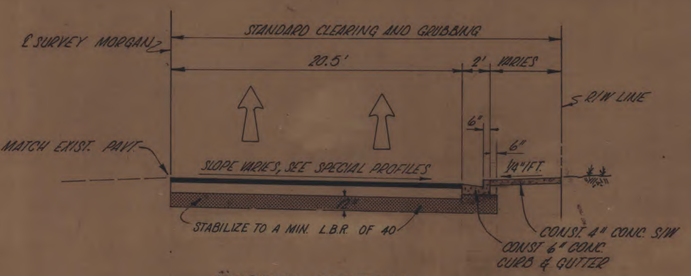
LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER, AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016, & 5080. DESIGN SPEED - 30 M.P.H.



** 3' O/S SOUTH OF CUMBERLAND.
0' O/S NORTH OF CUMBERLAND.

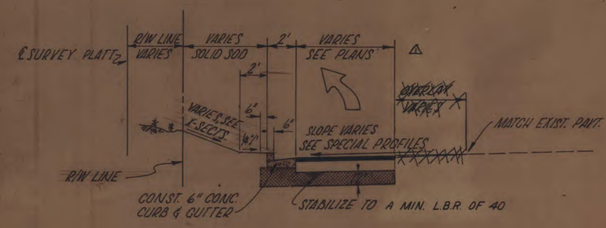
TYPICAL SECTION
JEFFERSON ST.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER, AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016 & 5080.



TYPICAL SECTION
MORGAN ST.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016, & 5080



TYPICAL SECTION
PLATT ST.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER, AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016 & 5080

GENERAL NOTES:
1. FOR STABILIZING AT INTERSECTIONS, TURNOUTS, AND GRADED CONNECTIONS, SEE STANDARD INDEX DRAWING NO. 5016.
*2. NORMAL SIDEWALK CROSS SLOPE IS 1/4"/FT., BUT WILL BE PERMITTED TO VARY FROM 1/8"/FT. TO 1/2"/FT. TO MATCH EXISTING GROUND OR DRIVES WHERE POSSIBLE.

AS BUILT NOTES:
Δ OVERLAY WAS DELETED FROM THIS CONTRACT

AS BUILT

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.K.P. DATE 2/75 | TRACED DATE
CHECKED M.J.B. DATE 2/75 | SCALE 1"=5.0'

Contract No. 6B

84
1

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6B		5
By: G.E.S		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date:

STATE P.I.D.I. No. 10002-3517-032

CURVE NO. 1-1
P.I. STA. 7+86.32
Δ = 9°-42'-44"
D = 15°-29'-18"
R = 369.93'
L = 62.71
T = 31.43

AS BUILT END OF CONSTRUCTION
ORIGINAL END OF CONSTRUCTION
℄ SURVEY CUMBERLAND AVE.
(1" on Manhole Rim)
10"W
1 Story Conc. Block Church
Patio
1' Brick Wall
Sidewalk
(5-43)
(5-100)
(5-101)
R/W LINE
PROTECT FILLER PIPE TO UNDERGROUND TANK
Gas Filler to underground tank
CONST 36" CP IS PIPE
10' CURB TRANSITION
CONST 6" CONC. CURB & GUTTER
CONST 4" CONC S/W
Door
SOLID SOD
CONST TYPE "E" CURB & GUTTER
381.97' R
DRIVEWAY
Asphalt Pavement
FENCE & GATE TO BE REMOVED BY OTHERS
ACCEPT EXISTING FENCE PRIOR TO CLEARING & GRUBBING
SCALE 1"=20'
8" Palm
Chain Fence with Barb Wire Attachments
S 89°-37'-54" E
CURVE NO. 2
Conc. Drive
2 Story Block Building
N 68°-36'-42" E
℄ CONSTRUCTION
CURVE NO. 1
CURVE NO. 1-1
Asphalt Paved Parking Lot
Metal Shed
1 Story Stucco Building
REMOVE PLATFORM
Doors
SEWER & WATER CONNECTION
MATCH LINE STA 6+00.00
P.C. STA 3+75.43
P.C. STA 5+80.30 CONST. 40.17' STA 5+80.30 ℄ SURVEY
BROREIN ST.
STA. 1+98.90 ℄ CONST. CUMBERLAND AVE.
STA. 188+89.79 ℄ SURVEY MORGAN ST.
BEGIN CONSTRUCTION
BEGIN PROJECT
70 ℄ RAMP "1"
N 59°-13'-58" E
STA. 180+56.15 ℄ CONST. 18" CP IS PIPE
STA. 180+56.15 ℄ SURVEY CUMBERLAND AVE.
STA. 189+00.00 B.C. ℄ SURVEY MORGAN ST.
N 21°-08'-20" W
P.C. STA. 71+54.89 ℄ RAMP "1"
2 Story Stucco Building
BC STA 72+10.59 & RAMP "1" 24.00' RT. OF ℄ STA 2+93.91 ℄ CONST. CUMBERLAND AVE.
SEED & MULCH
ORIGINAL END OF CONSTRUCTION
MATCH EXISTING CURB & GUTTER
AS BUILT END OF CONSTRUCTION
MATCH EXISTING PAVEMENT
1 Sty. C.B. Comm. Bldg.

CURVE NO. 1

P.I.	STA. 2+39.31
Δ =	5°-57'-55"
D =	5°-00'-00"
R =	1145.92'
L =	119.31'
T =	59.71'

CURVE NO. 2

P.I.	STA. 4+47.71
Δ =	21°-25'-54"
D =	15°-00'-00"
R =	381.97'
L =	142.88'
T =	72.28'

B.M. "T" CUT IN END OF SIDEWALK S.W. CORNER OF CUMBERLAND AVE. & MORGAN ST. EL. 17.59

BEGIN CONSTRUCTION
BEGIN PROJECT
STA 1+98.90 ℄ CONSTRUCTION
CUMBERLAND AVENUE

E. SIDEWALK MORGAN ST.
6%
Floor of 2 Sty. Bldg.
+0.2000 %
PVC STA 2+50.00
EL. 17.42
INV. 11.42
PVI STA 4+50.00
EL. 17.42
INV. 11.42
PROFILE GRADE ℄ CONST. CUMBERLAND AVE.
-0.4000 %
+0.2000 %
Exist. Ground
10" Water
8" San. Sewer
UTILITIES BASED ON ℄ SURVEY

FOR PROFILES ON MORGAN & CUMBERLAND SEE SHEET NO. 9

GENERAL NOTES
1. BENCH MARK DATUM IS U.S.C. & G.S.
2. ALL EXISTING DRAINAGE STRUCTURES WITHIN LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. THE IMPROVEMENTS OF LOTS 9, 10 AND 11, BLOCK 98, OF HENDRY AND KNIGHT'S MAP OF THE GARRISON SUBDIVISION, (PARCEL 102.1) AND APPURTENANCES THERETO SHALL BE REMOVED BY THE CONTRACTOR. ALL OTHER IMPROVEMENTS, UNLESS OTHERWISE NOTED, SHALL REMAIN OR BE REMOVED BY OTHERS. IT IS ANTICIPATED THAT THIS PORTION OF PARCEL 102.1 WILL BE VACATED AND AVAILABLE FOR DEMOLITION ON OR BEFORE OCTOBER 20, 1975.

UTILITY OWNERS
1. TAMPA ELECTRIC COMPANY
2. SOUTHERN TELEPHONE COMPANY
3. CITY OF TAMPA WATER DEPARTMENT
4. CITY OF TAMPA SANITARY SEWERS
5. PEOPLES GAS SYSTEM

AS BUILT NOTES

1. WEARING COURSE WITHIN THE RECTANGULAR AREA INDICATED BY HEAVY LINES & THE OVERLAY WERE DELETED FROM THIS CONTRACT & ADDED TO 10002-3506-032
2. DRIVEWAYS WERE CONSTRUCTED IN ACCORDANCE WITH THE 1976 FLA. DOT STANDARD DWG NO. GTO-01
3. ADDED 200 S.F. 4" CONC. SIDEWALK
4. ADDED 18.78' OF 6" CONC. CURB & GUTTER

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	NUMBERED		
	NOTE BOOK		
NO.	AREAS		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	NUMBERED		
	NOTE BOOK		
NO.	AREAS		
	AREAS CHECKED		

Greiner Engineering Sciences, Inc.

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	68		6
By: G.E.S.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. No. [illegible] 0517 G52

CURVE NO. 3
P.I. STA. 9+40.95
Δ = 51°-11'-22.1"
D = 16°-22'-12.8"
R = 350.00
LC = 312.70
T = 167.65
S.E. = SEE PROFILES

SCALE 1"=20'

* RELOCATE AIR LINE AND WATER PIPE AWAY FROM PATH OF BOTTOM ROLL TYPE GATE. COST OF RELOCATION TO BE INCLUDED IN PRICE OF FENCE GATE (TYPE B) (SINGLE MOT) ITEM NO. 550-76-141

MATCH LINE STA. 6+00.00

MATCH LINE STA. 12+10.00

Metal Shed · Gas Pump · Gas Vent · Air Line · Water Pipe · MATCH EXISTING PAVEMENT · MATCH EXIST. CURB · CONST. 4" CONC. SIDEWALK · CONST. 14' SWING TYPE GATE · END SIDEWALK AND MATCH EXIST. CURB · RESET EXISTING FENCE PRIOR TO CLEARING & GRUBBING · RETURN #1 · CONST. 42' OF 15" PIPE (5-105) · R/W LINE · CONST. 4" CONC. SIDEWALK · CONST. 6" CONC. CURB & GUTTER · 14" Palm · Existing Fence With Barb Wire Attachment · ℄ CONSTRUCTION S 89°-37'-24" E · ℄ SURVEY · CONST. 48' OF 15" PIPE · 10" W.M. · CONST. 4" CONC. SIDEWALK · CONST. 6" CONC. CURB & GUTTER · Asphalt Pavement · (5-102A) · R/W LINE · DRIVE · Conc. Drive · REMOVE PLATFORM AND STEPS · 1 Story Conc. Block Building · RETURN #2 REMOVE HYDRANT AND VALVE (5-103) · CONST. 28' OF 15" PIPE · INSTALL HYDRANT AND VALVE · MATCH EXIST. CURB · R/W LINE · CONST. 6" CONC. CURB & GUTTER · Conc. Parking Area · MATCH EXIST. PAVT.

CONST. 60' OF 18" PIPE · CONST. TYPE "E" CURB & GUTTER (5-106) · P.C. STA. 7+73.30 ℄ CONSTRUCTION · RETURN #3 · CONST. 88' OF 18" PIPE · R/W LINE · Parking Lot · 1 Story Frame Building · Conc. Sidewalk · 30" Oak · EDGE OF CURB · MATCH EXIST. PAVT. & CURB · 8"W · 10"W · 15" Pipe · 18" Pipe · ℄ SURVEY · Exist 15" Pipe · CONST. 18' OF 15" PIPE FOR TEMPORARY DRAIN · 15" Pipe · Conc. Drive · CONST. 24" PIPE · CONST. 6" CONC. CURB & GUTTER · (5-107) · CONST. 28' OF 15" PIPE (5-104) · CURVE NO. 3 · R/W LINE · FUTURE CONSTRUCTION STATE PROJECT NO. 10002-3518 · (5-108) · E-1 · NEBRASKA AVE · 10"W

END CONSTRUCTION STA. 9+71.44 ℄ SURVEY CUMBERLAND AVE.
STA. 10+08.97 ℄ SURVEY CUMBERLAND AVE.
STA. 20+00.00 ℄ NEBRASKA AVE.
("X" in Brick, N.W. Corner Govt. Lot 14)

END PROJECT STA. 8+24.22 ℄ CONSTRUCTION · FUTURE 24" R.C.P. PROJECT NO. 10002-3518
STA. 8+07.33 ℄ SURVEY CUMBERLAND AVE.
STA. 13+11.63 ℄ SURVEY JEFFERSON ST.
STA. 8+00.84 ℄ SURVEY CUMBERLAND AVE.
STA. 10+00.08 ℄ SURVEY JEFFERSON ST.

NO.	REVISION	BY	DATE
1	RELOCATION OF S-108 DUE TO P POLE	E.E.P	10/75

FINAL SURVEY — SURVEYED · PLOTTED · TEMPLATE · AREAS · AREAS CHECKED · NOTE BOOK · NO. · BY · DATE

Greiner Engineering Sciences, Inc.

B.M. SQUARE CUT IN CURB S.W. CORNER OF CUMBERLAND AVE. AND JEFFERSON ST. EL. 16.17

FOR EDGE OF PAVEMENT PROFILES SEE SHEETS NO 9 & 11

PROFILE GRADE & CONST. CUMBERLAND AVE. · -0.2000 % · -0.2990 % · AT STA 8+00.00 EL. 16.62 · END PROJECT STA 8+24.22 · 16.55 · 10" · (5-102A) · (5-107) · (5-108) · E-1 · 10" Water · 12" Water · 8" San. Sewer · CONST. 15" PIPE · CONST. 24" PIPE · CONST. 18" PIPE · Existing 15" Pipe · CONST. 15" PIPE · FUTURE 24" PIPE

ORIGINAL SURVEY — SURVEYED · PLOTTED · TEMPLATE · AREAS · AREAS CHECKED · NOTE BOOK · NO. · BY · DATE

1206-240

Contract No. 68

84

AS BUILT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	68		7
By: GES	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. No. 10002-3517-032

℄ "A"
P.I. STA. 133+34.07
Δ = 89°-28'-08.0"
D = 74°-53'-47.2"
R = 76.50'
L.C. = 119.46'
T = 75.79'

℄ "B"
P.I. STA. 233+82.99
Δ = 78°-41'-27.7"
D = 56°-26'-56.6"
R = 101.50
L.C. = 139.40
T = 83.21

MATCH LINE STA. 9+45.00

R/W LINE
MATCH EXISTING CURB
MATCH EXISTING CURB
R/W LINE
P.C. STA. 232+39.78 ℄ B
95' RT. STA. 9+21.57 ℄ JEFFERSON ST.
P.T. STA. 133+77.74 ℄ A
140' LT. STA. 8+75.80 ℄ JEFFERSON ST.
CONST. 6" CONC. CURB & GUTTER
JEFFERSON ST. COLUMBIA
1 Sty. Conc. Blk. Comm.
Asphalt Parking Lot
REMOVE HYDRANT AND VALVE
PROPOSED R/W
P.O.T. STA. 33+48.00 ℄ PLATT ST.
P.O.T. STA. 8+24.16 ℄ JEFFERSON ST.
(Not in Part)
P.I. STA. 31+52.37 ℄ PLATT ST.
INSTALL HYDRANT AND VALVE
RELOCATED SIGN
PROPOSED R/W
20' Sign
SEE SHEET NO. 10 FOR PROFILES OF ℄ "A" & ℄ "B"
2 Sty. Conc. Blk. Comm.
N 89°-53'-28" E
N 68°-56'-43" E
SOLID SOD
END CURB
CONST. 6" CONC. CURB & GUTTER
MATCH EXISTING CURB
MATCH EXISTING CURB
8" W.M.
CONST. TYPE "E" CURB & GUTTER
PLATT ST. CROWN LINE
OVERLAY EXISTING PAVEMENT (SEE CROSS-SECTIONS)
MATCH EXISTING PAVEMENT (SEE CROSS-SECTIONS)
END CONSTRUCTION STA. 35+04.00 ℄ PLATT ST.
℄ PLATT ST.
℄ JEFFERSON ST.
N 00°-39'-37" E
Brick
Asphalt
Palm
Conc. Sidewalk
31 32 33 34 35 36

AS BUILT NOTES

⚠1 OVERLAY DELETED

⚠2 TRIANGULAR AREA INDICATED BY HEAVY LINES WAS CONSTRUCTED BY THE CONTRACTOR TO EXPEDITE HIS WORK AT NO PAY. FULL DEPTH PAVEMENT USED AT NO COST TO CONTRACT

⚠3 TRAFFIC ISLAND (SOD & CURB) DELETED FROM THIS CONTRACT & ADDED TO 10002-3518-032

FINAL SURVEY — SURVEYED, PLOTTED, ESTIMATE, NOTE BOOK, NO. ___, AREAS CHECKED — BY — DATE

Greiner Engineering Sciences, Inc.

ORIGINAL SURVEY — SURVEYED, PLOTTED, ESTIMATE, NOTE BOOK, NO. ___, AREAS CHECKED — BY — DATE

18 16 14 12 10

BEGIN CONSTRUCTION STA. 32+58.28 ℄ PLATT ST.
CROWN LINE PLATT ST.
END CONSTRUCTION STA. 35+04.00 ℄ PLATT ST.
24" RCP
18" RCP
8" VCP

31 32 33 34 35 36

Contract No. G B

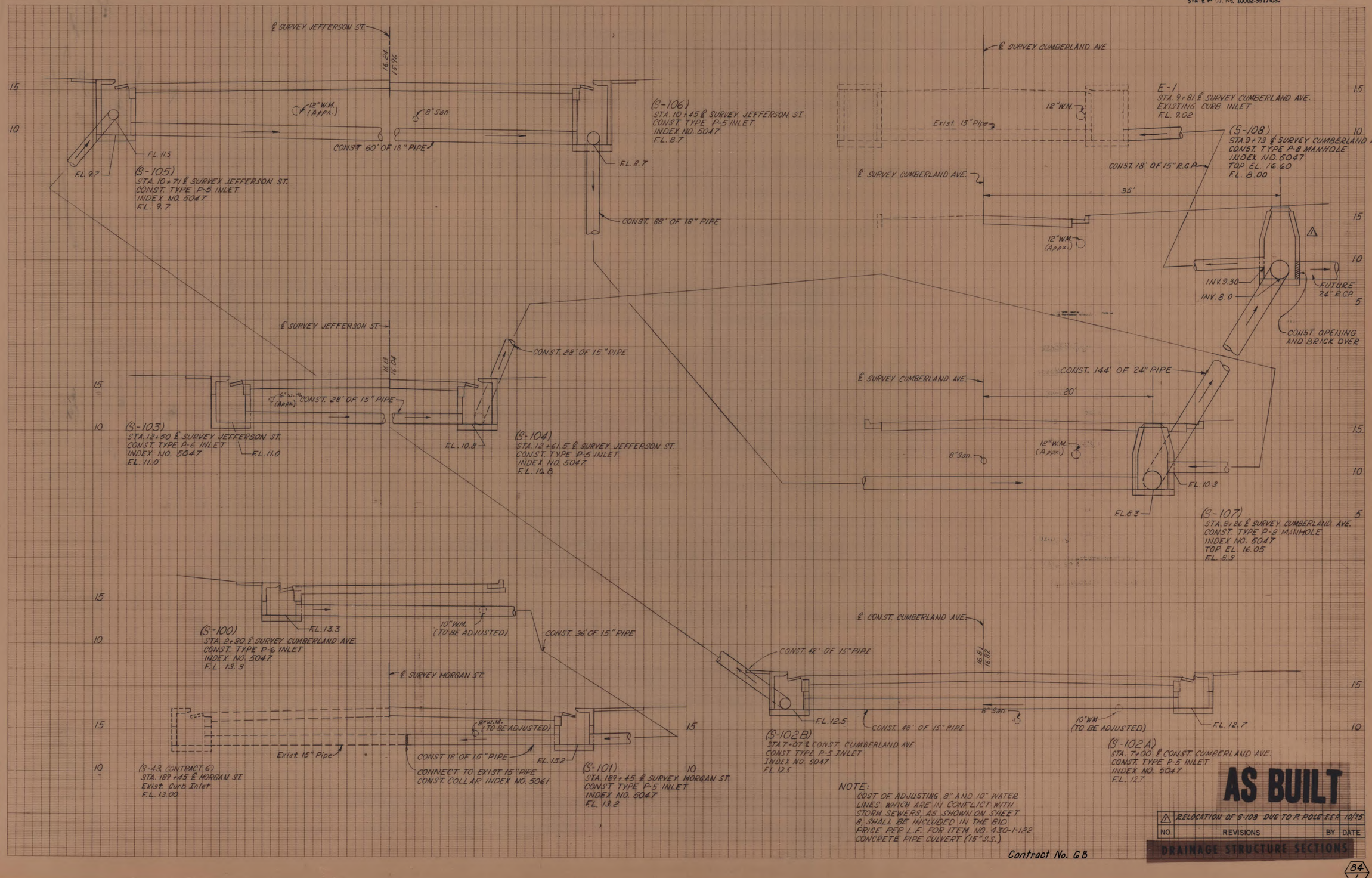
84

CROSS SECTIONS

Scale 1 inch = 5 feet

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH			8

STATE PROJ. No. 10002-3517-03?



NOTE:
COST OF ADJUSTING 8" AND 10" WATER LINES, WHICH ARE IN CONFLICT WITH STORM SEWERS, AS SHOWN ON SHEET 8, SHALL BE INCLUDED IN THE BID PRICE PER L.F. FOR ITEM NO. 430-1-122 CONCRETE PIPE CULVERT (15" S.S.)

Contract No. GB

AS BUILT

NO.	REVISIONS	BY	DATE
1	RELOCATION OF S-108 DUE TO P. POLE	EEA	10/75

DRAINAGE STRUCTURE SECTIONS

Greiner Engineering Sciences, Inc.

Application No. _____
Route No. _____
Original Platted by _____
" Checked by _____
Template by _____
Area by _____
Finals Platted by _____
" Checked by _____
Area by _____
" Checked by _____

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6C		1
By G.E.S	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

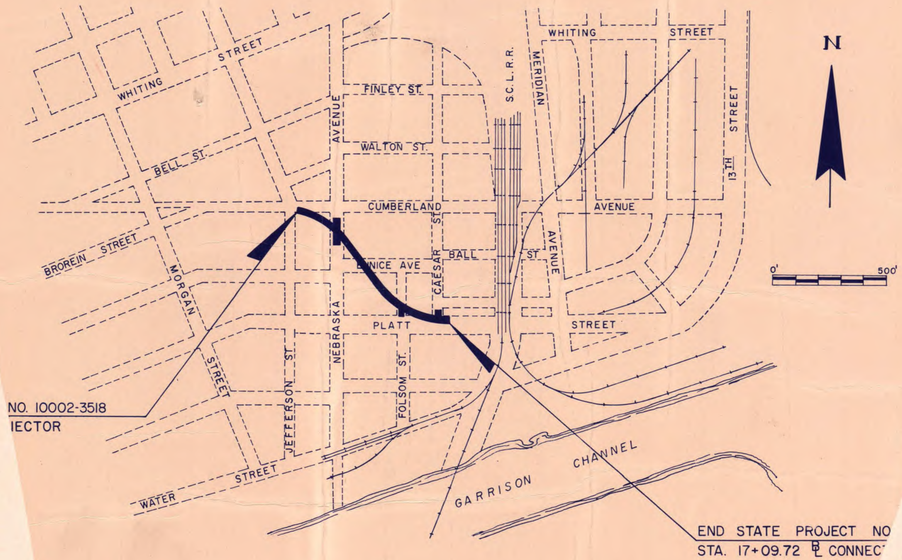
TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE PROJECT NO. 10002 - 3518 - 032



GOVERNING SPECIFICATIONS:

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION DATED 1973, AND SUPPLEMENT THERETO DATED JUNE, 1975 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

CONTRACT NO.
6C

CUMBERLAND AVENUE - PLATT STREET CONNECTOR
(PHASE TWO)

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 6C - State Job No. 10002-3518

Description	Drawing Number Sheet No.
Cover Sheet (Cumberland Ave. Phase 2)	1
Drainage Map	2
Typical Sections	3
Plan and Profile	5
Plan and Profile	6
Plan and Profile	7
Drainage Structure Sections	8
Drainage Structure Sections	9

TOTAL No. MYLAR SHEETS 8.

AS BUILT

APR 27 1976

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6C		1
By GES	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE PROJECT NO. 10002 - 3518 - 032

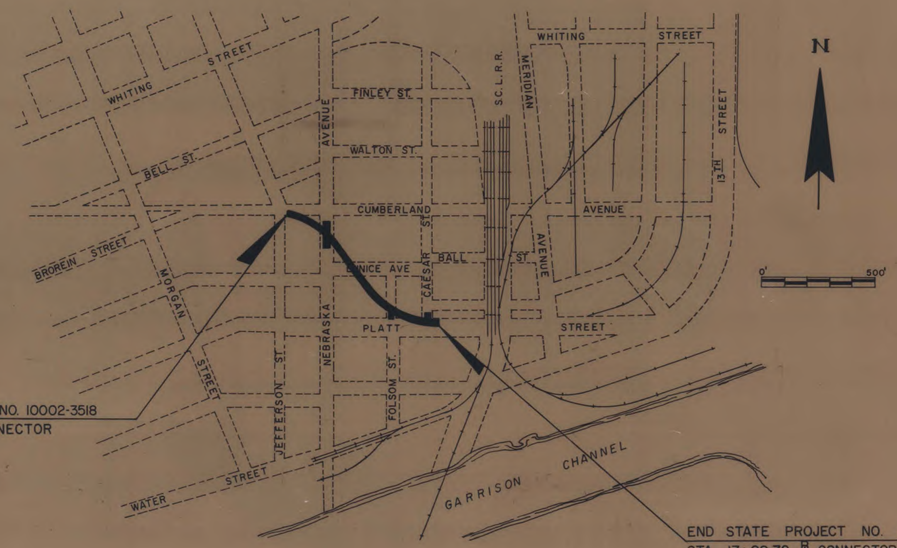
THIS CONTRACT PLAN SET INCLUDES:
- ROADWAY PLANS
- SIGNING AND PAVEMENT MARKING PLANS
- RIGHT - OF - WAY MAP

INDEX OF ROADWAY PLANS:

SHEET NO.	SHEET DESCRIPTION
1	KEY MAP
2	DRAINAGE MAP
3	TYPICAL SECTIONS
4	SUMMARY OF QUANTITIES
5 - 7	PLAN & PROFILE SHEETS
8 - 9	DRAINAGE STRUCTURE SECTIONS
10	SPECIAL PROFILES
11	SOILS INFORMATION SHEET
12 - 14	CROSS SECTIONS
15	STORAGE LOT LOCATION MAP
16	PROJECT INFORMATION SIGN

STANDARD DRAWINGS:

INDEX NO.	DRAWINGS
GEC - 05	EROSION CONTROL DEVICES, BALED HAY OR STRAW
GSA - 01	STANDARD ABBREVIATIONS
195	STANDARD SYMBOLS FOR KEY MAPS AND PLAN SHEETS (3 SHEETS)
1101 - W	MISCELLANEOUS ROADWAY CONSTRUCTION (2 SHEETS)
2300 - S	GUARDRAIL CONSTRUCTION DETAILS (5 SHEETS)
2892 - A	INLETS TYPE "TS"
5016 - B	TURNOUT DETAILS
5047 - G	INLET, MANHOLE, AND JUNCTION BOX TYPE P AND J (2 SHEETS)
5061 - E	MISC. DRAINAGE DETAILS (2 SHEETS)
5075 - B	SUPERELEVATION DETAILS FOR MUNICIPAL CONSTRUCTION (2 SHEETS)
5080 - G	CURB, CURB AND GUTTER, AND TRAFFIC SEPARATOR (2 SHEETS)



BEGIN STATE PROJECT NO. 10002-3518
STA. 8+24.22 ℄ CONNECTOR

END STATE PROJECT NO. 10002-3518
STA. 17+09.72 ℄ CONNECTOR



PLANS PREPARED BY:
Greiner Engineering Sciences, Inc.

LENGTH OF PROJECT		
STATE PROJECT NO. 10002-3518		
	LIN. FEET	MILES
ROADWAY	885.50	0.1677
BRIDGES	0.00	0.0000
GROSS LENGTH	885.50	0.1677
EXCEPTIONS	0.00	0.0000
NET LENGTH	885.50	0.1677

GOVERNING SPECIFICATIONS:

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATION DATED 1973, AND SUPPLEMENT THERETO DATED JUNE, 1975 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

AS BUILT
APRIL 27 1976

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

APPROVAL RECOMMENDED 8-14-75
BY W. Dale Lester
GREINER - WATSON

APPROVED 8-15-75
BY Theodore G. Task
CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO.
6C

CUMBERLAND AVENUE - PLATT STREET CONNECTOR
(PHASE TWO)

Greiner Engineering Sciences, Inc.
CONSULTING ENGINEERS TAMPA, FLORIDA

SUBMITTED Rene' P. Leach DATE AUG. 11, 1975

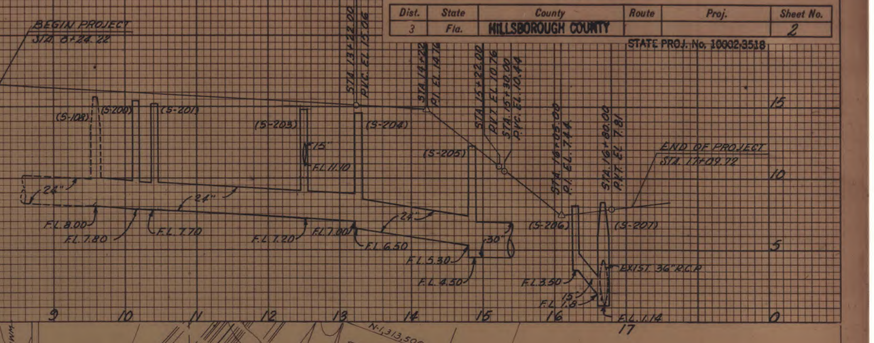
84/1

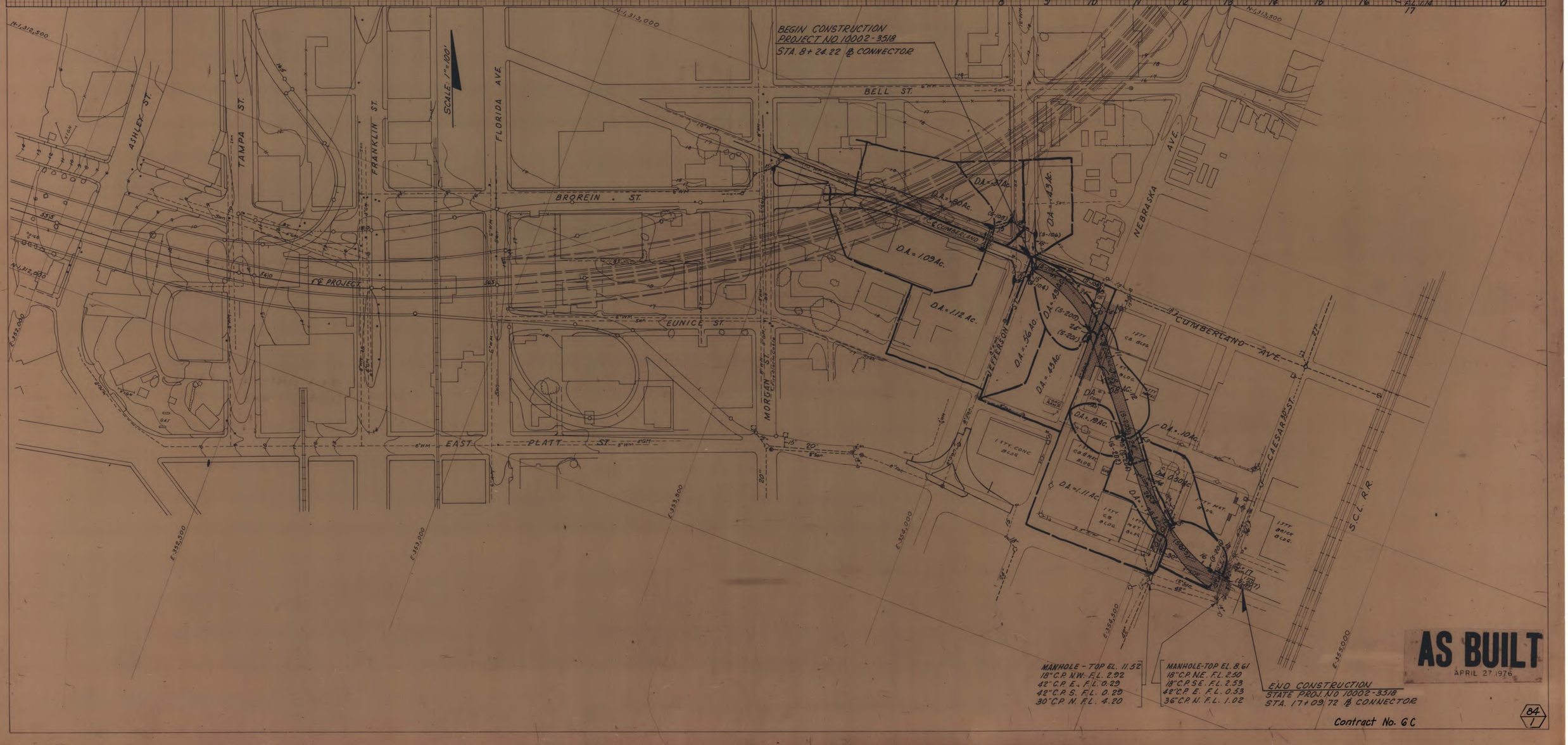
4-27-76

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH COUNTY			2

STATE PROJ. No. 10002-3518





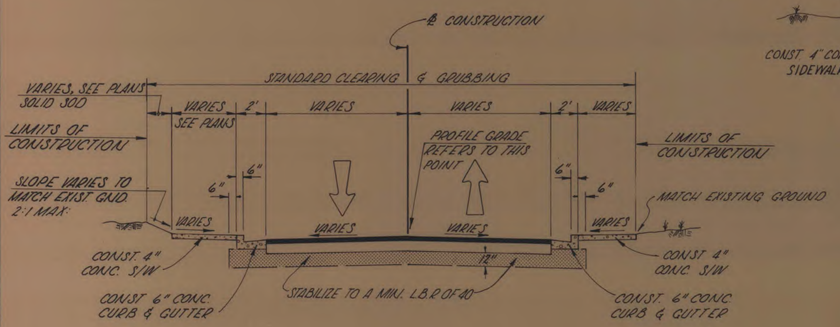
AS BUILT
APRIL 27 1976

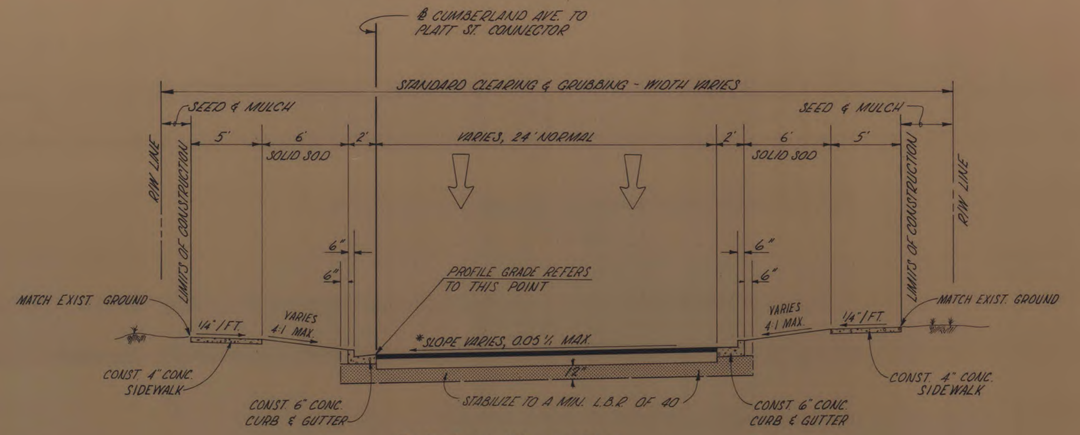
Contract No. GC

84/1

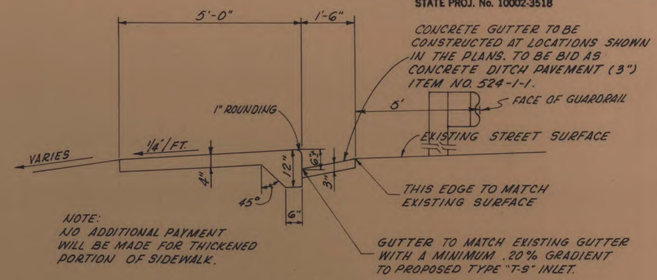
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6C		3
By: GES	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. No. 10002-3518

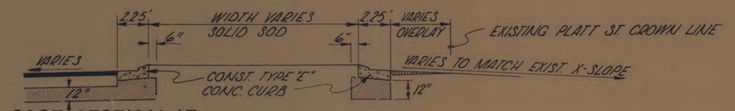




* SEE PLAN FOR S.E. TRANS.



DETAIL
SIDEWALK CROSSING EXIST. STREET



PART SECTION AT TRAFFIC ISLAND

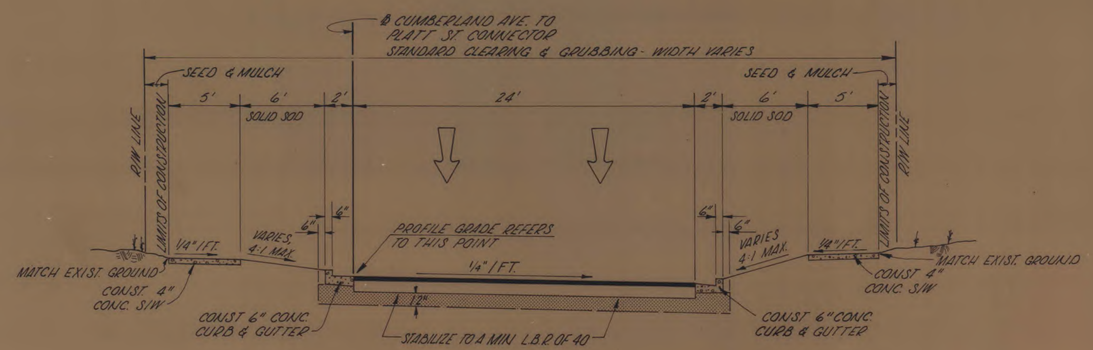
NO. 2 TYPICAL SECTION CUMBERLAND AVE. TO PLATT ST. CONNECTOR

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER, AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016, 5075, & 5080. DESIGN SPEED - 30 M.P.H.

STA. 13+12.42 TO STA 16+82.50

TYPICAL SECTION CROSS STREETS

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER, AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016, & 5080.



NO. 1 TYPICAL SECTION CUMBERLAND AVE. TO PLATT ST. CONNECTOR

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-1 ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER, AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER. FOR ADDITIONAL DETAILS, SEE INDEX NO'S. 1101, 5016, 5075 & 5080. DESIGN SPEED - 30 M.P.H.

STA 8+24.22 TO STA 13+12.42

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE GLP DATE 3/75 | TRACED DATE
CHECKED MOB DATE 4/75 | SCALE

Contract No. 6C

AS BUILT
APRIL 27 1976

84/1

DIETZGEN CORP. – ORLANDO 13M4-3 200 3-73

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6C		3
By: G.E.S.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. No. 10002-3518

P.O.T. STA. 10+08.97 ℄ SURVEY CUMBERLAND AVE.
P.O.T. STA. 20+00.00 ℄ NEBRASKA

AS BUILT NOTES

⚠ ADDED SIDEWALK
⚠ DRIVEWAYS WERE CONSTRUCTED IN ACCORDANCE WITH THE 1976 DOT STANDARD DWG. NO. 870-01
⚠ OVERLAID BRICK PAV'MT

MATCH EXISTING PAVEMENT AND CURB & GUTTER

1 Sty. Conc. Blk. Comm. Bldg.

P.O.C. STA. 10+31.36 ℄ CONNECTOR
P.O.T. STA. 19+14.10 ℄ NEBRASKA AVE

1 Sty. Conc. Blk. Comm. Bldg.

TO BE REMOVED BY THE CONTRACTOR
P.T. STA. 10+86.00 ℄ CONNECTOR

1 Sty. Metal Bldg.

SCALE 1" = 20'

CONST. 50' OF GUARDRAIL

DRIVEWAY ⚠

R/W LINE

℄ EUNICE ST.

CONST. APPROX. 20' OF CONC. BLOCK RETAINING WALL, 1.5' HIGH

CONST. 8" CONC. SIDEWALK

℄ CONNECTOR

S 38°-26'-02" E

CONST. 16" CONC. CURB & GUTTER

CONST. 20℄ OF 24" PIPE

CONST. 8 'OF 15" PIPE

(S-203)

24" PIPE

CONST. 4" CONC. SIDEWALK

(S-202) ⚠ DRIVEWAY

CONST. 1'-6" GUTTER

CONST. 50' OF GUARDRAIL

MATCH LINE STA. 13+00.00

1 Sty. Metal Bldg.

Asph. Pkg. Lot

Conc. Blk. Wall

Metal Garage

1 Sty. Conc. Blk. & Metal Comm. Bldg.

STA. 8+32.53 ℄ CONNECTOR
STA. 8+32.25 ℄ SURVEY CUMBERLAND AVE.

BEGIN CONSTRUCTION
BEGIN STATE PROJ. NO. 10002-3518
STA. 8+24.22 ℄ CONNECTOR

END OF PROJECT NO. 10002-3511

(S-108)

CONST. 56 ' OF 24" PIPE

CURVE NO. 3

CONST. 6" CONC. CURB & GUTTER

MATCH EXIST CURB & GUTTER

24" PIPE

(S-106)

18" PIPE

12" W.M.

(S-107)

11" W.M.

8" PIPE

P.C. STA. 9+29.30 ℄ CONNECTOR

(S-105)

15" PIPE

(E.G. N.& C.)

6" MAIN

15" PIPE

(S-104)

STA. 8+07.33 ℄ SURVEY CUMBERLAND AVE.
STA. 13+11.63 ℄ SURVEY JEFFERSON ST.

CONST. 24' OF 24" PIPE

SOLID SOD

DRIVEWAY

R/W LINE

Conc. Pkg. Lot

MATCH EXISTING PAVEMENT AND CURB & GUTTER

Conc. Pad

Conc. Ramp

CURVE NO. 3
P.I. STA. 9+40.95
Δ = 51°-11'-22.1"
D = 16°-22'-12.8"
R = 350.00'
LC = 312.70
T = 167.65'
SE. = 1/4 "/F.T.

P.O.T. STA. 17+34.42 ℄ NEBRASKA AVE
P.O.T. STA. 10+00.00 ℄ EUNICE ST.

N 00°-38'-15.2" E

S 89°-55'-05.1" E

GREINER WALK-OAP

4' Chain Link Fence

36" Oak

FOR PROFILES ON NEBRASKA AVE, SEE SHEET NO. 10

NO.	REVISION	BY	DATE
⚠	RELOCATION OF S-108 DUE TO P. POLE	R.F.P.	11/75

B.M. SQUARE CUT IN CURB
S.W. CORNER OF CUMBERLAND AVE.
AND JEFFERSON ST.
EL. 16.17

B.M. SQUARE CUT IN CURB
17' LT. OF STA 10+25
℄ EUNICE ST
EL. 17.12

Existing Ground

16.89

Varies

Elevation 35'

-0.29% ↘

17.13

(S-108)
END OF PROJECT
NO. 10002-3517-

BEGIN CONSTRUCTION
STATE PROJ. NO. 10002-3518
STA. 8+24.22 ℄ CONNECTOR

PROFILE GRADE, ℄ CONNECTOR

(S-200)

(S-201)

12" W.M.

10" W.M.

8" Gas

8" VCP

26" PIPE

28" PIPE

24" PIPE

(S-203)

15" PIPE

F.L. 11.10

24" PIPE

F.L. 8.00

F.L. 7.80

F.L. 7.70

F.L. 7.20

GEODETIC NOTES
1. BENCH MARK DATUM IS U.S.C.& G.S.
2. ALL EXISTING DRAINAGE STRUCTURES WITHIN LIMITS OF CONSTRUCTION ARE TO REMAIN UNLESS OTHERWISE NOTED.
3. GRADES SHOWN ARE FINISHED GRADES

UTILITY OWNERS
1. TAMPA ELECTRIC COMPANY
2. GENERAL TELEPHONE COMPANY
3. CITY OF TAMPA WATER DEPARTMENT
4. CITY OF TAMPA SANITARY SEWER
5. PEOPLES GAS SYSTEM

16.62

8 9 10 11 12 13

Contract No. 6C

84 / 1

AS BUILT
APRIL 27 1976

Greiner Engineering Sciences, Inc.
CONSULTING ENGINEERS TAMPA FLORIDA

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
FIELD MATE.		
NOTE BOOK		
AREAS		
NO. AREAS CHECKED		

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
FIELD MATE.		
NOTE BOOK		
AREAS		
NO. AREAS CHECKED		

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6C		6
By: G.E.S.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. No. 10002-3518

SCALE 1"=20'

R/W LINES

TO BE REMOVED BY THE CONTRACTOR

MATCH LINE STA. 13+00.00

CONST. 73'-0" OF 24" PIPE

CONST. 157'-0" OF 24" PIPE

CONST. 6" CONC. CURB & GUTTER

CONST. 80'-0" OF GUARDRAIL

P.O.C. STA. 14+78.68 ℄ CONNECTOR
P.O.T. STA. 3+37.08 ℄ FOLSOM ST.

Existing Gasoline Tank (TO BE REMOVED)

CONST. 1'-6" CONC. GUTTER CURVE NO. 4

P.O.C. STA. 16+59.62 ℄ CONNECTOR
P.O.T. STA. 2+63.06 ℄ CAESAR ST.

CONST. 32' OF 15" PIPE RETURN NO. 1

CONST. 116'-0" OF 30" PIPE

℄ CONNECTOR

℄ FOLSOM ST. 8"CO

℄ CAESAR ST.

℄ PLATT

STA. 128+37.71 ℄ PLATT ST.
STA. 2+64.84 ℄ FOLSOM ST.

PLATT ST. CROWN LINE

CONST. 10' CURB TRANSITION

CONST. TYPE "E" CURB & GUTTER

Existing Edge of Travel, Platt St.

STA 130+00.00 ℄ PLATT ST.
STA 2+60.18 ℄ CAESAR ST.

DROP CURB

MATCH EXISTING

OVERLAY

S 80°-14'-32.0" E

STA 17+09.72

END CONSTRUCTION
END STATE PROJECT NO. 10002-3516-032
STA. 17+09.72 ℄ CONNECTOR

CURVE NO. 4
P.I. STA. 15+67.94
Δ = 49°-48'-49.7"
D = 16°-22'-12.8"
R = 350.00'
LC = 304.30
T = 162.52
S.E. = 0.051 FT.

1 Sty. Conc. Blk. & Metal Comm. Bldg.

Metal Garage

1 Sty. Conc. Blk. Comm. Bldg.

1 Sty. Metal Comm. Bldg.

Metal Car Port

1 Sty. Metal Comm. Bldg.

NO	REVISION	BY	DATE
3	REVISED CURB ALIGNMENT		
2	DRIVEWAYS WERE CONSTRUCTED IN ACCORDANCE WITH DOT STANDARD DRAWING NO. 870-01		
1	DRIVEWAY SHOWN @ STA. 15+15	MJB	8/1/75

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

Greiner Engineering Sciences, Inc.
CONSULTING ENGINEERS TAMPA, FLORIDA

CB-M SQUARE CUT IN CURB N.W. CORNER OF PLATT ST. AND FOLSOM ST. EL. 12.04

CB-M SQUARE CUT IN CURB 12' RT. OF STA. 0+32 ℄ CAESAR ST. EL. 9.54

PROFILE GRADE ℄ CONNECTOR

24" PIPE

200' V.C.

30" PIPE

TO EXIST. MANHOLE ON PLATT ST.

MATCH EXISTING PAVT.

150' V.C.

END CONSTRUCTION
STATE PROJ. NO. 10002-3516
STA. 17+09.72 ℄ CONNECTOR

AS BUILT
APRIL 27 1976

Contract No. 66

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	6C		7
By: GES	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date:

STATE PROJ. NO. 10002-3539

1"=20'

R/W LINE

Brick

P.C. STA. 232+99.78 @ B
9.5' RT. STA. 3+21.57 @ JEFFERSON ST.

R/W LINE

Asphalt

Conc. Sidewalk

1 Sty. Conc. Blk. Comm.

P.T. STA. 133+77.74 @ A
14.0' LT. STA. 8+95.80 @ JEFFERSON ST.

Asphalt Parking Lot

P.I. STA. 33+48.00 @ PLATT ST. BK.
P.I. STA. 123+46.20 @ PLATT ST. AHD.

P.I. STA. 31+52.37 @ PLATT ST.

32

33

@ "A"

@ "B"

Asphalt

6" V.C.P.

MATCH EXIST. CURB & GUTTER

2 Sty. Conc. Blk. Comm.

31

N 89°-53'-28" E

3/4" I.P.

N 68°-56'-43" E

3/4" Faucet

Hydrant and Valve

4W.I.C.

8" W.M.

18" R.C.P.

8" V.C.P.

18" R.C.P.

P.C. STA. 132+58.28 @ A
4.0' RT. OF STA. 132+58.28
@ PLATT ST.

P.O.T. STA. 8+24.16 @ JEFFERSON ST.

@ JEFFERSON ST.

8" V.C.P.

N 00°-23'-37" E

Brick

SOLID SOD

CONST. TYPE "E" CURB & GUTTER

CONST. 4" CONC. S/W

MATCH EXIST. CURB & GUTTER
MATCH EXIST. PAVT.

124

125

126

@ PLATT ST.

S 88°-14'-52" W

4W.I.C.

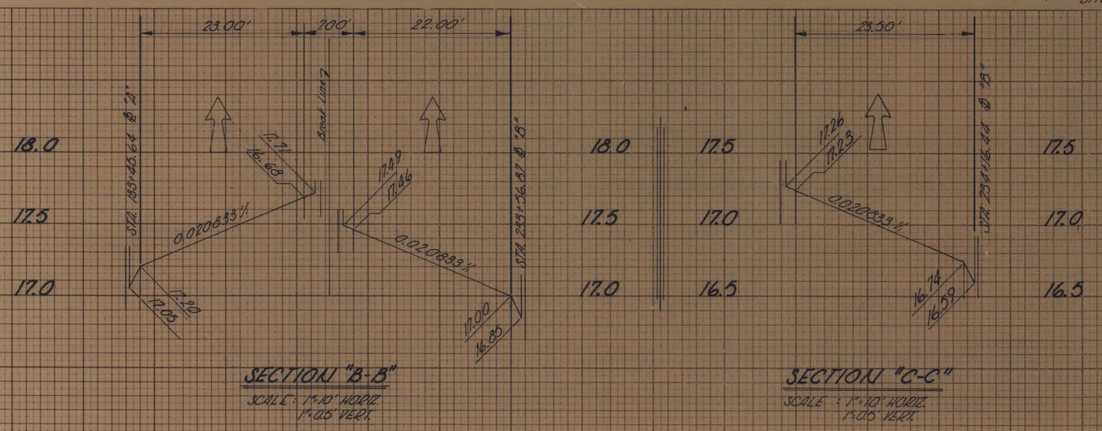
Conc. Sidewalk

8" W.M.

18" R.C.P.

AS BUILT NOTES
⚠ TRAFFIC ISLAND (SOD & CURB) DELETED FROM 10002-3517 & ADDED TO THIS CONTRACT

B.M. SQUARE CUT IN CURB
S.W. CORNER OF ELVINCE ST.
& JEFFERSON ST.
ELEV. 18.072



SECTION "B-B"
SCALE: 1"=10' HORIZ.
1"=05' VERT.

SECTION "C-C"
SCALE: 1"=10' HORIZ.
1"=05' VERT.

Greiner Engineering Sciences, Inc.
CONSULTING ENGINEERS TAMPA, FLORIDA

ORIGINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

FINAL SURVEY — NOTE BOOK — NO. — BY — DATE
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED

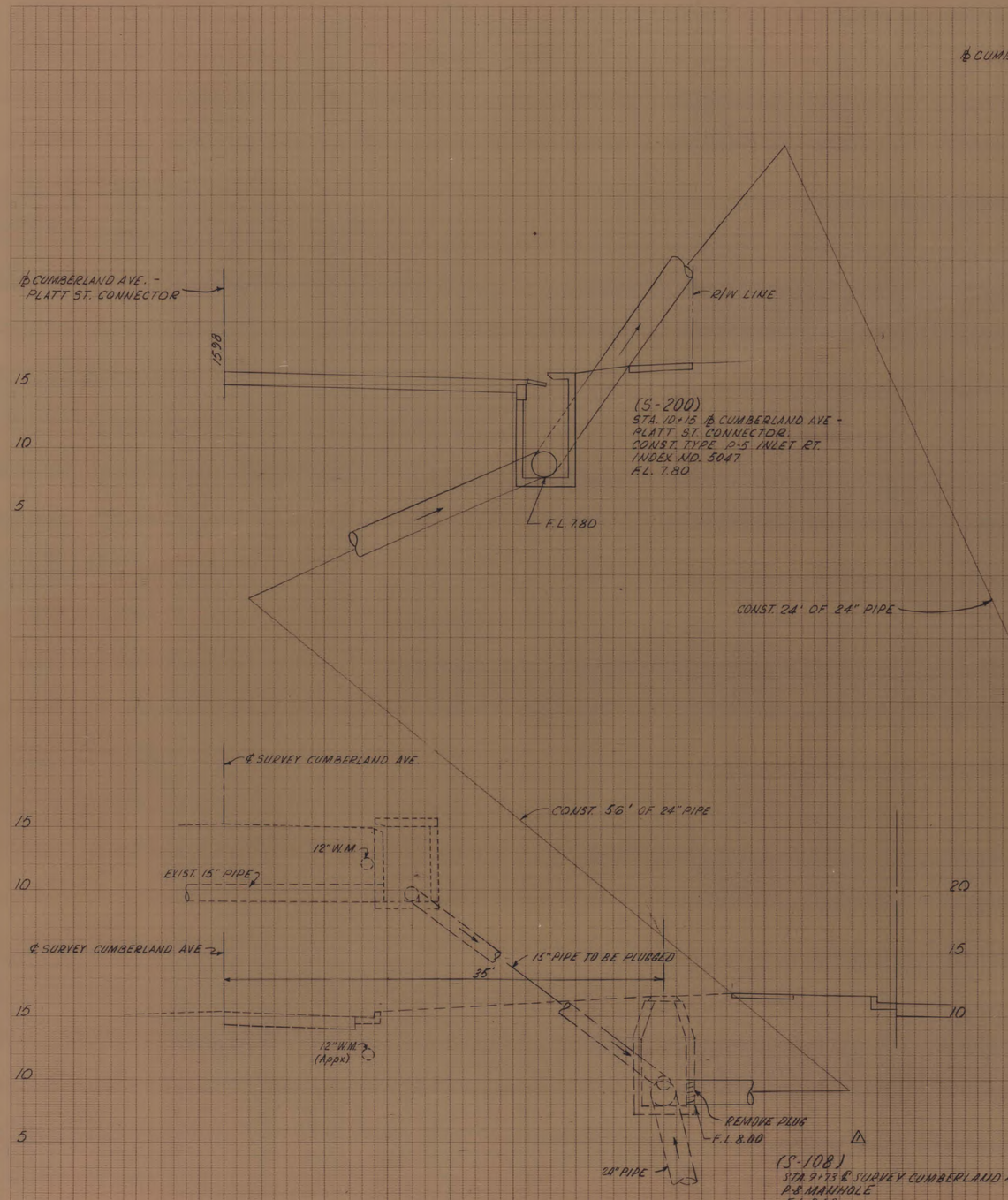
AS BUILT
APRIL 27, 1976

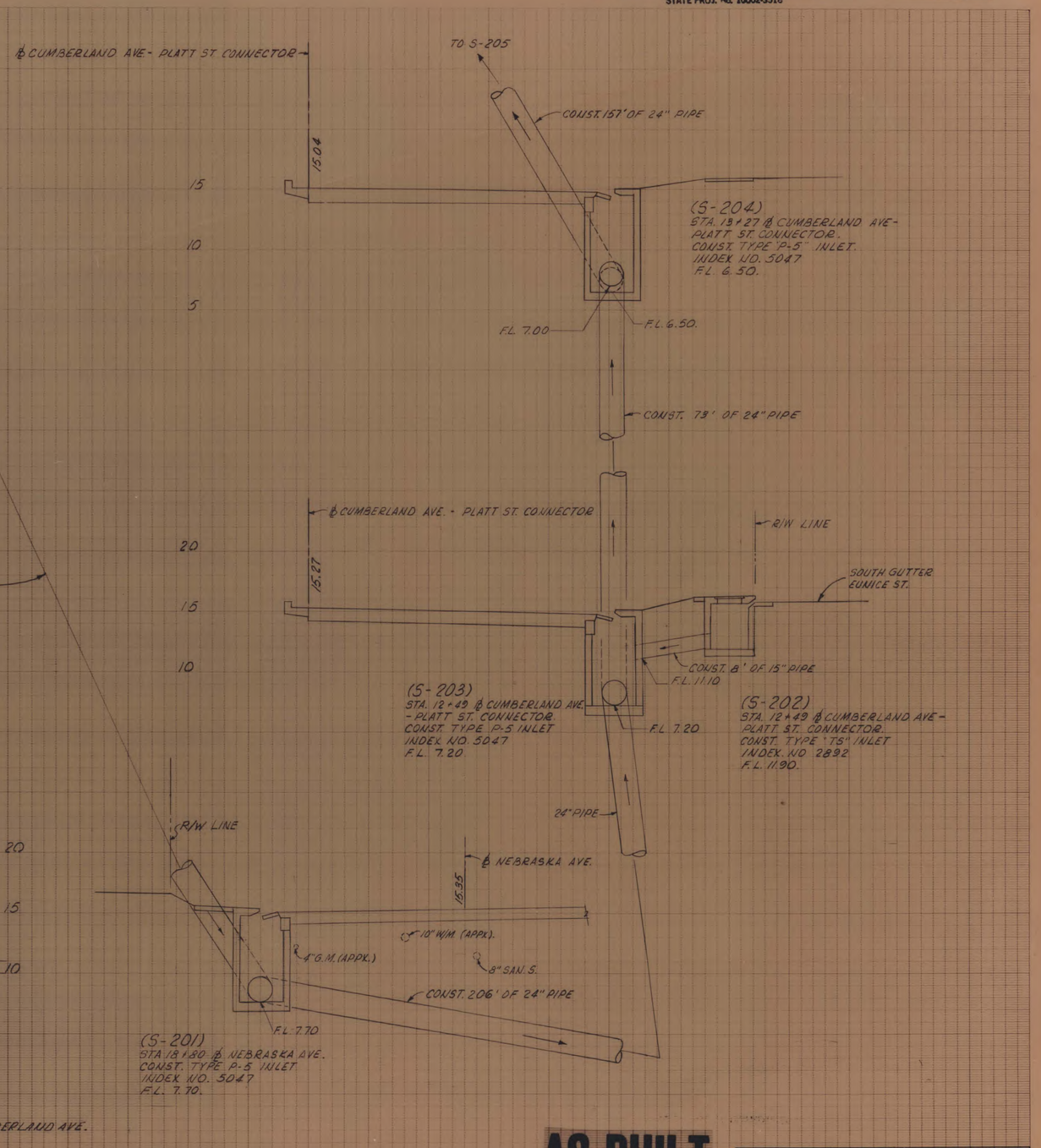
84

Contract No. 6C

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH COUNTY			8

STATE PROJ. No. 10002-3518





AS BUILT
APRIL 27, 1976

NO.	REVISIONS	BY	DATE
⚠	RELOCATION OF S-108 DUE TO P.POLE CONF.		11-75

DRAINAGE STRUCTURE SECTIONS

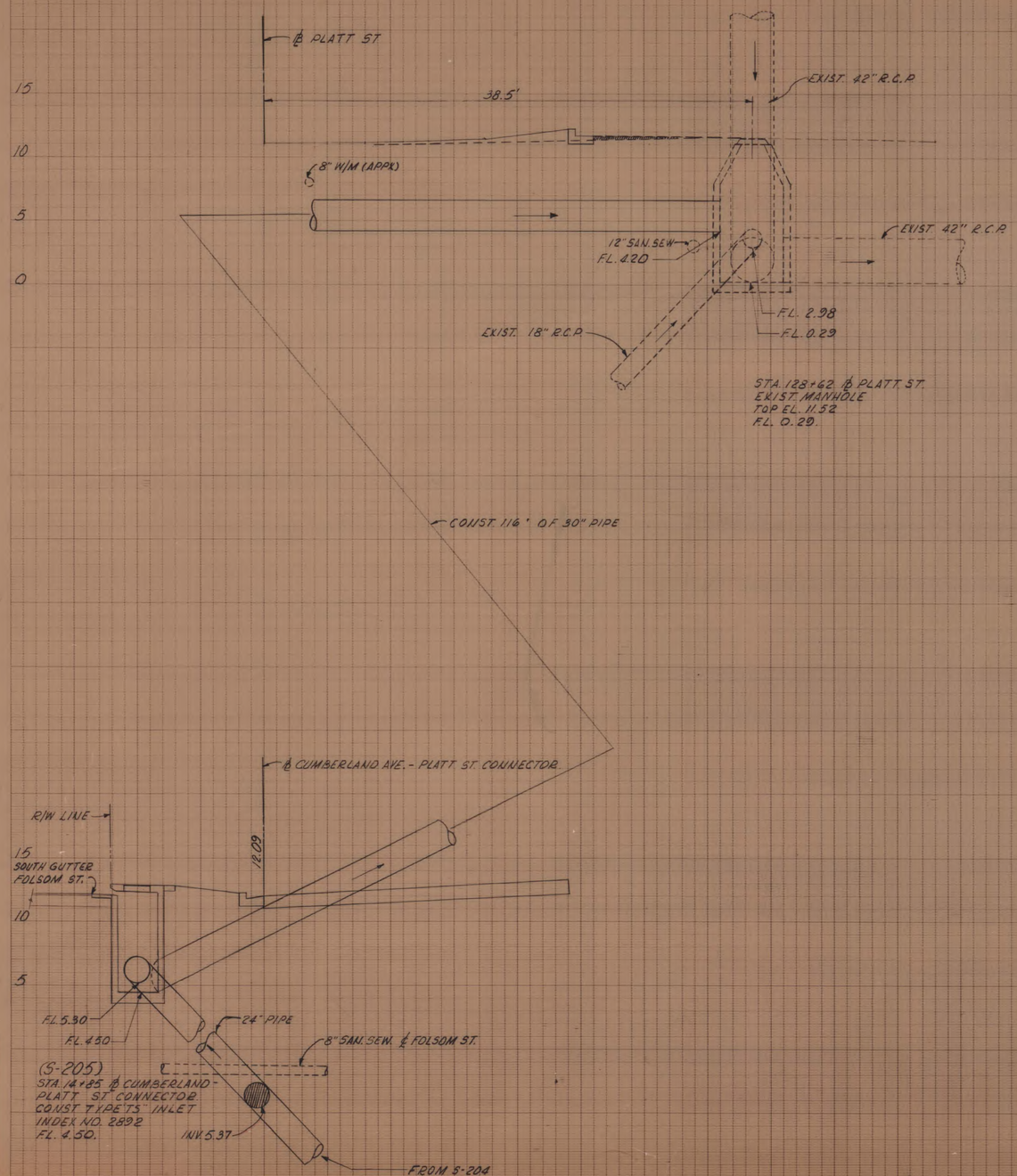
Contract No. GC

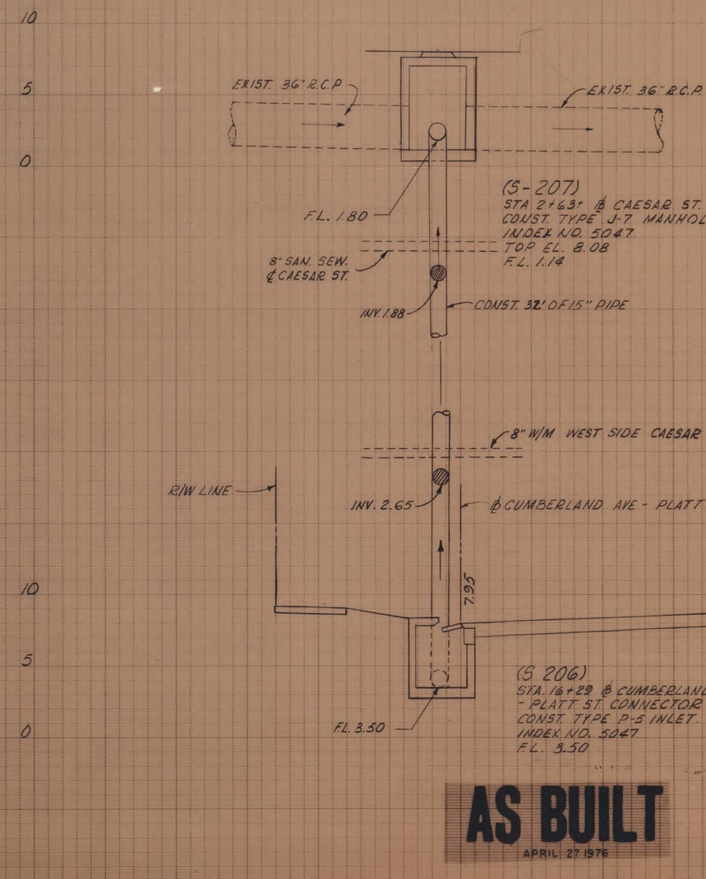
84/1

Application No. _____
Route No. _____
Original Platted by _____
" Checked by _____
Template by _____
Area by _____
Finals Platted by _____
" Checked by _____
Area by _____
" Checked by _____

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH COUNTY			9

STATE PROJ. No. 10002-3518





Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

AS BUILT
APRIL 27 1976

DRAINAGE STRUCTURE SECTIONS

Contract No. GC

BA 1

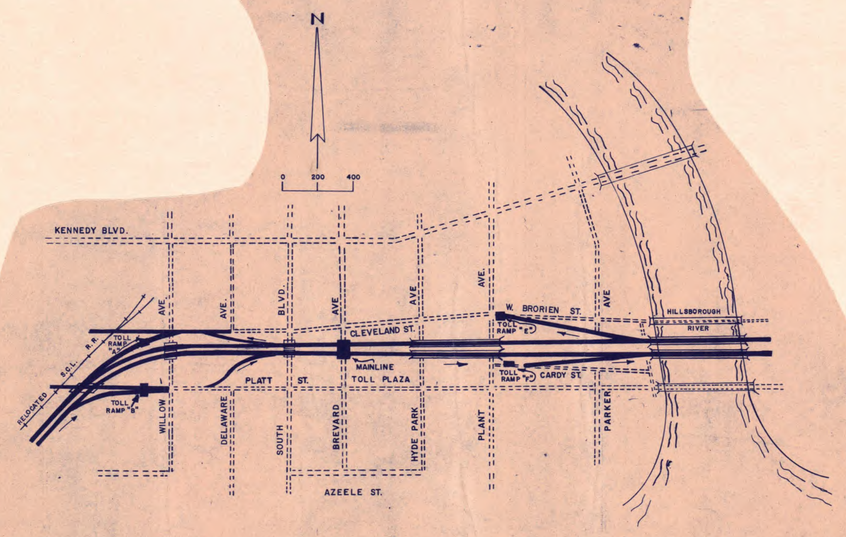
TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE PROJECT NO. 10002-3507-032
STATE ROAD NO. 449
MAINLINE AND RAMP TOLL PLAZAS



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED INFORMATION.

CONTRACT NO. 7

MAINLINE AND RAMPS "A", "B", "E", & "F"
TOLL PLAZA CONSTRUCTION

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P. O. BOX 23648
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBER 7 - State Job No. 10002-3507

Description	Drawing Number Sheet No.
Cover Sheet - Toll Plaza Construction	
Mainline Toll Plaza, Plumbing Site Plan	M-1
Toll Plaza "A" -Plumbing Site Plan	M-3
Toll Plaza "B" -Plumbing Site Plan	M-4
Toll Plazas "E" & "F"-Plumbing Site Plan	M-5

TOTAL NO. MYLAR SHEETS 4.

AS BUILT

NOV 15 1975

84

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE PROJECT NO. 10002-3507-032
STATE ROAD NO. 449
MAINLINE AND RAMP TOLL PLAZAS

INDEX OF DRAWINGS

SHEET NO.	TITLE
- -	COVER SHEET
	ARCHITECTURAL
	MAINLINE TOLL PLAZA
A-1	SITE PLAN
A-1 a	ROADWAY CONTRACT GRADING PLAN
A-2	FOUNDATION PLAN AND PARKING AREA PLAN
A-3	FLOOR PLANS & SCHEDULES
A-4	OPERATIONS BUILDING ELEVATIONS
A-5	OPERATIONS BUILDING EXTERIOR WALL SECTIONS
A-6	OPERATIONS BUILDING FLOOR AND ROOF FRAMING
A-7	MISCELLANEOUS DETAILS
A-8	CANOPY ELEVATIONS
A-9	CANOPY ROOF PLAN AND SECTIONS
A-10	CANOPY SECTIONS AT THE ELECTRICAL SIGN CABINETS
A-11	TOLL ISLANDS FOR LANES #2 & #13 TOILET AND STAIR DETAILS
A-12	UNATTENDED TOLL ISLANDS, #4, #11, #5 AND #10
A-13	TOLL ISLANDS NO. 3 AND NO. 12.
A-14	TOLL BOOTH PLAN, SECTIONS AND DETAILS
	RAMP TOLL PLAZAS
A-15	RAMP "A" SITE PLAN
A-16	RAMP "A" PLAN ELEVATIONS & SECTIONS
A-17	RAMP "A" ATTENDED TOLL BOOTH ISLAND TOILET AND STAIR DETAILS
A-18	RAMP "A" NORTH AND SOUTH TOLL ISLANDS DETAILS
A-19	RAMP "A" UNATTENDED TOLL ISLAND
A-20	RAMP "B" SITE PLAN
A-21	RAMP "B" PLAN-ELEVATIONS & SECTIONS
A-22	RAMP "B" ATTENDED TOLL BOOTH ISLAND TOILET AND STAIR DETAILS
A-23	RAMP "B" NORTH AND SOUTH TOLL ISLANDS
A-24	RAMP "B" UNATTENDED TOLL ISLAND
A-25	"E" & "F" SITE PLANS
A-26	RAMP "E" PLAN-ELEVATIONS & SECTIONS
A-27	RAMP "E" ATTENDED TOLL BOOTH ISLAND AND TOILET AND STAIR DETAILS
A-28	RAMP "E" UNATTENDED TOLL ISLAND SECTIONS & DETAILS
A-29	RAMP "E" NORTH AND SOUTH TOLL ISLANDS
A-30	RAMP "F" PLAN-ELEVATIONS & SECTIONS
A-31	RAMP "F" ATTENDED TOLL BOOTH ISLAND AND TOILET AND STAIR DETAILS
A-32	RAMP "F" UNATTENDED TOLL ISLAND
A-33	RAMPS "A", "B", "E", & "F" SIGN DETAILS
A-34	TOLL BOOTH DETAILS FOR RAMPS A, B, E, & F
	STRUCTURAL
	MAINLINE TOLL PLAZA
S-1	CANOPY FRAMING & FOUNDATION PLAN
S-2	CANOPY SECTIONS & DETAILS
S-3	TUNNEL & DETAILS
S-4	STAIRWAY TO TOILET AND TUNNEL DETAILS AT LANES #2 AND #13
S-4A	UNDERDRAIN DETAILS
	RAMP TOLL PLAZAS
S-5	"A" STRUCTURAL DETAILS
S-6	"B" STRUCTURAL DETAILS
S-7	"E" STRUCTURAL DETAILS
S-8	"F" STRUCTURAL DETAILS

(INDEX CONTINUED)

MECHANICAL

M-1	MAINLINE TOLL PLAZA-PLUMBING SITE PLAN
M-2	MAINLINE TOLL PLAZA-OPERATIONS BUILDING-PLUMBING PLANS AND DETAILS
M-2 a	MAINLINE TOLL PLAZA-OPERATIONS BUILDING-PLUMBING DIAGRAMS AND DETAILS
M-3	TOLL PLAZA "A" - PLUMBING SITE PLAN
M-4	TOLL PLAZA "B" - PLUMBING SITE PLAN
M-5	TOLL PLAZAS "E" & "F" - PLUMBING SITE PLAN
M-6	TOLL ISLAND-TOILET-TYPICAL PLUMBING DETAILS
M-7	TOLL PLAZAS-TYPICAL PLUMBING DETAILS
M-8	MAINLINE TOLL PLAZA-OPERATIONS BUILDING-AIR CONDITIONING PLANS AND DETAILS
M-9	MAINLINE TOLL PLAZA-OPERATIONS BUILDING-AIR CONDITIONING SCHEDULES AND DETAILS
M-10	MAINLINE TOLL PLAZA-OPERATIONS BUILDING-REFLECTED CEILING PLANS
M-11	TOLL COLLECTION BOOTH-AIR CONDITIONING DETAILS





SUMMARY OF QUANTITIES			
ITEM NO.	ITEM	UNIT	QUANTITY
735-74	TOLL PLAZA	LUMP SUM	1

INDEX OF DRAWINGS (CONTINUED)

SHEET NO.	TITLE
	ELECTRICAL
	MAINLINE TOLL PLAZA
E-1	ELECTRICAL SITE PLAN, DETAILS, LEGEND, AND LIGHTING FIXTURE SCHEDULE
E-2	UNDERGROUND RACEWAY PLAN AND DETAILS
E-3	CANOPY LIGHTING PLAN AND DETAILS
E-4	OPERATIONS'S BUILDING LIGHTING, POWER, AND DETAILS
E-5	TUNNEL LIGHTING PLAN, DETAILS, AND TYPICAL TOLL BOOTH AND STAIRWAY TOILET
E-6	POWER DISTRIBUTION AND CONTROL DIAGRAMS, PANEL SCHEDULES AND MISCELLANEOUS DETAILS
E-7 & E-8	ELECTRICAL PANEL SCHEDULES
	RAMP TOLL PLAZAS
E-9 & E-10	TOLL PLAZA "A" & TOLL PLAZA "B" - ELECTRICAL SITE PLAN, UNDERGROUND RACEWAY PLAN, PANEL SCHEDULES, POWER DISTRIBUTION AND CONTROL DIAGRAMS, AND DETAILS.
E-11	TOLL PLAZAS "E" & "F"- ELECTRICAL SITE PLAN, DETAILS, AND PANEL SCHEDULES.
E-12	TOLL PLAZAS "E" & "F"- ELECTRICAL UNDERGROUND RACEWAY PLAN, DETAILS, AND POWER DISTRIBUTION AND CONTROL DIAGRAMS.
E-13	TOLL PLAZAS "A", "B", "E" & "F"-TYPICAL CANOPY LIGHTING PLANS AND DETAILS.
E-14	TOLL PLAZAS "A", "B", "E" & "F"-TYPICAL SERVICE BUILDING PLANS AND TYPICAL TOLL BOOTH DETAILS.

FLORIDA D.O.T. INDEX DRAWINGS

5071J	SHEETS 1, 2, 3 OF 3
5072G	SHEET 1 OF 2
2300S	SHEET 4 OF 5

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED INFORMATION.

GENERAL SPECIFICATION

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION - 1973 OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

PREPARED BY THE CONTRACTOR (STANDARD CONSTRUCTION OF FLORIDA NOV 15 1975)

AS BUILT

APPROVAL RECOMMENDED JUNE 25, 1974

BY _____

J.E. GREINER CO. INC. - WATSON & COMPANY
CONSULTING ENGINEERS

APPROVED JUNE 26, 1974

BY _____
CHAIRMAN

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 7

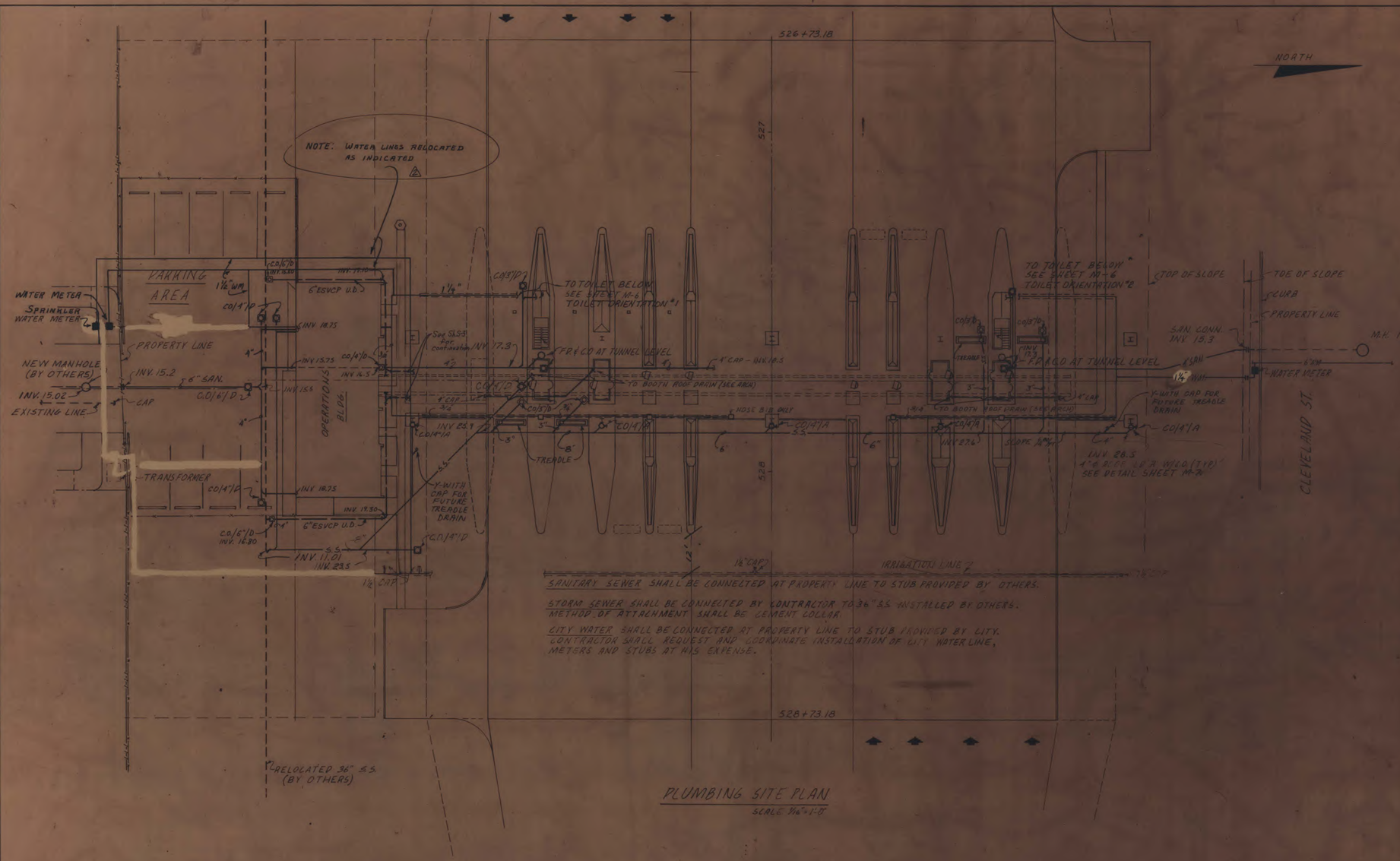
MAINLINE AND RAMPS "A", "B", "E", & "F"
TOLL PLAZA CONSTRUCTION

J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS
TAMPA FLORIDA

SUBMITTED _____ DATE JUNE 24, 1974

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3507		M-1
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 6/74



SANITARY SEWER SHALL BE CONNECTED AT PROPERTY LINE TO STUB PROVIDED BY OTHERS.

STORM SEWER SHALL BE CONNECTED BY CONTRACTOR TO 36" S.S. INSTALLED BY OTHERS. METHOD OF ATTACHMENT SHALL BE CEMENT COLLAR.

CITY WATER SHALL BE CONNECTED AT PROPERTY LINE TO STUB PROVIDED BY CITY. CONTRACTOR SHALL REQUEST AND COORDINATE INSTALLATION OF CITY WATER LINE, METERS AND STUBS AT HIS EXPENSE.

PLUMBING SITE PLAN

SCALE 1/16"=1'-0"

MECHANICAL LEGEND

PLUMBING

- Floor Drain
- Clean Out At Grade
- Clean Out On Vertical Pipe
- -SAN- Sanitary Sewer Pipe
- -S.S.- Storm Sewer Pipe
- -WM- Water Main
- City Water Hydrant
- Valve
- Enclosed Pipe
- V Valve
- C.O. Clean Out
- F.D. Floor Drain

IDENTIFICATION OF PLUMBING DEVICES

ITEM, SIZE, TYPE*

EXAMPLE V, 3/4", A*

* DESCRIBED IN SPECIFICATION

PREPARED BY THE CONTRACTOR (STANDARD CONSTRUCTION OF FLA.)

AS BUILT

NO.	REVISION	BY	DATE
2	REVISED AS BUILT	SCCF	1-76
1	General Revision No. 1 - Added Underdrain and Revised Treadle Location	JEGW	7/74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

MAINLINE TOLL PLAZA

PLUMBING SITE PLAN

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE LDV DATE 8/73 | TRACED LDV DATE 8/73
CHECKED LDV DATE 6/74 | SCALE AS SHOWN

CONTRACT NO. 7 SHEET NO. M-1 OF 11

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3507		M-3
By: JEG		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 6/74

UTILITIES

WATER: CONTRACTOR SHALL REQUEST FOR INSTALLATION OF WATER METER AND STUB TO PROPERTY LINE BY CITY OF TAMPA AT CONTRACTOR'S EXPENSE.

SANITARY SEWER: CONTRACTOR SHALL EXTEND INTO EXISTING MANHOLE.

STORM SEWER: CONTRACTOR SHALL EXTEND AND CONNECT TO S.S. WITH CONC. COLLAR.

MECHANICAL LEGEND

PLUMBING

- Floor Drain
- Clean Out At Grade
- Clean Out On Vertical Pipe
- -SAN- Sanitary Sewer Pipe
- -S.S.- Storm Sewer Pipe
- -WM- Water Main
- City Water Hydrant
- Valve
- Enclased Pipe
- V Valve
- C.O. Clean Out
- F.D. Floor Drain



PLAZA "A" — PLUMBING SITE PLAN

SCALE 1/8" = 1'-0"

IDENTIFICATION OF PLUMBING DEVICES

ITEM, SIZE, TYPE*

EXAMPLE V, 3/4", A*

* DESCRIBED IN SPECIFICATION

PREPARED BY THE CONTRACTOR (STANDARD CONSTRUCTION OF FLA.)

AS BUILT

NO.	REVISION	BY	DATE
1	REVISED AS BUILT	S.C.C.F.	1-76

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TOLL PLAZA "A"

PLUMBING SITE PLAN

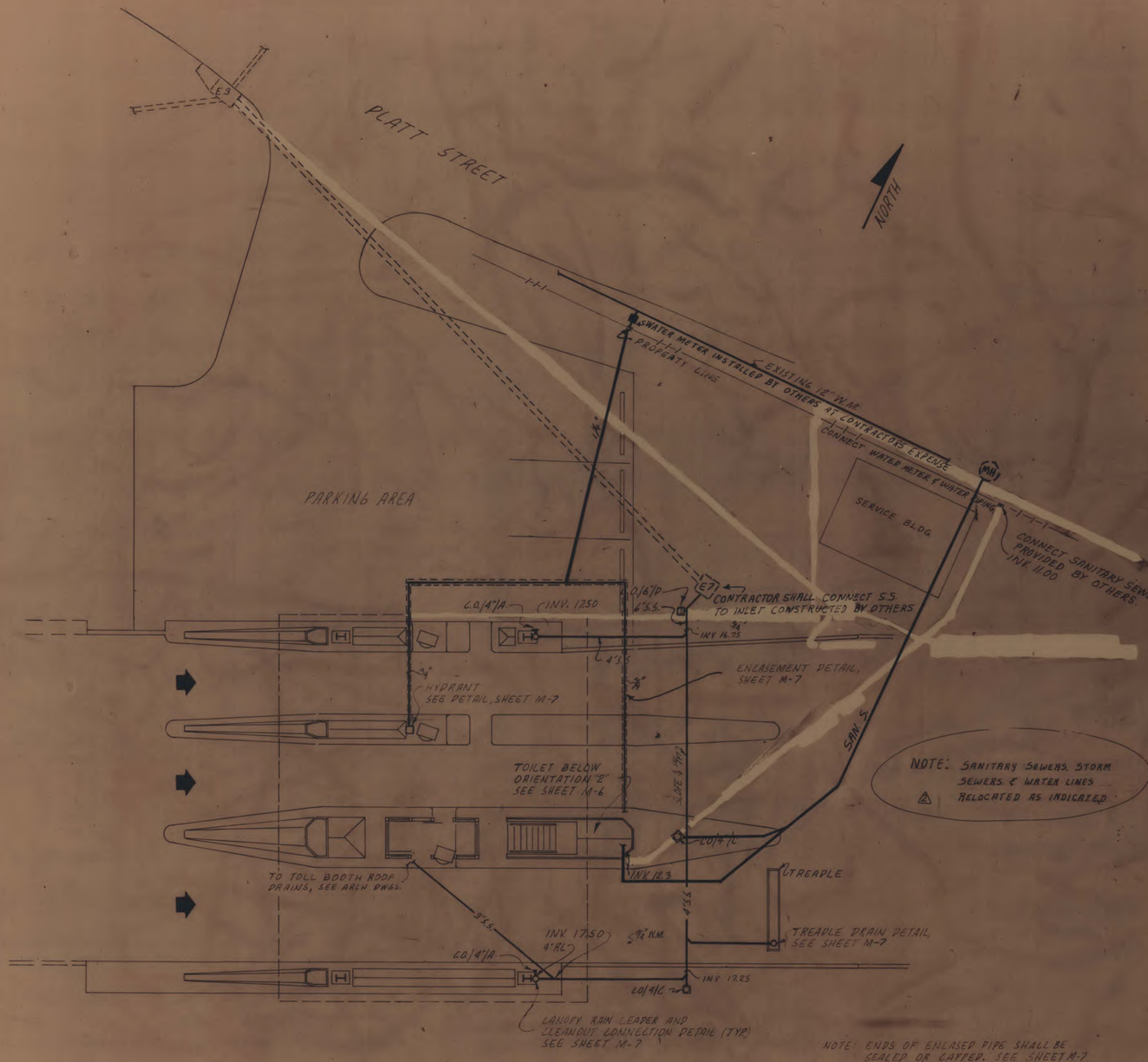
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE LDV	DATE 9/73	TRACED LDV	DATE 9/73
CHECKED LDV	DATE 6/74	SCALE AS SHOWN	

CONTRACT NO. 7 SHEET NO. M-3 OF 11

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3507		M-4
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 6/74



NOTE: SANITARY SEWERS, STORM SEWERS & WATER LINES ⚠ RELOCATED AS INDICATED

NOTE: ENDS OF ENCASED PIPE SHALL BE SEALED OR CAPPED. SEE SHEET M-7

PLAZA "B" — PLUMBING SITE PLAN

SCALE 1/8" = 1'-0"

MECHANICAL LEGEND

PLUMBING

- Floor Drain
- Clean Out At Grade
- Clean Out On Vertical Pipe
- -SAN- Sanitary Sewer Pipe
- -S.S.- Storm Sewer Pipe
- -WM- Water Main
- City Water Hydrant
- Valve
- Encased Pipe
- V Valve
- C.O. Clean Out
- F.D. Floor Drain

IDENTIFICATION OF PLUMBING DEVICES

ITEM, SIZE, TYPE*

EXAMPLE V, 3/4", A*

* DESCRIBED IN SPECIFICATION

PREPARED BY THE CONTRACTOR (STANDARD CONSTRUCTION OF FLA.)

AS BUILT

NO.	REVISION	BY	DATE
⚠	REVISED AS BUILT	G.C.C.F	1-76
⚠	General Revision No. 1 - Revised bldg. and san. line locations	DBH	7/74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TOLL PLAZA "B"

PLUMBING SITE PLAN

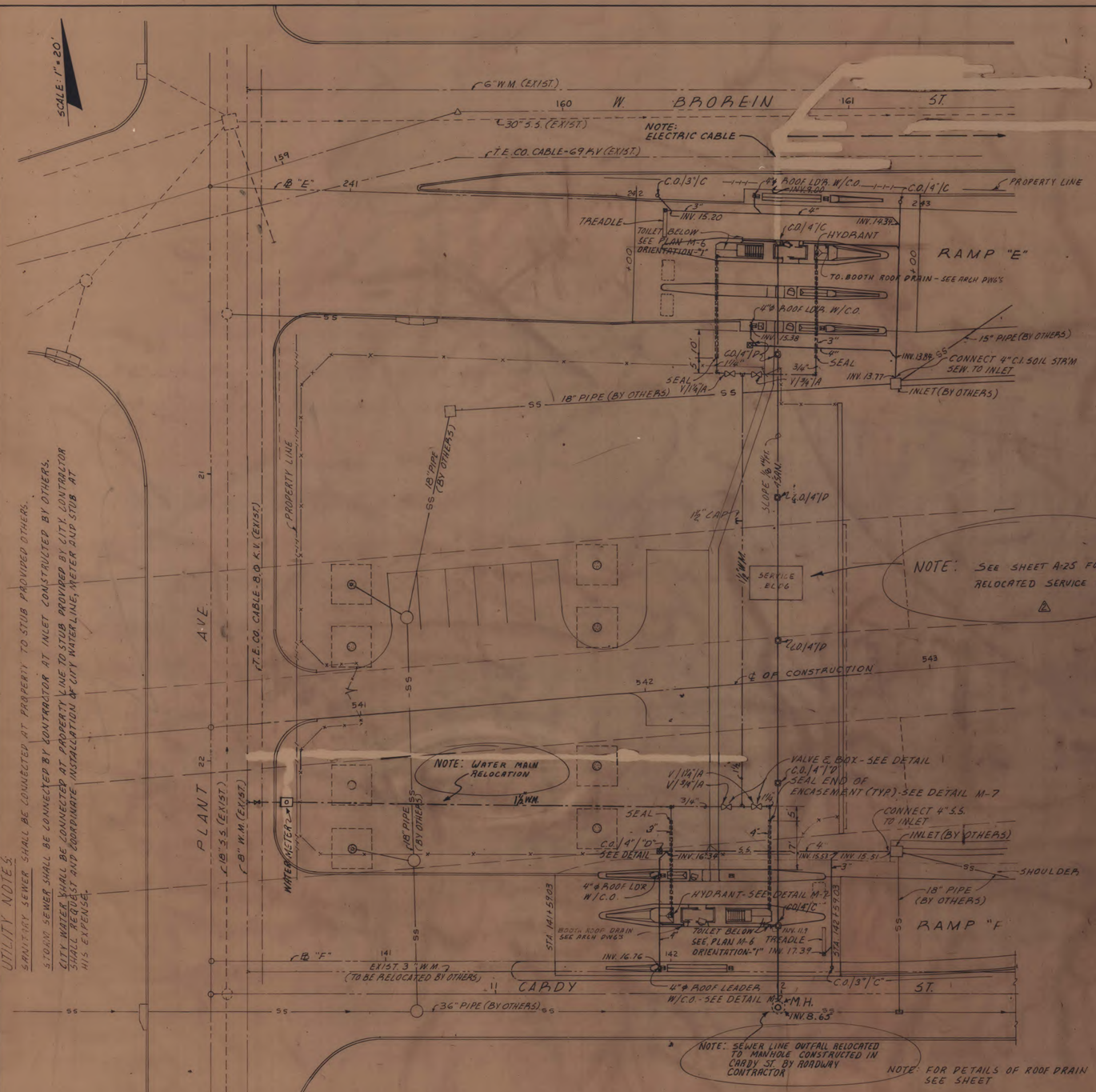
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE LDV DATE 9/73 | TRACED LDV DATE 9/73
CHECKED LDV DATE 6/74 | SCALE AS SHOWN

CONTRACT NO. 7 SHEET NO. M-4 OF 11

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3507		M-5
By: JEG		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 6/74



PLAN OF TOLL PLAZAS - RAMPS "E" & "F"

SCALE: 1" = 20'-0"

UTILITY NOTES:

SANITARY SEWER SHALL BE CONNECTED AT PROPERTY TO STUB PROVIDED OTHERS.

STORM SEWER SHALL BE CONNECTED BY CONTRACTOR AT INLET CONSTRUCTED BY OTHERS.

CITY WATER SHALL BE CONNECTED AT PROPERTY LINE TO STUB PROVIDED BY CITY, CONTRACTOR SHALL REQUEST 2ND BOOKMINDER INSTALLATION & CITY WATER LINE, METER AND STUB AT HIS EXPENSE.

MECHANICAL LEGEND

PLUMBING

- Floor Drain
- Clean Out At Grade
- Clean Out On Vertical Pipe
- -SAN- Sanitary Sewer Pipe
- -S.S.- Storm Sewer Pipe
- -WM- Water Main
- City Water Hydrant
- Valve
- Enclased Pipe
- V Valve
- C.O. Clean Out
- F.D. Floor Drain

IDENTIFICATION OF PLUMBING DEVICES

ITEM, SIZE, TYPE*

EXAMPLE - V, 3/4", A*

* DESCRIBED IN SPECIFICATION

PREPARED BY THE CONTRACTOR (STANDARD CONSTRUCTION OF FLA.)

AS BUILT

NO.	REVISION	BY	DATE
2	REVISED AS BUILT	SCC.F.	1-76

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TOLL PLAZAS "E" & "F"

PLUMBING SITE PLAN

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE LDV	DATE 10/73	TRACED SFJ	DATE 6/73
CHECKED LDV	DATE 6/74	SCALE AS SHOWN	

CONTRACT NO. 7 SHEET NO. M-5 OF 11

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8A&8B		1
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-74

THIS CONTRACT PLAN SET INCLUDES:

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
WATER LINE RELOCATION PLANS
SANITARY SEWER RELOCATION PLANS.
RIGHT-OF-WAY MAPS

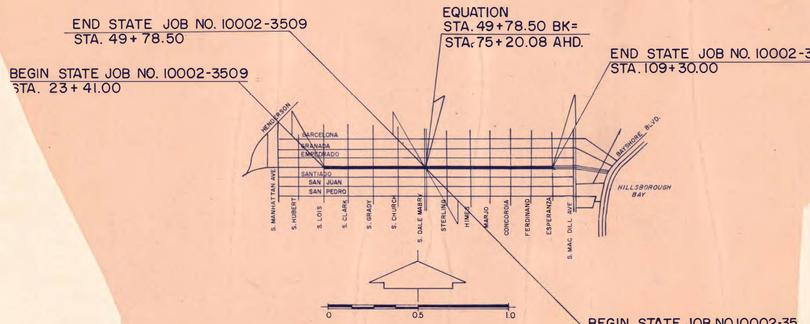
TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NO. 10002-3508-032
STATE JOB NO. 10002-3509-032



TAMPA POP. 277,767 (1970)

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED INFORMATION.

CONTRACT NO. 8B
LOIS AVE. TO DALE MABRY

CONTRACT NO. 8A
DALE MABRY TO ESPERANZA

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY
Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority
P.O. BOX 23646
TAMPA, FLORIDA 33622
813/879-1711

CONTRACT NUMBERS 8A & 8B - State Job Nos. 10002-3508 & 10002-3509

Description	Drawing Number Sheet No.
Cover Sheet - Contract 8B(Lois to Dale Mabry)	1
Cover Sheet - Contract 8A(Dale Mabry to Esperanza)	
Drainage Map	2, 3 and 4
Typical Section	5
Plan and Profile	7,8,9,10,12 thru 21
Cover Sheet Water Line Relocation	W-1
Summary of Water Line Quantities	W-2
Standard Details	W-3 and 4
Plan and Profile	W5 through W15
Cover Sheet Sanitary Sewer Relocations	SS-1
Summary of Quantities	SS-2
Plan and Profile	SS-3
Miscellaneous Details	SS-4 and 5
Sewage Disposal System (Bay to Bay and Grady to Lois)	
Sewer Improvements (Bay to Bay - Dale Mabry to West of Himes)	
Key Map - State Job No. 10002-2509)	RW/1
Right-of- (State Job No. 10002-2509)(Bay to Bay)	RW-2 and RW-3
Right-of-way (State Job No. 10002-2508)	R-3 through R-6

TOTAL No. MYLAR SHEETS 27.

AS BUILT

NOV 11 1975

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8A & 8B		1
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 3-74

THIS CONTRACT PLAN SET INCLUDES:

ROADWAY PLANS
SIGNING AND PAVEMENT MARKING PLANS
SIGNALIZATION PLANS
WATER LINE RELOCATION PLANS
SANITARY SEWER RELOCATION PLANS
RIGHT-OF-WAY MAPS

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

—PLANS OF PROPOSED—

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

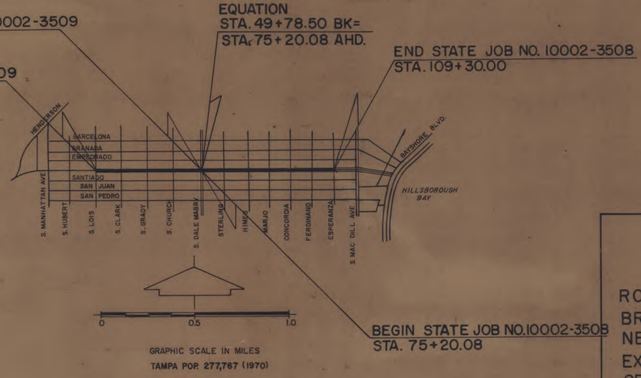
STATE JOB NO. 10002-3508-032
STATE JOB NO. 10002-3509-032

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
1	KEY MAP
2 - 4	DRAINAGE MAPS
5	TYPICAL SECTIONS
6	SUMMARY OF QUANTITIES
7 - 17	PLAN AND PROFILES (BAY TO BAY)
18 - 21	PLAN AND PROFILES (CROSS STREETS)
22 - 29	DRAINAGE STRUCTURES
30	SPECIAL PROFILES
31 - 47	CROSS SECTIONS (BAY TO BAY)
48 - 59	CROSS SECTIONS (CROSS STREETS)

STANDARD DRAWINGS

INDEX NO.	STANDARD DRAWING
194	STANDARD ABBREVIATIONS (2 SHEETS)
195	STANDARD SYMBOLS FOR KEY MAPS AND PLAN SHEETS (3 SHEETS)
1101-W	MISCELLANEOUS ROADWAY CONSTRUCTION DETAILS (2 SHEETS)
1331-C	SUPPLEMENTARY DETAILS FOR INLET BOXES
5016-B	TURNOUT DETAILS
5046-D	STANDARD DITCH BOTTOM INLET TYPES C, D, E & H AND SUPPLEMENTAL DETAILS
5047-G	INLET, MANHOLE, AND JUNCTION BOX TYPES P AND H (2 SHEETS)
5061-E	MISCELLANEOUS DRAINAGE DETAILS (2 SHEETS)
5071-J	CONCRETE PAVEMENT JOINTS (3 SHEETS)
5080-G	CURB, CURB AND GUTTER AND TRAFFIC SEPARATOR (2 SHEETS)





ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED INFORMATION.

LENGTH OF JOBS

	STATE JOB NO. 10002-3508		STATE JOB NO. 10002-3509		TOTAL	
	LIN. FT.	MILES	LIN. FT.	MILES	LIN. FT.	MILES
ROADWAY	3,409.92	0.646	2,637.50	0.499	6,047.42	1.145
BRIDGES	-0-	-0-	-0-	-0-	-0-	-0-
NET LENGTH	3,409.92	0.646	2,637.50	0.499	6,047.42	1.145
EXCEPTIONS	-0-	-0-	-0-	-0-	-0-	-0-
GROSS LENGTH	3,409.92	0.646	2,637.50	0.499	6,047.42	1.145

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 1973, OR AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.

AS BUILT

APPROVAL RECOMMENDED JUNE 28, 1974
BY James E. Sawyer
J.E. GREINER CO., INC. - WATSON AND COMPANY

APPROVED JUNE 26, 1974
BY B. D. Lee
CHAIRMAN
TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

CONTRACT NO. 8B
LOIS AVE. TO DALE MABRY
CONTRACT NO. 8A
DALE MABRY TO ESPERANZA

SUBMITTED James E. Sawyer
J. E. GREINER COMPANY, INC. DATE JUNE 28, 1974

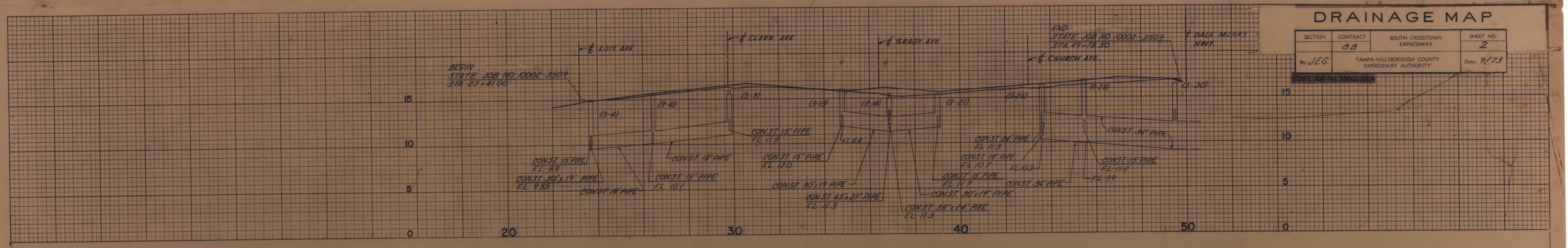
SUBMITTED Robert D. Crane
WATSON AND COMPANY DATE JUNE 28, 1974

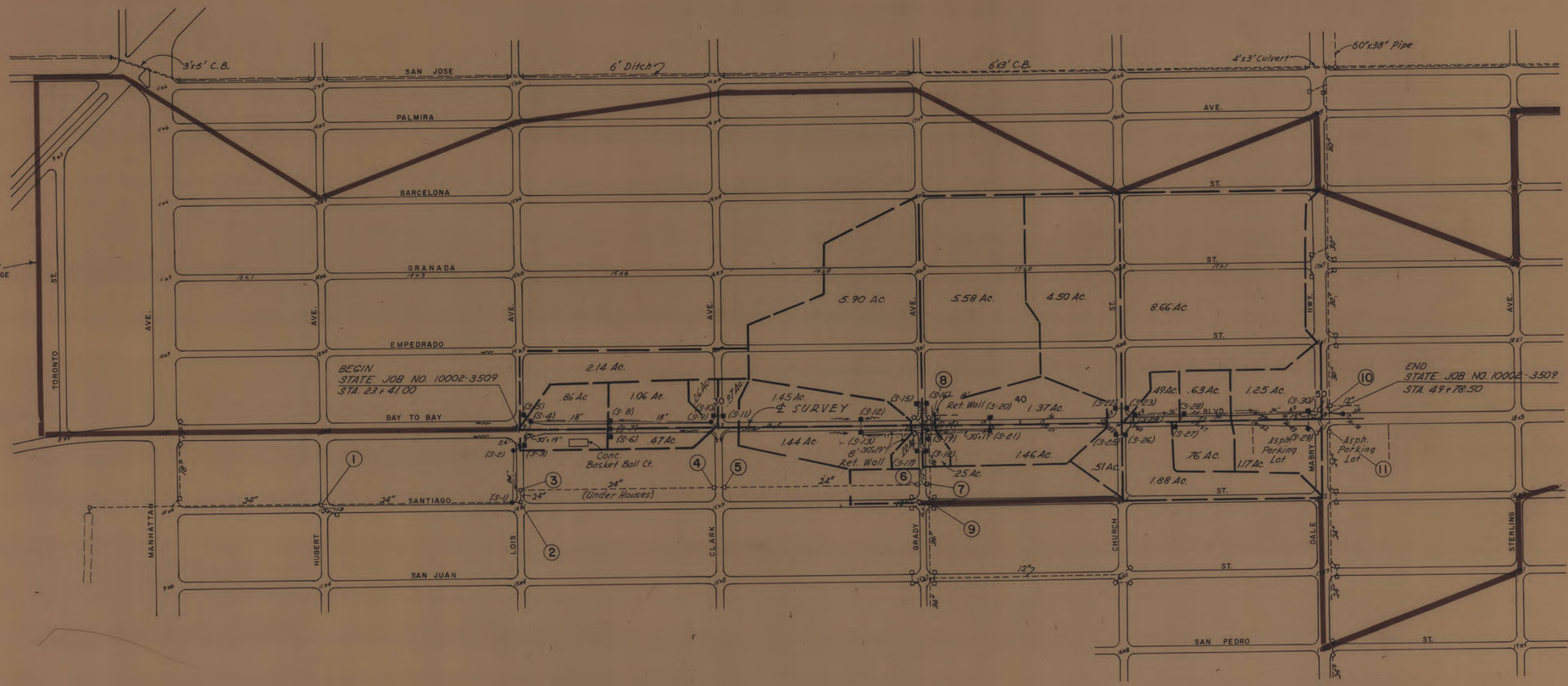
84/1

DRAINAGE MAP

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		2
By: JEG.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 9/73

STATE JOB NO. 10002-3509





SCALE: 1"=200'

LEGEND

- 24" ——— = EXISTING DRAINAGE
- 24" ——— = PROPOSED DRAINAGE
- ——— = DRAINAGE DIVIDES

EXISTING DRAINAGE STRUCTURES

(1) MANHOLE - TOP EL. 11.20
24" R.C.P. W. F.L. 7.73
24" R.C.P. E. F.L. 8.26

(2) MANHOLE - TOP EL. 13.40
24" R.C.P. W. F.L. 9.04
24" R.C.P. N. F.L. 8.77

(3) MANHOLE - TOP EL. 13.62
24" PIPE E.
24" PIPE S.
F.L. EL. 10.18

(4) DROP INLET - TOP EL. 15.37
24" R.C.P. W. F.L. 11.66
24" C.M.P. E. F.L. 11.66

(5) DROP INLET TOP EL. 15.36
24" C.M.P. W. F.L. 11.75
24" R.C.P. E. F.L. 11.79

(6) DROP INLET TOP EL. 14.61
24" R.C.P. W. F.L. 12.25
12" V.C.P. E. F.L. 12.37

(7) DROP INLET TOP EL. 14.68
12" V.C.P. W. F.L. 12.38
12" V.C.P. E. F.L. 12.37
12" V.C.P. E. CONN. TO
36" R.C.P. N. & S.

(8) CURB INLET GUT. EL. 13.97
36" R.C.P. S. F.L. 11.31

(9) MANHOLE TOP EL. 16.06
36" R.C.P. N. F.L. 10.96
36" R.C.P. S. F.L. 10.95

(10) CURB INLET GUT. EL. 16.20
30" R.C.P. N. F.L. 12.63
24" R.C.P. S. F.L. 13.01

(11) CURB INLET GUT. EL. 16.39
24" R.C.P. N. & S. F.L. 13.85

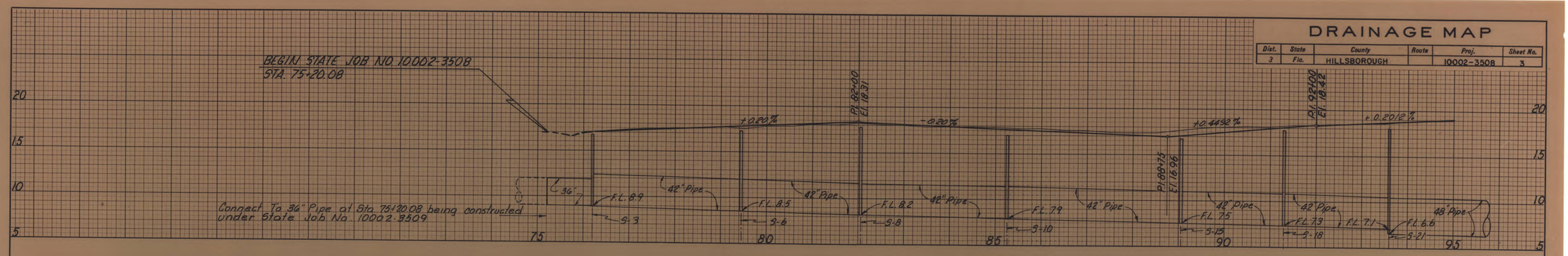
AS BUILT

Contract Nos. 8A & 8B

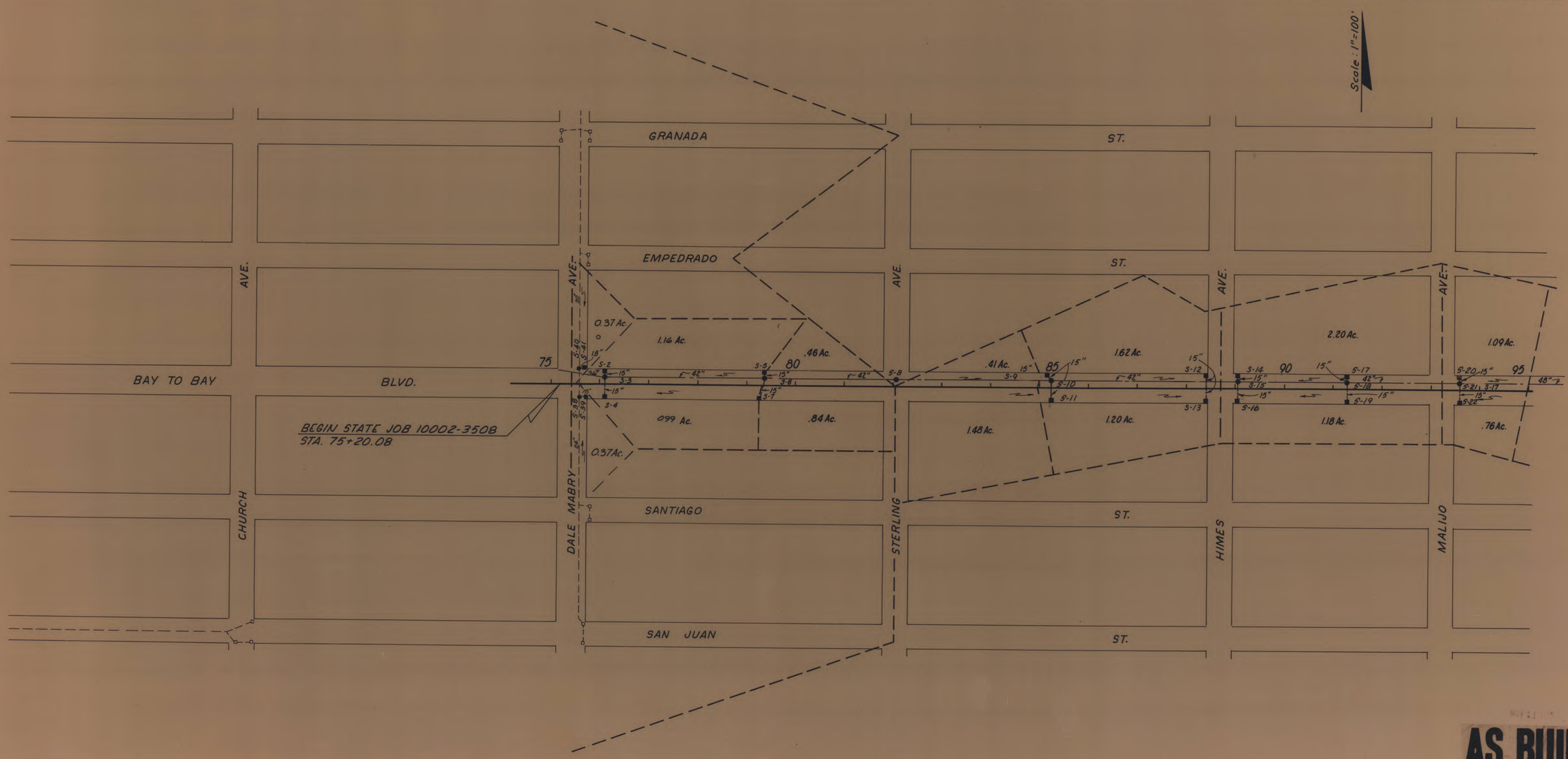
84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3508	3



Scale: 1"=100'



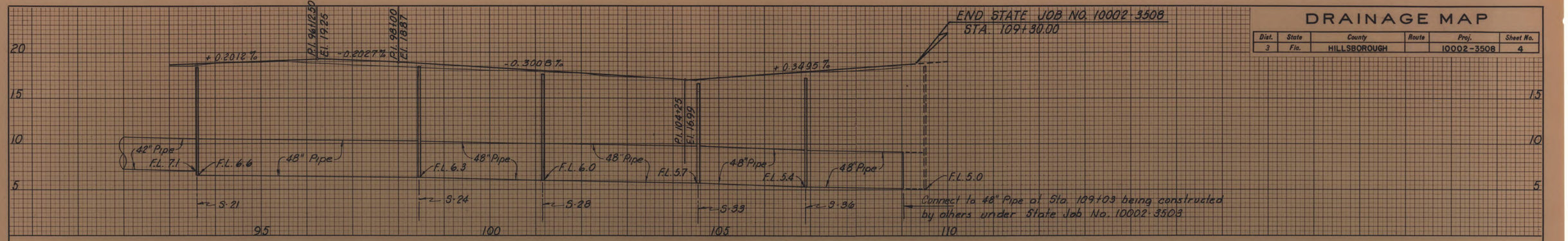
AS BUILT

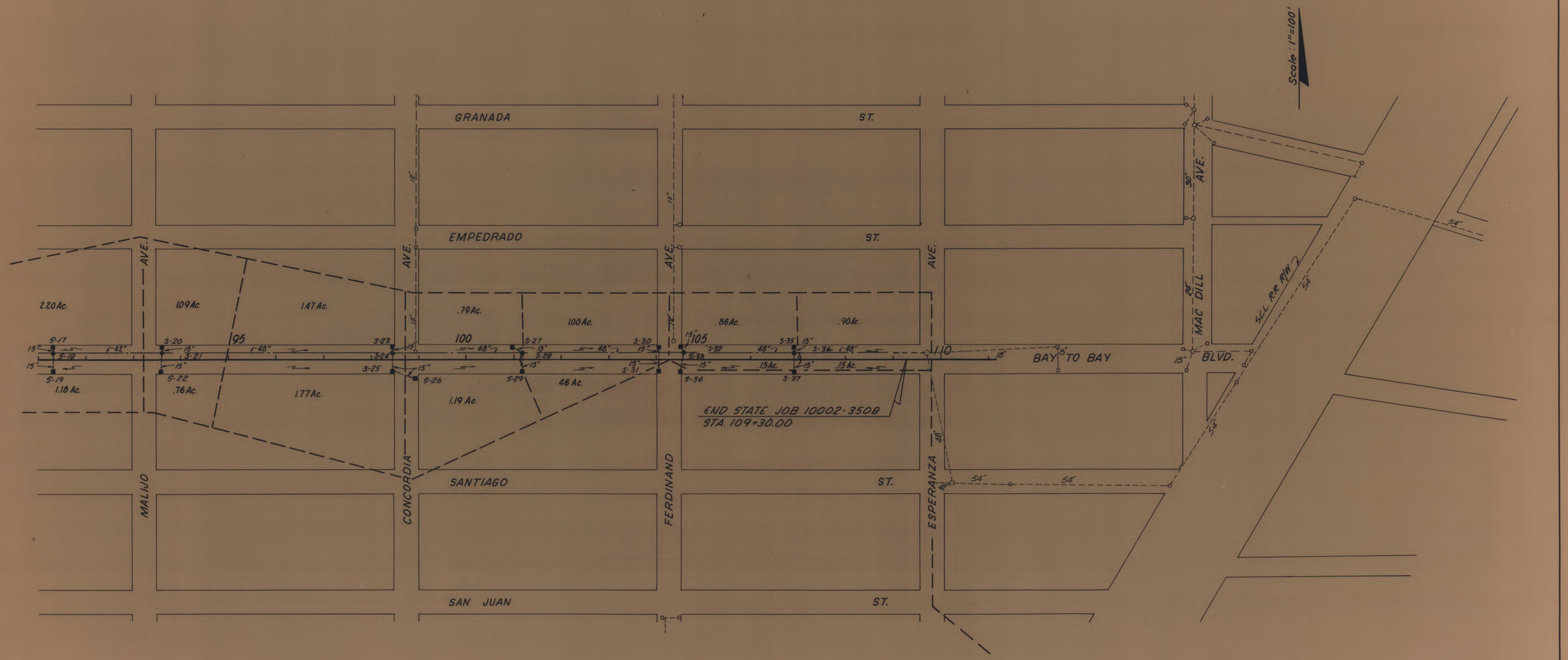
Contract Nos. 8A & 8B

84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3508	4





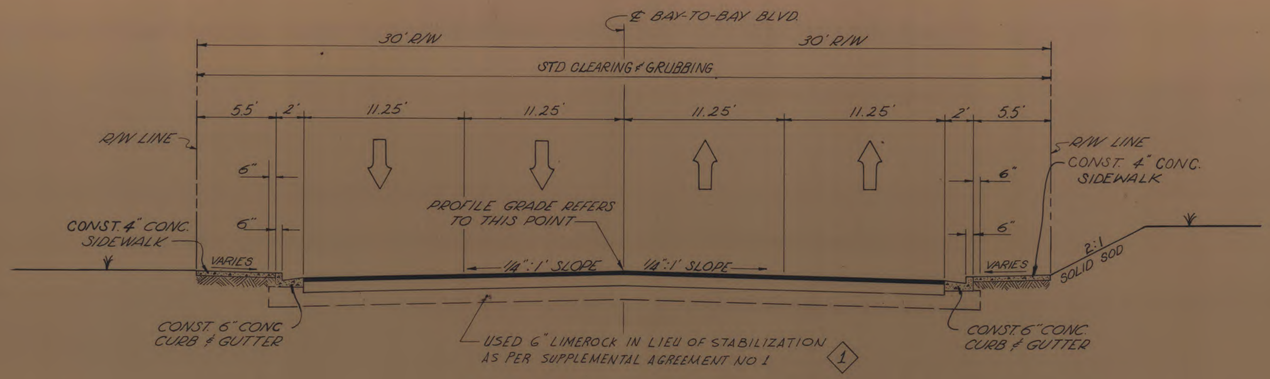
AS BUILT

Contract Nos. 8A & 8B

84
1

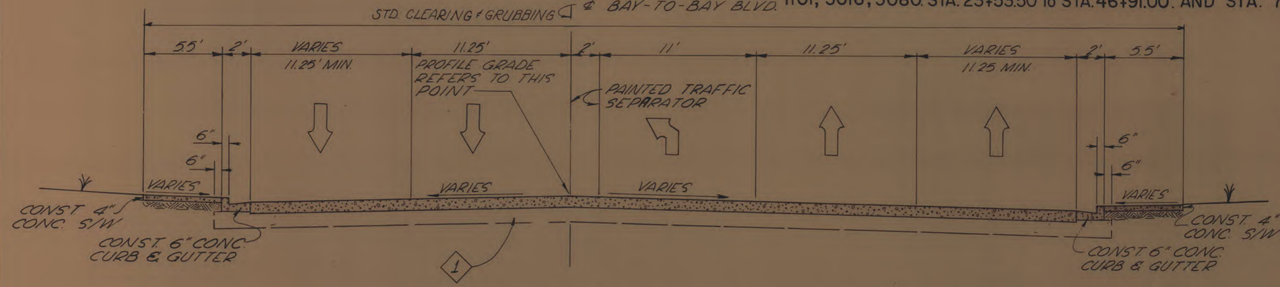
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		5
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

STATE JOB No. 10002-3509



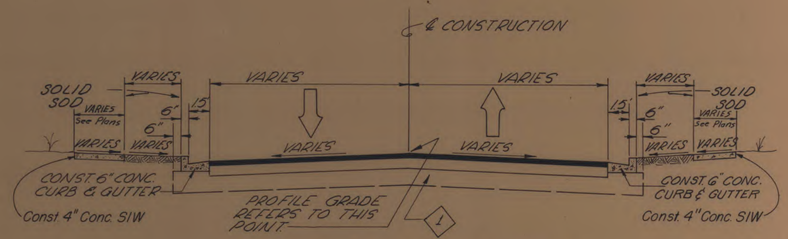
TYPICAL SECTION No. 1
BAY-TO-BAY BLVD.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1,2 OR 3) FOR ADDITIONAL DETAILS SEE INDEX NO'S 1101, 5016, 5080. STA. 23+53.50 to STA. 46+91.00. AND STA. 79+20.00 TO STA. 109+30.00



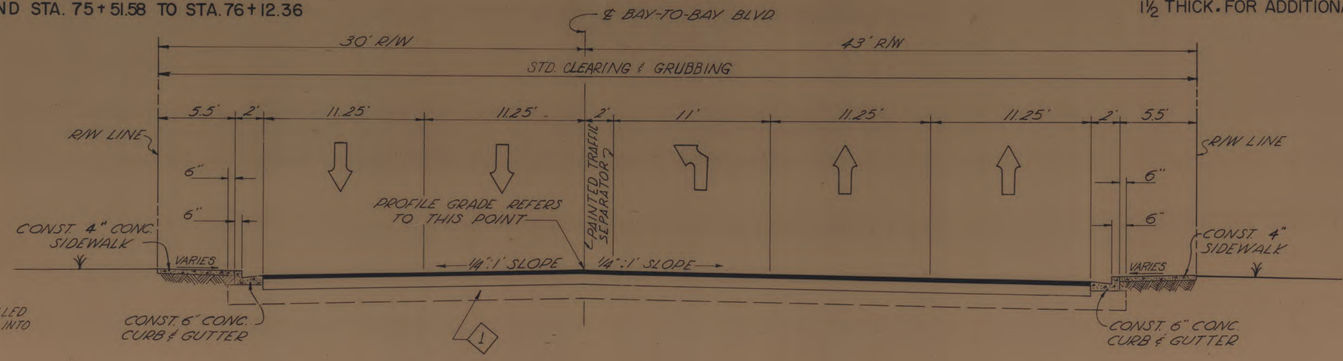
TYPICAL SECTION No. 2
BAY-TO-BAY BLVD.

CEMENT CONCRETE PAVEMENT, PLAIN (9" THICK) FOR ADDITIONAL DETAILS, SEE INDEX No's 1101, 5016, 5071, & 5080. STA. 49+43.21 to STA. 49+78.50. AND STA. 75+51.58 TO STA. 76+12.36



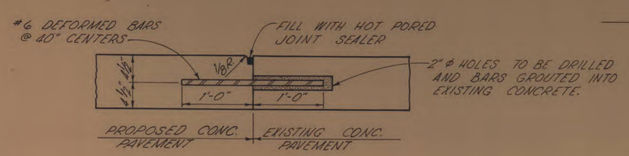
TYPICAL SECTION No. 3
GRADY, CLARK, AND CHURCH

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE) EACH LAYER 1½ THICK. FOR ADDITIONAL DETAILS, SEE INDEX NOs. 1101, 5016, 5080.



AS BUILT NOTES:

1. REVISED SUBBASE AS PER SUPPLEMENTAL AGREEMENT NO. 1.



DETAIL OF DOWELLED LONGITUDINAL JOINT WITH EXISTING PAV'T

TYPICAL SECTION No. 4
BAY-TO-BAY BLVD.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED, WITH TYPE S-I ASPHALTIC CONCRETE (2" THICK) BOTTOM LAYER AND ASPHALTIC CONCRETE WEARING COURSE (1" THICK) TOP LAYER (ALTERNATES 1,2 OR 3) FOR ADDITIONAL DETAILS SEE INDEX NO'S 1101, 5016, 5080. STA. 46+91.00 to 49+43.21. AND STA. 76+12.36 TO STA. 79+20.00

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.K.C. DATE 9/73 | TRACED ____ DATE ____
CHECKED M.J.B. DATE 9/73 | SCALE ____

AS BUILT

Contract Nos. 8A & 8B

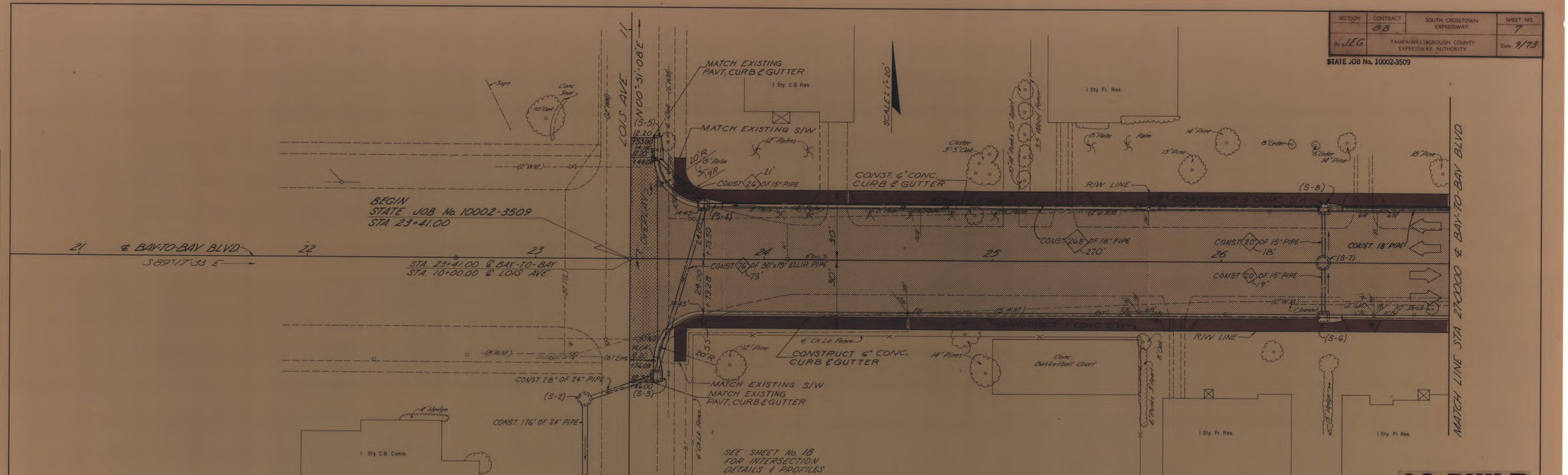
84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		7
By: JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

STATE JOB No. 10002-3509

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY, DATE, NOTE BOOK, NO.

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY, DATE, NOTE BOOK, NO.



AS BUILT

B.M.-17 Sq. cut in S/W in front of Lorains #4240 Elev. 13.459

B.M.-16 Sq. cut in curb, S/W cor. of Lois Elev. 14.296

B.M.-15 Sq. cut in S curb, near ℄ end of playground Elev. 14.902

AS BUILT NOTE:

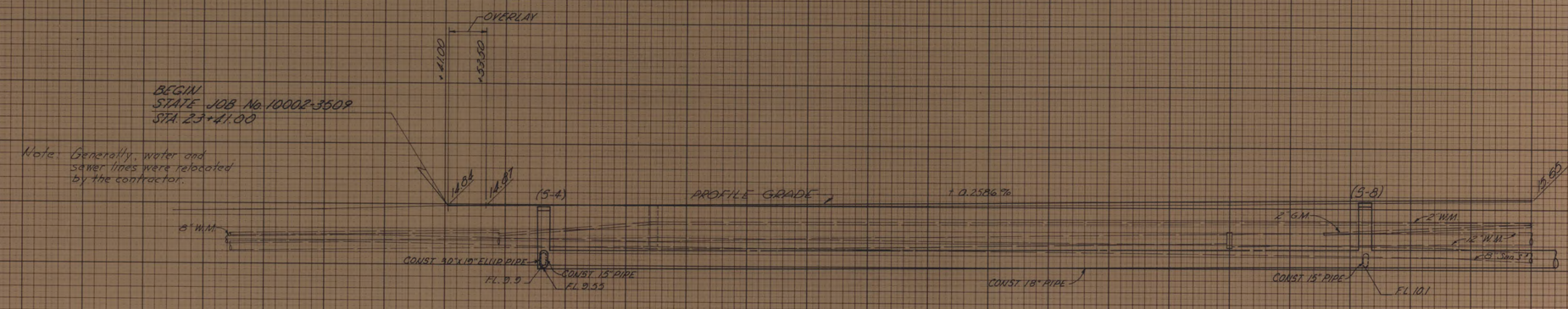
1. REVISED TO AS BUILT LENGTH OF PIPES
2. ADDED DRIVEWAYS.

GENERAL NOTES

1. B.M. DATUM U.S.C. & G.S.
2. ALL EXISTING DRAINAGE STRUCTURES WITHIN R/W LINES ARE TO BE REMOVED UNLESS OTHERWISE NOTED.
3. UTILITIES ARE TO BE ADJUSTED BY OTHERS, AS DIRECTED BY THE ENGINEER.
4. ALL UTILITIES SHOWN ON THE PLANS ARE TAKEN FROM INFORMATION SUPPLIED BY THE UTILITY OWNERS. THESE ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY AND THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFICATION OF THE EXACT LOCATION OF ALL UTILITIES.

UTILITY OWNERS

1. TAMPA ELECTRIC CO.
2. PEOPLES GAS CO.
3. GENERAL TELEPHONE CO.
4. CITY OF TAMPA WATER DEPT.
5. CITY OF TAMPA FIRE DEPT.



SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		8
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 8/73

STATE JOB No. 10002-3509

SCALE: 1" = 20'

MATCH LINE STA. 27+00.00 ℄ BAY-TO-BAY BLVD

MATCH LINE STA. 33+00.00 ℄ BAY-TO-BAY BLVD

℄ BAY-TO-BAY BLVD
S 89°17'33" E

CLARK AVE. ℄
N 00°43'38" E

STA. 29+97.28 ℄ BAY-TO-BAY
STA. 10+00.00 ℄ CLARK AVE.

MATCH EXISTING PAVT, CURB & GUTTER

CONST. 6" CONC. CURB & GUTTER

CONST. 332' OF 18" PIPE

CONST. 20' OF 15" PIPE

MATCH EXISTING S/W

CONST. 4" CONC. S/W

R/W LINE

1 Sty. C.B. Res.
1 Sty. Brick Res.
1 Sty. Fr. Res.
2 Sty. C.B. Res.

MATCH EXISTING PAVT, CURB & GUTTER

SEE SHEET No. 18 FOR INTERSECTION DETAILS & PROFILES

AS BUILT

BM - 14 Sq. cut in curb, S.W. cor Clark
Elev. 16.159

PVI STA 30+69.00
ELEV. 16.70 MSL

+0.2586 %

PROFILE GRADE ℄ (5-9)

-0.2156 %

CONST. 18" PIPE

F.L. 11.5

F.L. 11.0

AS BUILT NOTE:

1. REVISED TO AS BUILT, LENGTH OF PIPES
2. ADDED DRIVEWAYS.

Contract Nos. 8A & 8B

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		9
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

STATE JOB No. 10002-3509

SCALE: 1" = 20'

MATCH LINE STA 33+00.00 ℄ BAY-TO-BAY BLVD

MATCH LINE STA 39+00.00 ℄ BAY-TO-BAY BLVD

℄ BAY-TO-BAY BLVD S89°17'33"E

GRADY AVE. N0°-56'-18"E

MATCH EXISTING PAVT, CURB & GUTTER

MATCH EXISTING S/W

MATCH EXISTING S/W

CONST. 6" CONC. CURB & GUTTER

CONST. 6" CONC. CURB & GUTTER

CONST. 20' OF 30"x19" ELLIP. PIPE

CONST. 86' OF 38"x24" ELLIP. PIPE

CONST. 44' OF 15" PIPE

CONST. 43' OF 15" PIPE

CONST. 216' OF 30"x19" ELLIP. PIPE

CONST. 208' OF 30"x19" ELLIP. PIPE

CONST. 60' OF 45"x29" ELLIP. PIPE

CONST. 3' OF 15" PIPE

CONST. 2' OF 15" PIPE

EXIST. 36" R.C.P. TO REMAIN

MATCH EXISTING S/W STA. 9+30.00

MATCH EXISTING S/W STA. 9+30.00

MATCH EXISTING CURB & GUTTER

STA. 36+71.64 ℄ BAY-TO-BAY / STA. 10+00.00 ℄ GRADY AVE.

RIW LINE

RIW LINE

RIW LINE

RIW LINE

(S-12) (S-13) (S-14) (S-15) (S-16) (S-17) (S-18) (S-20) (S-21)

I Sty. C.B. Res.

I Sty. Stucco Res.

SEE SHEET NO. 9 FOR INTERSECTION DETAILS & PROFILES

AS BUILT

AS BUILT NOTE:

1 REVISED TO AS BUILT LENGTH OF PIPES

2 ADDED DRIVEWAYS

B.M.-13 Sq. cut in S. curb, W. of house # 4015 Elev. 15.248

B.M.-12 Sq. cut in curb, S.W. cor. Grady Elev. 15.433

PVI STA. 34+75.00 ELEV. 15.80 MD V.C.

PVI STA. 36+71.46 ELEV. 16.20 MD V.C.

PVI STA. 39+00.00 ELEV. 15.50 MD V.C.

PROFILE GRADE

-0.2156 %

+0.2000 %

-0.2704 %

CONST. 15" PIPE

CONST. 45"x29" ELLIP. PIPE

CONST. 34"x24" ELLIP. PIPE

CONST. 30"x19" ELLIP. PIPE

CONST. 30"x19" ELLIP. PIPE

CONST. 15" PIPE

2" W.M.

12" W.M.

10" San. S.

12" San. S.

FL 12.0

FL 11.8

FL 11.3

FL 11.7

33 34 35 36 37 38 39

Contract Nos. 8A & 8B

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO, BY, DATE

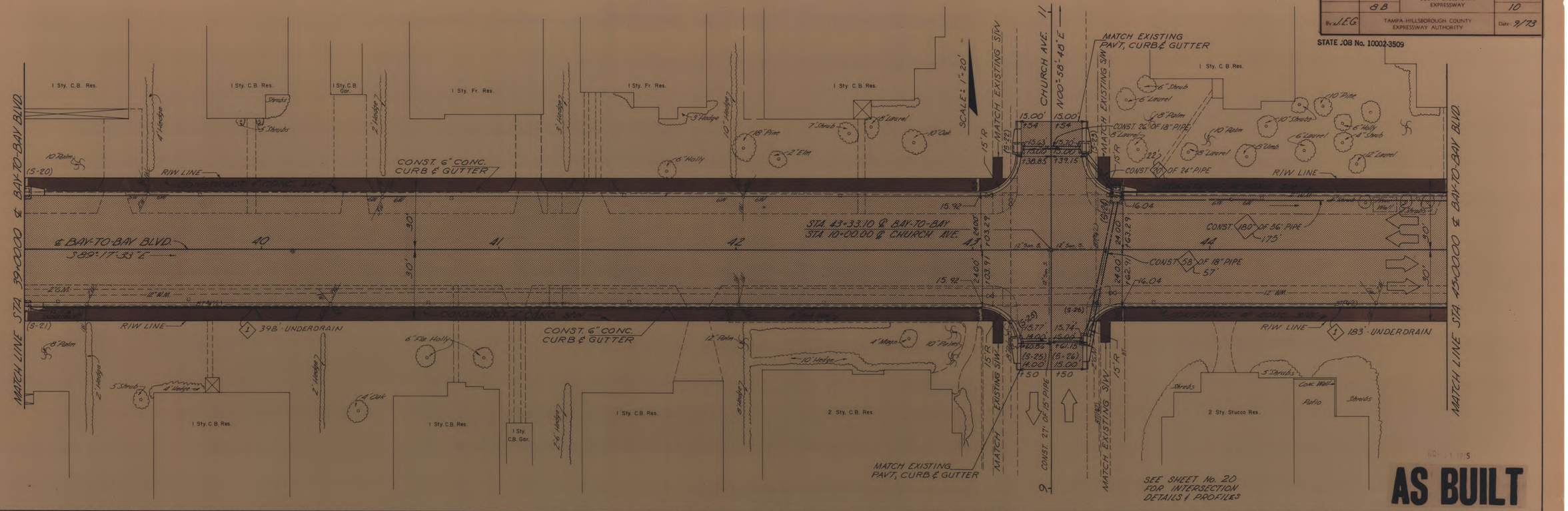
ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED, NOTE BOOK, NO, BY, DATE

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		10
By JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

STATE JOB No. 10002-3509

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE — NOTE BOOK — NO.

ORIGINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — BY — DATE — NOTE BOOK — NO.



AS BUILT

BM-11 Sq. cut in curb in front of Pole # 3920 Elev. 15.293

BM-10 Sq. cut in curb S.E. cor. of Church Elev. 16.009

B-10 Sq. Cut In Curb S.E. Cor. Church. Elev. 16.009.

B-11 Sq. Cut in Curb In Front Of Pole # 3920. Elev. 15.293

P.C.I. STA. 39+00.00
ELEV. 13.58
PROFILE GRADE
+0.2000 %
NO. P.C.
2' G.M.
12" W.M.
12" Conc. P.
(S-24)
2" W.M.
CONST. 24" PIPE
CONST. 18" PIPE
CONST. 36" PIPE
F.L. 10.3
F.L. 11.3
F.L. 10.7

AS BUILT NOTE:

1. ADDED 58' OF UNDERDRAIN SOUTH SIDE OF BAY TO BAY BLVD., 5' 12" N. OF R/W LINE.
2. REVISED TO AS BUILT LENGTH OF PIPES.
3. ADDED DRIVEWAYS.

Contract Nos. 8A & 8B

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		11
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

STATE JOB No. 10002-3509

FINAL SURVEY — SURVEYED / PLOTTED / TEMPLATE / AREAS / AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

MATCH LINE STA. 45+00.00 & BAY-TO-BAY BLVD

℄ BAY-TO-BAY BLVD

S 89°11'37" E

1 Sty. C.B. Res.

1 Sty. Fr. Res.

1 Sty. C.B. Res.

2 Sty. C.B. Res.

8" Oak, 6" Holly, 8' Laurels, 10' Palm, 6' Palm, 18' Elm, 5' Shrubs, 8" Oak, 6' Ca. Lk. Fag., 4' Aspir., 8' Laurel, 6' Laurel, Hedge, 18' Palm, Shrubs, 10'x8' Holly, 8' Palms, 10' Palm, 8' Palms, 10 Shrubs

R/W LINE

CONST. 6" CONC. CURB & GUTTER

MATCH EXISTING CURB & GUTTER

MATCH EXISTING S/W

RETURN No. 1

35' R

29' R

22.00'

159.28

DALE MABRY

N 00° 56' 07" E

CONST. 20' OF 36" PIPE

END STATE JOB No. 10002-3509 STA. 49+78.50

18° RCP

106' FROM S-3 TO S-30, AS BUILT

CONST. 36" PIPE (ADJOINING PROJECT)

SCALE: 1" = 20'

CONST 62' OF 15" PIPE

41'

30'

30'

46

24.00

+91.00

47

CONST 408' OF 36" PIPE

405

48

24.00

+82.00

BEGIN CONSTRUCTION OF CONC. PAVT STA. 49+43.21

49

24.00

+45.14

37.00

143.21

43'

57'

50 MH

12" San. S.

12" San. S.

51

STA. 50+00.00 ℄ BAY-TO-BAY

STA. 10+00.00 ℄ DALE MABRY

END UNDERDRAIN

Cleanout

10" Palms

5'

EXISTING R/W LINE

CONST. 60' OF 18" PIPE

CONC. PAVT.

MATCH EXIST. PAV'T.

32" Oak

2 144' OF UNDERDRAIN

12" Laurel

6" Magn.

6" Holly

10" Shrub

6" Magn.

3' Hedge

1 Sty. C.B. Res.

1 Sty. C.B. Res.

3' Hedge

6" Oak

8" Oak

1 Sty. C.B. Res.

5' Hedge

Asph. Parking Lot

R/W LINE

CONST. 6" CONC. CURB & GUTTER

(S-28)

SEE SHEET NO. 30 FOR RETURN PROFILES

SEE SHEET No. 20 FOR INTERSECTION DETAILS & PROFILES

RETURN No. 2

MATCH EXISTING S/W

MATCH EXISTING CURB & GUTTER

22.00'

127.77

AS BUILT

B.M. #9 Sq cut in curb, S.W. cor. Dale Mabry Elev. 16.538

AS BUILT NOTES:

1. REVISED LOCATION OF 15" PIPE TO STA. 45+45 REVISED LOCATION OF S-27
2. ADDED 144' OF UNDERDRAIN, SOUTH SIDE OF BAY-TO-BAY BLVD., 5' 12' N. OF R/W LINE.
3. REVISED TO AS BUILT, LENGTH OF PIPES
4. ADDED DRIVEWAYS.

6" ø (S-28)

+0.2000%

2" W.M.

12" W.M.

12" San. S.

CONST 15" PIPE

F.L. 11.4

F.L. 9.9

F.L. 11.4

3ea MH No's town in Survey 3445.3 TRA

PROFILE GRADE

-0.2770%

PVI STA 47+00.00 EL 17.88

NO VC.

CONST 36" PIPE

30' V.C.

P.V.C. STA. 47+18.50 EL 17.38

16.35

P.V.C. STA. 47+18.50 ELEV. 16.58

(S-30)

END STATE JOB No. 10002-3509 STA. 49+78.50

CONST 15" PIPE

F.L. 12.3

F.L. 9.1

P.V.C. STA. 47+60.30 ELEV. 16.45

CONST 36" PIPE

2' GM

24" STORM SEWER

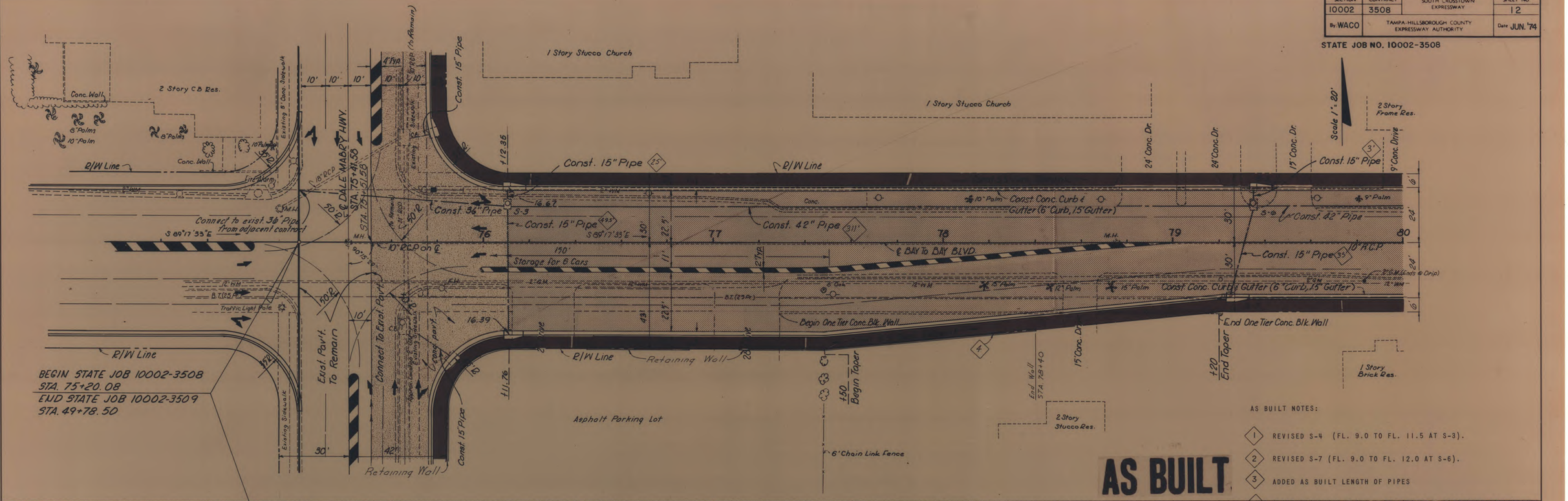
45 46 47 48 49 50 51

Contract Nos. 8A & 8B

84

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3508		12
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN. '74

STATE JOB NO. 10002-3508



AS BUILT NOTES:

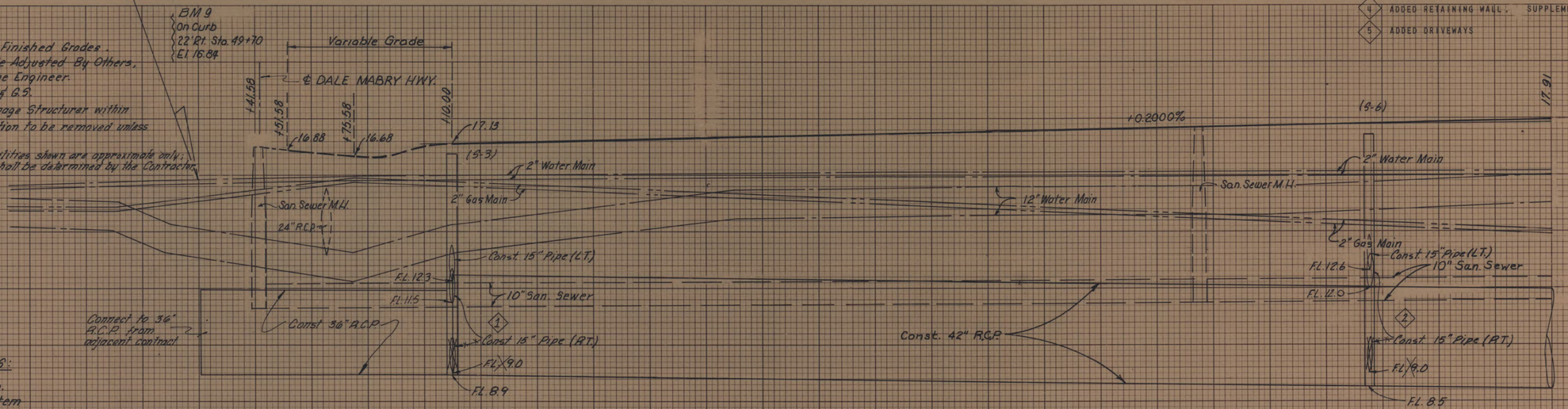
1. REVISED S-4 (FL. 9.0 TO FL. 11.5 AT S-3).
2. REVISED S-7 (FL. 9.0 TO FL. 12.0 AT S-6).
3. ADDED AS BUILT LENGTH OF PIPES
4. ADDED RETAINING WALL. SUPPLEMENTAL AGREEMENT NO. 6.
5. ADDED DRIVEWAYS

AS BUILT

GENERAL NOTES:

1. Grades Shown Are Finished Grades.
2. Utilities Are To Be Adjusted By Others, As Directed By The Engineer.
3. B.M. Datum U.S.C. & G.S.
4. All Existing Drainage Structurer within Limits of Construction to be removed unless otherwise noted
5. The location of the utilities shown are approximate only; the exact location shall be determined by the Contractor during construction.

BM 9
On Curb
22' Rt Sta. 49+70
El 16.84



UTILITY OWNERS:

1. Tampa Electric Co.
2. Peoples Gas System
3. General Telephone Co.
4. City Of Tampa Water Dept.
5. City Of Tampa Sanitary Sewer Dept.
6. Western Union

K&E CO. ORLANDO, FLA.

Contract Nos. 8A & 8B

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3508		13
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN. 74

STATE JOB NO. 10002-3508

Scale: 1"=20'

1 Story C.B.S. Res.
1 Story Frame Res.
1 Story Stucco Res.
1 Story Church Book Store
1 Story C.B.S. Church
1 Story C.B.S Res.
1 Story Frame Res.
1 Story Frame Res.
1 Story Frame Res.

STERLING AVE.
10' San. STA. 82+05.59
17.67
17.70
17.65
17.67
17.74
17.74
17.65
17.67
Existing Sidewalk
Water M.H.
Existing Sidewalk
Existing Sidewalk
Existing Sidewalk
0+42.41
0+42.59
0+52 Connect To Exist. Pav't.
0+52 Connect To Exist. Pav't.
0+42.41
0+42.59
175.22
202
36.22
201
42.59
18'
12'
201
35.59
+74.96
+35.59
R/W Line
R/W Line
6"
24'
6"
24'
6"
24'
6"
24'
2" Oak
3" Oak
18" Palm
Alexander
Alexander
3-12" Palms
Const. 42" Pipe
Const. 42" Pipe (36)
10" R.C.P.
18" W.M.
20" Palm
Const. Conc. Curb & Gutter (6" Curb, 15" Gutter)
Const. Conc. Curb & Gutter (6" Curb, 15" Gutter)
S-8
(1)
STA. 82+05.59 ℄ BAY TO BAY
STA. 00+00.00 ℄ STERLING AVE.
8" San.
8" San.
20" W.M.
80
81
82
83
S 89°17'33"E
84
℄ BAY TO BAY BLVD.
85
S 89°23'08"E
86
(2) 282'-6" UNDERDRAIN
14' Conc. Drive
Const. 15" Pipe (6)
13' Conc. Drive
Conc. Drive
2" W.M.
5-10
24" Palm
8" Palm
Bush
Const. 42" Pipe
Const. 42" Pipe (36)
Const. 15" Pipe (34)
12" W.M.
2" G.M.
Const. 5' Conc. Sidewalk
Asphalt Paved Parking Area
P.I. Sta. 85+19.79
15' Conc. Drive
19' Conc. Drive
14' Conc. Drive
15' Conc. Drive
14' Conc. Drive

AS BUILT NOTES:

(1) REVISED LOCATION OF S-8 TO STA. 81+83.

(2) ADDED 282'-6" OF UNDERDRAIN AT NORTH SIDE OF BAY-TO-BAY BLVD.

(3) ADDED AS BUILT LENGTH OF PIPES.

(4) ADDED DRIVEWAYS

P.I. Sta. 85+19.79
Δ = 00°07'35" Lt.

NOV 11 '75

AS BUILT

17.91
+0.2000%
P.I. Sta. 82+00.00
Elev. 18.81
15" (R)
(1) S-8
2" Water Main
12" Water Main
San. Sewer M.H.
20" Water Main
10" San. Sewer
10" C.I.P. Thru M.H.
Const. 42" R.C.P.
FL. 8.2
-0.2000%
(3-10)
17.51
2" Water Main
2" Gas Main
12" Water Main
Const. 15" Pipe (LT)
FL. 12.0
Const. 15" Pipe (RT)
FL. 10.0
Const. 42" R.C.P.
FL. 7.9
17.85
17.76
20
18
16
14
12
10
8
6
80
81
82
83
84
85
86

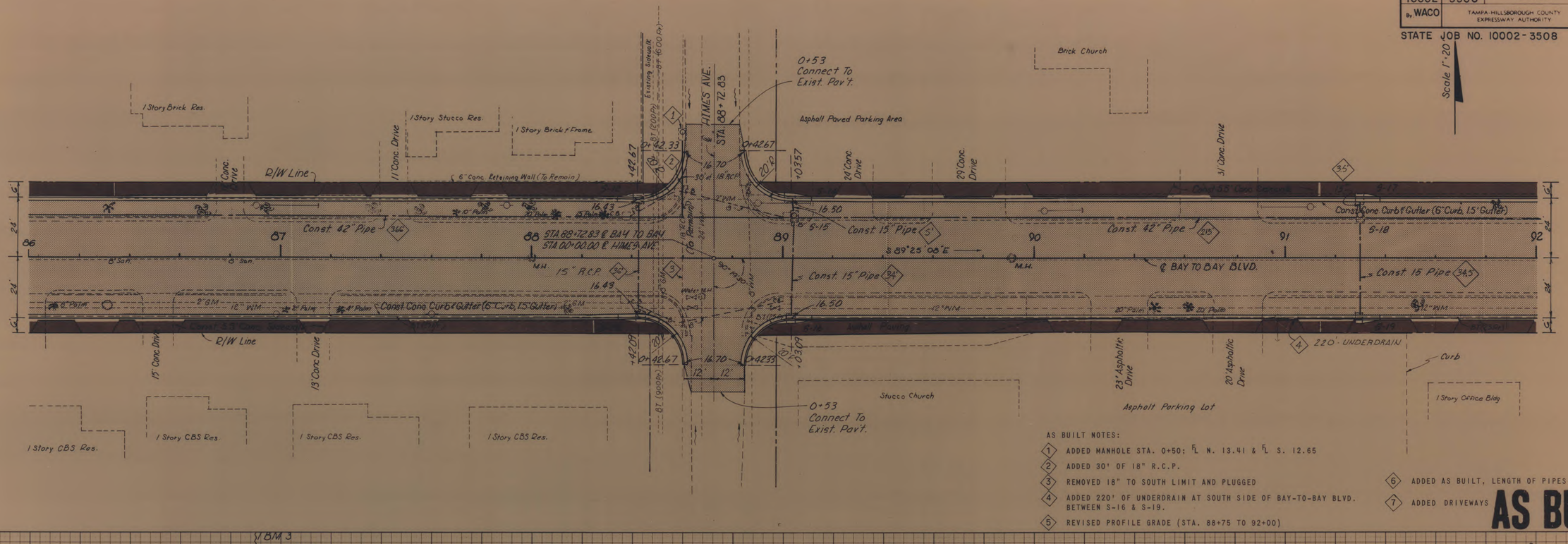
84/1

Contract Nos. 8A & 8B

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3508		14
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date JUN.74

STATE JOB NO. 10002-3508

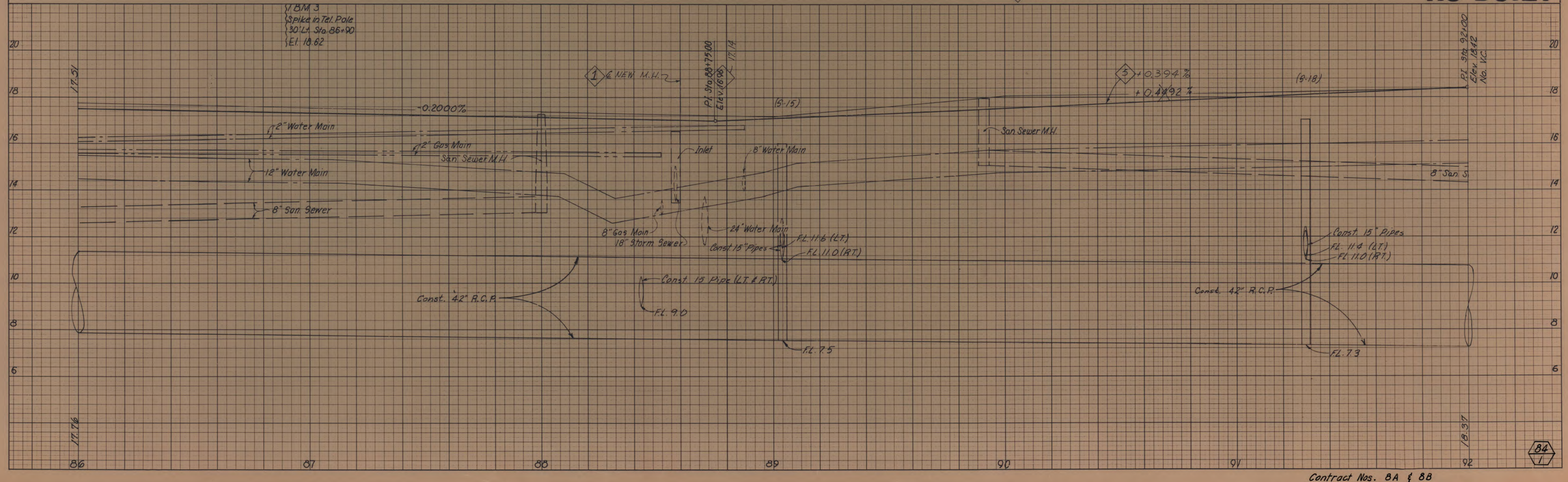
Scale 1"=20'



AS BUILT NOTES:

1. ADDED MANHOLE STA. 0+50; ℄ N. 13.41 & ℄ S. 12.65
2. ADDED 30' OF 18" R.C.P.
3. REMOVED 18" TO SOUTH LIMIT AND PLUGGED
4. ADDED 220' OF UNDERDRAIN AT SOUTH SIDE OF BAY-TO-BAY BLVD. BETWEEN S-16 & S-19.
5. REVISED PROFILE GRADE (STA. 88+75 TO 92+00)
6. ADDED AS BUILT, LENGTH OF PIPES.
7. ADDED DRIVEWAYS

AS BUILT

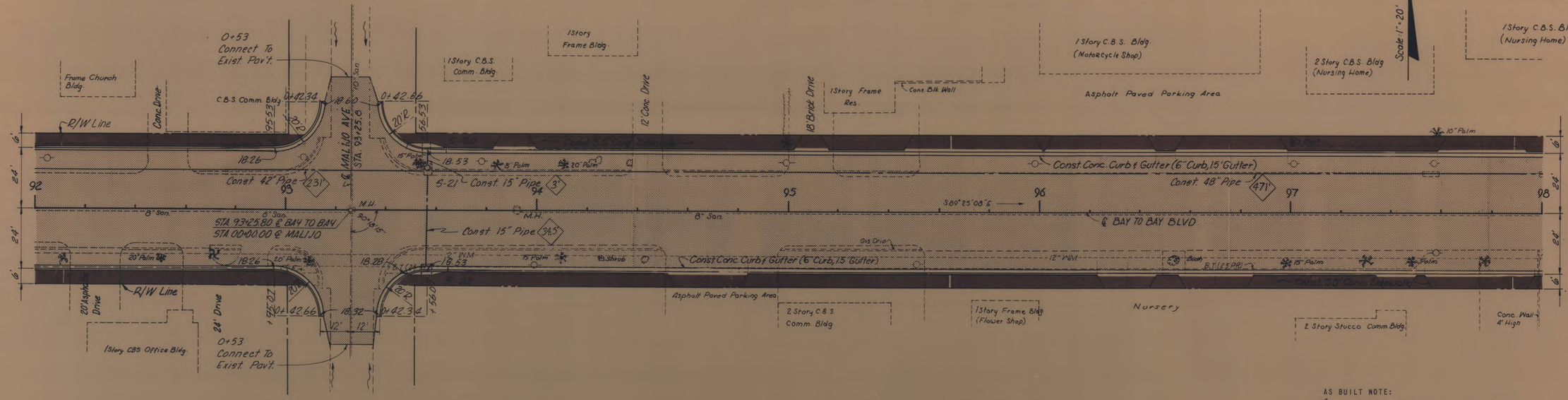


Contract Nos. 8A & 8B

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3508		15
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN.74

STATE JOB NO. 10002-3508

Scale 1" = 20'

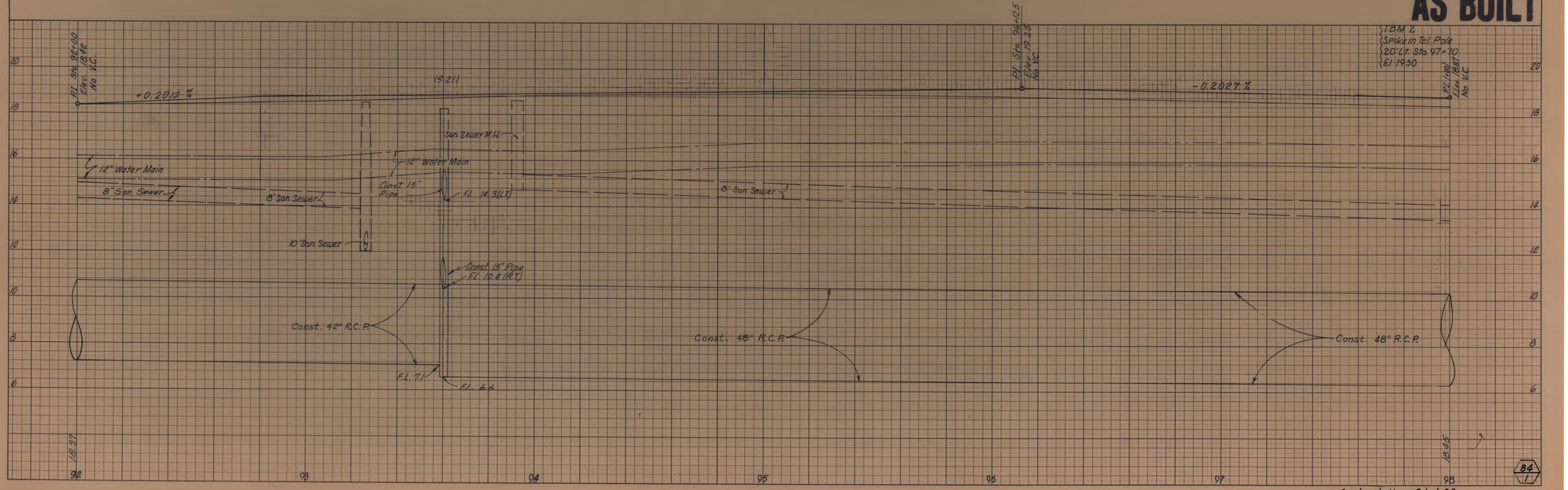


AS BUILT NOTE:

(1) ADDED AS BUILT, LENGTH OF PIPES.

(2) ADDED DRIVEWAYS.

AS BUILT



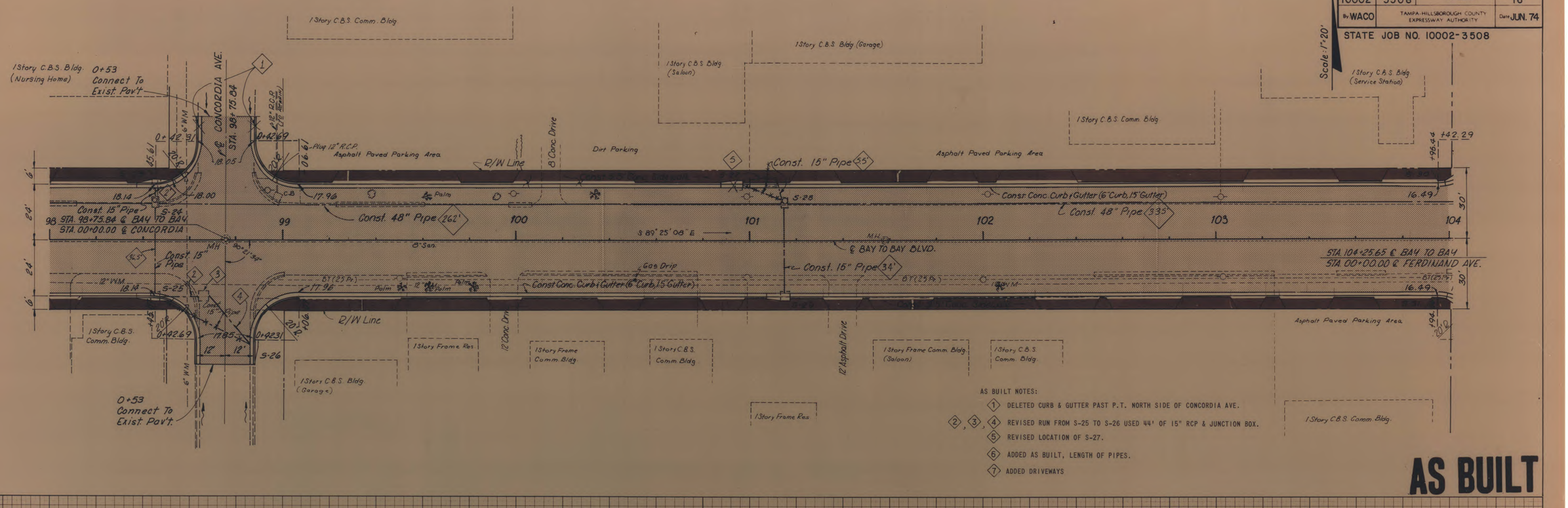
84
1

Contract Nos. 8A & 8B

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3508		16
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN. 74

STATE JOB NO. 10002-3508

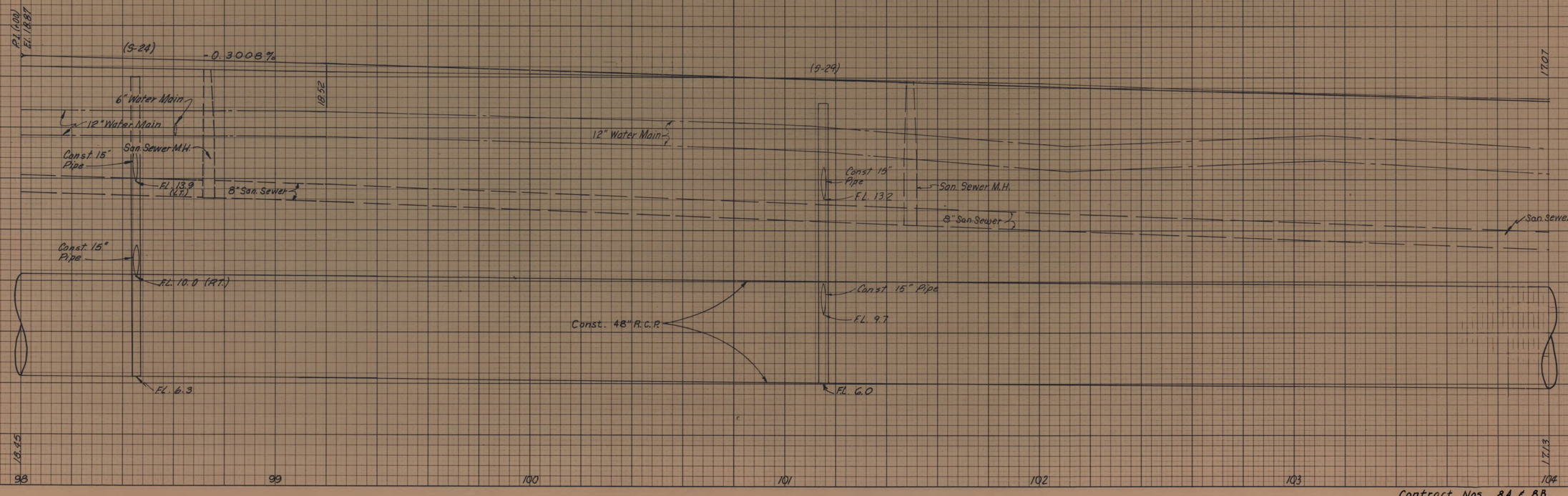
Scale: 1"=20'



AS BUILT NOTES:

1. DELETED CURB & GUTTER PAST P.T. NORTH SIDE OF CONCORDIA AVE.
2. 3. 4. REVISED RUN FROM S-25 TO S-26 USED 44' OF 15" RCP & JUNCTION BOX.
5. REVISED LOCATION OF S-27.
6. ADDED AS BUILT, LENGTH OF PIPES.
7. ADDED DRIVEWAYS

AS BUILT



Contract Nos. 8A & 8B

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3508		17
By WACO		TAMPA HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN.74

STATE JOB NO. 10002-3508

Scale 1"=20'

0+53 Connect To Exist. Pav't.

1 Story C.B.S. Bldg (New)

1 Story C.B.S. Comm Bldg

1 Story Frame Comm. Bldg.

15' Asphaltic Drive

Grass and Dirt Parking

Trees and Grass

1 Story C.B.S. Comm Bldg

Shell and Sand Parking

1 Story C.B.S. Comm Bldg

Concrete Parking Area

℄ FERDINAND AVE.

℄ ESPERANZA AVE.

R/W Line

Const. 15" Pipe (11)

Const. 15" Pipe (4)

Const. Conc. Curb & Gutter (6" Curb, 15" Gutter)

Const. 48" Pipe (222')

Const. 48" Pipe (214')

Connect To Exist. 48" Pipe

To Be Constructed Under Contract No. 10002-3503

Const 15" Pipe

Const. 15" Pipe (34)

℄ BAY TO BAY BLVD.

S 89° 25' 08" E

Const. 15" Pipe

Const. Conc. Curb & Gutter (6" Curb, 15" Gutter)

12" W.M.

8" San.

B.T. (26.0')

Grass

1 Story Frame Comm. Bldg

1 Story C.B.S. Comm. Bldg

1 Story C.B.S. Comm Bldg (Day Nursery)

1 Story Frame Res.

10' Conc. Drive

15' Conc. Drive

0+53 Connect To Exist. Pav't.

END STATE JOB 10002-3508
STA. 109+30.00

AS BUILT NOTES:

1. REVISED N.W. RETURN AT FERDINAND AVE.
2. ADDED AS BUILT, LENGTH OF PIPES.
3. ADDED DRIVEWAYS.

AS BUILT

(TBM)
Spike in Tel. Pole
20' Lt. Sta. 108+00
El: 18.57

Pl. El. 25.00
Elev. 16.99
No V.C.

12" Storm Sewer

12" W.M.

Const. 15" Pipe (Lt.)

San. MH.

F.L. 12.3

8" San.

Const. 15" Pipes (Lt & Rt.)

Const. 15" Pipe (Rt.)

F.L. 8.5

F.L. 7.2

Const. 48" R.C.P.

Const. 15" Pipe (Lt.)

F.L. 13.1

San. Sewer M.H.

12" Water Main

8" San. Sewer

Const. 15" Pipe (Rt.)

F.L. 8.5

Const. 48" R.C.P.

F.L. 5.4

Connect to Existing 48" Pipe

San. Sewer M.H.

104 105 106 107 108 109 110

Contract Nos. 8A & 8B

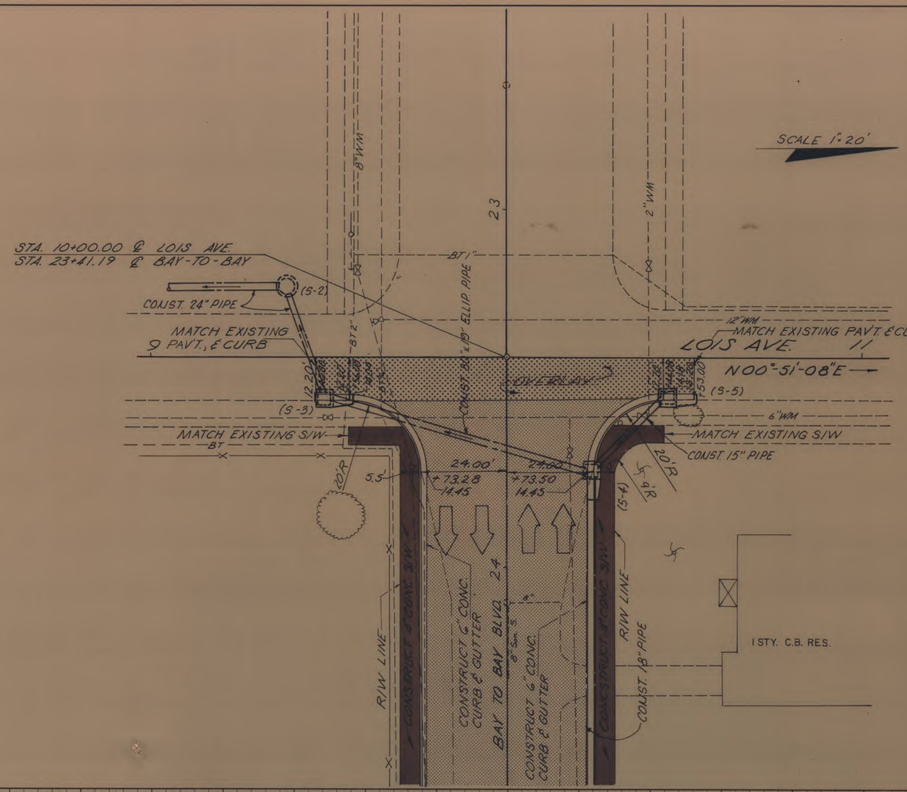
84
1

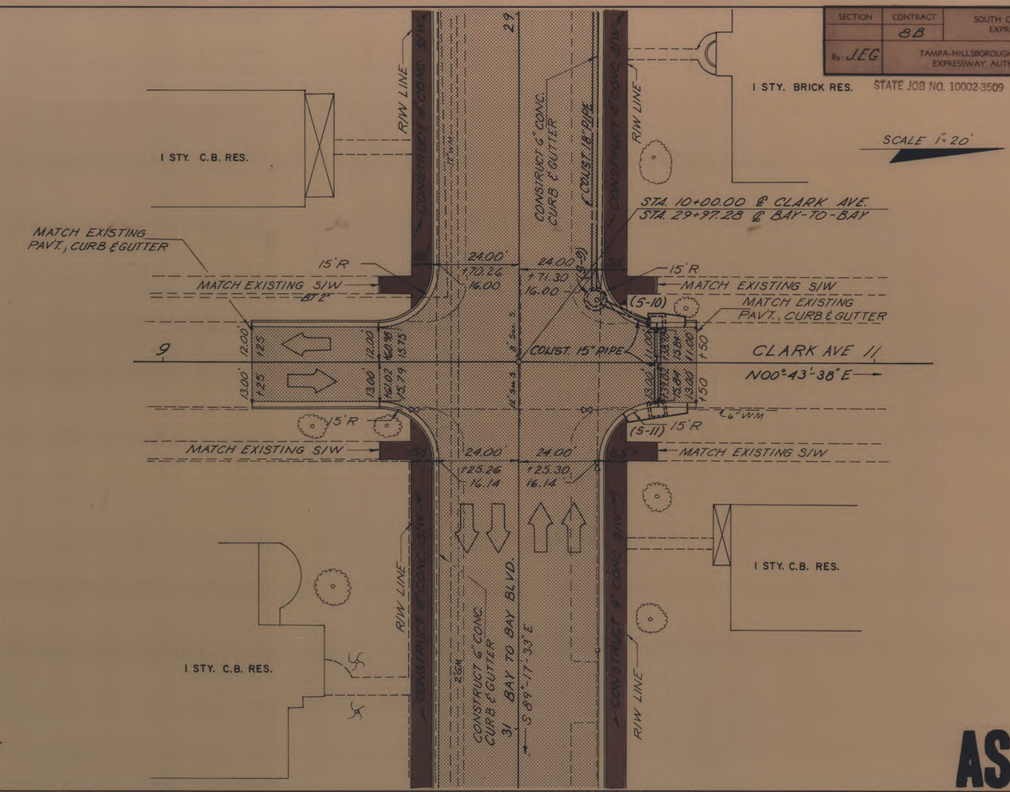
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	BB		13
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

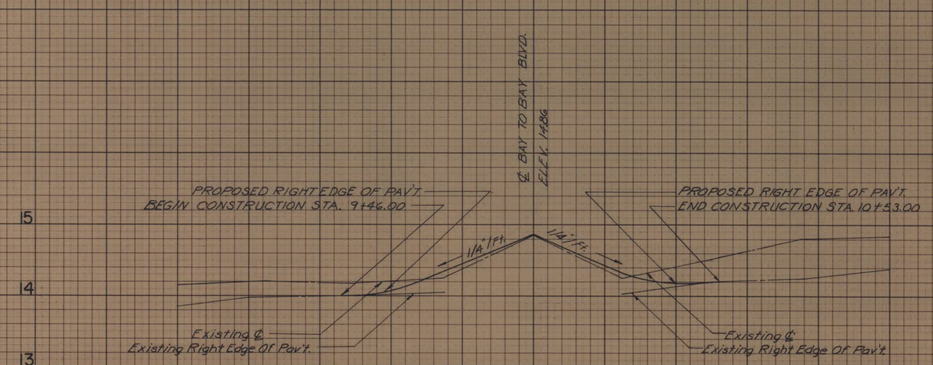
FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
AREAS CHECKED		
NO.		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTE BOOK		
AREAS		
AREAS CHECKED		
NO.		

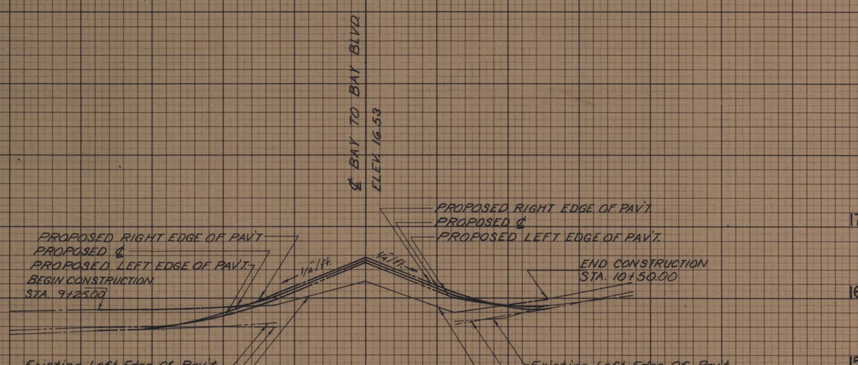
STATE JOB NO. 10002-3509







LOIS AVE. PROFILES



CLARK AVE. PROFILES

AS BUILT

11 Contract Nos. BA & BB

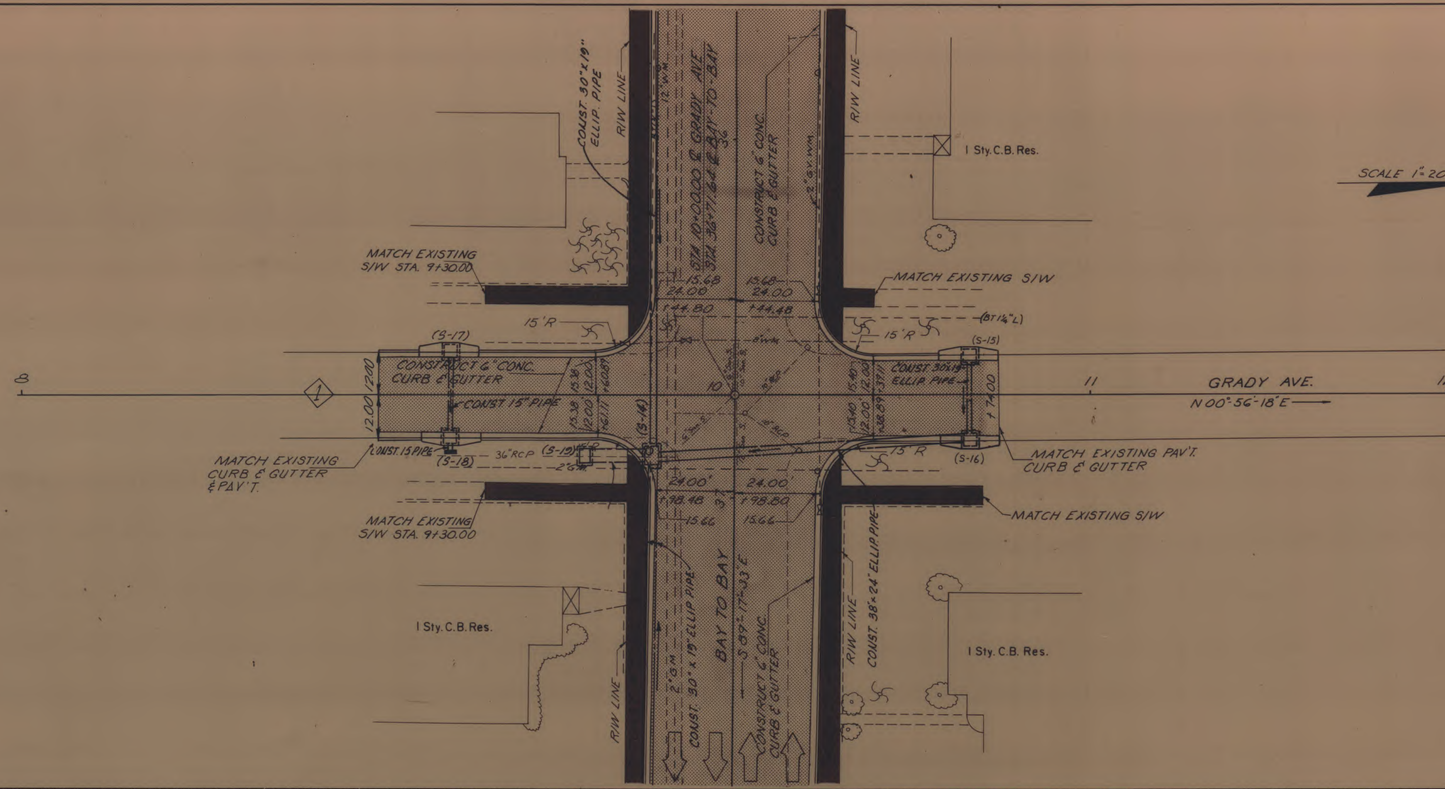
84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		19
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9/73

STATE JOB NO. 10002-3509

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — BY — DATE — NOTE BOOK — NO

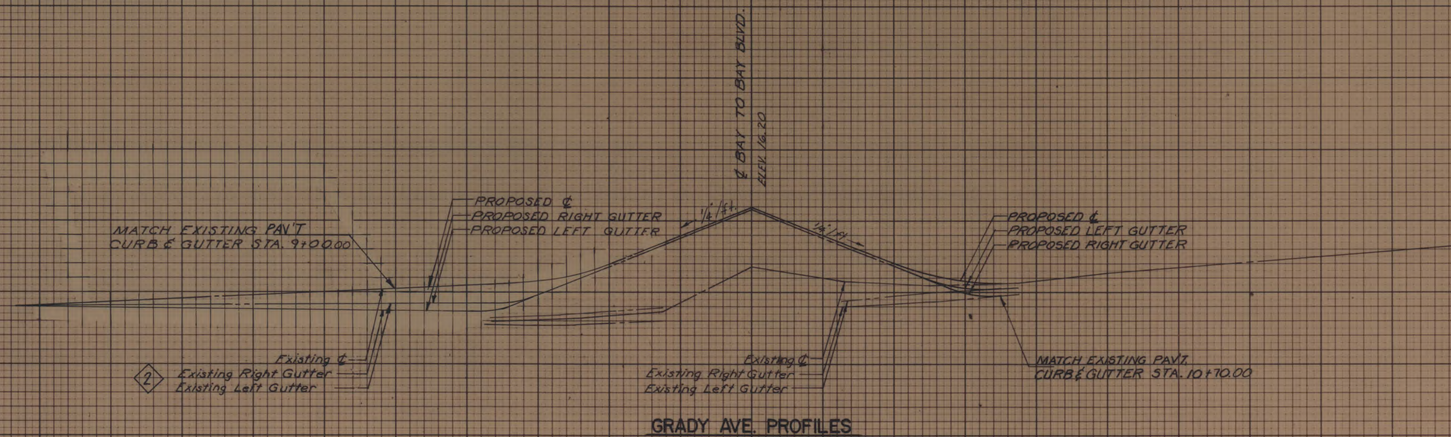


AS BUILT NOTES:

1. DELETED OVERLAY ON GRADY AVE. SOUTH OF BAY-TO-BAY BLVD.
2. REVISED EXISTING ELEVATIONS, GRADY AVE. SOUTH OF BAY-TO-BAY-BLVD. ALSO REVISED PROFILE GRADE.

AS BUILT

B.M.-12 Sq. cut in curb, S.W. cor. Grady Elev. 15.93



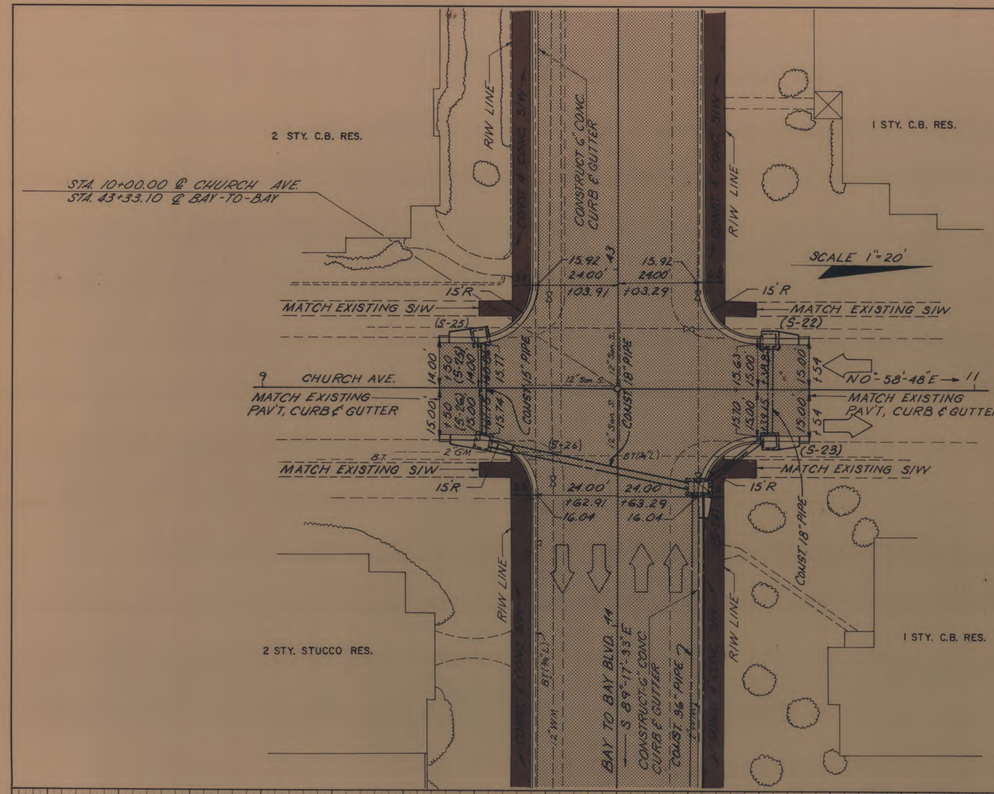
GRADY AVE. PROFILES

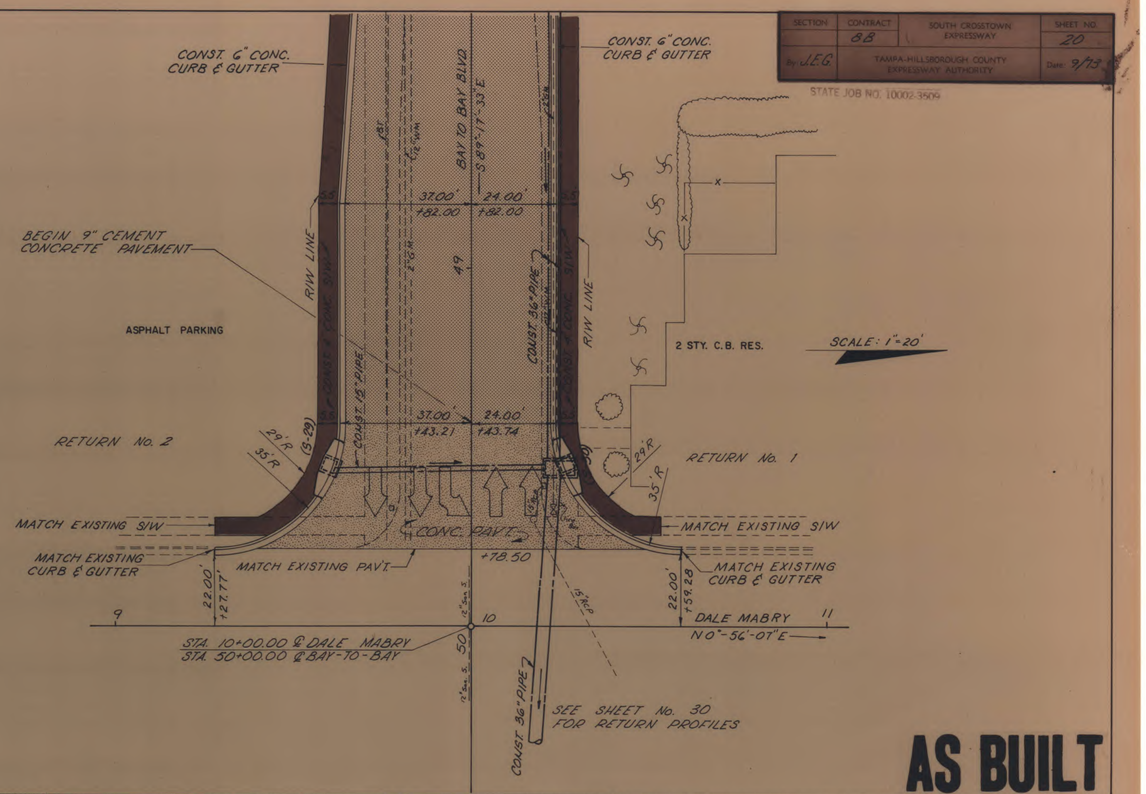
Contract Nos. 8A & 8B

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
	8B		20
By J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 9/73

STATE JOB NO. 10002-3509

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TRIAL SITE		
AREAS		
NOTE BOOK		
NO.	AREAS CHECKED	



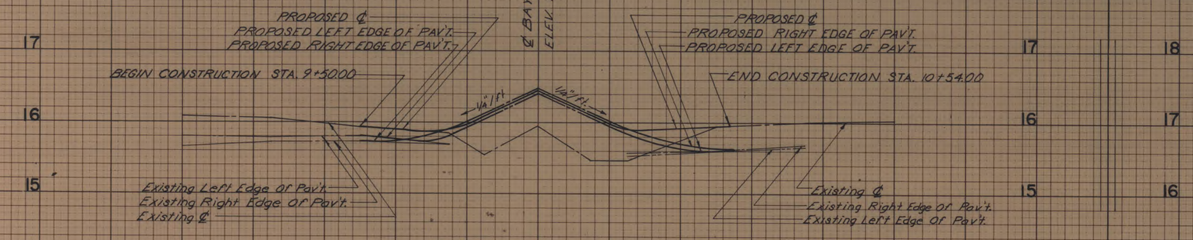


AS BUILT

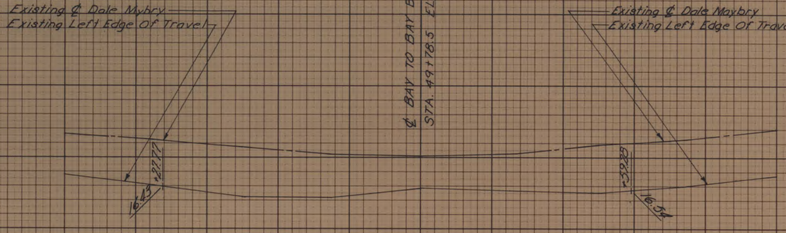
B.M.-10 Sq. cut in curb, S.E. cor. of Church Elev. 15.009

B.M.-9 Sq. cut in curb, S.W. cor. Dale Mabry Elev. 16.838

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TRIAL SITE		
AREAS		
NOTE BOOK		
NO.	AREAS CHECKED	



CHURCH AVE. PROFILES



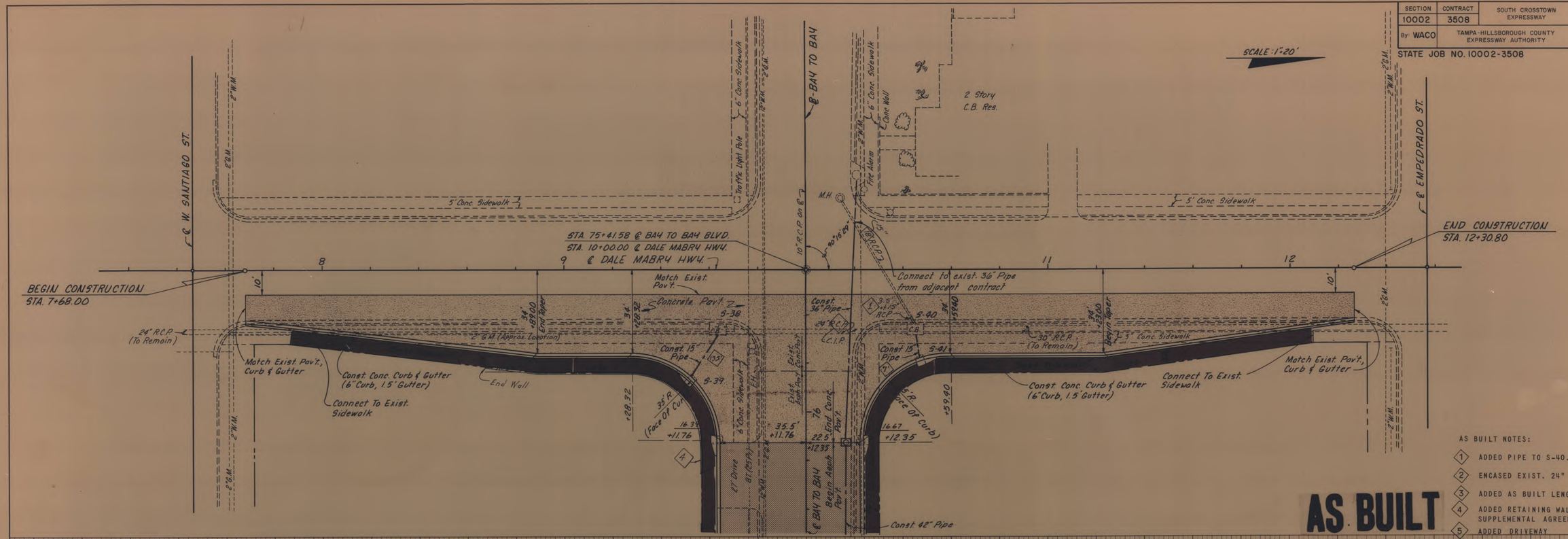
DALE MAYBRY AVE. PROFILES

9 10 11 9 10

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3508		21
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: JUN.'74

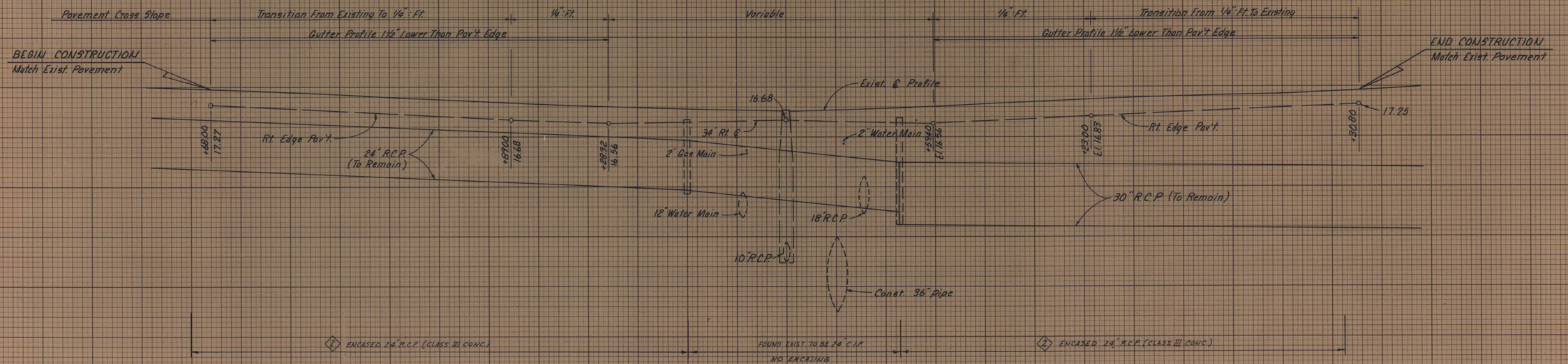
STATE JOB NO. 10002-3508

SCALE: 1"=20'



AS BUILT NOTES:

1. ADDED PIPE TO S-40.
2. ENCASED EXIST. 24" R.C.P.
3. ADDED AS BUILT LENGTH OF PIPES.
4. ADDED RETAINING WALL, SUPPLEMENTAL AGREEMENT NO. 6.
5. ADDED DRIVEWAY



Contract Nos. 8A & 8B

84

K&E CO. ORLANDO, FLA.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	2508		R-3
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN.74

SEC. 33, T29 S, R18E

Scale: 1" = 20'

DALE MABRY HWY.

VIRGINIA PARK ST.
PB 9, Pg 2

SANTIAGO ST.

EMPEDRADO ST.

BAY TO BAY BLVD.

S.E. Survey & Const. 49
S 89°17'33" E

Res

2-CB Res

Traffic Light Pole

Fire Alarm

MH

BEGIN STATE JOB 1002-2508
STA 75+20.08
END STATE JOB 1002-2509
STA 49+78.50

Exist. R/W Line

Lot Line (P)

24 RCP (To Remain)

18'33'

2'GR (Perforations)

N 0°57'56" E

100.06'

S 7°33'56" W

5' Temporary Construction Easement Line

S 82°26'04" E 40'

N 0°57'56" E 39.35'

S 0°57'56" W

405 N 7°33'56" E

R=29.00
Δ=89°44'31"
A=45.42'

R=28.50'
Δ=89°44'31"
A=44.64'

202.1 (202.2)

273.1

275.1

BLK 35

BLK 26

Existing R/W Line

R/W Line

500' S 89°17'33" E

781.14'

30" RCP

N 0°57'56" E

Exist R/W Line 2

276.1

201.1 (201.2) (201.3) (201.4)

R=29.00
Δ=90°15'29"
A=45.68'

88.55'

S 6°26'02" E

5' Temporary Construction Easement Line

272.1

Church

Note:
Parcel title to be acquired in fee simple unless denoted otherwise.

Contract Nos. BA & BB

NO	REVISION	BY	DATE
2	Added Parcels (275.1) and (276.1)	JJW	11-1-15
1	Change Parcel (274.1) To (272.1)	E.J.	8/24/15

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT OF WAY MAP
DALE MABRY HWY.

J. E. GREINER COMPANY — CONSULTING ENGINEERS — WATSON & COMPANY — TAMPA, FLORIDA

MADE BJS DATE 2/1/73 | TRACED C.M. DATE 6/74
CHECKED R.D.C. DATE 6/74 | SCALE

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2508		R-4
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date JUN.74

FOUNDATION
S 45°50'12"W 0.875'
N 44°09'48"W 3.00'
N 45°50'12"E 0.875'
INSERT "B"
Exist R/W Line
276.1

Fire Alarm
48" RCP
N 0°57'56"E
Exist R/W Line
Lot Line (P)
30' R/W
5'
201.1
201.2
201.3
201.4
½" I.R.
55'(P)
276.1
See Insert "B"
R=29.00'
Δ=90°15'29"
A=45.68'
13
R/W
CHURCH
14
15
BLK 26
16
17
CHURCH
18
19
Scale: 1"=20'
20
21
2-F RES
22
206.1
272.1
5' Temporary Construction Easement Line
SEC. 33, T 29 S, R 18 E
50'
25'(D)
25'(D)
2"WM
STA. 75+41.58 ℄ BAY TO BAY
STA. 10+00.00 ℄ DALE MABRY
M.H.
76
℄ Survey & ℄ Const.
77
78
79
80
BEGIN STATE JOB 1002-2508
STA. 75+20.08
END STATE JOB 1002-2509
STA. 49+78.50
S 89°17'33"E
BAY TO BAY BLVD.
Note: 5' Additional Right-of-Way has been acquired each side of Dale Mabry Highway.
DALE MABRY HWY.
N 0°57'56"E
30.36'
71.56'
29.61'
10" RCP
2"GM
12"WM
2"GM (Cable & Drip)
BT(6Sq Ft)
BT(20Pr)
BT(6Sq Ft)
S 89°17'33"E
175.00'
50'
60'
55'(P)
½" I.R. See Insert "A"
202.1
202.2
Exist. R/W Line
134.63'
N 89°17'33"W
S 89°17'33"E
R/W Line
R=23.00'
Δ=89°44'31"
A=36.02'
R=28.50'
Δ=89°44'31"
A=44.62'
273.1
275.1
25'(D)
200'
S 0°56'39"W
N 0°56'39"E
3.68'
N 89°17'33"W
274.1
BLK 35
204.1
203.1
N 86°20'05"E
100.60'
S 86°20'05"W
170.30'
S 89°17'33"E 100.38'
S 89°17'33"E
173.56'
S 03°39'55"E
0.50
5' Temporary Construction Easement Line
205.1
1-B RES
2-S RES
7
6
5
4
3
2
1
12
11
10
9
8
Exist R/W Line
FOUNDATION
23'R
N 44°09'48"W 225'
N 45°50'12"E 300'
S 44°09'48"E 225'
INSERT "A"
275.1
0.50' RETAINING WALL
VIRGINIA PARK
P.B. 9, Pg. 2

SEC. 33, T 29 S, R 18 E
Scale: 1"=20'
22
BLK 26
206.1
2-CB RES.
23
207.1
24
50'
54'
55'
½" I.R.
R/W
Howe Rd.
AVE.
N 0°53'02"E
13
208.1
BLK 25
14
15
1-F RES
16
209.1
17
18
1-F RES
210.1
19
1-S RES
211.1
20
21
1-B RES
212.1
5' Temporary Construction Easement Line
50'
25'
25'
50'
STA. 82+05.59 ℄ BAY TO BAY
STA. 00+00.00 ℄ STERLING
-80.57
29.26
30.73'
81
82
83
℄ Survey & ℄ Const.
84
85
P.I. = STA. 85+19.79
Δ=0°07'35" LT.
86
S 89°17'33"E
S 89°25'08"E
BAY TO BAY BLVD.
60'
12"WM
BT(6Sq Ft)
2"GM
BT(25Pr)
12"WM
2"GM
25'(D)
25'(D)
25'(D)
2'-9"(D)
55'
R/W
½" I.R.
205.1
213.1
3
2
BLK 35
214.1
1
1-F RES
1-F RES
STERLING AVE.
FHA
55'
R/W
50'
215.1
12
CHURCH BOOK STORE
11
216.1
10
1-CB RES.
9
217.1
8
CHURCH
BLK 36
7
6
218.1
5
219.1
4
220.1
F.R.S. RES
5' Temporary Construction Easement Line
VIRGINIA PARK
P.B. 9, Pg. 2

PARCEL NO	GRANTOR	AREA TAKEN	REMAINDER RIGHT	REMAINDER LEFT
200.1	PALMA CEIA METHODIST CHURCH, INC.	2,356 S.F.	N.A.	
201.1	PALMA CEIA METHODIST CHURCH, INC.	1,652 S.F.	N.A.	
202.1	PALMA CEIA METHODIST CHURCH, INC.	3,816 S.F.	N.A.	
203.1	CLARA B. HALL	1,149 S.F.	N.A.	
⚠ 274.1	CLARA B. HALL	52 S.F.		
⚠ 275.1	PALMA CEIA METHODIST CHURCH, INC.	141 S.F.		
⚠ 276.1	PALMA CEIA METHODIST CHURCH, INC.	3 S.F.		

TEMP. CONSTRUCTION EASEMENT	
PARCEL NO.	GRANTOR
205.1	CORBETT E. & DOROTHY C. SIPE
206.1	N. T. & PATRICIA HOWE
207.1	THOS. A. ADDISON
208.1	F. J. & ELIZABETH HOHNADEL
209.1	N. & ANN CAPITANO
210.1	N. N. & DOROTHY PLANT
211.1	D. R. & DOROTHY BRUCE

212.1	S. K. BROWN
213.1	IDA BAKER
214.1	G. B. & MARTHA BEVIS
215.1	THIRD CHURCH OF CHRIST SCIENTIST
216.1	DONALD W. BERTRAN
217.1	THIRD CHURCH OF CHRIST SCIENTIST
⚠ 218.1	WHITLEY & JUANITA C. IRVIN
219.1	CURTIS & MARTHA SPENCER JR.

204.1	CLARA B. HALL
271.1	PALMA CEIA METHODIST CHURCH, INC.
272.1	PALMA CEIA METHODIST CHURCH, INC.
273.1	PALMA CEIA METHODIST CHURCH, INC.

Note:
Parcel title to be acquired in fee simple unless denoted otherwise.

Contract Nos. 8A & 8B

84/1

NO	REVISION	BY	DATE
⚠	ADDED PARCELS 274.1, 275.1, 276.1	JJW	11-7-75
⚠	CHANTOH - PARCEL 218.1	EAJ	9-3-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT OF WAY MAP

STA. 75+00 TO STA. 86+50

J. E. GREINER COMPANY — WATSON & COMPANY

DESIGNED BJS DATE 2/73 — DRAWN C.M. DATE 6/74

CHECKED R.D.C. DATE 6/74 — APPROVED DATE

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2508		R-5
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: JUN.74

SEC. 33 | SEC. 34

5' Temporary Construction Easement Line

BLK 25 | 1-B RES. | 21 | 212.1 | 22 | 221.1 | 1-S RES. | 23 | 222.1 | 1-B RES. | 24

AVE. | 56' | HIMES | N 0°54'22" E | 28.06 | +43.34 | Cross | 5' | 54' | 55' | 50'

CHURCH | 9 | 10 | 11 | 12 | BLK 59 | 13 | 223.1 | 14 | 15 | CHURCH | 16

Scale 1"=20'

10' Temporary Construction Easement Line | 50' | 50' | 10' | SEC. 34, T 29 S, R 18 E | C.B.S. Comm. Bldg. | 50'

STA. 88+72.83 ℄ BAY TO BAY
STA. 00+00.00 ℄ HIMES AVE.

87 | 88 | 89 | 90 | S 89°25'08" E | 91 | 92

BAY TO BAY BLVD.

+66.62 | 31.69' | 60' | 12.4' | 50' | 37.6' | 27' | 54' | 27' | 53' | ½" I.P.

4 | 220.1 | 1-CB RES. | 3 | 224.1 | 1-CB RES | BLK 36 | 2 | 225.1 | 1-CB RES | 1

5' Temporary Construction Easement Line

+00.17 | 22.5' | Cross | 50' | 10' | 50'

8 | CHURCH | 7 | 226.1 | 6 | BLK 60 | 5 | 227.1 | 4 | 10' Temporary Construction Easement Line | 3 | 1-OFC. BLDG. | 228.1 | 2 | 1-OFC. BLDG. | 229.1 | 1

VIRGINIA PARK
P.B. 9, Pg. 2

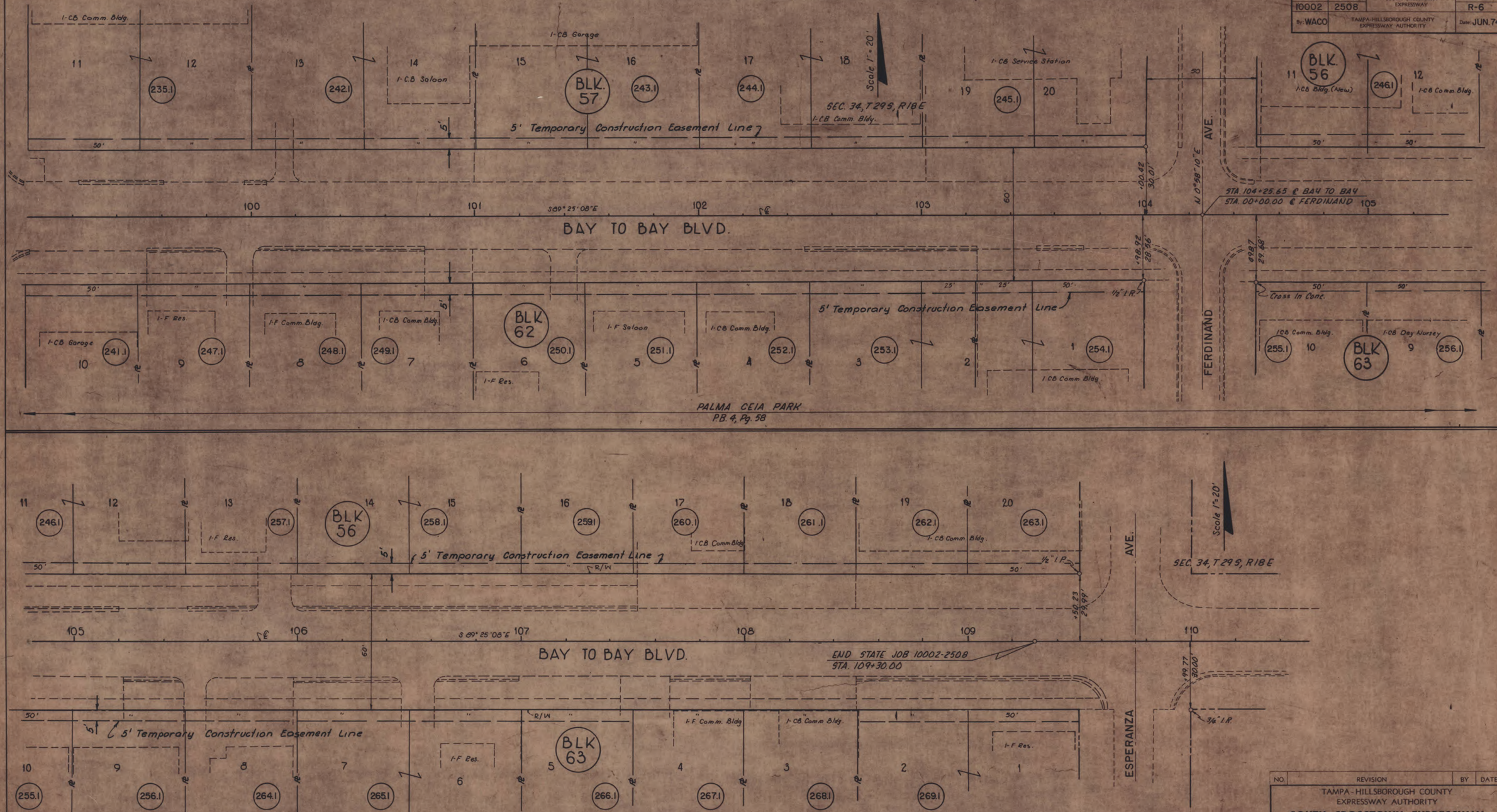
PALMA CEIA PARK
P.B. 4, Pg. 58

BLK 59 | 16 | 223.1 | C.B. Comm. Bldg. | Cross In S'W Over I.P. | 50' | AVE. | N 0°53'07" E | +00.76 | 28.47' | +54.23 | 28.90' | 24" I.P.

230.1 | 11 | 1-CB Comm Bldg. | 1-F Res. | 231.1 | BLK 58 | 13 | 12 | 232.1 | 14 | 15 | 1-F Res. | 233.1 | 1-CB Motorcycle Shop | 16 | 17 | 5' Temporary Construction Easement Line | 234.1 | 1-CB Nursing Home | 18 | 2-CB Nursing Home | 19 | 20 | AVE. | N 0°56'26" E | BLK 57 | 11 | 235.1

50' | 50' | 50' |

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2508		R-6
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: JUN. 74



FOR CONTRACTORS INFORMATION ONLY

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

RIGHT OF WAY MAP
STA. 99+00 TO STA. 109+00

J. E. GREINER COMPANY — WATSON G COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE B.J.S. DATE 2/73 | TRACED C.M. DATE 6/74
CHECKED R.D.C. DATE 6/74 | SCALE

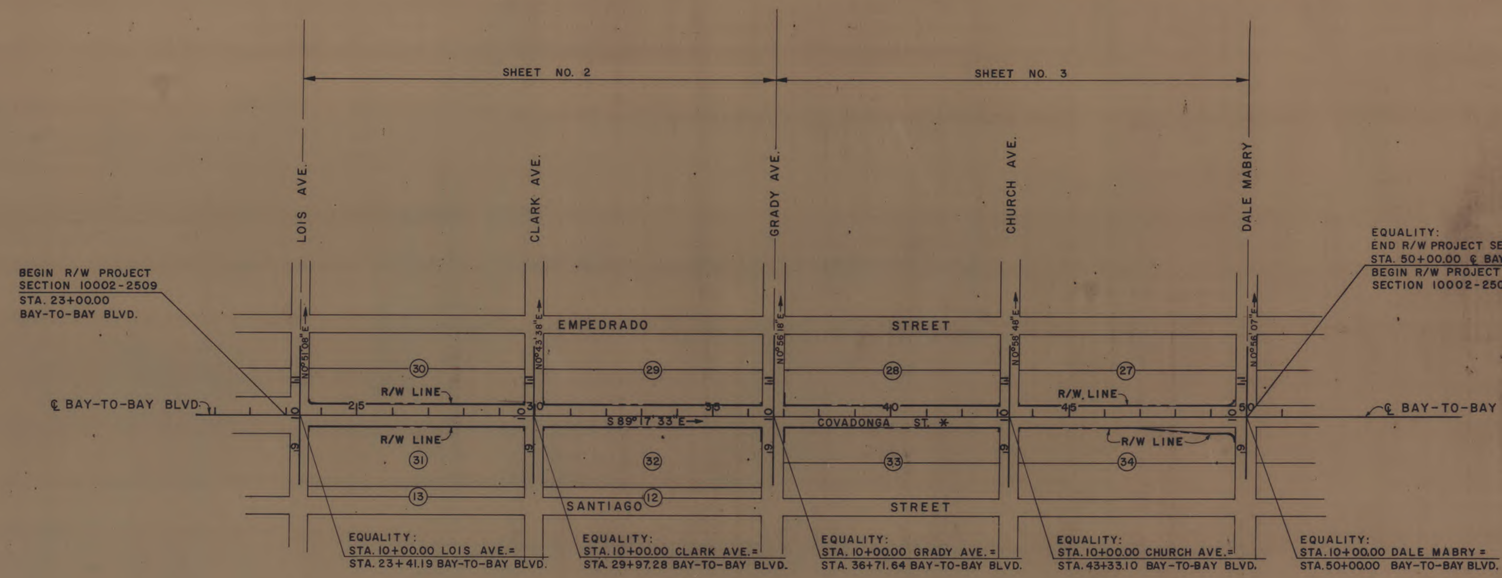
Contract Nos. 8A & 8B

1975 84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2509		R/W 1
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: JULY 1973

SCALE: 1"=200'

SEC. 33, T29S, R18E



CITY OF TAMPA FLORIDA

UTILITY OWNERS

TELEPHONE LINES, CABLES AND POLES.....GENERAL TELEPHONE COMPANY
519 ZACK ST. TAMPA, FLORIDA.

POWER LINES, CABLES AND POLES.....TAMPA ELECTRIC COMPANY
TAMPA, FLORIDA.

WATER SYSTEM
SANITARY SEWER SYSTEM
FIRE ALARM SYSTEM } .....CITY OF TAMPA, TAMPA, FLA.

NATURAL GAS SYSTEM.....PEOPLES GAS COMPANY
215 S. TAMPA ST. TAMPA, FLA.

NOTE: HORIZONTAL CONTROL DATUM IS BASED ON U.S.C.& G.S. GRID COORDINATE SYSTEM N.A.D. 1927.

FOR CONTRACTORS INFORMATION ONLY

Contract Nos. 8A & 8B

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

KEY MAP

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M. DATE 6-25-73	TRACED W.J.M. DATE 6-28-73
CHECKED A.J.M. DATE 7-12-73	SCALE 1"= 200'

84/1

SHEET 1 OF 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2509		R/W 2
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: JULY 1973

VIRGINIA PARK
P.B. 9, PG. 2 P.R.H.C.F. FILED: JAN. 25, 1915

SCALE: 1" = 50'

SEC. 33, T29S, R18E

LEGEND

POWER POLE	
TELEPHONE POLE	
COMBINATION POLE	
LIGHT STANDARD	
GUY WIRE & ANCHOR PIN	
BURIED ELECTRIC POWER CABLE	BE(T.S.)
ELECTRIC DUCT	E.S.(STOVES)
BURIED TELEPHONE CABLE	BT(200 PR)
TELEPHONE DUCT	T.S.
WATER MAIN	8"WM
GAS MAIN	12"G
DRIP POT	
VALVE	
FIRE HYDRANT	
AIR VALVE	
BLOW-OFF	
SANITARY SEWER	8"SAN
STORM SEWER	12"S
MANHOLE	
STREET NAME FROM PLAT	
PUBLIC RECORDS HILLSBOROUGH COUNTY FLA.	PRHCF
PROPERTY LINE	
IRON PIPE	I.P. O
IRON ROD	I.R. O
CONCRETE MONUMENT	C.M. O
FIELD DIMENSION	(F)
DEED DIMENSION	(D)
CALCULATED DIMENSION	(C)

BEGIN R/W PROJECT
SECTION 10002-2509
STA. 23+00.00
℄ BAY-TO-BAY BLVD.

EQUALITY:
STA. 10+00.00 LOIS AVE. =
STA. 23+41.19 BAY-TO-BAY

LOIS AVE.

N00°51'08"E

EMPEDRADO STREET

EQUALITY:
STA. 10+00.00 CLARK AVE. =
STA. 29+97.28 BAY-TO-BAY

CLARK AVE.

N0°43'38"E

EQUALITY:
STA. 10+00.00 GRADY AVE. =
STA. 36+71.64 BAY-TO-BAY

GRADY AVE.

N0°56'18"E

10.00' TEMPORARY CONSTRUCTION EASEMENT LINE

EXIST. R/W LINE

COVADONGA ST. *
℄ BAY-TO-BAY BLVD.

S89°17'33"E

500' TEMPORARY CONSTRUCTION EASEMENT LINE

EXIST. R/W LINE

PARK

SANTIAGO STREET

PARCEL NO.	GRANTOR	AREA TAKEN	REMAINDER RIGHT	REMAINDER LEFT
102.1	L. E. and GERTRUDE M. HALL	TEMP. CONSTRUCTION EASEMENT		
103.1	E. J. and RUTH PERKINS	"	"	"
104.1	CHARLES E. and SUE SIMMONS	"	"	"
105.1	JOSEPH J. and RUBY LASTUFKA	"	"	"
106.1	C. J. and VIRGINIA ULMER	"	"	"
107.1	SAM and CARMEN ALFANO	"	"	"
108.1	E. M. and MARTHA ARNOLD	"	"	"
109.1	R. E. and SHIRLEY RATHERS	"	"	"
110.1	ESTHER PLA ALLEN	"	"	"
111.1	JENNIE and LA RUE HUTTON	"	"	"
112.1	R. D. and MARY WIDDOW	"	"	"
113.1	DONALD E. and SALLY STRAUB	"	"	"
114.1	MIRIAM HIRSCH	"	"	"
115.1	A. B. ANGLE	"	"	"
116.1	IRENE B. FAGER	"	"	"
117.1	FEDERAL NAT'L. MTG. ASSOC.	"	"	"
118.1	C. M. MILLIRON	"	"	"
119.1	J. B. and GENEVIEVE KUSHNER	"	"	"
120.1	ALLEN and RHODA ALBERT	"	"	"
121.1	JOANNE HOWELL	"	"	"
122.1	J. R. and VIOLA WEST	"	"	"
123.1	E. T. and ELEANOR BLANE	"	"	"
124.1	MARVIN L. and AGNES BARTON	"	"	"
125.1	C. E. and MYRTLE SHEARIN	"	"	"
126.1	PARK (CITY OF TAMPA REC. DEPT.)	"	"	"
152.1	PARK (CITY OF TAMPA REC. DEPT.)	"	"	"
153.1	WILLIAM L. TODD	"	"	"

REVISED PLAT OF MARYLAND MANOR
P.B. 14, PG. 7 P.R.H.C.F. FILED: JAN. 16, 1925

FOR CONTRACTORS INFORMATION ONLY

Contract Nos. 8A & 8B

NO.	REVISION	BY	DATE
1	ADDED TEMPORARY CONSTRUCTION EASEMENTS J.E.G. W.J.M.		1-28-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY

BAY-TO-BAY BLVD.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W. J. M. DATE 6-22-73 TRACED W. J. M. DATE 6-28-73
CHECKED A. J. M. DATE 7-12-73 SCALE 1" = 50'

SHEET 2 OF 3

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	2509		2/1W3
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: JULY 1973

VIRGINIA PARK

P.B. 9, PG. 2 P.R.H.C.F. JAN. 25, 1915

SCALE: 1"= 50'

SEC. 33, T29S, R18E

EQUALITY:
END R/W PROJECT SECTION 10002-2509
STA. 50+00.00 ℄ BAY-TO-BAY BLVD.
BEGIN R/W PROJECT
SECTION 10002-2508

EQUALITY:
STA. 10+00.00 GRADY AVE. =
STA. 36+71.64 BAY-TO-BAY

EQUALITY:
STA. 10+00.00 CHURCH AVE. =
STA. 43+33.10 BAY-TO-BAY

EQUALITY:
STA. 10+00.00 DALE MABRY =
STA. 50+00.00 BAY-TO-BAY

EMPEDRADO STREET

GRADY AVE. N0°56'18"E

CHURCH AVE. N0°58'48"E

DALE MABRY N0°56'07"E

1000' TEMPORARY CONSTRUCTION EASEMENT LINE

EXIST. R/W LINE

1000' TEMPORARY CONSTRUCTION LINE

SEE INSERT "A"

S89°17'33"E

℄ BAY-TO-BAY BLVD.

10.00' TEMPORARY CONSTRUCTION EASEMENT LINE

EXIST R/W LINE

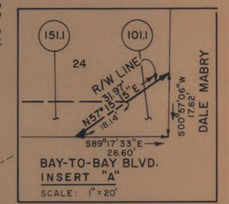
THIS PARCEL TO BE ACQUIRED UNDER SECTION 10002-2508

ASPHALT PARKING LOT

SANTIAGO STREET

LEGEND

- POWER POLE
- TELEPHONE POLE
- COMBINATION POLE
- LIGHT STANDARD
- GUY WIRE & ANCHOR PIN
- BURIED ELECTRIC POWER CABLE — BE(T.S.)
- ELECTRIC DUCT — E-4"PVC(T.S.)
- BURIED TELEPHONE CABLE — BT(200 PR)
- TELEPHONE DUCT — T-4"PVC, 6"RTD
- WATER MAIN — 8" W M
- GAS MAIN — 12" G M
- DRIP POT
- VALVE
- FIRE HYDRANT
- AIR VALVE — 3000
- BLOW-OFF — 1
- SANITARY SEWER — 8" SAN
- STORM SEWER — 12" S S
- MANHOLE
- STREET NAME FROM PLAT
- PUBLIC RECORDS HILLSBOROUGH COUNTY FLA. P.R.H.C.F.
- PROPERTY LINE
- IRON PIPE — I.P.O
- IRON ROD — I.R.O
- CONCRETE MONUMENT — C.M.O
- FIELD DIMENSION — (F)
- DEED DIMENSION — (D)
- CALCULATED DIMENSION — (C)



PARCEL NO.	GRANTOR	AREA TAKEN	REMAINDER RIGHT	REMAINDER LEFT
100.1	KENDLE E. STALLINGS, JR. ET UX	190 S.F.	7310 S.F.	—
101.1	OLGA COOPER AND LUCIAN H. McINTIRE	234 S.F.	—	0.71 AC.
127.1	DONALD A. DAVIS, JR.	TEMP. CONSTRUCTION EASEMENT		
128.1	S. D. and DOROTHY THURMAN	"	"	"
129.1	R. J. and ESTELLA GATLIFF	"	"	"
130.1	MABLE B. CAHILL	"	"	"
131.1	ANN P. SQUITIER	"	"	"
132.1	ALTA S. GARNER	"	"	"
133.1	A. L. and JOSEPHINE RINALDO	"	"	"
134.1	CLARK. P. DOUGLAS	"	"	"
135.1	E. J. and BERNICE BELL	"	"	"
136.1	EDITH S. RUFF	"	"	"
137.1	DALE and DONNA MACMILLAN	"	"	"
138.1	J. M. and ELIZABETH LEONARD	"	"	"
139.1	JAMES and ALICE COOPER	"	"	"
140.1	W. R. COX, JR. and DOUGLAS COX	"	"	"
141.1	LUCILLE H. HARTSON	"	"	"
142.1	CATHERINE R. PARKER	"	"	"
143.1	RAYMOND J. and PHYLLIS A. LIONHART	"	"	"
144.1	A. A. JR. and CAROL MASSARO	"	"	"
145.1	ALICE B. FUSS	"	"	"
146.1	THERESA GROSSART	"	"	"
147.1	MARGARET L. KILGORE	"	"	"
148.1	FRANK and VALANDA RODANTE	"	"	"
149.1	ROSALIE HEITLER	"	"	"
150.1	K. E. and ROZENE STALLINGS	"	"	"
151.1	OLGA COOPER			

FOR CONTRACTORS INFORMATION ONLY

Contract Nos. 8A & 8B

NO.	REVISION	BY	DATE
2	ADDED TEMPORARY CONSTRUCTION EASEMENT J.E.G.	W.J.M.	1-29-74
1	ADDED NOTE J.E.G.	W.J.M.	1-7-74

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

BAY-TO-BAY BLVD.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE W.J.M. DATE 6-25-73 TRACED W.J.M. DATE 6-28-73
CHECKED K.E.W. DATE 7-12-73 SCALE 1"= 50'

SHEET 3 OF 3

84/1

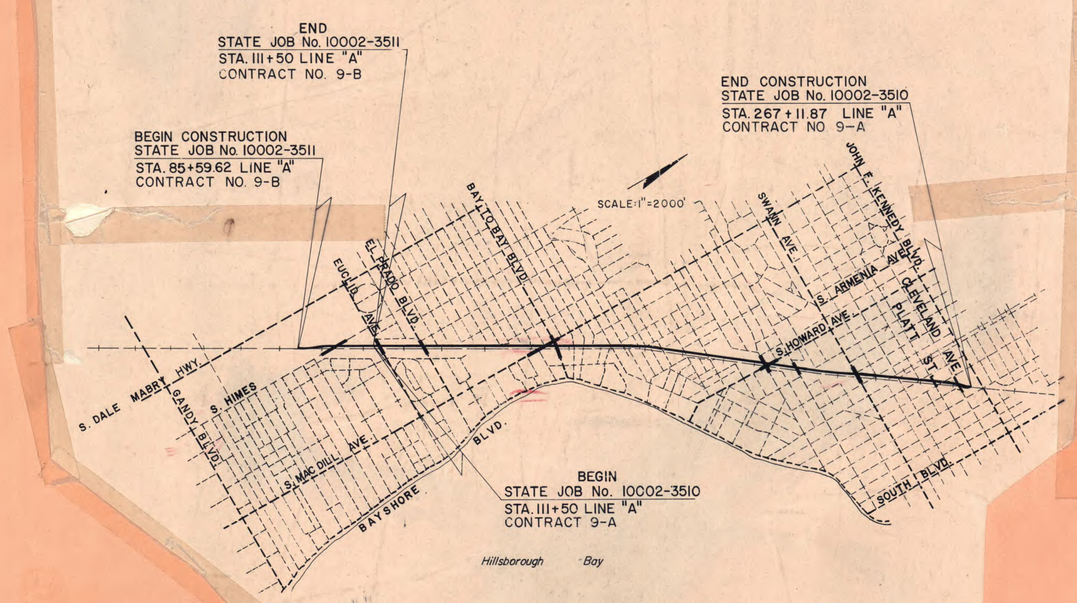
TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NOS. 10002-3510-032 AND 10002-3511-032



CONTRACT NOS.

9A AND 9B

Greiner Engineering Sciences, Inc. - WATSON AND COMPANY

Consulting Engineers
To The Tampa - Hillsborough County Expressway Authority

P.O. BOX 23646
TAMPA, FLORIDA 33672
813/879-1711

CONTRACT NUMBER 9A & 9B - State Job No's 10002-3510 & 10002-3511

Description	Drawing Number Sheet No.
Cover Sheet - Relocation of Railroad	
Drainage Maps	2 through 5
Typical Sections	7 through 10
Summary of Quantities	11, 12 & 13
Plan and Profile	14 through 38
Granada Street Outfall	39
Plan and Profile	39A
Plan & Profile Howard Ave. & Watrous Ave.	40
Plan and profile	41 through 46
Drainage Structure Section Profile	47 and 47A
Plan and Profiles	48 through 62
Special Profile	63 through 74
Improvement of Exist Single 6'x4' culvert under R.R.	164
Special Details	165
Storm Sewer Junction Box	166, 167 & 168
Pump Station and Drainage Detail	169
Box Culvert at Howard Avenue	170
54" Storm Sewer Crossing	171 & 172
Signalization Plan	173 & 184
Cover Sheet Sanitary Sewer Relocation	S-1
Summary of Quantities	S-1A
Plan and Profile	S-2,3 & 4
Miscellaneous Details	S-5,6 & 6A
Cover Sheet SCL Railroad Track Relocation	
Summary of Waterline Quantities	W-2
Standard Details	W-3 & 4
Valve Vault Details	W-5
Plan and Profiles	W6 through 11
Ramp "A" and Santiago Street Details	W-11A
Plan and Profile	W12 through W15
Plan Howard & Watrous Avenue	W-16
Plan and Profile	W-16A through 21A

TOTAL NO. MYLAR SHEETS 87.

MICROFILMED
MICROFILMED
MICROFILMED
MICROFILMED
MICROFILMED
MICROFILMED
AS BUILT
APR 21 1976
84
1

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

— PLANS OF PROPOSED —

SOUTH CROSSTOWN EXPRESSWAY

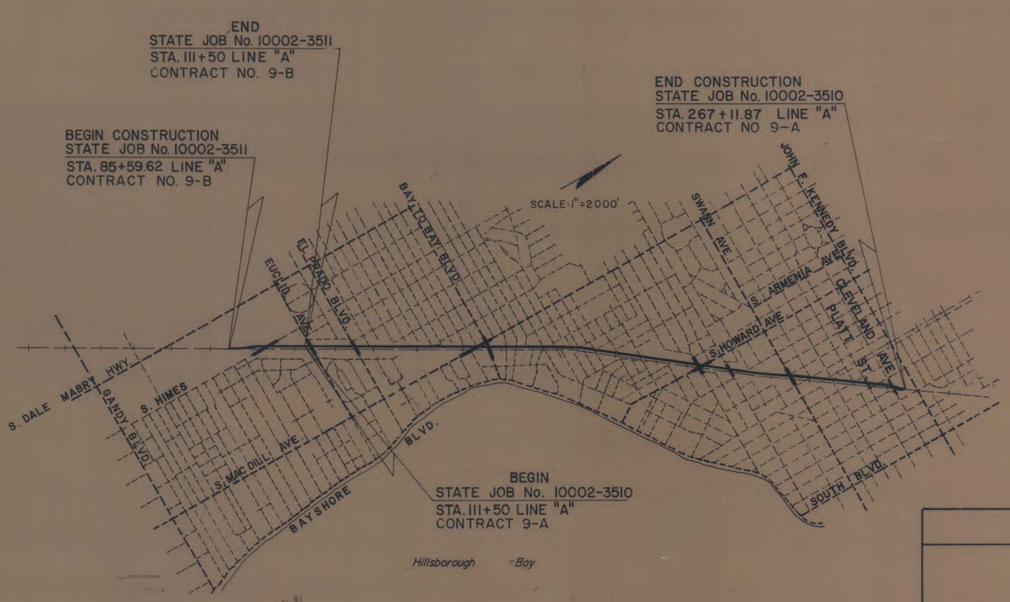
HILLSBOROUGH COUNTY TAMPA, FLORIDA

STATE JOB NOS. 10002-3510-032 AND 10002-3511-032



INDEX OF SHEETS

SHEET NO	
1	KEY MAP
2 - 5	DRAINAGE MAPS
6	TRAVERSE CONTROL SHEET
7 - 10	TYPICAL CROSS-SECTIONS
11 - 13	SUMMARY OF QUANTITIES
14	MASS DIAGRAM
15 - 46	PLAN AND PROFILE
47,47A,48 - 62	DRAINAGE STRUCTURES
63 - 74	SPECIAL PROFILES
74 - A	SOIL CLASSIFICATION SHEET
75 - 163	CROSS SECTIONS
164 - 172	SPECIAL DETAILS
173 - 174	TRAFFIC SIGNALS
175 - 176	RAILROAD CONSTRUCTION SEQUENCE
177 - 179	SEABOARD COAST LINE STANDARD DRAWINGS
180 - 181	INDEX NUMBER 194 (2 SHEETS)
182 - 184	INDEX NUMBER 195 (3 SHEETS)
185 -	INDEX NUMBER 200-A
186 - 187	INDEX NUMBER 1101-W (2 SHEETS)
188	INDEX NUMBER 1331-C
189	INDEX NUMBER 1454-B
190 - 193	INDEX NUMBER 1465-K (4 SHEETS)
194 - 196	INDEX NUMBER 1467-A (3 SHEETS)
197 - 200	INDEX NUMBER 2300-R (4 SHEETS)
201	INDEX NUMBER 2319
202 - 204	VOID
205	INDEX NUMBER 2892
206	INDEX NUMBER 5016-B
207	INDEX NUMBER 5046-D
208 - 209	INDEX NUMBER 5047-F (2 SHEETS)
210 - 211	INDEX NUMBER 5061-D (2 SHEETS)
212 - 213	INDEX NUMBER 5072-G (2 SHEETS)
214 - 215	INDEX NUMBER 5080-G (2 SHEETS)
216	INDEX NUMBER 5086-A
W - 1 - W21	WATER LINE RELOCATION PLANS
S - 1 - S - 6	SANITARY SEWER RELOCATION PLANS
R/W 1 - R/W 7	RIGHT-OF-WAY-MAPS



ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

REVISIONS

Sheet 5-1A (Revised 4-25-73)
Sheet 175 (Revised 5-2-73)
Sheet 11 (Revised 5-17-73)

LENGTH OF JOBS

	STATE JOB NO. 10002 - 3510		STATE JOB NO 10002 - 3511		TOTAL	
	LIN. FT.	MILES	LIN FT.	MILES	LIN. FT.	MILES
RAILROAD	15,561 87	2.947	2,590.38	0 490	18,152.25	3.437
BRIDGES	-0-	-0-	-0-	-0-	-0-	-0-
NET LENGTH	15,561.87	2.947	2,590.38	0 490	18,152.25	3.437
EXCEPTIONS	-0-	-0-	-0-	-0-	-0-	-0-
GROSS LENGTH	15,561.87	2 947	2,590.38	0.490	18,152.25	3.437

APPROVAL RECOMMENDED APRIL 13, 1973
BY [signature]

APPROVED APRIL 13, 1973
BY [signature]
CHAIRMAN

CONTRACT NOS.
9A AND 9B

SUBMITTED [signature]
J. E. GREINER CO., INC.

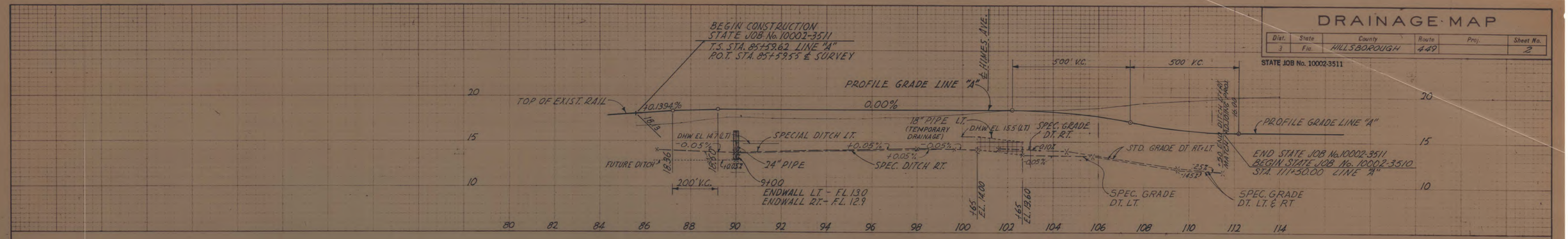
AS BUILT DRAWINGS
APR 21 1975

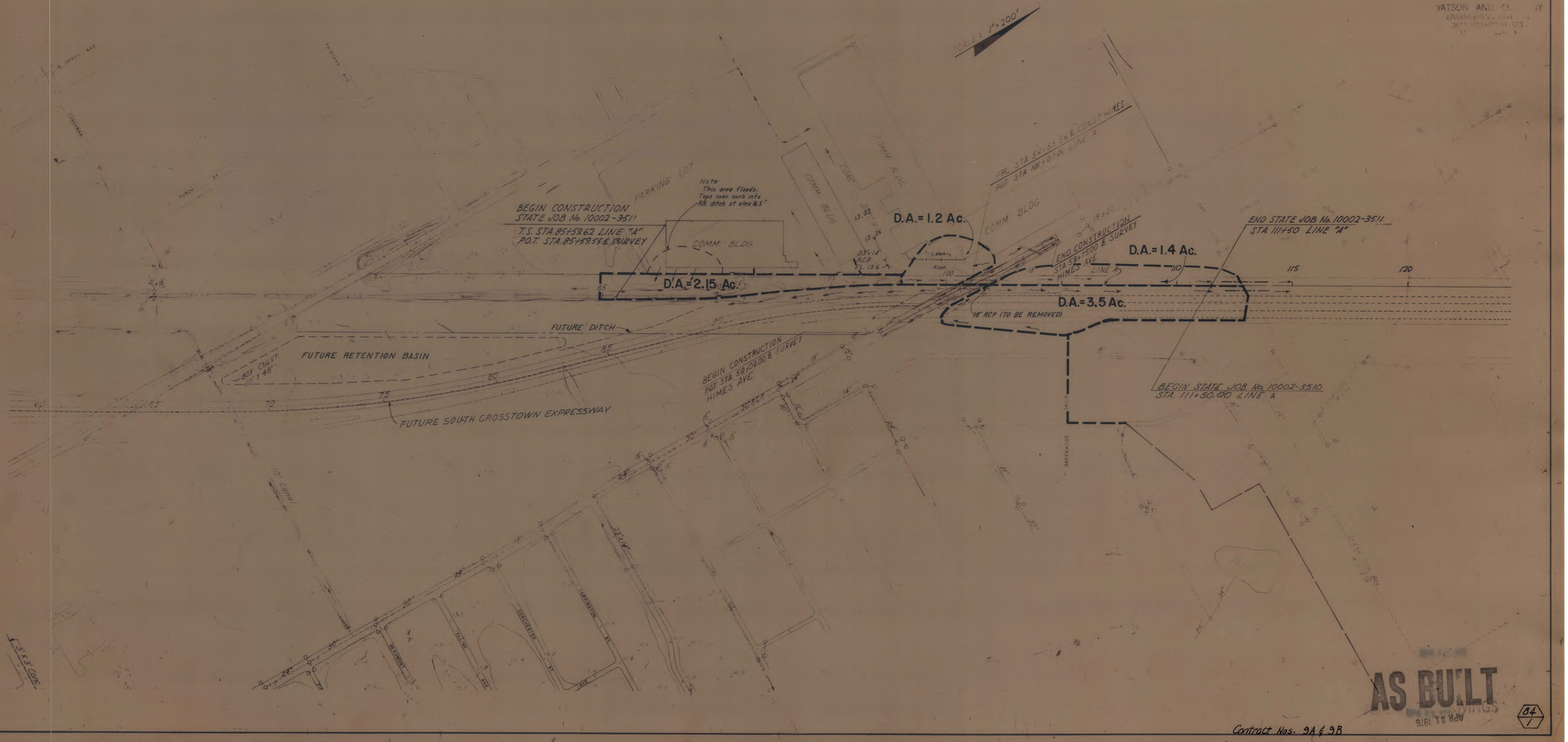
64/1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH	449		2

STATE JOB No. 10002-3511





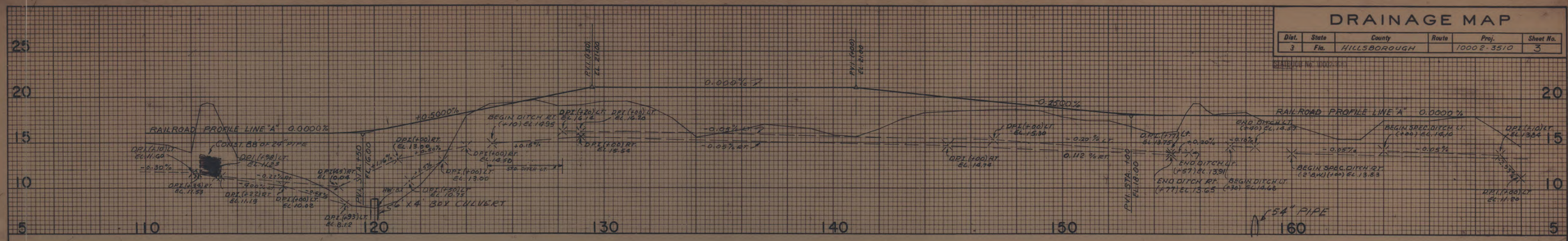
Contract Nos. 9A & 9B

64
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH		1000 2-3510	3

STATE PROJECT NO. 1000-2-01





WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA, FLORIDA

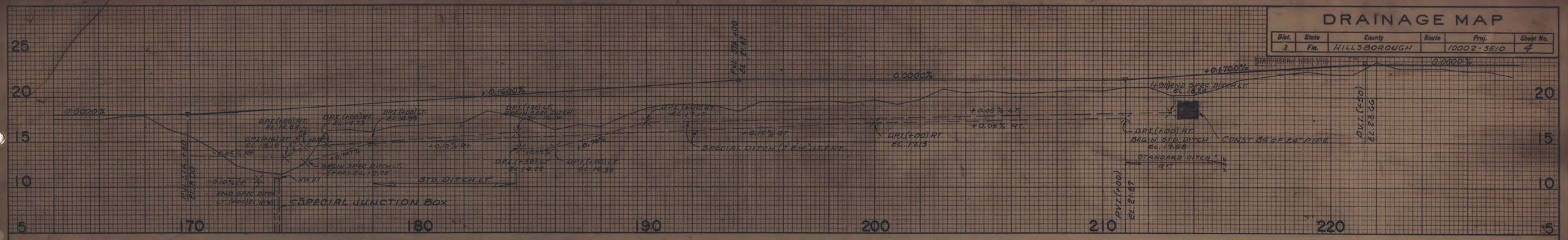
AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

B4
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	4



WATSON AND COMPANY
ENGINEERING DIV.
3013 HORATIO STREET
TAMPA FLORIDA

Scale 1"=200'



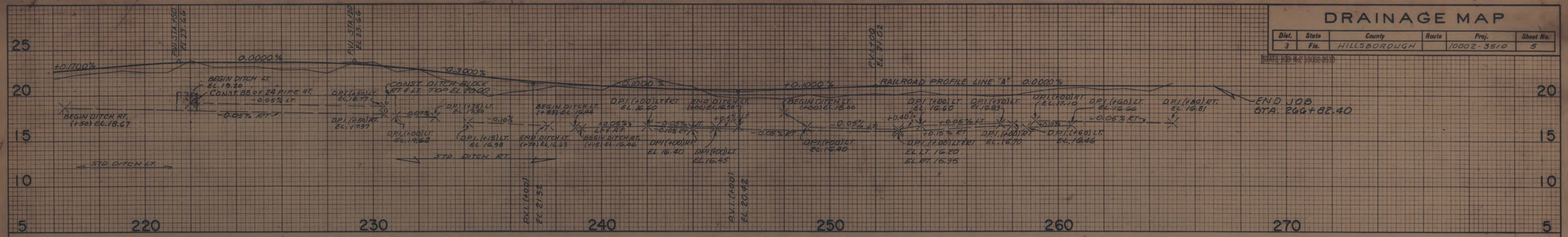
AS BUILT DRAWINGS
APR 21 1978

Contract Nos. 9A & 9B

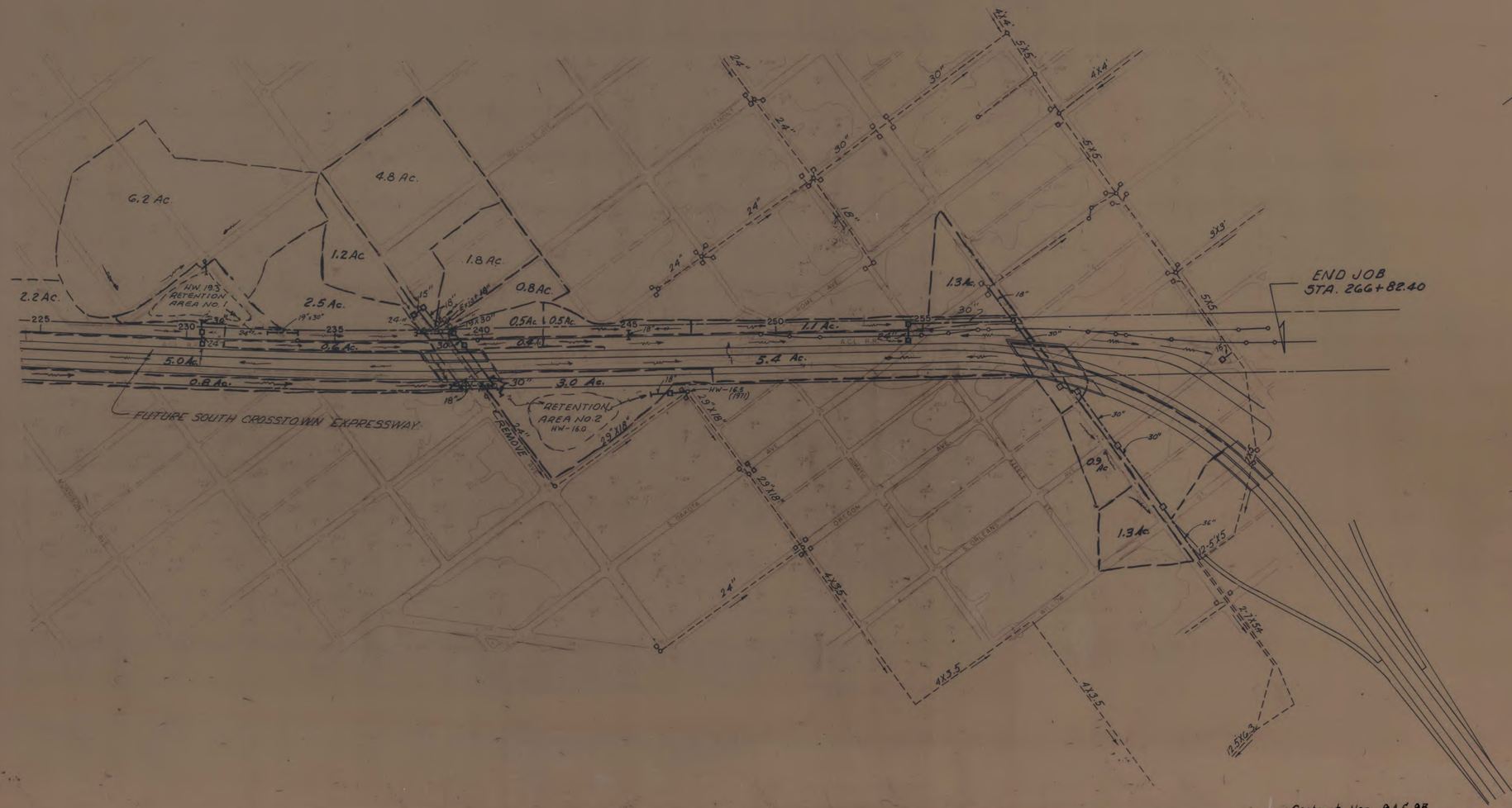
84
1

DRAINAGE MAP

Dist.	State	County	Route	Proj.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	5



WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA



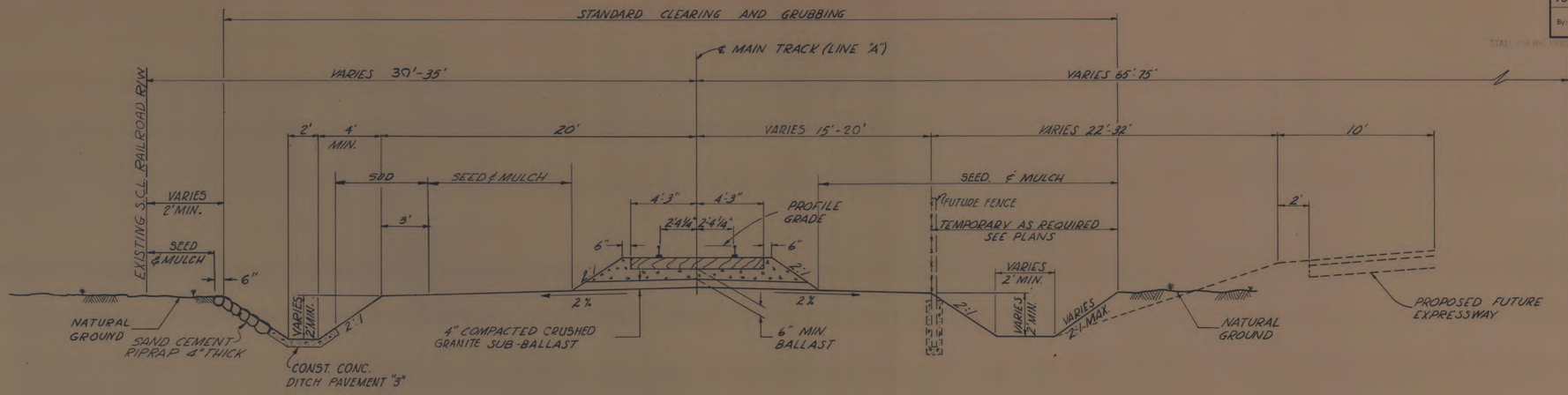
AS BUILT DRAWINGS
APR 21 1978

Contract Nos. 3A & 3B

84
1

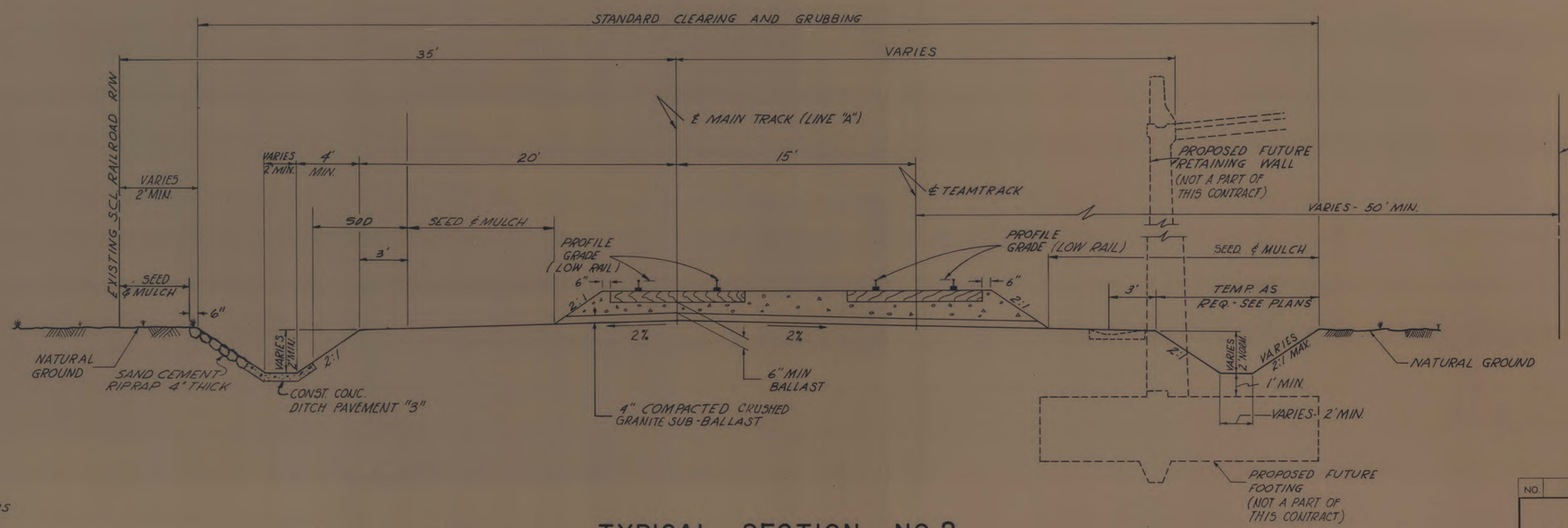
30H

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		7
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73



TYPICAL SECTION NO.1

DESIGN SPEED, 30 M.P.H.



TYPICAL SECTION NO.2

MAINLINE TRACK AND TEAMTRACK
MAINLINE DESIGN SPEED, 30 M.P.H.

NOTE:

1. PROFILE GRADE REFERS TO TOP OF LOW RAIL.
2. RAIL TO BE 100#
3. CONTINUOUS SERVICE MUST BE MAINTAINED ON ADJACENT EXISTING SCL RR TRACKS
4. FOR DETAILS OF ROADBED SEE TYPICAL SECTION No.3
5. ROADBED SHALL BE WIDENED 3' AT SWITCH STAND, ON THE SWITCH SIDE ONLY.

Contract Nos. 9A & 9B

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE D.MARCH DATE 10-72 | TRACED C.B. DATE 11-2-72
CHECKED D.M. DATE 2-9-73 | SCALE NOT TO SCALE

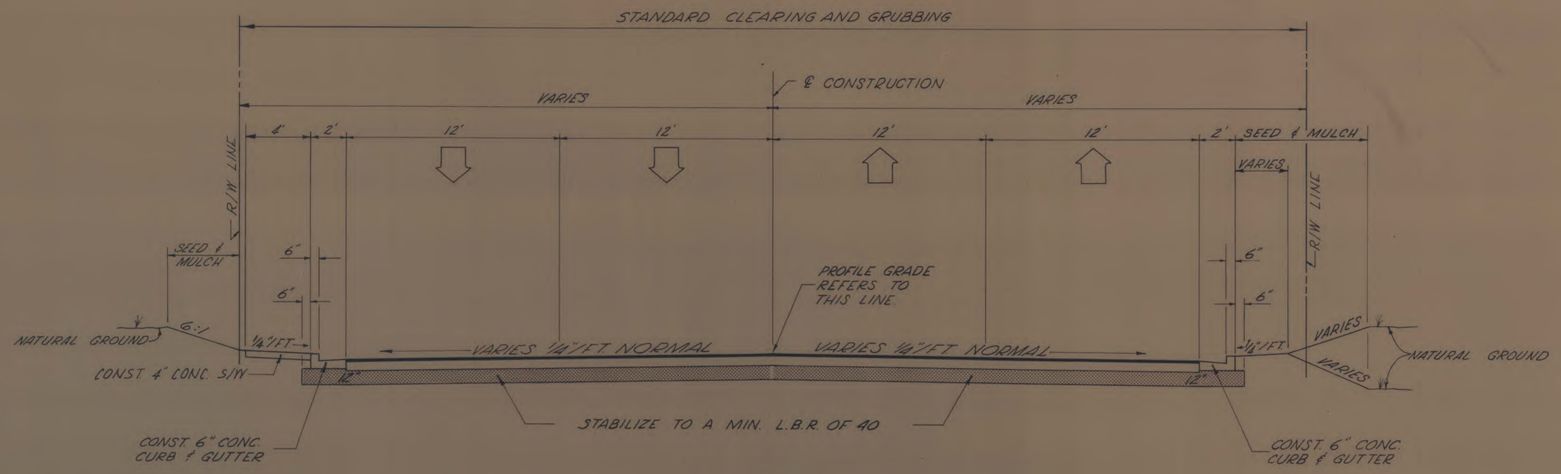
AS BUILT DRAWINGS

84/1

J. E. GREINER COMPANY, INC.
CONSULTANT ENGINEERS TAMPA, FLORIDA

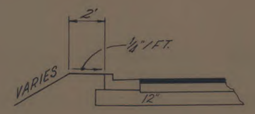
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10007	3511		8
By: J.E.G.	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1-73

STATE ROAD No. 10002-3511

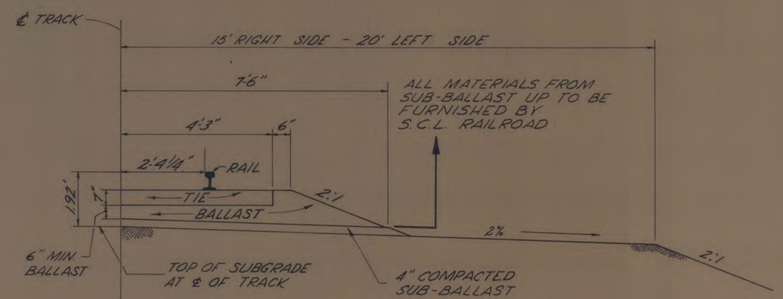


TYPICAL SECTION HIMES AVE.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED WITH TYPE S-1 ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)



PART SECTION



TYPICAL NO. 3

DETAILS OF ROADBED

Contract Nos. 9A & 9B.

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

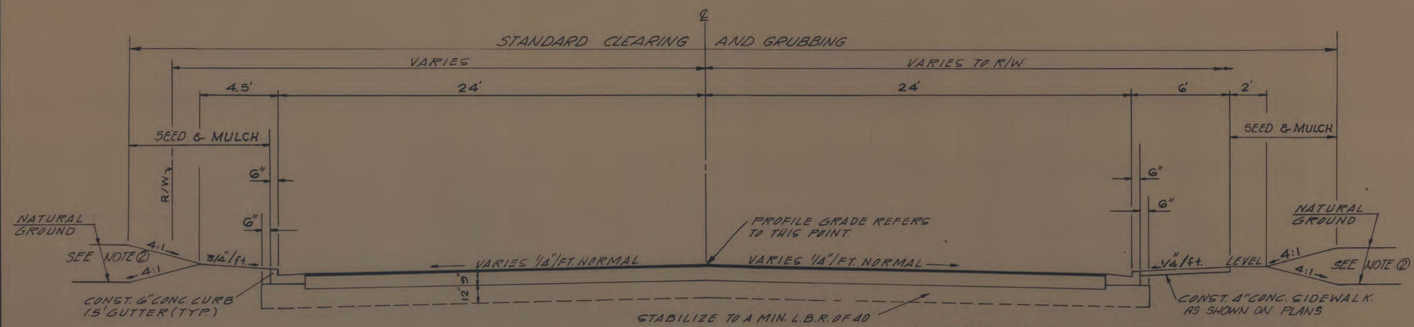
MADE J.K.P. DATE 1-12-73 | TRACED ____ DATE ____
CHECKED M.J.B. DATE 1-15-73 | SCALE N.T.S.

AS BUILT DRAWINGS

84
1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		9
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73



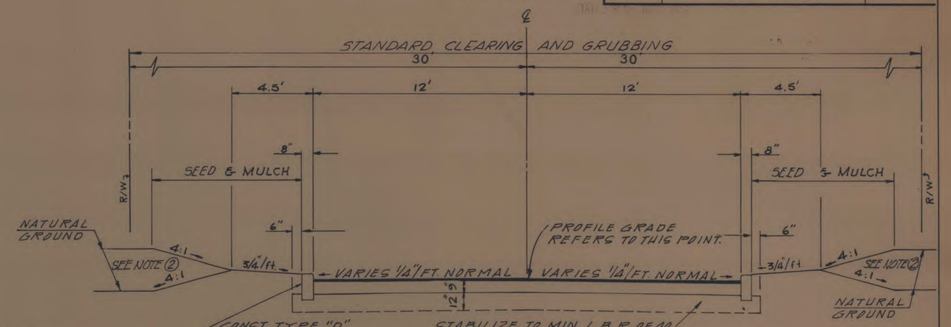
EUCLID AVENUE

BAY TO BAY BLVD.
PLATT ST.
(TYP. EXCEPT SIDEWALKS TO BE CONSTRUCTED ON BOTH SIDES)

3" SURFACE FROM STA. 114+45.79 TO R.R. CROSSING AND FROM STA. 120+21.79 TO STA. 122+53.56. 2" SURFACE FROM R.R. CROSSING TO STA. 120+21.79. ADDITIONAL 1" SURFACE WAS DONE IN ANOTHER CONTRACT.

3" SURFACE FROM 7+40 TO R.R. CROSSING
2" SURFACE FROM R.R. CROSSING TO STA. 10+60
1" SURFACE WAS DONE IN ANOTHER CONTRACT.

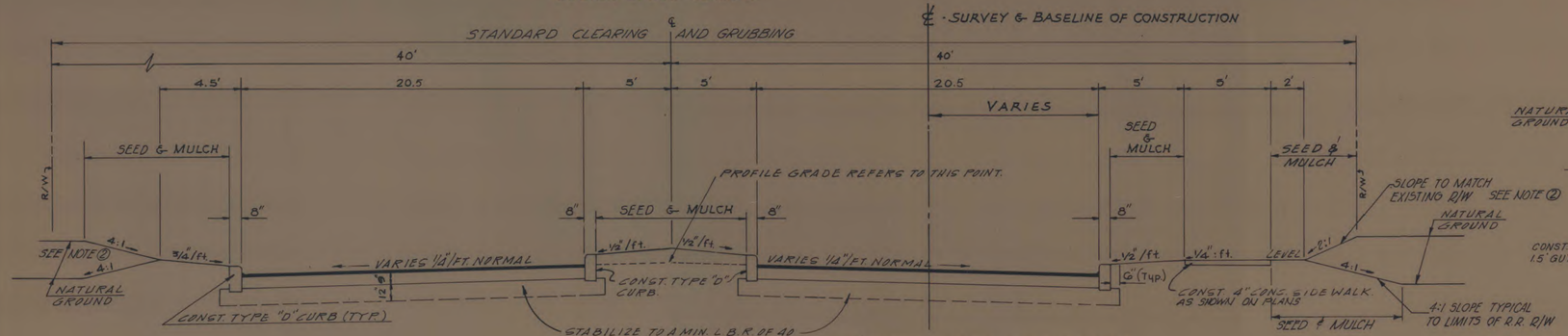
LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.



MORRISON AVENUE

3" SURFACE FROM STA. 8+30 TO R.R. CROSSING
2" SURFACE FROM R.R. CROSSING TO STA. 11+50
1" SURFACE WAS DONE IN ANOTHER CONTRACT.

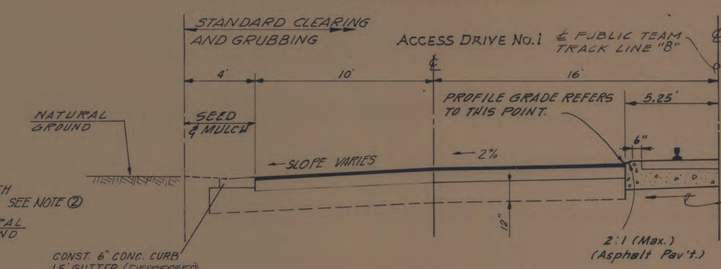
LIMEROCK BASE (9" THICK. DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.



EL PRADO BLVD.

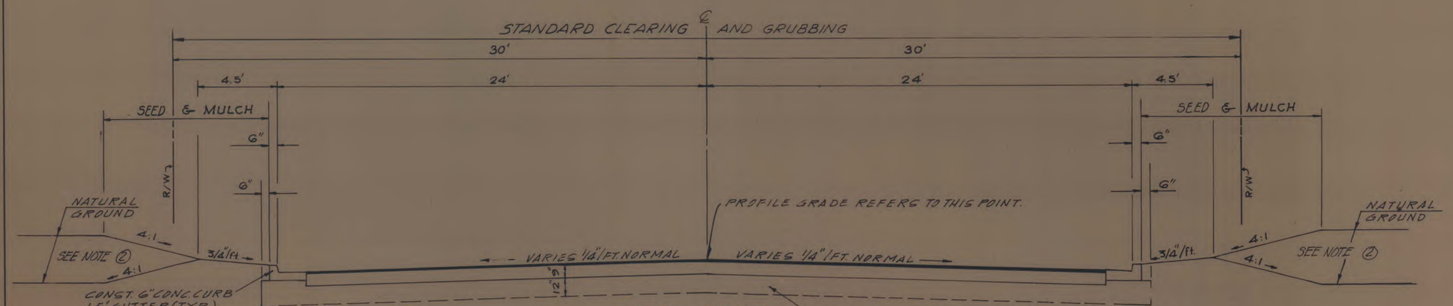
3" SURFACE FROM STA. 7+40 TO R.R. TRACK
2" SURFACE FROM R.R. CROSSING TO STA. 11+60
ADDITIONAL 1" SURFACE WAS DONE IN ANOTHER CONTRACT.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.



ACCESS DRIVE NO. 1 ⚠

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)



MAC DILL AVENUE

3" SURFACE FROM STA. 16+78 TO FIRST R.R. CROSSING AND FROM SECOND R.R. CROSSING TO STA. 24+53.39. 2" SURFACE FROM FIRST R.R. CROSSING TO SECOND R.R. CROSSING. ADDITIONAL 1" SURFACE WAS DONE IN ANOTHER CONTRACT.

LIMEROCK BASE (9" THICK DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.

NOTE:

① USE TEMPORARY SEED & MULCH WITHIN THE LIMITS OF THE EXISTING S.C.L.R.R. RIGHT-OF-WAY OR AS DIRECTED BY THE ENGINEER.

② ON ALL STREETS OUTSIDE THE LIMITS OF THE R/R RIGHT OF WAY SLOPE FROM THE SHOULDER BREAK POINT A MAX. OF 2:1 OR A MIN. OF 6:1 TO MATCH EXISTING GRADE.

Contract Nos. 3A & 3B.

APR 21 1976

NO.	REVISION	BY	DATE
⚠	Rev. Access Drive No. 1	JNC	1-21-75

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

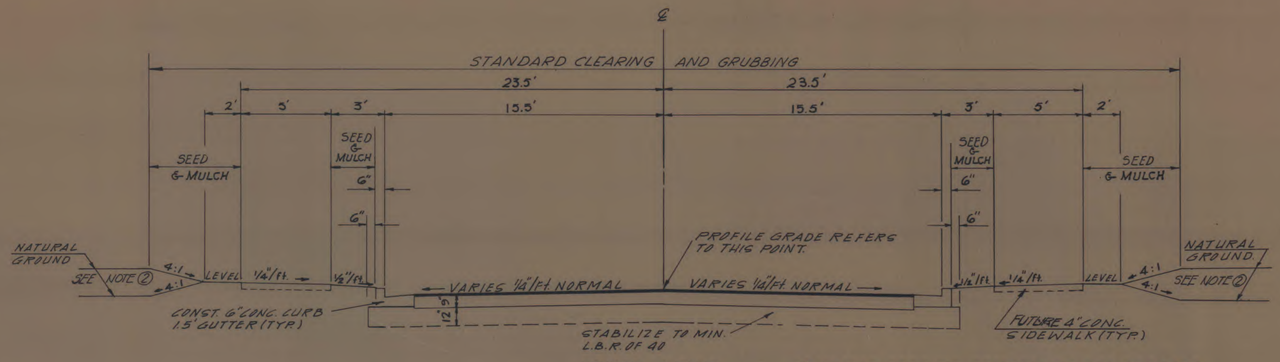
MADE D. MARCH DATE 10-72 TRACED C.B. DATE 11-2-72
CHECKED D.H. DATE 2-9-73 SCALE NOT TO SCALE

AS BUILT DRAWINGS

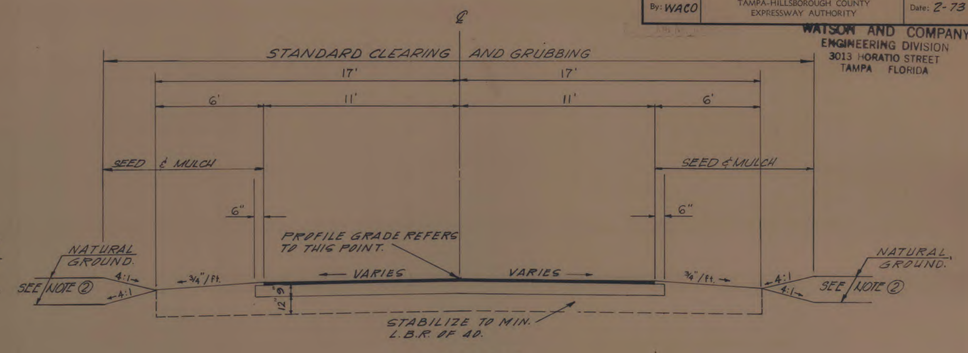
84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		10
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

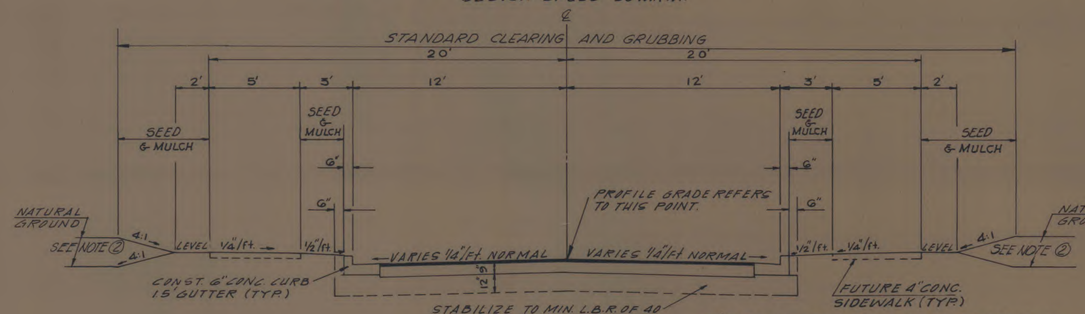


HOWARD AVENUE ——— 3" SURFACE FROM R.R. CROSSING TO STA. 25+77.34.
2" SURFACE FROM STA. 21+57 TO R.R. CROSSING.
ADDITIONAL 1" SURFACE DONE IN ANOTHER CONTRACT.



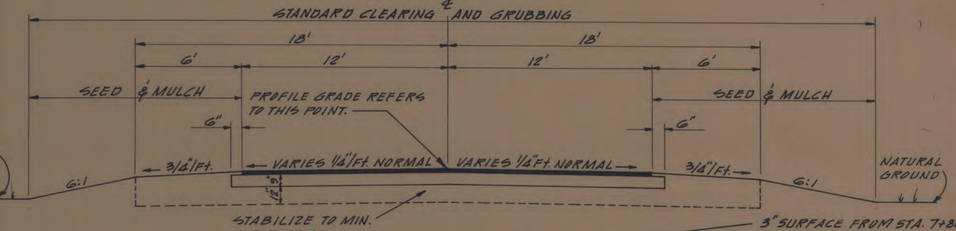
SANTIAGO AVENUE

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.



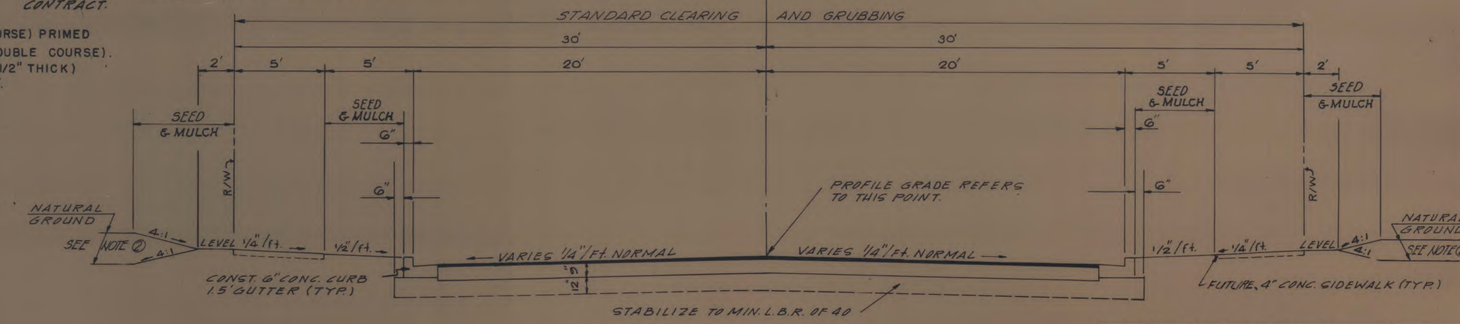
WATROUS AVENUE ——— 3" SURFACE FROM STA. 1+80 TO R.R. CROSSING
2" SURFACE FROM R.R. CROSSING TO STA. 5+50
ADDITIONAL 1" SURFACE DONE UNDER ANOTHER CONTRACT.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK DOUBLE COURSE
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.



MISSISSIPPI AVENUE ——— 3" SURFACE FROM STA. 7+80 TO R.R. CROSSING. 2" SURFACE FROM R.R. CROSSING TO STA. 11+00. ADDITIONAL 1" SURFACE DONE UNDER ANOTHER CONTRACT.

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK, DOUBLE COURSE).
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.



SWANN AVENUE

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED
WITH TYPE S-I ASPHALTIC CONCRETE (3" THICK DOUBLE COURSE)
BOTTOM LAYER (1 1/2" THICK) TOP LAYER (1 1/2" THICK)
DESIGN SPEED 30 M.P.H.

NOTE:

① USE TEMPORARY SEED & MULCH WITHIN THE LIMITS OF THE EXISTING S.C.L.R.R. RIGHT-OF-WAY OR AS DIRECTED BY THE ENGINEER.

② ON ALL STREETS OUTSIDE THE LIMITS OF THE R/R RIGHT OF WAY SLOPE FROM THE SHOULDER BREAK POINT A MAX. OF 2:1 OR A MIN. OF 6:1 TO MATCH EXISTING GRADE.

APR 21 1976

Contract Nos. 9A & 9B.

NO.	REVISION	BY	DATE
1	ADDED MISSISSIPPI AVE.	J.C.	3/13/73

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

TYPICAL SECTIONS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE D.MARCH DATE 10-72 | TRACED E.J. DATE 11-2-72
CHECKED D.M. DATE 2-9-73 | SCALE NOT TO SCALE

AS BUILT DRAWINGS

SUMMARY OF ROADWAY QUANTITIES

ITEM NO.	ITEM	FINAL AS-BUILTS 10002-3510	FINAL AS-BUILTS 10002-3511	FINAL AS-BUILTS TOTAL	UNIT	PROJECT NO. 10002-3510	PROJECT NO. 10002-3511	TOTAL
102-39	Commercial Material for Driveway Maintenance	133	32	165	Cubic Yard	25	25	50
104-32	Mulching (Temporary)	0	0	0	Square Yard	3327	678	4005
104-34	Sodding (Temporary)	0	0	0	Square Yard	1185	276	1461
104-37	Sandbagging	0	0	0	Cubic Yard	20	20	40
102-40	Calcium Chloride	0	0	0	Ton	11	3	14
110-1A	Clearing and Grubbing [Proj. No. 10002-3510]	1	—	1	Lump Sum	1		1
110-1B	Clearing and Grubbing [Proj. No. 10002-3511]	—	1	1	Lump Sum		1	1
120-1	Regular Excavation	66,601	10,506	77,107	Cubic Yard	60,532	8564	69,096
160-42	Type "B" Stabilization (L.B.R.)	22,506	5,131	27,635	Square Yard	21,969	5131	27,100
200-1-7	Limerock Base (9" Thick) [Double Course]	22,8330	4748.22	27,581.22	Square Yard	20,211	4645	24,856
300-1-1	Bituminous Material (Prime Coat)	2692	357	3249	Gallon	3032	697	3729
300-1-3	Bituminous Material (Tack Coat)	0	0	0	Gallon	808	186	994
300-1-13	Bituminous Material (Plant Mix) (AC 20)	46795	10,656	57,451	Gallon	46,366	10,656	57,022
331-32-9	Type S1 Asphaltic Concrete (3" Thick) [Double Course]	19,7014	5063.05	24,764.79	Square Yard	20,211	4645	24,856
102-37A	Maintenance of Traffic [Proj. No. 10002-3510]	1		1	Lump Sum	1		1
102-37B	Maintenance of Traffic [Proj. No. 10002-3511]		1	1	Lump Sum		1	1
400-1-1	Class A Concrete (Culverts)	28974	0	28974	Cubic Yard	286	—	286
405-1	Class NS Concrete [Endwalls and Miscellaneous]	22	5	27	Cubic Yard	22	5	27
415-1-1	Reinforcing Steel (Roadway)	47,298	0	47298	Pound	46,115	—	46,115
400-1-1A	Class A Concrete (Culverts)	332.3	0	332.3	Cubic Yard			
415-1-1A	Reinforcing Steel (Roadway)	28,992	0	28,992	Pound			
425-1-1	Inlets (Curb)	29	0	29	Each	29	—	29
425-1-2	Inlets (Ditch Bottom)	30	0	30	Each	34	—	34
425-1-3	Inlets (Special)	2	0	2	Each	2	—	2
425-2A	Manholes	7	0	7	Each	7	—	7
425-2B	Manholes [Special]	1	0	1	Each	1	—	1
425-2-9	Manholes (Partial)				Each	2	—	2
425-4	Adjusting Manholes	8	2	10	Each	2		2
430-1-22	Concrete Pipe Culvert (15") [SS & CD]	921	0	921	Lin. Feet	1014	—	1014
430-1-23	Concrete Pipe Culvert (18") [SS & CD]	1537	200	1737	Lin. Feet	1551	200	1751
430-1-24	Concrete Pipe Culvert (24") [SS & CD]	766	0	766	Lin. Feet	2280	—	2280
430-1-25	Concrete Pipe Culvert (30") [SS & CD]	1423	0	1423	Lin. Feet	1482	—	1482
430-1-26	Concrete Pipe Culvert (36") [SS & CD]	264	0	264	Lin. Feet	268	—	268
430-1-29	Concrete Pipe Culvert (54") [SS & CD]	1498	0	1498	Lin. Feet	1446	—	1446
430-1-52	Concrete Pipe Culvert (15") (Special)	142	0	142	Lin. Feet	137	—	137
430-1-53	Concrete Pipe Culvert (18") (Special)	194	0	194	Lin. Feet	180	—	180
430-1-54	Concrete Pipe Culvert (24") (Special)	240	40	280	Lin. Feet	311	40	351
430-1-55	Concrete Pipe Culvert (30") (Special)	115	0	115	Lin. Feet	112	—	112
430-1-59	Concrete Pipe Culvert (54") (Special)	192	0	192	Lin. Feet	216	—	216
430-1-61	Concrete Pipe Culvert (60") (Special)	24	0	24	Lin. Feet	24	—	24
430-14-32	Elliptical Concrete Pipe Culvert (19"x30") [SS & CD]	156	0	156	Lin. Feet	156	—	156
440-1-2	Underdrains (6")	768	0	768	Lin. Feet	1018	800	1818
478-30	Pump and Pumping Equipment	1	0	1	Lump Sum	1		1
520-1-1	Concrete Curb & Gutter (6" Curb, 1.5' Gutter)	6321.6	1,664	7883.6	Lin. Feet	6861	1664	8525
520-2-4	Concrete Curb (Type "D")	2194.7	0	2194.7	Lin. Feet	1687		1687
522-1	Concrete Sidewalk, 4" Thick	483	0	483	Square Yard	1904	173	2077
522-2	Concrete Sidewalk, 6" Thick	172	0	172	Square Yard	20	24	44
524-1-1	Concrete Ditch Pavement (3" Thick)	5250	1,194	6444	Square Yard	5491	1037	6528
530-1	Riprap (Sand-Cement)	1389	195	1528	Cubic Yard	833	150	983
536-1-1	Guardrail (Roadway)	731	25	756	Lin. Feet	613	—	613
550-40	Resetting Existing Fence	350	0	350	Lin. Feet	350	—	350
570-2	Seeding And Mulching	16,697	6845	23,522	Square Yard	72,135	14,290	86,425
570-3	Grass Seed (Permanent Type)	345	142	487	Pound	1491	296	1787
570-4	Mulch Material	1378	565	194	Ton	60	12	72
570-5	Fertilizer	264	0.81	25	Ton	8	2	10
570-9	Water For Grassing	17.7	6.1	238	M. Gallons	95	21	116
570-10	Grass Seed (Quick Growing Type)				Pound	308	58	366
575-1	Sodding	11,736	1853	13,589	Square Yard	10,220	2087	12,307
	RAILROAD ITEMS							
471-27.1	Trackwork	18878	2590	21,468	Lin. Foot	18,484	2590	21,074
471-27.2	Sub-ballast	30,925	4030	34,955	Sq. Yd.	30,570	4030	34,600
471-27.3	Turnouts (No 10)	9	0	9	Each	9	—	9
471-27.4	Railroad Crossings Type "L"	14	1	15	Each	13	1	14
	SIGNALIZATION ITEMS							
675-40-2	Concrete Strain Poles (Type V)	76	0	76	Lin Foot	76		76
675-55	Remove And Intall Existing Equipment	1	0	1	Lump Sum	1		1

SODDING SCHEDULE

LOCATION (Lt. Of ℄ Unless Otherwise Noted)	QUANTITY PROJECT NO. 10002-3510	QUANTITY PROJECT NO. 10002-3511
86+50 to 100+65		1066 ~~999~~
102+65 to 109+00		644 ~~448~~
109+00 to 111+50		128 ~~+90~~
111+50 to 112+10	~~50 47~~	
122+10 to 124+00	~~167 35~~	
124+95 to 155+57	~~2552 2548~~	
157+30 to 158+40	~~92 60~~	
164+00 to 173+00	~~750 499~~	
175+00 to 212+90	~~3158 3895~~	
217+00 to 221+10	~~340 498~~	
222+00 to 230+50	~~708 464~~	
231+00 to 232+15	~~146 189~~	
234+15 to 237+70	~~896 377~~	
238+80 to 246+00	~~600 599~~	
248+00 to 257+50	~~792 506~~	
258+60 to 260+60	~~+67 127~~	
Various locations & Contingincies	~~490 292~~	450
TOTAL	11,736 ~~10,220~~ S.Y.	2283 ~~2087~~ S.Y.

PAVED DITCH SCHEDULE

LOCATION (Lt. Of ℄ Unless Otherwise Noted)	QUANTITY PROJECT NO. 10002-3510	QUANTITY PROJECT NO. 10002-3511
164+50 TO 86+50 to 94+00		(~~338~~
100 RT 90+00 to 100+65 (Rt.)		676) 12
100 RT 94+00 to 100+65		5/8 (296
111+50-112+10 102+65 to 112+30	29 ~~38~~ 29	(~~391~~
24+00-155+44 124+91.18 to 155+44	1451 ~~1448~~ 1451	
157+50 to 158+38	41 ~~43~~ 41	
163+47-172+81 163+68 to 166+34	437 ~~432~~ 437	
111+52-172+18 166+80 to 173+18	1108 ~~306~~ 1108	
175+02-212+80 175+02 to 212+80	6491 ~~794~~ 649	
214+77-220+12 212+05 to 221+08	191 ~~193~~ 191	
222+00-230+47 221+96 to 230+47	423 ~~400~~ 463	
230+47-232+75 231+00 to 232+75	85 ~~82~~ 85	
230+47-232+75 231+00 to 231+20 (Rt.)	160 ~~9~~ 160	
234+15-237+70 234+15 to 237+70	315 ~~165~~ 315	
237+70-246+10 238+85 to 246+10	73 ~~341~~ 73	
246+10 & 257+50 248+10 to 257+50	246 ~~444~~ 246	
257+50-260+60 258+62 to 260+60	142 96 142	
Total	~~5250~~ 5491 S.Y.	~~1194~~ ~~1037~~ S.Y.

RIPRAP SCHEDULE

LOCATION (Lt. Of ℄ Unless Otherwise Noted)	QUANTITY PROJECT NO. 10002-3510	QUANTITY PROJECT NO. 10002-3511
86+50 to 94+00		(~~444~~
94+00 to 100+65		196) ~~42.4~~
102+65 to 112+30	~~6.0~~	(~~62.4~~
118+78 to 122+00	~~7.9.8~~	
124+93 to 126+30	178.3 ~~54.8~~	
128+36 to 134+00	~~34.9~~	
135+50 to 139+50	~~10.8~~	
141+75 to 155+57	+102.7	
157+50 to 158+38	167.9 ~~8.3~~	
163+68 to 166+84	~~22.0~~	
166+80 to 173+18	~~+7.6~~	
175+02 to 212+80	342.5 ~~+93.6~~	
217+05 to 221+08	~~34.5~~	
221+96 to 230+47	208.7 ~~54.3~~	
231+00 to 232+75	~~+4.9~~	
234+15 to 237+70	~~29.7~~	
238+83 to 246+00	314.7 ~~73.1~~	
249+00 to 257+50	~~76.3~~	
258+60 to 260+60	~~20.8~~	
TOTAL	1332.9 ~~833.2~~ C.Y.	~~+495~~ 495.1 C.Y.

GUARDRAIL SCHEDULE

LOCATION	QUANTITY PROJECT NO. 10002-3510	QUANTITY PROJECT NO. 10002-3511
128+25 to 128+50	25	100+65-100+65 25
131+50 to 131+75	25	
138+10 to 138+35	25	
141+50 to 141+75	25	
144+40 to 144+65	25	
147+10 to 147+35	25	
150+00 to 150+25	25	
152+95 to 153+20	25	
160+20 to 160+45	25	
168+95 to 169+20	25	
173+15 to 173+40	25	
181+75 to 182+00	25	
192+40 to 192+65	25	
198+40 to 200+18	0 ~~62.5~~	
213+60 to 215+00	162.5 ~~+50~~	
234+10 to 234+35	149.5 ~~25~~	
255+40 to 255+65	25	
260+75 to 261+00	25	
TOTAL	731 ~~612.5~~ Lin. Ft.	

163+00 To 163+25 25 Lin. Ft.
247+00 to 247+25 25 Lin. Ft.

Contract Nos. 9A & 9B.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		11
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 1972

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA, FLORIDA

NOTE; FOR QUANTITIES OF SANITARY SEWER RELOCATION AND WATER DISTRIBUTION RELOCATION SEE APPROPRIATE PLANS.

ITEM NO. 102-37 IS TO BE ACCOMPLISHED IN ACCORDANCE WITH THE STATE OF FLORIDA MANUAL ON TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS.
ITEM NO. 102-39 IS A CONTINGENCY ITEM TO BE USED IF NECESSARY AS DIRECTED BY THE ENGINEER.
ITEM NO'S. 104-32, 104-34, & 104-37 ARE ESTIMATED QUANTITIES FOR PREVENTION, CONTROL, AND ABATEMENT OF EROSION & WATER POLLUTION AND ARE TO BE USED AT LOCATIONS AS DESIGNATED BY THE PLANS OR AS DIRECTED BY THE ENGINEER.
ITEM NO. 102-40 IS A CONTINGENCY ITEM TO BE USED IF NECESSARY AS DIRECTED BY THE ENGINEER.
ITEM NO. 110-1- SOME AREAS, INCLUDING BUILDINGS, MAY REQUIRE SELECTIVE CLEARING AS DIRECTED BY THE ENGINEER.
ITEM NO. 440-1-2 INCLUDES 1200 LIN. FT. FOR CONTINGENCY TO BE USED IF NECESSARY AS DIRECTED BY THE ENGINEER.
ITEM NO. 522-1 INCLUDES 50 SQ. YDS. FOR CONTINGENCY.
ITEM NO. 522-2 " 20 " " " "
ITEM NO. 570-2 " 17,278 SQ. YDS. FOR TEMPORARY GRASSING.
ITEM NO. 570-3 " 358 LBS. " " "
ITEM NO. 570-4 " 14.28 TONS " " "
ITEM NO. 570-5 " 11.63 " " " "
ITEM NO. 570-9 " 27.4 M. GALS. " " "
ITEM NO. 570-10 " 101.0 LBS. " " "
ITEM NO. 536-1-1 NO END ANCHORAGES REQUIRED.

THE CONTRACTOR, AFTER COMPLETING CONSTRUCTION OF NEW PAVEMENT WILL REPLACE ALL OLD TRAFFIC MARKINGS WITH NEW TRAFFIC MARKINGS. THIS WORK WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE PAID FOR INCIDENTAL TO PAVING.

ALL UTILITIES SHOWN ON THE PLANS ARE TAKEN FROM INFORMATION SUPPLIED BY THE UTILITY OWNERS. THESE ARE SHOWN FOR INFORMATION PURPOSES ONLY AND THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFICATION OF THE EXACT LOCATION OF ALL UTILITIES.

(a) GUARDRAIL STATIONS ARE APPROXIMATE. EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

Revised 5-17-73
APR 21 1978

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY
SOUTH CROSSTOWN EXPRESSWAY
SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE J.H. DATE 1972 TRACED H.L. DATE 1972
CHECKED J.H. DATE 1972 SCALE

AS BUILT DRAWINGS

84/1

www.BrassRailRoad.com

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3511 3510		12
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 2-73

SUMMARY OF DRAINAGE STRUCTURES

STRUCT. NO.	INDEX NO.	① LOCATION		TYPE	SIZE	LENGTH	CONCRETE PIPE CULVERT (SS & CD) 15"	18"	24"	30"	36"	54"	CONCRETE PIPE CULVERT CLASS IV 15"	18"	24"	30"	54"	60"	ELLIPTICAL CONC. PIPE CULVERT 19X30"	UNDERDRAIN 6"	J-5	INLETS P-5	P-6	T-S	C	E	H	VA	MANHOLES P	J	J PART'L.	REMARKS	CONC. CU.YDS.	REINF. POUNDS
PROJECT NO. 10002-3511				Cross Drain with Endwalls																														
S-9	5046	90+00			24"	40'									40'																	Endwalls	5.30	
	Z00	100+65 TO 102+65	Lt.	Side Drain	~~24"~~ 18"	200'		200	0 ~~200'~~																									
PROJECT NO. 10002-3510																																		
	Z00	112+10 TO 112+28	Lt.	Side Drain with Endwalls	24"	88'			88'																									
	Z00	112+34 TO 113+22	Rt.	Side Drain with Endwalls	24"	88'			88'																								Endwalls	2.16	6
S-10	5047	7+63 - Euclid Ave.	24' Rt.	Storm Sewer & P-6 Inlet	15" & 18"	6'&49'	6'	~~49'~~ 56'														1										Endwalls	2.16	6
S-11	5047	12+28.2 - Euclid Ave.	24' Rt.	Storm Sewer & P-5 Inlet	15"	~~49'~~ 50'	40'															1												
S-11A	5047	12+27.5 - Euclid Ave.	24' Lt.	Storm Sewer & P-6 Inlet	15"	56'	56'																											
S-12	5046	118+93	28' Lt.	Storm Sewer & "E" Inlet	~~30"~~ 24"	~~104'~~ 120'			120'	~~104'~~					0										1								
~~S-12-A~~	~~5046~~	~~118+45~~	~~24' Rt.~~	~~Storm Sewer & "E" Inlet~~	~~24"~~	~~68' 0~~									~~68'~~ 0										~~1~~ +0							
S-13	SP. DETAIL	119+98.64		Replace 6'x4' Box		45'																												
S-14	5046	120+15	26' Lt.	Inlet Grate Only ("C")																					1								⑤ 32.64	4,819
		EL PRADO UNDER SIDEWALK																																
S-15	2892	10+40 - El Prado	10' Rt.	Storm Sewer & T-S Inlet	15"	~~28'~~ 27'	28'														8			1										
S-16	2892	10+40 - El Prado	20.5' Lt.	Storm Sewer & T-S Inlet	15"	~~72'~~ 74'	72'																	1										
S-17	5046	125+10	19.25 Rt.	Storm Sewer & "C" Inlet	18"	~~42'~~ 42'								~~42'~~ 42'											1								
~~S-17-A~~	5046	9+30 El Prado	5&6 Lt.	Storm Sewer & "E" Inlet	18"	104'		104'																	1							② Conc. Collar		
S-18	5046	154+77	20' Rt.	Storm Sewer & "E" Inlet	24"	42'									42'												1							
S-19	5046	154+77	25' Lt.	Storm Sewer & "E" Inlet	24"	~~102'~~ 73'			~~102'~~ 73'																				1					
S-20	5047	21+60 - Mac Dill	32' Lt.	Storm Sewer & "J" Manhole	54" & 18"	~~276'~~ 208'		30'				~~68'~~ 16'						~~218'~~ 192'												1		② 54" Plug		
S-21	5047	0+44.06 - Santiago	10' Lt.	Storm Sewer & P-6 Inlet	24" & 54"	~~72'~~ 0			~~72~~ 0			104'											1											
S-22	5047	0+41.08 - Santiago	10' Rt.	Storm Sewer & P-6 Inlet	15"	~~72'~~ 19'	12'																1											
S-23	5046	21+50 - Mac Dill	42' Rt.	Storm Sewer & "C" Inlet	15"	~~78'~~ 76'							~~76'~~ 70'												1								
S-24	5047	19+56 - Mac Dill	24' Rt.	Storm Sewer & P-6 Inlet	15"	~~98'~~	98'																1										
S-24-A	5046	19+58 - Mac Dill	41' Rt.	Storm Sewer & "C" Inlet	15"	14'	14'																		1								
S-25	5047	18+90 - Mac Dill	24' Lt.	Storm Sewer & P-6 Inlet	15"	~~78'~~ 77'	~~76'~~ 77'																1										
S-26	5047	114+95.73 - Bay to Bay	34.25' Rt.	Storm Sewer & P-6 Inlet	15"	~~48'~~ 15'	~~48'~~ 15'																1										
S-27	5047	114+91.68 - Bay to Bay	25.27' Lt.	Storm Sewer & P-6 Inlet	15"	~~30'~~ 9'	~~30'~~ 9'																1										
S-28	5047	115+87.24 - Bay to Bay	24.09 Rt.	Storm Sewer & P-5 Inlet	15"	38'	38'															1											
S-29	5047	115+73.88 - Bay to Bay	24.13' Lt.	Storm Sewer & P-5 Inlet	15"	~~51'~~ 9'	~~51'~~ 9"															1											
S-30	5046	158+40	25' Lt.	Storm Sewer & "C" Inlet	15"	36'						44.5 3	36'												1								
S-31	5047	158+40	14' Rt.	Storm Sewer & "J" Manhole	54"	~~456'~~ 446'						~~456~~ 446'																	1				
S-31-A	5046	158+27	20' Rt.	Storm Sewer & "C" Inlet	15"	12'	12'																		1								
S-32	5047	118+20 - Bay to Bay	55' Rt.	Storm Sewer & "P" Manhole	18"	142'		142																					1		② Concrete Collar		
		118+28 - Bay to Bay	20' Lt.	Storm Sewer	18"	104'		104'																							② 18" Plug		
S-33	5046 & 5047	163+05.4	21' Rt.	Storm Sewer & Special Inlet	54"	506'						506'													1					1	Bid as Special Inlet		
S-33-A	5086	14+66.55 - Granada	10' Lt.	Storm Sewer & Special Inlet	54"	~~356'~~ 352'						~~356~~ 352'																+0		1	Bid as Special Inlet		
S-33-B	5047	122+41 - Bay to Bay	30' Lt.	Storm Sewer & P-6 Inlet	18"	~~314'~~ 293'		~~314'~~ 293'														1											
S-33-C	5047	122+14 - Bay to Bay	34' Rt.	Storm Sewer & P-6 Inlet	15"	68'	68'															1											
S-33-D	5047	18+29 - Granada	℄	Storm Sewer & Spec. Jct Box	54"	~~68'~~ 78'						~~68'~~ 72'																			④ Special Manhole		
S-34	5046	2150 - Access Drive #1	11' Lt.	Storm Sewer & "VA" Inlet	18"	60'								60'																	② Concrete Collar		
		0+68 To 4+82 Access Drive #1	7' Rt.	Underdrain	6"	368'														368													
~~S-35~~	~~5046~~	~~169+10~~	~~26' Lt.~~	~~Storm Sewer & "C" Inlet~~	~~15"~~	~~14'~~	0 14'																					0+				② Concrete Collar		
S-36	SP. DETAIL	174+00 (Approx.)		Reconstruct Junction Box															24'														
S-37	5046	174+20	22' Rt.	"C" Inlet																					1							⑤ 143.91	23,634
S-38	5046	175+00	28' Lt.	Storm Sewer & "C" Inlet	15"	4'	4'																		1							② Conc. Collar		
S-39	5046	184+50	28.5' Lt.	Storm Sewer & "C" Inlet	24"	8'			8'																1							② Conc. Collar		
S-40	5046	184+50	21' Rt.	Storm Sewer & "C" Inlet	18" & 24"	8' & ~~48'~~ 47'		8'							~~48'~~ 47'										1							② 18" Plug		
S-41	5046	199+05	25' Lt.	Storm Sewer & "E" Inlet	24"	~~46'~~ 47'			~~46'~~ 47'																		1						
S-42	5046	199+45	23' Rt.	Storm Sewer & "E" Inlet	24"	56'									56'												1						
~~S-18 thru S-18 thru~~	5046	199+05 to 212+78	Lt.	Storm Sewer & "E" Inlets	~~18" & 24"~~	~~12 & 1354'~~		~~12'~~	~~1354'~~																		~~1~~ *1					② Conc. Collar		
S-43	5047	2+00 - Watrous	12' Lt.	Storm Sewer & P-6 Inlet	15"	~~20'~~ 21'	~~20'~~ 21'																1										
S-44	5047	2+00 - Watrous	12' Rt.	Storm Sewer & P-6 Inlet	15"	52'	52'																1										
S-45	5047	214+00	20' Lt.	Storm Sewer & "VA" Inlet	18"	~~118'~~ 125'		~~117'~~ 125'																			1						
S-46	5047	24+45 - Howard	20' Lt.	Storm Sewer & "P" Manhole	18"	~~204'~~ 209'		~~204'~~ 209'																					1				
S-47	5047	25+45 - Howard	15' Rt.	Storm Sewer & P-5 Inlet	15"	~~44'~~ 39'	~~40'~~ 39'															1											
S-48	5047	25+59.37 - Howard	21' Lt.	Storm Sewer & P-6 Inlet	15"	~~36'~~ 33'	~~36'~~ 33'																1										
S-49	5047	25+22.58 - Howard	21' Lt.	Storm Sewer & P-6 Inlet	18"	~~72'~~ 75'		~~72'~~ 75'															1										
S-50	5047 & 200	4+67.68 - Watrous	24' Lt.	P-6 Inlet & Pipe Outlet	15"	24'	24'																1								Endwall	0.69	
	Z00	213+27 to 214+11	20' Rt.	Side Drain with Endwalls	24"	84'			84'																							2.16	6
		216+03.60 Howard		10'x5' Box Culvert	10'x5'	~~75'~~																									345.49	⑤ ~~109.70~~ 1.53	~~1764~~ 47,792
	Z00	217+00		Cross Drain with Endwalls	18"	~~38'~~ 54'								38' 54'																		2.16	6
	Z00	221+47 to 222+35	25' Rt.	Side Drain with Endwalls	24"	88'			88'																						Endwall	0.57	
		230+60		Pumping Station Inlet, End.	24"	24'			24'																							1.46	3
S-51	5046 & 200	230+50	26' Lt.	"E" Inlet with Pipe Outlet	30"	33'			~~33~~	33'															1								
S-52	5046	230+50	22' Rt.	Storm Sewer & "E" Inlet	18" & 24"	4' & ~~45'~~ 46'		4'							~~45'~~ 46'										1							② 18" Plug		
	Z00	231+72 (58' Lt.) to 231+97 (32' Lt.)		Pipe Culvert with Endwalls	24"	36'			36'																							Endwalls	2.16	6
	Z00	232+75 to 234+15	27' Lt.	Side Drain with Endwalls	19"x30"	~~140'~~ 138'													~~140'~~ 138'													Endwalls	2.16	6

SEE SHEET NO. 13 FOR SUMMARY

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — CONSULTING ENGINEERS — WATSON & COMPANY, TAMPA, FLORIDA

MADE H.L. DATE 12-13-72 | TRACED H.L. DATE 2-9-73
CHECKED D.D.M. DATE 2-2-73 | SCALE NOT TO SCALE

APR 21 1976

Contract Nos. 9A & 9B

AS BUILT DRAWINGS

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3316		13
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

SUMMARY OF DRAINAGE STRUCTURES

STRUCT. NO.	INDEX NO.	① LOCATION		TYPE	SIZE	LENGTH	CONCRETE PIPE CULVERT (SS & CD) 15"	18"	24"	30"	36"	54"	CONCRETE PIPE CULVERT CLASS IV 15"	18"	24"	30	54"	60"	ELLIPTICAL CONC. PIPE CULVERT 19"X30"	UNDERDRAIN 6	J-5	INLETS P-5	P-6	T-S	C	E	H	VA	MANHOLES P	J	J PART L.	REMARKS	CONC. CU.YDS.	REINF. POUNDS
S-53	5047	17+98 - Swann	20'Rt.	Storm Sewer & P-6 Inlet	15"	37'	37'																											
S-54	5047	17+98 - Swann	20'Rt.	Storm Sewer & P-6 Inlet	18"	~~76'~~ 75'		~~76'~~ 75'														1												
S-55	5047	18+75 - Swann	20'Lt.	Storm Sewer & "P" Manhole	18"	~~20'~~ 18'		~~20'~~ 18'														1												
S-56	5046	238+83	26'Lt.	Storm Sewer & "H" Inlet	19"X30"	~~630'~~ 8 ~~16'6~~ 52'55'										~~52'~~ 55'			~~16'~~ 18'							1							
S-57	5046	239+15	21'Rt.	Storm Sewer & "H" Inlet	30"	~~168'~~ 197'				~~168'~~ 197'																	1						
	200	237+70 to 238+83	26'Lt.	Side Drain to Storm Sewer	24"	110'			110'																								
S-58	5047 & 200	241+51 - Swann	50'Lt.	"P" Manhole & S.S. Outlet	30"	28'				28'																							
S-58-A	5046	239+05	160'Rt.	Storm Sewer & "C" Inlet	18"	~~110'~~ 92'		~~110~~ 92'																	1								
	200	246+00	185'Rt.	Ditch Drain to S.S.	18"	52'		52																									
S-59	5047	Rome Avenue		Storm Sewer & P-5 Inlet	18"			32														1												
	200	245+00		Cross Drain & Endwalls	18"	38'							38'																			Endwalls	1.53	
	5047	253+00	28'Rt.	Ditch Drain & Manholes	24"	~~51'~~ 49'			~~40~~					~~56'~~ 49'															1				
S-60	5046	253+00	25'Lt.	Storm Sewer & "E" Inlet	30"	~~474'~~ 477'				~~474'~~ 477'																1							
S-61	5047	257+78.6	24'Lt.	Storm Sewer & P-5 Inlet	30"	~~224'~~ 164'				164'						~~60'~~						1											
		7+40 - Platt	24'Rt.	Storm Sewer (Exist. M.H.)	18"	~~130'~~ 106'		130																								③ Conc. Slab	~~0.5~~ 0.3	
S-62	5047	11+00 - Platt	24'Rt.	Storm Sewer & "P5" Inlet	30"	64'				64'												1											
S-63	5046	258+60	24'Lt.	Storm Sewer & "C" Inlet	15"	~~78'~~ 81'	~~78'~~ 81'																		+0								
		61+78 to 64+28 - Line "J"	15'Lt.	Underdrain	6"	250'														250													
S-64	5043	64+28 - Line "J"	15'Lt.	Storm Sewer & "VA" Inlet	15"	~~31'~~ 32'							~~31~~ 32'																1				
S-65	5046	264+28	20'Lt.	Storm Sewer & "C" Inlet	15"	~~69'~~ 31	~~69~~ 31'																		1								
S-66	5046	264+80	95'Rt.	Inlet - Type "C" - Existing S.S.	6"	142'														142'					1								
S-67	5047	11+48 - Platt	24'Lt.	Storm Sewer & "P5" Inlet	30"	238'				238'												1											
S-68	5047	13+90 - Platt	24'Lt.	Storm Sewer & "P5" Inlet	30"	~~242'~~ 250'				~~242~~ 250'												1											
S-69	5047	16+35 - Platt	24'Lt.	Storm Sewer & "J-5" Inlet	36"	~~268'~~ 264'					~~268~~ 264'										1											② Conc. Collar		
		172+85 @ "A"			15"	27'	27'																										
		256+00 Line "J"	20'Lt.																														
TOTALS							~~1014~~ 921	~~1551~~ 1737	~~2280~~ 766	~~1482~~ 1423	~~268~~ 264	~~1446~~ 1498	~~137~~ 144	~~180~~ 194	~~351~~ 280	~~112~~ 115	~~216~~ 192	23	156		~~618~~ 768	1	9	17	2	~~17~~ 16	~~13~~ 9	7	~~4~~ 3	5	2	7	Class N-3 Conc. 27.00 ~~27.48~~	Class "A" Conc. ~~29.49~~ 32.62	Rein. Steel ~~4578~~ 4660

① STATION REFERS TO LINE "A" UNLESS OTHERWISE NOTED.

② FOR DETAILS SEE INDEX NO. 5061.

③ FILL EXISTING MANHOLE WITH SAND & CONCRETE AS SHOWN ON DETAIL.

④ THE SPECIAL STRUCTURE AT STA. 18+29 (GRANADA AVE.) WILL BE PAID FOR AS - MANHOLE [SPECIAL] AND SHALL INCLUDE ALL LABOR & MATERIALS TO CONSTRUCT THE STRUCTURE (AND CAST IRON PIPE) SHOWN ON SHEETS NO. 171 & 172.

⑤ CLASS "A" CONCRETE

APR 21 1976

Contract Nos. 9A & 9B.

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SUMMARY OF QUANTITIES

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE H.L. DATE 12-13-72 | TRACED H.L. DATE 2-9-73
CHECKED D.D.M. DATE 2-3-73 | SCALE NOT TO SCALE

AS BUILT DRAWINGS

84
1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510 & 3511		14
BY WACO	TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		DATE: 1-73

STATE PROJECT NO. 10002-3510

FINAL SURVEY	SURVEYED		BY	DATE
	PLOTTED		CRS	
NOTE BOOK	TEMPLATE			
NO.	AREAS		CRS	
	AREAS CHECKED			

ORIGINAL SURVEY	SURVEYED		BY	DATE
	PLOTTED		CRS	
NOTE BOOK	TEMPLATE			
NO.	AREAS		CRS	
	AREAS CHECKED			

80 100 120 140 160 180 200 220 240 260

40,000 35,000 30,000 25,000 20,000 15,000 10,000 5,000 0 -5,000

SUMMARY OF EARTHWORK

ROADWAY EXCAVATION	= 69096 CU YD
ROADWAY FILL +25%	= 27130 CU YD
EXCESS	= 41946 CU YD

NOTE:
EXCESS EXCAVATION MATERIALS SHALL BE PLACED AT A LOCATION DESIGNATED BY THE ENGINEER.
THIS MATERIAL WILL BE USED IN THE EMBANKMENT OF THE EXPRESSWAY AND SHALL BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS FOR EMBANKMENT.

BEGIN JOB NO. 10002-3511
STA. 85+59.62

STA 85+59.62

HMES AVE.
STA. 99+68.03

END JOB NO. 10002-3511
BEGIN JOB NO. 10002-3510
STA. 111+50.00 LINE A

EUCLID AVE.
STA. 113+03.96

EL PRADO BLVD.
STA. 124+33.89

NAC DILL AVE
STA. 156+04.29

BAY TO BAY
STA. 159+00.84

WATROUS AVE.
STA. 213+44.53

HOWARD AVE.
STA. 216+16.55

MORRISON AVE
STA. 221+71.58

SWANN AVE.
STA. 238+39.91

PLATT ST.
STA. 258+26.35

END JOB NO. 10002-3510
STA. 266+82.40

MASS DIAGRAM
SCALE: 1" = 1000' HORIZ.
1" = 2500 CU.YD. VERT.

NOTE: THIS DIAGRAM IS FOR THE CONTRACTORS INFORMATION ONLY

APR 21 1976
AS BUILT DRAWINGS

K•E PLATE 3. CROSS SECTION
KEUFFEL & ESSER CO.
48 7072 MADE IN U.S.A.

Contract Nos. 9A & 9B

84

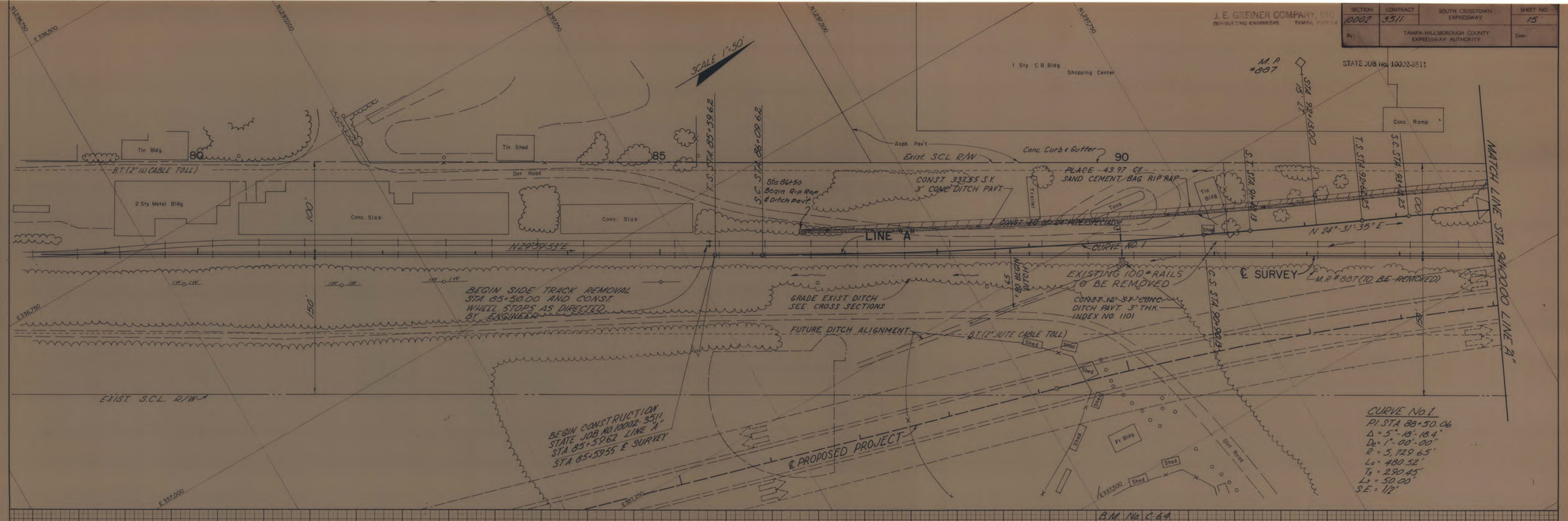
PREVIOUS IMAGE IS CROPPED ON ORIGINAL DOCUMENT

J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS TAMPA, FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3511		15
By:		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date:

STATE JOB NO. 10002-3511

SCALE 1"=50'



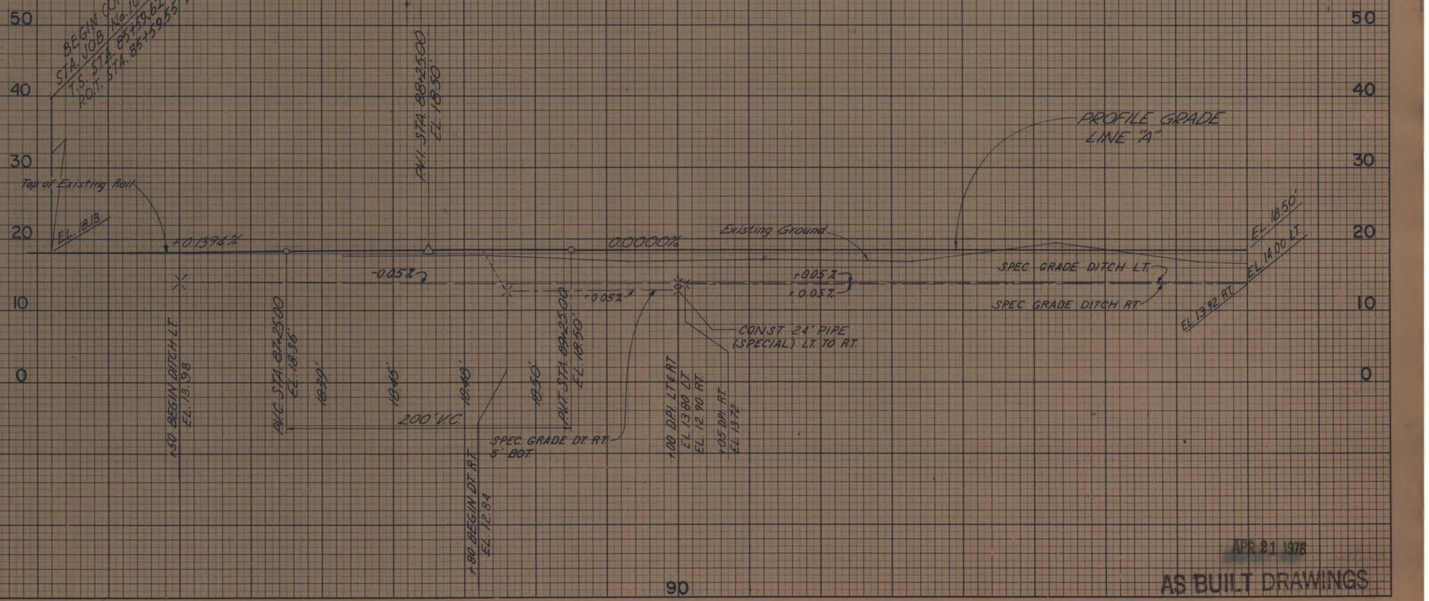
B.M. No. C-64
X-TIE AT ENTRANCE TO GULF COTTS GAS
EL. 17.99'

GENERAL NOTES

1. B.M. DATUM USC & GS
2. EXCEPT FOR CITY OF TAMPA WATER & SEWER LINES, ALL UTILITIES ARE TO BE ADJUSTED BY OTHER AS DIRECTED BY THE ENGINEER.
3. CONTINUOUS SERVICE MUST BE MAINTAINED ON ADJACENT EXISTING S.C.L. R.R. TRACKS.
4. EIGHT (8) INFORMATION SIGNS 8' HIGH BY 8' LONG MOUNTED ON 4"x4" POSTS SHALL BE FURNISHED BY THE CONTRACTOR. INFORMATION TO BE PROFESSIONALLY LETTERED ON THE SIGN AND THEIR LOCATIONS WILL BE AS DIRECTED BY THE ENGINEER. THE SIGNS WILL REMAIN IN PLACE AND BECOMES THE PROPERTY OF THE AUTHORITY.

UTILITY OWNERS

1. TAMPA ELECTRIC CO
2. PEOPLES GAS CO
3. GENERAL TELEPHONE CO
4. CITY OF TAMPA WATER DEPT
5. CITY OF TAMPA FIRE DEPT
6. CITY OF TAMPA SANITARY SEWER DEPT
7. WESTERN UNION



APR 21 1978
AS BUILT DRAWINGS

Contract Nos. 3A & 3B

84
1

PREVIOUS IMAGE IS CROPPED ON ORIGINAL DOCUMENT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3511		16
By:		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date:

STATE JOB No. 10002-3511 — J. E. GREINER COMPANY, INC. CONSULTING ENGINEERS TAMPA, FLORIDA

FINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, AREAS, AREAS CHECKED, NO. — BY — DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, NOTE BOOK, TEMPLATE, AREAS, AREAS CHECKED, NO. — BY — DATE

SCALE 1"=50'

MATCH LINE STA 94+00.00 LINE "A"

MATCH LINE STA 109+00.00 LINE "A"

1 Sty. C.B. Bldg. Shopping Center

Conc. Paved Ditch

23"x14" CP

8" SAN

2" Gas

8" WM

Asph. Pav't.

Exist SCL R/W

Conc. Curb

PULL BOX

STA. 54+34.13 ℄ HIMES SURVEY
STA. 100+83.36 LINE "A"

PLACE 41.99 C.Y. SAND CEMENT BAG RIP RAP
DITCH TRANSITION

℄ CONSTRUCTION HIMES AVE.

N.03°-03'E

FOR CONST. DETAILS ALONG HIMES AVE. SEE SHEET NOS. 28 & 29

Fire Alarm

Car Port

1 Sty. Mas Res.

CONST. 200' OF 18" PIPE (TEMPORARY)

CONST. 282.22 S.Y. 3" CONC. DITCH PAV'T.

PLACE 43.55 C.Y. SAND CEMENT BAG RIP RAP

1 Sty. C.B. Res.

CURVE NO. 2

C.S. STA. 97+92.76

S.T. STA. 98+42.76

STA. 53+01.78 ℄ HIMES SURVEY
STA. 90+65.75 ℄ TRAVERSE

LINE "A"
P.R.C. STA. 54+55.56 ℄ CONST.
P.O.T. STA. 101+07.46 LINE "A"

N.29°-59'-53"E

Exist. 18" R.C.P. (TO BE REMOVED)

Exist. 6" Gas To Be Moved

EXISTING 100# RAILS TO BE REMOVED

℄ SURVEY
℄ PROPOSED PROJECT

STA. 53+03.78 ℄ HIMES CONSTRUCTION
STA. 90+68.03 ℄ TRAVERSE

8"&12" SITE CABLE TOLL

Exist SCL R/W

6" GMV

6" Gas

CB Gar.

1 Sty. Asb. Fr. Res.

1 Sty. CB. Res.

1 Sty. Fr. Res.

1 Sty. C.B. Res.

DREXEL AVE.

CURVE No. 2
P.I. STA. 95+52.70
Δ = 5°-18'-18"
Dc = 1°-00'-00"
R = 5,729.65'
Lc = 480.52'
Tc = 290.45'
Ls = 50.00'
SE = 1/2"

E 337,750

E 338,000

E 338,250

N 1,298,000

N 1,298,250

N 1,298,500

B.M. No. C-63
X-TIE 300' S OF HIMES
EL. 18.10

B.M. No. C-63A
SQ. CUT IN E. CURB ON HIMES N. EDGE OF FIRST DRIVE S. OF RR
EL. 17.484

B.M. No. C-62
FIRST T. POLE S. OF RR ON HIMES
EL. 18.990

B.M. No. C-61A
SQ. CUT IN E. CURB ON HIMES AVE. 250' N. OF RR CROSSING
EL. 19.922

B.M. No. C-61
THIRD T. POLE N. OF HIMES
EL. 16.632

PROFILE GRADE LINE "A"

EL. 18.50'

EL. 13.92' RT.

EL. MW 12"

+0.05%

+0.05%

SPEC. GRADE DT. LT.

SPEC. GRADE DT. RT.

-0.05%

Exist. 16" W.L.

6" GAS (TO BE REMOVED)
0.0000%

EXIST. 18" R.C.P. (TO BE REMOVED)

CONST. 18" PIPE LT.

EXISTING 8" GAS

Existing Ground

-0.10%

-0.05%

SPEC. GRADE DT. RT.

SPEC. GRADE DT. LT.

PVI STA. 104+70.00
EL. 18.30

-0.5000%

500' K.C.

1100
16.82
16.68
16.57

16.51

+.65 DIA. LT. EL. 13.47

+1.51 DIA. LT. EL. 13.44

PVI STA. 107+20.00

PVI STA. 107+20.00

500' K.C.

18.11
17.96
17.78
17.58
17.35

18.24
18.42
18.34

18.47

20' DIA. LT. EL. 14.20

.96 END DITCH RT. EL. 14.28

.96 END DITCH LT. EL. 14.28

70 BEGIN DITCH RT. 22.14.27

70 BEGIN DITCH LT. 23.22.27

RIP RAP 8' LT.

RIP RAP 8' RT.

STD. DITCH RT.

STD. DITCH LT. & RT.

95

100

105

APR 21 1976

AS BUILT DRAWINGS

Contract Nos. 9A & 9B.

B4/1

PREVIOUS IMAGE IS CROPPED ON ORIGINAL DOCUMENT

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		17
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

ENGINEERING DIVISION
TONEY STILES
TAMPA, FLORIDA

CONCORDIA AVE.

EL PRADO BLVD.

DREXEL AVE.

S.C.L. R.R.

S.C.L. R/W LINE

EUCLID AVE.

18" Conc. Pipe
36" Conc. Pipe
8" San.
2" W.M.
15" Conc. Pipe.
Tel. M.H.
S-10
℄ EUCLID STA. 9+25.50
℄ CONST. LINE A STA. 112+69.87
110
CONST. 24.7 CU. YDS. RIP-RAP (SAND-CEMENT)
CONST. 147 SQ. YDS. CONC. DITCH PAV'T. 3"
N 29° 59' 53.3" E
60° 44' 00"
CONST. 88' OF 24" PIPE
PC. 113+80.10
B.T. (100.0')
CURVE NO. 3
PI. 114+83.20
65'
℄ CONST. R.R. LINE "A"
18" Conc. Pipe to be removed
REMOVE EXISTING TRACKS
CONST. DITCH
59° 59'
STA. 114+83.86 ℄ SURVEY
B.T. (200 PR)
END STATE JOB NO. 10002-3511
BEGIN STATE JOB NO. 10002-3510
STA. 111+50.00 LINE "A"
℄ SURVEY
STA. 113+03.96
℄ EUCLID AVE.
STA. 10+00
NOTE:
SEE EUCLID AVE
SHEETS 30 & 31
FOR OTHER DETAILS
8" San.
2" W.M.
B.T. (400 PR)
S-11A
S-11
15" Conc. Pipe
Tel. M.H.
6" W.M.
18" Conc. Pipe
18" Conc. Pipe
15" Conc. Pipe
℄ RAMP "B"
B.T. (200 PR)
B.F. (400 PR)
S.C.L. R/W LINE
B.M. NO. C-60-A
R.R. SPIKE IN 10" OAK
ON P/L OF R.R. ± 300' SO.
OF EUCLID
EL. 17.105
B.M. NO. 50 A
SQ. CUT ON CURB
NO. SIDE EUCLID
108' W. OF ℄ SURVEY
EL. 18.08

LINE "A" CURVE NO. 3
P.I. STA. 114+83.20
Δ = 00° 43' 49.7"
D = 00° 15' 00"
T = 146.10'
L = 292.19'
R = 22,918.35'
P.C. = STA. 113+40.10
P.T. = STA. 116+32.29

RIGHT OF WAY TO BE ACQUIRED UNDER CONTRACT NO. 2

LINE "A" CURVE NO. 4
P.I. STA. 116+78.39
Δ = 00° 43' 49.7"
D = 00° 15' 00"
T = 146.10'
L = 292.19'
R = 22,918.35'
P.C. = STA. 117+32.20
P.T. = STA. 120+24.48

S-12 STA. 118+93.68 (68' LT.)
CONST. INLET TYPE "E"
CONST. SLOT SW SIDE
℄ EL. 5.50 GRATE 9.12
SEE INDEX NO. 5046

115
PC. 117+32.20
PT. 120+24.48
N 29° 16' 03.6" E
CONST. 48' OF 24" PIPE CURVE NO. 4
S-13
CONST. 24 CU. YDS. RIP-RAP (SAND-CEM.) SEE DETAIL SHEET NO. 165
RECONST. 6'x6' C.B. CULVERT SEE DETAIL SHEET NO. 164
N 29° 59' 53.3" E
STA. 118+76.03 ℄ SURVEY
℄ SURVEY
℄ EXPRESSWAY

LINE "A" CURVE NO. 5
P.I. STA. 122+91.18
Δ = 00° 42' 33.5"
D = 00° 15' 00"
T = 141.86'
L = 283.72'
R = 22,918.35'
P.C. = STA. 123+49.32
P.T. = STA. 126+33.04

S-14
CONST. INLET ℄ GRATE SEE DETAILS SHEET NO. 164
6'x4' Box Culvert
CURVE NO. 5
PC. 123+49.32
70'
N 29° 09' 53.3" E
STA. 123+46.97 ℄ SURVEY
SCALE 1" = 50'
75'
2-6'x4' Box Culvert

PROFILE

500' V.C.
P.V.C. (+00) 16.00
P.V.I. (+50) 16.42
P.V.T. (+00) 17.05
-0.5000%
-0.25% RT.
-0.125% LT.
RAILROAD PROFILE LINE "A" 0.0000%
-0.22% RT.
-0.65% LT.
+0.5000%
+1.16% RT.
+0.50% RT.
+1.8% LT.
-0.40% LT.
B.T.
24" PIPE (LT & RT)
Exist. 8" San.
Sta. DITCH LT. & RT.
DPI LT & RT (-50) EL. LT. 11.92 EL. RT. 12.13
DPI LT (+10) EL. 11.54
DPI RT (+34) EL. 11.42
DPI RT (+82) EL. 11.19
DPI LT (+98) EL. 11.23
DPI LT (+00) EL. 10.02
DPI RT (+45) EL. 10.04
END DITCH LT. (+93) EL. 8.12
DPI RT (+00) EL. 13.00
DPI LT (+50) EL. 10.75
DPI LT (+00) EL. 13.00 LT.
P.V.I. RT (+00) EL. 14.50
S-13 RECONST 6'x6' BOX CULVERT SEE SHEET NO. 164
APR 21 1976
AS BUILT DRAWINGS

Contract Nos. 3A & 3B

PREVIOUS IMAGE IS CROPPED ON ORIGINAL DOCUMENT

SECTION	COUNTY	SHEET NO.
10002	3510	18
DIST. WACO		DATE 2-79

EL PRADO BLVD.

CONCORDIA AVE.

6'x4' BOX CULVERT

CONST. 104' OF 18" PIPE

LINE "A" CURVE NO. 5
P.I. STA. 124+91.18
Δ = 00° 42' 33.5"
D = 00° 15' 00"
T = 141.86'
L = 283.72'
R = 22,918.35'
P.C. STA 123+49.32
P.T. STA. 126+33.04

VASCONIA ST.

SEVILLA ST.

LINE "A" CURVE NO. 6
P.I. STA. = 128+80.30
Δ = 00° 44' 10.7"
D = 00° 15' 00"
T = 147.26'
L = 294.52'
R = 22,918.35'
P.C. STA. 127+33.04
P.T. STA. 130+27.57

CONST. 671 SQ. YDS. CONC. DITCH PAVT. 3"

CONST. 34.8 CU. YDS. RIP-RAP (SAND-CEMENT)

CONST. 30.6 CU. YDS. RIP-RAP (SAND-CEMENT)

BEGIN CONST. DITCH PAVT.

CONSTR. 44' OF CLASS II 18" PIPE

CONST. 25' GUARDRAIL

CORONA ST.

CONST. 25' GUARDRAIL

LEONA ST.

CONST. 25' GUARDRAIL

CONST. 98 CUBIC YARDS RIP-RAP (SAND-CEMENT)

125

130

135

S.C.L. R/W LINE

B.T. (100 P.R.)

CURVE NO. 5

CURVE NO. 6

N 30° 42' 26.8" E

N 29° 58' 16.1" E

℄ CONSTRUCTION LINE "A" OF R.R.

SEE SHEET 5-2

RAMP "A"

CONST. 72' OF 15" PIPE

S.C.L. R.R.

REMOVE EXISTING TRACKS

STA 9+19.70 ℄ EL PRADO = STA 124+33.89 "A"

STA 124+88.83 P.I. ℄ SURVEY

℄ SURVEY

STA 128+77.92 ℄ SURVEY

S-15

S-16

S-17

CONST. 88' OF 15" PIPE

℄ EXPRESSWAY

B.T. (200 P.R.)

℄ RAMP "B"

S.C.L. R/W LINE

NOTE:
SEE EL PRADO BLVD
SHEETS 32 & 33
FOR ADDITIONAL DETAILS

3" W.M.

5" W.M.

12" W.M.

B.T. (100 P.R.)

B.T. (200 P.R.)

B.T. (400 P.R.)

4" W.M.

DREXEL San. AVENUE. San.

SCALE 1"=50'

B.M. NO. 57 A
SQ. CUT IN CONC. @ X-WALK
SO. EDGE OF EL PRADO
147' W. OF ℄ SURVEY
EL. 16.28

B.M. NO. 55 A
131' LT. STA 131+30
SQ. CUT ON SO. CURB
AT 3303 SEVILLA ST.
EL. 15.99

B.M. NO. 54 A
100' RT. STA. 137+26
SQ. CUT ON END OF CURB
AT 3302 DREXEL AVE.
EL. 16.82

RAILROAD PROFILE LINE "A" 0.0000%

+0.5000%

PVI (+50) EL 21.00

DPI LT (+20) EL. 16.14

DPI (+00) LT. EL. 16.20

SPECIAL DITCH 2' B.W. LT. & RT.

D.P.I. (+00) RT. EL. 15.54

-0.05% LT & RT

Existing Ground

Existing 12" San. Sewer

Existing 4" W.M.

EL 15.70 LT

EL 15.04 RT

EXIST. 3" W.M.

EXIST. 12" W.M.

BT (400 P.)

+0.15% RT

BEGIN DITCH RT (+10) EL 14.95

BEGIN DITCH LT. (+90)

PVC (+00) EL. 19.75

PVT (+00) EL. 21.00

20.00 20.20 20.39 20.55 20.69 20.80 20.89 20.95 20.99

STD. DITCH LT.

19.25 20.00

1.79 1.71 1.75 1.80 19.2 19.3 19.6 19.0 19.1 19.5 19.5 18.9 17.6 15.6 16.0 16.4 17.0 16.7 16.5

4 125 6 7 8 9 130 1 2 3 4 135 6 7 8 9

APR 81 1976

AS BUILT DRAWINGS

Contract Nos. 9A & 9B

84/1

10002	3510	19
WACO		2-73

SAN AND COMPANY
ENGINEERING DIVISION
CORATO STREET
TAMPA - FLORIDA

SAN LUIS ST. 2'W.M.

TACON ST. 2'W.M.

OBISPO ST. 2'W.M.

SAN PEDRO ST. 2'W.M.

SAN JUAN ST. 2'W.M.

CONST. 377 SQ YDS. CONC. DITCH PAVT, 3"

CONST. ONE CU YD. RIP-RAP (SAND-CEMENT)

CONST. 387 CU YDS. RIP-RAP (SAND-CEMENT)

CONST. 25' GUARDRAIL

140

145

150

S.C.L. R/W LINE

B.T. (100 PR.)

℄ CONSTRUCTION LINE "A"

N 29° 58' 16.1" E →

REPLACE MILE POST = 10.886 , 15 RT. STA 144+90 ℄ LINE "A"

120'

S.C.L. R.R.

REMOVED EXISTING TRACKS

N 29° 58' 16.1" E →

EXIST. R.R. MILE POST

℄ SURVEY

℄ EXPRESSWAY

B.T. (200 PR.)

END SIDE TRACK REMOVAL AND CONSTRUCT WHEEL STOPS DIRECTED BY THE ENGINEER

REMOVE EXISTING TRACKS

EXISTING TRACKS REMAIN

MATCH LINE STA. 147+00 LINE "A"

SHEET NO. 20

18" Conc. Pipe

B.T. (300 PR.)

12" W.M.

B.T. (200 PR.) AVE. 8" W.M.

SCALE 1" = 50'

12" W.M.

24" Conc. Pipe

MACDILL

W.M.

18" Conc. Pipe.

B.M. NO. 53 A
165' LT. STA. 144+34
SQ CUT ON NO. CURB
AT 3302 TACON ST.
EL 18.12

B.M. NO. 52 A
162' LT. STA. 146+86
SQ CUT ON SO. CURB
W. SIDE OF DRIVEWAY
AT 3200 OBISPO ST.
EL 17.43

MATCH LINE STA. 147+00 LINE "A"

RAILROAD PROFILE LINE "A"

Exist. Ground

20.00

PVI (+00) EL. 21.00

EL. 15.70 LT.
EL. 15.04 RT.

-0.05 % LT & RT.

DPI (+00) LT. EL. 15.30

DPI (+00) EL. 14.74 RT.

EL. 14.52 RT.
0.112 % RT.

PVC (-30) EL. 21.00

SPECIAL DITCH (2' B.W.) LT. & RT.

20.33 20.96 20.91 20.83 20.74

300' V.C.

PVT (+30) EL. 20.63

50 40 30 20 10 0

16.5 15.8 15.6 16.5 17.6 18.3 18.4 18.5 18.6 18.6 18.5 17.8 17.4 17.4 16.7 15.9

3 140 1 2 3 4 145 6 7 8 9 150 1 2 3 4

APR 21 1976
AS BUILT DRAWINGS

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		20
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

NO.	REVISION	BY	DATE
1	DRAINAGE STRUCTURE SYSTEM S-20, S-21, S-22, S-23	JNC	9/9/73

OBISPO

SAN PEDRO ST.

SAN JAUN ST.

SANTIAGO ST.

MASON ST.

MAC DILL AVE.

BAY TO BAY BLVD.

2"W.M.

2"G.M.

8" San.

12"W.M.

8"G.M.

SHEET NO. 19
MATCH LINE STA. 147+00 LINE "A"

CONST. 69.2 CU YDS RIP-RAP (SAND-CEMENT)

CONST. 25' GUARDRAIL

CONST. 400 SQ. YDS. CONC. DITCH PAVT., 3"

CONST. 25' GUARDRAIL

150

155

160

S.C.L. R/W LINE

RIGHT OF WAY TO BE ACQUIRED UNDER CONTRACT NO. 3

1 Sty. Metal Comm.

1 Sty. Frame Comm.

1 Sty. CB Ser Sta.

1 Sty. CB

Exist Fuel Farm 10,000 Gal. Undergr.

CONST. 42" OF 24" PIPE (CLASS II)

CONST. 8.75 CU YDS RIP-RAP (SAND-CEM.)

R/W TO BE ACQUIRED UNDER CONTRACT NO. 3

℄ CONSTRUCTION LINE "A"

N 29° 58' 16.1" E.

STA 156+04.29 LINE "A" = STA 21+48.35 ℄ TRAF. DRIL

CONST. 98' OF 15" PIPE

STA 154+58.11 ℄ SURVEY

REMOVE EXIST. TRACKS

STA. 150+08.10

N. 29° 58' 16.1" E.

℄ EXPRESSWAY

N 29° 58' 16.1" E

B.T. (200 PR.)

Metal Storage Bldg.

BEGIN LINE "C" CONNECT TO EXISTING RAIL STA. 49+78.05

N 29° 58' 16.1" E.

CONST. 76' OF 15" PIPE

CONST. 14' OF 15" PIPE

CONST. MAC DILL AVE.

B.T. (100 PR.)

B.T. (300 PR.)

B.T. (200 PR.)

STA 158+41.14 LINE "A" = STA 58+41.14 LINE "C" PT NO. 10 FROG ANGLE CONST. NO. 10 TURNOUT SEE A.R.E.A. PLAN NO. 10-62

1 Sty. Metal Comm.

STA 159+00.84 LINE "A" = STA 176+76.73 ℄ CONST. BAY TO BAY

INSTALL RR WHEEL STOPS

N.O.T. ACCESS DRIVE

PUBLIC TEAM TRACK

BEGIN LINE "B" 59+52.35

℄ LINE "B"

CONST. 60' OF CLASS IV 18" PIPE

CONST. 54" PIPE

STA 159+50 ℄ SURVEY

CONST. 43 SQ YD. CONC. DITCH PAVT. 3"

CONST. 36' OF 15" PIPE CLASS IV

CURVE NO. 8

REMOVE, 2 INLETS, 3 HEADWALLS & 18" PIPES

S.C.L. R/W LINE

CONST. 18" PIPE & PLUG

SCALE 1"=50'

RIGHT OF WAY TO BE ACQUIRED UNDER CONTRACT NO. 3

NOTE: SEE BAY TO BAY BLVD SHEETS 35, 36 & 37 FOR ADDITIONAL DETAILS

FOR DETAILS OF ACCESS DRIVE NO. 1 SEE SHEET NO. 38

NOTE: SEE MAC DILL AVE SHEETS 34 & 35 FOR ADDITIONAL DETAILS

LINE "C" CURVE NO. 7
PI STA. 54+28.06
Δ = 31° 15' 00"
D = 15° 00' 00"
T = 107.14
L = 208.33
R = 383.07
PC STA 53+20.92
PT STA 55+29.25

LINE "C" CURVE NO. 8
PI STA 56+96.51
Δ = 25° 31' 31"
D = 15° 00' 00"
T = 86.87
L = 170.17
R = 383.07
PC STA 56+09.74
PT STA 57+79.91

B.M. NO. 51A
SQ CUT ON C.B.
SE COR OF MASON ST. & MACDILL AVE.
EL = 16.21

MATCH LINE STA. 147+00 LINE "A"

PROFILE LINE "C"

500' V.C.

250' V.C.

0.0000%

+0.2500%

-0.2000%

BEGIN LINE "C" STA. 49+78.05

END LINE "C" STA. 58+91.14

RAILROAD PROFILE LINE "A" 0.2500%

RAILROAD PROFILE LINE "A" 0.0000%

DPI (+00) LT. EL. 15.30

EL. 14.52 RT.

SPECIAL DITCH (2' B.W.) LT. & RT.

-0.2000% LT.

-0.112 % RT.

B.T. (100 PR.)

Existing Ground

DPI (+77) LT. EL. 13.75

END DITCH RT (+77) EL. 13.65

END DITCH LT (+57) EL. 13.9

BEGIN DITCH LT (+30) EL. 14.68

END DITCH LEFT (+40) EL. 14.57

SPECIAL DITCH LT.

+00 BEGIN SPECIAL DITCH RT. (2' B.W.) EL. 13.83

-0.10%

-0.05%

EL. 13.73

CONST. 115' OF 54" PIPE

29 Used.

CONST. 180' OF 54" PIPE (CLASS III)

CONST. 54" PIPE

℄ EL. 2.2

S-31 CONST MANHOLE TYPE "J-8"

APR 21 1976

AS BUILT DRAWINGS

Contract Nos. 9A & 9B.

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		21
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	DATE 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

LINE "B" CURVE NO. 9
P.I. STA. 62+50.37
Δ = 5°43'29"
D = 6°00'00"
T = 47.77'
L = 95.41'
R = 955.37'
P.C. STA. = 62+02.60
P.T. STA. = 62+98.01

GRANADA ST. — 18" San. — 6" San. B.T. (100 PR.) — 2"W.M. — CONST. 25' GUARDRAIL — PLUG PIPE — CONST. 22 CU. YDS. RIP-RAP (SAND-CEM.) — CONC. 132 SQ. YDS. CONC. DITCH PAVT., 3" — 165 — CONST. 17.6 CU. YDS. RIP-RAP (SAND-CEMENT) — CONST. 25' GUARDRAIL — BARCELONA ST. — 8" San. — 18" RCP — 2"W.M. — B.T. (50 PR.) — PALMYRA ST. — 42" San. 18" RCP — B.T. — Deleted. 5-35 CONST. INLET TYPE "C" SEE INDEX NO. 5046 — Heavy Brush & trees — SECTION 27 / SECTION 34 — N 89° 30' 50.5" W — SAN JOSE ST. — 2-60" RCP — 2"W.M. — SAN CARLOS ST. — 2"W.M. — 8" G.M. — AVE. MARTI — 6" W.M. — CONST. 7.7 CU. YDS. RIP-RAP (SAND-CEMENT) — S-36 CONST. SPECIAL JUNCTION BOX - SEE SHEET NO. 166 — CONST. 25' GUARDRAIL — 175 — CONST. 4' OF 15" PIPE — S-38 CONST. INLET TYPE "C" INDEX NO. 5046 & EL. 9.0 — CONST. 95 SQ. YDS. CONC. DITCH PAVT., 3"

℄ LINE "B" — CURVE NO. 9 — P.I. (+50.37) — AC. (HDGD.) — 18" — 90° — CONST. 54" PIPE — 5-33 — REMOVE INLET, MANHOLE & PIPE — REMOVE EXIST. TRACKS — 25' — STA. 62+48.02 — STA. 163+97.65 — 1 Sty. Frame & Metal — CONST. 108 SQ. YDS. CONC. DITCH PAVT., 3" — ℄ CONST. OF 22 LINE "A" — B.T. — N 29° 58' 16.1" E — 170 — S.C.L. R/W LINE — Deleted. CONST. 18" CP CONC. PIPE — CONST. 198 SQ. YDS. CONC. DITCH PAVT., 3" — 100' — Const. 15" pipe — S.C.L. R.R. — B.T. (200 PR.) — N 29° 58' 16.1" E — ℄ SURVEY — ℄ EXPRESSWAY — N 29° 58' 16.1" E — 25' — 42" San. — EXIST. TEMP. BARRICADE — 1 Sty. Metal — 8" G.M. — B.T. (100 PR.) — B.T. (300 PR.) — B.T. (200 PR.) — 8" G.M. — S.C.L. R/W LINE — 8" VIT. CONC. — 2.0 — B.T. (100 PR.) — Existing 20' Drainage Easement.

NOTE:
SEE SHEET NO. 39 FOR DETAILS OF 54" OUTFALL PIPE

P.I. NO. 10 FROG ANGLE
STA. 164+00 LINE "A"
= STA. 64+00.62 LINE "B"
CONSTRUCT NO. 10 TURNOUT
SEE A.R.E.A. PLAN NO. 10-62

GRANADA ST. — B.T. 400 (PR.) — 1 Sty. Metal — CONST. 54" PIPE — BARCELONA ST. — 2"W.M. — 42" San.

SCALE 1" = 50'

B.M. NO. 50A
100.5' RT. STA. 166+59
IRON PIN S.W. ℄ COR. OF BAYSHORE PRESB. APTS.
EL. 17.19

B.M. NO. 49
104' RT. STA 169+04
SQ. CUT S.W. COR OF LIGHT BASE IN PRESB. APTS. PARKING LOT
EL. 16.12

B.M. 48A
101' RIGHT STA. 173+20
SQ. CUT S.W. CORNER OF SIDEWALK IN FRONT OF BAY MANOR APTS. ON RUBIDEAUX AVE.
EL. 12.27

B.M. NO. 49A
112' LT. STA. 173+32
SQ. CUT IN CURB NO. SIDE AT 2903 SAN JOSE ST.
EL. 11.74

PROFILE GRADE LINE "B"

BEGIN LINE "B" STA 50+02.35 — 0.00 % — PVC (+00) — 100' V.C. — PVI (+50) EL. 18.00 — +0.75% — END LINE "B" STA 64+00.02 — 0.00 % — PVI (+50) EL. 17.75 — PVRC (+00) — 100' V.C. — PVT (+00)

RAILROAD PROFILE LINE "A" 0.0000% — Exist. Ground — EL 13.73 RT. — (+00) BEGIN SPECIAL DITCH LT. EL. 14.10 — SPECIAL DITCH LT. & RT. (2' BW) — -0.05% LT. & RT. — EL. 13.84 D.P.I. (+10) LT. — -2.93% LT. — D.P.I. (+00) LT. EL. 11.20 — 42" San. — PVI (680) 18.00 — 400' V.C. — PVT (680) 18.32 — 0.0000% — +0.1600% — Exist. Ground — -0.05 RT. — -0.10% LT. — SPECIAL DITCH RT. — (+00) END SPECIAL DITCH EL. 10.90 — D.P.I. (+16) RT. EL. 13.12 — +1.56% — +0.1600% — D.P.I. (+00) RT. EL. 14.73 — +0.30% RT. — +0.74% 86MP — +0.10% — EL. 14.83 RT. — EL. 14.24 LT. — EXISTING 60" PIPE — (+00) BEGIN SPECIAL DITCH LT. EL. 12.75 — D.P.I. (+00) RT. EL. 14.43

S-33 CONSTRUCT TYPE "C" DITCH BOTTOM INLET WITH J-TYPE BOTTOM — ℄ 10

APR 21 1976
AS-BUILT DRAWINGS

Contract Nos. 3A & 3B

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		22
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

"FREEWAY AND CITY"
ENGINEERING DIVISION
18 HORATIO STREET
TAMPA FLORIDA

LINE "A" CURVE NO. 10
P.I. STA. 181+82.02
Δ = 08°44'10.9"
D_s = 00° 23' 24"
T_s = 238.35'
D_c = 02° 00' 00"
L_s = 39.00'
L_c = 397.82'
e = ½"

CURVE NO. 11
P.I. STA. 181+74.72
Δ = 08°44'10.9"
D = 2° 00' 00"
T = 218.84'
L = 436.82'
R = 2,864.93
P.C. STA. 179+55.88
P.T. STA. 183+92.70

B.M. NO. 4TA
IN L.T. OF STA. 181+85
SQ. CUT ON NO. CURB
AT 2805 SAN NICHOLAS ST.
EL. 18.19

8"G.M. MARTI 6"W.M. AVE.
Basketball Court
SAN NICOLAS ST. 2"W.M.
O ST. 2"W.M. 8"W.M.
HABANA AVE 60" R.C.P.
180
185
190
60" PIPE
CONST. 25' GUARDRAIL
CONST. 8' OF 24" PIPE
18.6
S-39 STA. 184+50 (28.5 LT.)
CONST. INLET TYPE "C"
CONST. SLOT NO. SIDE
SLOT EL. 14.22 ℄ EL. 10.8
CONST. 62.3 CU. YDS. RIP-RAP (SAND-CEMENT)
S.C.L. R/W LINE
CONST. 356 SQ. YDS. CONC. DITCH PAVT., 3"
Basketball Court
TS STA. 179+43.68
S.C. STA. 179+82.68
CURVE NO. 10
CONST. 48' OF CLASS IV 24" PIPE
CONST. 8' OF 18" PIPE PLUGGED
TS STA. 183+80.50
S.T. STA. 184+19.50
CONC. 352 SQ. YDS. CONC. DITCH PAVT., 3"
℄ R.R. CONSTRUCTION LINE "A" N 38° 42' 27.0" E
N 29° 58' 16.1" E
P.C. STA. 179+55.88
CURVE NO. 11
P.T. STA. 183+92.70
℄ SURVEY N 38° 42' 27.0" E
℄ EXPRESSWAY N 38° 42' 27.0" E
REMOVE EXISTING TRACKS
2-B.T. (200 PR. & 100 PR.)
B.T. (300 PR.)
B.T. (100 PR.)
B.L. (200 PR.)
8"G.M.
S.C.L. R/W LINE
S-40 STA. 184+50 (21' RT.)
CONST. INLET TYPE "C"
CONST. SLOT NO. SIDE
SLOT EL. 15.58 ℄ EL. 11.15
100'
66'
25'
6"W.M.
4"G.M.
8"W.M.
2"W.M.
SCALE 1" = 50'

RAILROAD PROFILE LINE "A"
+0.1600%
+0.10% RT.
EL. 14.85 RT.
EL. 14.24 LT.
DPI (+00) LT.
BEGIN STANDARD DITCH
EL. 12.99
EXISTING 60" PIPE
STD. DITCH LT.
Existing Ground
+0.03% LT.
DPI (4+50) LT.
EL. 14.22
DPI (+30)
BEGIN SPECIAL DITCH LT.
EL. 16.00
SPECIAL DITCH RT. (2' BW)
+0.70%
DPI (+00) LT.
EL. 14.30
SPECIAL DITCH LT. (2' BW)
EL. 21.55
PVC (+00)
+0.03% LT.
+0.10% RT.
EL. 17.20 LT.
EL. 16.23 RT.
DPI (6+00) LT.
EL. 17.10
50 40 30 20 10 0
7 8 9 180 1 2 3 4 185 6 7 8 9 190 1 2

APR 21 1976
AS BUILT DRAWINGS

Contract Nos. 9A & 9B.

84

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		23
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

NO.	REVISIONS	BY	DATE
1	ADD MISSISSIPPI AV. REVISE DITCH GRADES	J.N.C.	9-24-73

Scale: 1" = 50'

STROUD AVE.
GEORGIA 15'SS. AVE. 24' W.M.
MISSISSIPPI
Teresa Terrace II Apartments
Pool
8" San.
195
200
205
1 STY METAL SHOP
EXISTING BUILDING AREA
CONST. 25' GUARDRAIL
S.C.L. R/W LINE
CONST. 332 SQ. YDS. CONC. DITCH PAVT., 3"
REMOVE EXIST. PIPE & INLET
CONST. 56' OF CLASS III CONCRETE PIPE
REPLACE MILE POST NO. 88.5 15' RIGHT STA. 197+94 ℄ "A"
S-41 CONSTRUCT INLET TYPE "E" CONSTRUCT INLET NORTH SIDE SEE INDEX NO. 504G
S-42 CONSTRUCT INLET TYPE "E" CONSTRUCT SLOT NORTH SIDE SEE INDEX NO. 504G
CONST. 46' OF 24" PIPE — 18" — CONST. 341' OF 24" PIPE
S-41A
CONST. 376 SQ. YDS. CONC. DITCH PAVT., 3"
CONST. 81.2 CU. YDS. RIP-RAP (SAND & CEMENT.)
CONST 336' OF 24" PIPE ℄ R.R. CONST. LINE "A"
S-41B CONST. 336' OF 24" PIPE
NOTE; ALL 24" PIPE FROM S-41 TO S-41D WAS PUT IN BY CITY OF TAMPA DELETED ON THIS CONTRACT.
650'
100'
65'
N 38° 42' 27.0" E
REMOVE EXIST. TRACKS
EXISTING RR MILEPOST
℄ EXPRESSWAY
℄ SURVEY
2-B.T. (200 & 100 PR.)
B.T. (300 PR.)
S.C.L. R/W LINE
B.T. (25 PR.)
1 Sty Metal Shop
CAROLINA AVE.
6" W.M.
B.T. (600 PR.)
12" W.M. AVENUE
AT (26 PR.)
2" W.M.
B.T. (400 PR.)
SOUTHVIEW AVE.
AT (50 PR.)

B.M. NO. 45A
134' RT. STA. 193+29
SQ. CUT ON NO. RIM OF SEWER M.H. TO NO. OF STROUD ON CAROLINA
EL. 18.44

B.M. NO. 44A
12 G. RT. STA. 195+95
R.R. SPIKE IN BASE OF 24" OAK ON CAROLINA 100' SO. OF CHICAGO
EL. 18.55

B.M. NO. 43A
SQ. CUT IN CURB S.E. CORNER OF MISSISSIPPI AVE. & CAROLINA AVE.
EL. 19.62

B.M. NO. 42A
10' RT. STA. 206+59
SQ CUT IN W. END S.W. ON SOUTHVIEW
EL. 21.35

+0.1600%
0.0000%
+0.10% RT.
+0.05% LT.
+0.05% LT. & RT.
P.V.I. (600) 21.87
D.P.I. (720) LT. EL. 17.51
EXIST. GROUND
D.P.I. (700) RT. EL. 16.99
D.P.I. (+0.5) LT. EL. 17.56
D.P.I. (442) RT. EL. 17.08
RAILROAD PROFILE LINE "A"
D.P.I. (400) RT. EL. 17.13
EL. 17.20 LT.
EL. 16.33 RT.
EL. 17.95 LT.
EL. 17.48 RT.
SPECIAL DITCH RT. (2'6" W.)
SPECIAL DITCH LT. (2' BW.)
400 W.C.
EXISTING 18" PIPE
CONST. 56' OF 24" PIPE
S-42 ℄ 14.2
S-41 ℄ 14.0
CONST. 77' OF 24" PIPE
℄ 13.4
℄ 13.5
21.87
21.63
21.65
21.83
21.79
21.75
21.63
21.87

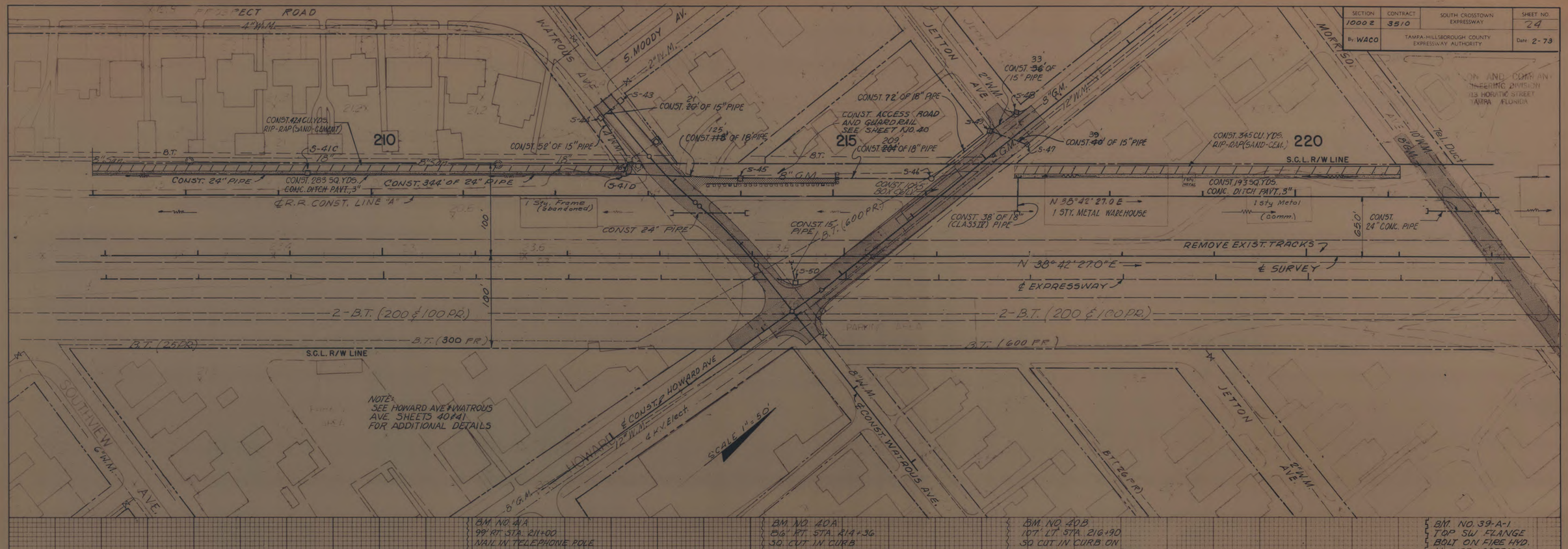
AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		24
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

ON AND COMPANY
ENGINEERING DIVISION
213 HORATIO STREET
TAMPA FLORIDA

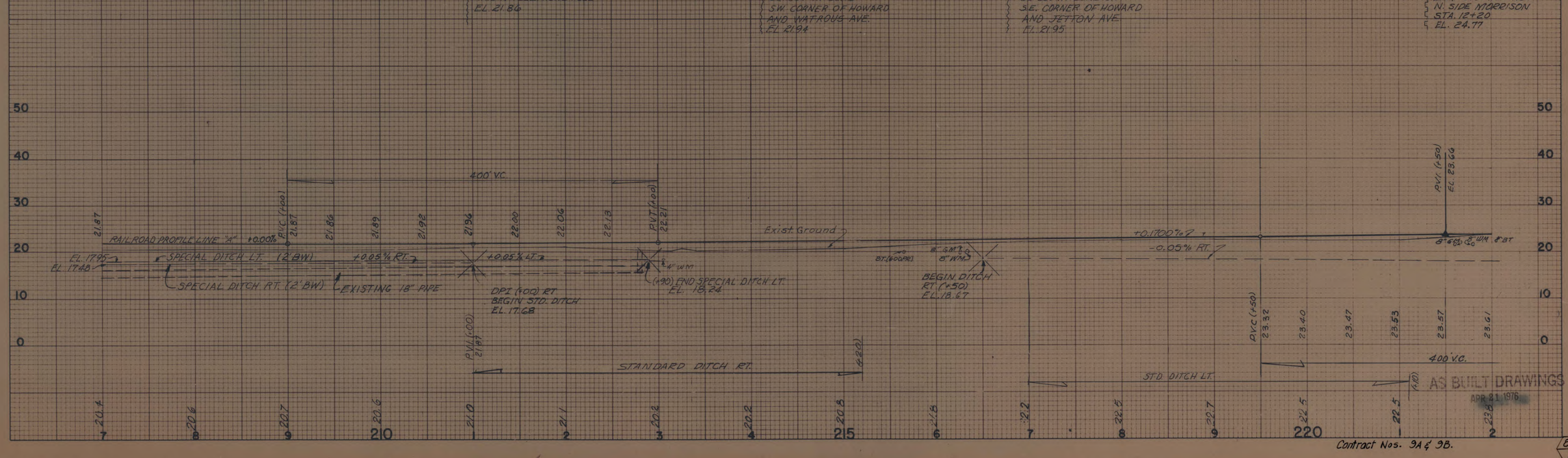


BM. NO. 41A
99' RT. STA. 211+00
NAIL IN TELEPHONE POLE
EL. 21.86

BM. NO. 40A
86' RT. STA. 214+36
SQ. CUT IN CURB
S.W. CORNER OF HOWARD AND WATROUS AVE.
EL. 21.94

BM. NO. 40B
107' LT. STA. 216+90
SQ. CUT IN CURB ON
S.E. CORNER OF HOWARD AND JETTON AVE.
EL. 21.95

BM. NO. 39-A-1
TOP SW. FLANGE BOLT ON FIRE HYD.
N. SIDE MORRISON
STA. 12+20
EL. 24.77



AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3610		25
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

WATSON BOND COMPANY
ENGINEERING DIVISION
1115 HORATIO ST.
TAMPA, FLA.

LINE "A" CURVE NO. 13
P.I. STA 236+85.85
Δ = 03° 00' 25.2"
D = 00° 30' 10.3"
T = 299.06'
L = 597.98
R = 11,394.19'
P.C. STA. = 233+86.79
P.T. STA. = 239+84.77

STA. 34+90.74 LINE "D"
= STA. 234+90.74 LINE "A"
P.I. NO. 10 FROG ANGLE
CONST. NO. 10 TURNOUT
SEE A.R.E.A. PLAN NO. 10-62

RETENSION AREA NO. 1

PROPOSED SPOIL AREA

SUMP HOLE

NOTE: FOR DETAILS OF THIS AREA SEE SHEET NO. 169

RIGHT OF ENTRY TO BE OBTAINED BY TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY.

CONST. 149 CU YDS. RIP-RAP (SAND-CEMENT)

BEGIN MOVING FENCE

BEGIN LINE "D" STA. 31+54.56

BEGIN NEW RAIL CONST.

CONST. 82.4 SQ. YDS. CONC. DITCH PAVT. 3"

P.I. STA. 33+02.75 LINE "D"

REMOVE EXISTING 24" PIPE

MOVE 350' FENCE

END MOVING FENCE

CONST. 54.3 CU YDS. RIP-RAP (SAND-CEMENT)

CONST. 25' CURB & GUTTER

CONST. 24" CONC. PIPE

CONST. 400 SQ. YDS. CONC. DITCH PAVT. 3"

1 STORY CONC. & METAL

REMOVE EXISTING TRACKS

CONST. 45' OF CLASS III 24" PIPE

CONST. 36' OF 24" PIPE, 39' CONST. 770' OF 19"X30" PIPE

CONST. 10" C.I. PIPE & SLEEVE

STA 232+95.29 "A"

CONST. 3.5' OF 18" PIPE

CONST. HEADWALL & 34 S.Y. DITCH PAVT. 3"

CONST. 132 SQ. YDS. CONC. DITCH PAVT. 3"

CONST. 243 CU YDS RIP-RAP (SAND CEMENT) CURVE NO. 13

℄ R.R. CONST. LINE "A"

REMOVE EXISTING TRACKS

CURVE NO. 14

REMOVE EXISTING TRACKS

℄ EXPRESSWAY

2-B.T. (200 & 100 PRS.)

B.T. (600 PR.)

S.C.L. R/W LINE

N 38° 42' 27" E

NOTE: SEE MORRISON AVE. SHEET 42 FOR ADDITIONAL DETAILS

TEL DUCT

8" G.M. MORRISON AVE.

ALBANY AVE.

BRISTOL AVE.

BRUCE ST.

O.T. (2&4 PR.)

6" W.M.

SCALE 1"=50'

INMAN AVE.

FREMONT

SWANN AVE.

LINE "D" CURVE NO. 12 DATA:
P.I. STA 33+02.75
Δ = 34° 26' 25"
D = 14° 05' 08"
T = 133.50'
L = 258.73'
R = 441.68'
P.C. STA = 31+69.25
P.T. STA = 34+27.98

RETENSION AREA NO. 2

℄ SURVEY CURVE NO. 14
P.I. STA = 236+75.30
Δ = 03° 00' 25.2"
D = 00° 30' 00'
T = 300.77
L = 601.40'
R = 11,459.19'
P.C. STA = 233+74.53
P.I. STA = 239+75.93

B.M. NO. 39B
SQ. CUT IN SQ. CURB ON MORRISON AVE. 120' E. OF ℄ SURVEY
EL. 23.81

B.M. NO. 38A
98' LT. OF STA. 227+52
SQ. CUT ON END OF CURB E. SIDE OF ALBANY AND BRISTOL AVE
EL. 22.85

B.M. NO. 34A
134' RT. OF STA. 234+08
R.R. SPIKE IN BASE OF 30" OAK AT S.W. CORNER FREMONT AND INMAN
EL. 21.01

PROFILE LINE "D"

+0.54% — 1.00' V.C. — -0.30%

RAILROAD PROFILE LINE "A" 0.0000%

(+00) BEGIN DITCH LT. EL. 19.20

EL 18.40 RT.

SPECIAL DITCH LT. -0.05%

SPECIAL DITCH RT -0.05%

P.V.C. (+20) EL. 23.66

P.V.T. (+20) EL. 23.66

600' V.C.

CONST. DITCH BLOCK LT. & RT. TOP EL. 20.

DPI (+50) LT. & RT.
EL. LT. 18.77
EL. RT. 17.97

DPI (+00) LT.
EL. 17.66

-0.07% LT.

RAILROAD PROFILE LINE "A" 0.3000%

Existing Ground

DPI (-75) LT.
EL. 17.50

DPI (+15) LT.
EL. 16.98

-0.10% LT.

EL LT. 16.70

P.V.C. (-00) EL. 21.92

4.00' V.C.

P.V.I. EL. 21.32

CONST. STD. DITCH (2' BW) RT.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B.

84/1

NO.	REVISION	BY	DATE
1	REVISED LINE "H"	J.N.C.	2-4-74
2	EXTEND 18" PIPE 16'	J.N.C.	7-29-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		26
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

MODJESKI AND COMPANIES ENGINEERING DIVISION 1001 HORATIO STREET TAMPA FLORIDA

SCALE 1"=50'

LINE "A" CURVE NO. 13
P.I. STA. 236+85.85
Δ = 03° 00' 25.2"
D = 00° 30' 19.3"
T = 299.06'
L = 597.98'
R = 11,394.19'
P.C. STA = 233+86.79
P.T. STA = 239+84.77

LINE "E" CURVE NO. 15
P.I. STA. 145+88.80 Δ27+25.33
Δ = 24°25'41" 24°31'21"
D = 00°00'00" 18°01'19"
T = 77.51' 94.05'
L = 152.68' 188.17'
R = 359.00' 441.01'
P.C. STA = 145+66.55
P.T. STA = 147+67.93

LINE "F" CURVE NO. 16
P.I. STA. 347+19.15 19.15 347+30.71
Δ = 10°20'00" 11°80'00"
D = 13°30'00" 13°00'00"
T = 38.46 45.00'
L = 76.64' 88.46'
R = 425.40'
P.C. 346+80.83 346+85.71
P.T. 347+42.87 347+74.71

STA 145+10.26 LINE "E" = STA 245+10.26 LINE "A"
P.I. NO. 10 FROG ANGLE
CONST. NO. 10 TURNOUT
SEE AREA PLAN NO. 10-62

MATCH EXISTING RAILS STA 147+63.92 LINE "E"

END NEW RAIL CONST. STA 347+67.89 LINE "E"
RAISE EXISTING RAILS TO GRADE TO STA 345+80

STA 50+01.24 LINE "H" = STA 250+00.00 LINE "A"
P.I. NO. 10 FROG ANGLE
CONST. NO. 10 TURNOUT
(SEE AREA PLAN NO. 10-62)

STA 42+00.00 LINE "H" = STA 241+00.00 LINE "A"
P.I. NO. 10 FROG ANGLE
CONST. NO. 10 TURNOUT
(SEE AREA PLAN 10-62)

AVE.
SWANN
FREMONT
ROME
DAKOTA
HORATIO
PACKWOOD
STREET
AVE.

CONST. 54 CU. YDS. RIP-RAP (SAND-CEMENT)
CONST. 15" AVE.
S-54
CONST. 18" PIPE
CONST. 19" X 30" PIPE
EXISTING 18" PIPE TO BE REMOVED
240
Exist. 24" Pipe (To Be Removed)
CONST. 24" PIPE
CURVE NO. 13
CONST. 33 SQ. YDS. CONC. DITCH PAVT., 9"
CONST. 73 CU. YDS. RIP-RAP (SAND CEMENT)
CONST. 341 SQ. YDS. CONC. DITCH PAVT., 3"
CONST. 105' GUARDRAIL
CONST. 110' - 18" PIPE
EXTEND 18" PIPE
245
S.C.L. R/W LINE
CONST. 32' OF CLASS IV 30" PIPE
S-55
S-56
S-57
CONST. 30" PIPE
CONST. 38' OF 18" (CLASS III) PIPE
N 36° 42' E
O.L.D. ℄ → S.T.
℄ R.R. CONST. LINE "A"
REMOVE EXIST. TRACKS
S.C.L. R.R.
CURVE 17
LINE "H"
CURVE NO. 15
CURVE NO. 16
P.C. (145+88.80)
P.I. LINE "E" STA 146+88.79
P.I. LINE "F" STA 347+19.14
CONST. 185 SQ. YDS. CONC. DITCH PAVT., 3"
1 Sty. Metal.
CURVE NO. 18
CONST. 38 CU. YDS. RIP-RAP (SAND-CEMENT) 6' W.M.
CONST. 5.4 CU. YDS. RIP-RAP (SAND-CEMENT)
250
CURVE NO. 14
N 35° 42' 01.8" E
℄ SURVEY
℄ EXPRESSWAY
REPLACE MILEPOST NO. 884 15' RT. 50+66 LINE "H"
REMOVE EXIST. TRACKS
EXISTING RR. MILEPOST
TEL. N.H. 8-WAY DUCT
2 - B.T. (200 & 100 PRS.)
24" R.C.P.
BEGIN 2' BW DITCH (-00)
S-58
S-58-A
CONST. 30" PIPE
B.T. (600 PR.)
S-59
REMOVE EXIST. 15" PIPE & INLET & CONST. INLET-TYPE P-5 AT SAME LOCATION.
STA. 246+00 (183' RT.) 13 KV (Elect.) CONST. ENDWALL; ℄ 13.00
CONST. 25' GUARDRAIL
CONST. 32' OF 18" PIPE
CONST. 52' of 18" PIPE
B.T. (25 PR.)
CONST. 18" PIPE
PLUG
B.T. (1200 PR.)
6 WAY DUCT
24" PIPE
AVE.
8" San.
8" W.M.
19+30' (CMPA)
19+30' CMPA.
B.T. (25 PR.)
2" W.M.

NOTE:
SEE SWANN AVE SHEET 43 FOR ADDITIONAL DETAILS

℄ SURVEY CURVE NO. 14
P.I. STA. 236+75.30
Δ = 03° 00' 25.2"
D = 00° 30' 00"
T = 300.76'
L = 601.40'
R = 11,459.19'
P.C. STA. 233+74.53
P.T. STA. 239+75.93

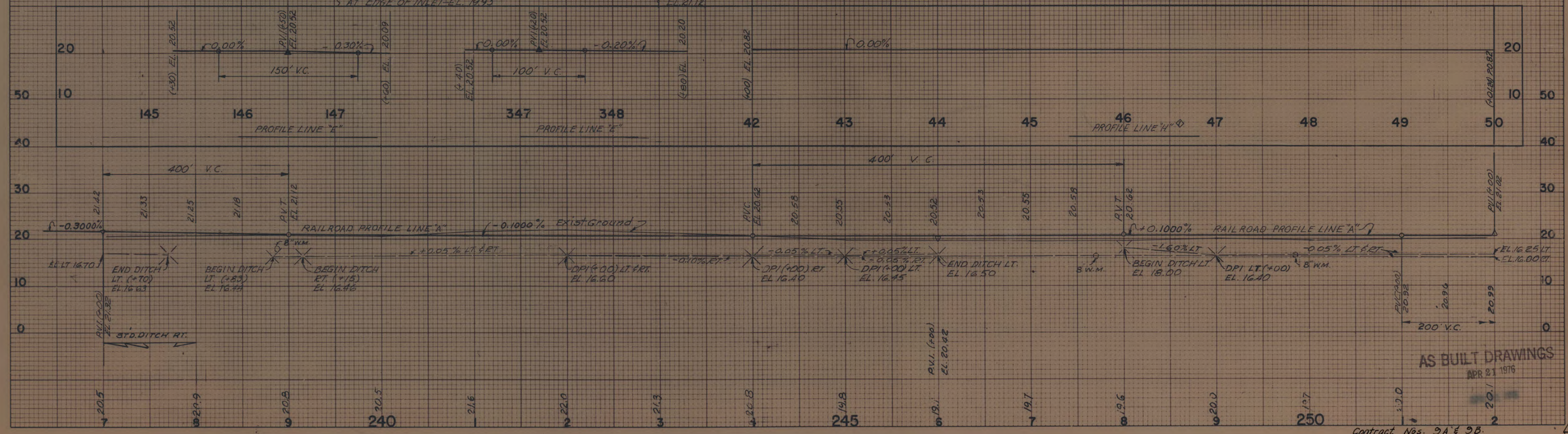
CONST. TEMPORARY DITCH - SEE "X-SECTIONS"

LINE "H" CURVE NO. 17
P.I. STA. 43+50.38
Δ = 5°-13'29"
D = 6°00'00"
T = 47.77'
L = 95.41'
R = 955.37'
P.C. STA. 43+02.61
P.T. STA. 43+98.02

LINE "H" CURVE NO. 18
P.I. STA. 48+50.99
Δ = 5°43'29"
D = 6°00'00"
R = 955.37
L = 95.41
T = 47.77
P.C. STA. 48+03.22
P.T. STA. 48+98.63

B.M. NO. 36 A
50' CUT ON CURB ON
SO. SIDE OF SWANN AVE.
100' W. OF ℄ SURVEY
AT CLOSE OF INLET-EL. 19.93

B.M. NO. 35 A
14± LT. OF STA. 243+13
NAIL IN TRANSFORMER POLE
ON SO. SIDE OF LEON
EL. 21.12



AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B.

84
1

NO.	REVISION	BY	DATE
1	REVISED LINE "H"	JNC	2-4-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		27
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

ROME AVE. 6"W.M. AZELE AVE. 6"W.M. 16"W.M. 18"R.C.P. 8"San. 6"W.M. 8"San. PLATT STREET DAKOTA STREET 8"W.M. 8"San. OREGON STREET 8"W.M. 8"San. 12"W.M. 8"San. 15"S.S. ORLEANS AVENUE 8"W.M. 8"San. CLEVELAND ST. 12"W.M. 8"San. 15"S.S. 8"San. 8"W.M. 8"San. 6"W.M. 8"San.

CURVE NO.19 LINE "A"
P.I. STA. 258+68.44
Δ = 5°43'29"
D_a = 3°00'00"
θ_s = 0°35'06"
T_s = 115.00'
L_c = 151.82'
L_s = 89.00'
e = ½"

CURVE NO.20 LINE "A"
P.I. STA 265+19.50
Δ = 5°43'29"
D = 2°00'00"
θ_s = 0°23'24"
T_s = 162.74'
L_c = 247.24'
L_s = 89.00'
e = ½"

STA. 260+46.71 LINE "A" = STA 60+46.71 LINE "J"
P.I. NO. 10 FROG ANGLE
CONST. NO. 10 TURNOUT
SEE A.R.E.A. PLAN NO. 10-62

SCALE 1"=50'

255 260 265

292'-30" PIPE
STA. 255+81.00 ℄ SURVEY
CONST. INLET TYPE "D"
END RIP-RAP (P-150)
CONST. 44.3 CU. YDS. RIP-RAP (SAND CEMENT)
CONST. ℄ GUARDRAIL
S-60 (25' LT 253+00)
CONST. 47.50 YDS. CONC. DITCH PAVT. 3"
N35°42'01.8"E
(CONST 36 OF 24 CLASS II PIPE 43'
℄ CONST LINE "A"
CONST. 165' OF 30" PIPE
S-61 (25' LT 257+78.5)
CONST. 15" PIPE
CONST. 96.2 SQ. YDS. CONC. DITCH PAVT. 3"
CURVE NO. 19
CONST. 212 SQ. YDS. CONC. DITCH PAVT. 3
CONST. 60' OF 30" PIPE (CLASS II)
CONST. 164' OF 30" PIPE
℄ SURVEY
REMOVE EXISTING TRACKS ℄ EXPRESSWAY
2-B.T. (200 & 100 PRS)
B.T. (600 PR)
13 KV. elect. Co.
S-62
S-67
S.C.L. R/W LINE
CONST. 30" PIPE
NOTE SEE PLATT ST. SHEETS 44, 45, 146 FOR ADDITIONAL DETAILS
B.T. (25 PR)
B.T. (26 PR)
END DITCH PAVT.
S-63 (24' LT 258+60)
CONST. 20.8 CU. YDS. RIP-RAP (SAND CEMENT)
CONST. 25' GUARDRAIL
FL. EL. 18.24
CONST. 250 OF 6" UNDERDRAIN
N35°42'01.8"E
℄ CONST LINE "J"
S-69 (15' LT. 64+28 "J")
CONST. INLET TYPE VA
FL. EL. GRATE 18.30
INDEX NO. 5043
CONST. 32' OF 18" PIPE (CLASS III)
N41°25'30.8"E
STA. 260+37.16 ℄ SURVEY
REMOVE EXIST. TRACKS
S-65 (20' LT 264+28 "A")
CONST. INLET TYPE "C"
FL. EL. GRATE 18.40
CONST. SLOT S.W. SIDE
INDEX NO. 5046
189
EXIST. M.H.
S.C.L. R/W LINE
EXISTING RAILROAD SIGNAL TO BE MOVED BY OTHERS
CONST. 20 CU. YDS. CONC. COLLAR
STA. 64+76.82 Line J + STA. 122+33.54 CLEVELAND
CONST. 2 R.R. CROSSINGS TYPE "L"
REPLACE PAV'T. & CURB
N35°42'01.8"E
END LINE "J" CONNECT TO EXISTING RAIL, STA. 66+40
N35°42'01.8"E
EXISTING R.R. SIGNAL (TO REMAIN)
END JOB STA 266+82.40 LINE "A" = STA 266+70.73 ℄ SURVEY CONNECT TO EXISTING RAIL
P.I. STA. 123+08.50
STA. 265+08.73 "A" = STA 123+85.83 CLEVELAND ST. ℄
FILL CONST. STA. 123+40
S-66 (95' RT. STA 264+80) CONST. INLET TYPE "C" CONST. SLOT WEST SIDE FL. EL. 14.70 GRATE EL. 17.21 SEE INDEX NO. 5046
CURVE NO. 20
CLEVELAND ST.
121 122 124

BM. NO. 31A
100' LEFT OF STA. 255+96
SQ. CUT ON S.W. CORNER OF GAS PUMP BASE ON EAST SIDE OF PARKER AVE.
EL. 21.04

BM. NO. 32 A
SQ. CUT ON CURB ON SO. SIDE OF PLATT ST. 42' E. OF OREGON ST.
EL. 20.44

BM. NO. 17A
SQ. CUT ON CURB ON NO. SIDE OF CLEVELAND ST. 5' E. OF ℄ SURVEY — EL. 19.95

PROFILE CLEVELAND ST. ℄

BEG CONST. STA. 121+80 EL 20.70
PVI (-100) EL 20.98
PVI (+100) EL 20.55
END CONST. STA. 123+40 EL 20.92
-0.28% +0.62%
PVI (-100) EL 21.02
PVI (+100) EL 20.82
PVI (-100) EL 20.95
PVI (+100) EL 20.95
PVI (-100) EL 20.95
PVI (+100) EL 20.55
-0.0175% -0.2000% -0.5000%
200' VC 200' VC
STA. 66+40 EL 19.85 MATCH EXISTING GRADE
STA. 266+82.40 EL 20.87 MATCH EXISTING GRADE
PROFILE LINE "J"
END JOB STA 266+82.40 LINE "A" STA 266+70.73 ℄ SURVEY CONNECT TO EXISTING RAIL
CONNECT 15" PIPE TO 5'x5' BOX — ℄ 13.80
S-64 S-65 S-66
DP1 (+80) ET EL 16.81

PVI (-100) EL 21.02
DP1 (+00) LT ℄ ET EL LT 16.20 EL ET 15.95
-0.05% LT ℄ ET
+0.20% LT
EL 16.26 LT EL 16.00 RT
DP1 (+00) LT EL 16.60
S-60 CONST. INLET TYPE "E" CONST SLOT BOTH SIDES ℄ EL 12.80 GRATE EL 17.20 SEE INDEX NO. 5046
RAILROAD PROFILE LINE "A" 0.0000%
+0.05% LT
-0.15% RT
DP1 (+50) LT EL 16.83
12"W.M.
DP1 (+00) RT EL 16.70
PVI (+00) EL 19.02 (NO VAC)
DP1 (+00) ET EL 17.10
RAILROAD PROFILE LINE "A" -0.0175%
-0.05% ET
DP1 (+60) LT EL 16.46
+0.10% LT
DP1 (+60) LT EL 16.66
S-63 CONST. INLET TYPE "C" CONST. SLOT N.E. SIDE ℄ EL 13.80 GRATE EL 17.46 SEE INDEX NO. 5046

AS BUILT DRAWINGS APR 21 1976

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3511		28
By JEG	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9-77

STATE JOB No. 10002-3511

FINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — DRAWN — TRACED — AREAS — AREAS CHECKED — BY — DATE — NO

ORIGINAL SURVEY — NOTE BOOK — SURVEYED — PLOTTED — DRAWN — TRACED — AREAS — AREAS CHECKED — BY — DATE — NO

SCALE: 1"=20'

CURVE No. H-1
P.I. STA 53+36.70
Δ=5°-56'-54"
D=2°-30'-00"
R=2,291.83'
L=237.94'
T=119.07'

CURVE No. H-2
P.I. STA 55+74.63
Δ=5°-56'-54"
D=2°-30'-00"
R=2,291.83'
L=237.94'
T=119.07'

BEGIN CONSTRUCTION P.I. STA 50+00.00 & CONSTRUCTION P.O.T. STA 50+00.00 & CONSTRUCTION

℄ FUTURE EXPRESSWAY

TRAVERSE LINE

24' ROADWAY

24' ROADWAY

LINE 'A'

PLACE SAND CEMENT BAG RIP RAP

2" Gas

8" W

STA. 53+01.78 ℄ HIMES SURVEY
STA. 99+65.75 ℄ TRAVERSE

CONST. 3' CONC. DITCH PAVT.

(TO BE RELOCATED)

3' CURB TRANSITION

100

3' CURB TRANS.

ARC. STA. 54+55.56 ℄ CONST.
POT. STA. 101+07.46 LINE 'A'

CONST. R.R. CROSSING TYPE "L"
FOR ADDITIONAL DETAILS SEE
INDEX No. 1466-K 1 of 4

STA. 54+34.13 ℄ HIMES SUEVEY
STA. 100+83.36 LINE 'A'

CONST 18" PIPE

CONST. 8" CONC. CURB & GUTTER

MATCH EXIST. CURB & GUTTER

CONST. 4' CONC. S/W

18" STUB

18"

6" Gas

CONST. 6" CONC. CURB AND GUTTER

℄ SURVEY

50

51

℄ CONSTRUCTION

N 0°-35'-03.5" E
HIMES AVE

52

53

54

CURVE 'H-1'

55

CURVE 'H-2'

16" W

Relocate 6" Gas

CONST. 6" CONC. CURB & GUTTER

MATCH EXIST. PAVEMENT

CONST. 4' CONC. S/W AND MATCH EXIST. S/W

Exist. R/W

(Exist. 6" Gas To Be Moved)

REMOVE EXIST. S/W

MATCH EXIST. CURB & GUTTER

CONNECT TO EXIST. PAVT.

STA. 53+03.78 ℄ HIMES CONSTRUCTION
STA. 99+68.03 ℄ TRAVERSE

P.C. STA. 52+17.62

BT&T/QUITE CABLE TOLL

℄ Exist. SCL R/W

C.B. Gar.

1 Sty. C.B. Res.

1 Sty. Asp. Fr. Res.

+99.80

Exist 18" RCP (TO BE REMOVED)

CONST. 6" CONC. CURB & GUTTER

3' CURB TRANS.

MATCH LINE STA. 56+00.00 ℄ CONSTRUCTION

B.M. No. C-62-A
30 CUT IN ℄ CURB
ON HIMES N. EDGE OF
FIRST DW'S OF 12
EL. 17.48ft

FOR SPECIAL PROFILES ON EDGES OF PAVEMENT SEE SHEET No. 63

BEGIN CONSTRUCTION
STA. 50+00.00
EL. 15.78'

Existing ℄ of Pavement

+0.3000%

B.T.

PROFILE GRADE HIMES AVE.

6" GAS

16" W/L

PVC. STA 52+00.00
EL 16.38

100' V.C.

16.41

16.60

16.79

16.98

PVT. STA 52+100.00
EL 16.53

PVC. STA 53+00.00
EL 17.32

PROFILE GRADE HIMES AVE.

+1.5760%

PVT. STA 53+50.00
EL 18.30

Exist 18" RCP
INV. EL 14.38'

PVT. STA 54+50.00
EL 18.50

PVC. STA 54+60.00
EL 18.50

+0.0000%

STA. 54+55.56
LINE 'A'

-1.0000%

PVT. STA 55+60.00
EL 18.50

16" W

6" GAS

CONST. 18" PIPE LT. to RT.
F.L. LT. 14.00 F.L. RT. 13.60

150' V.C.

150' V.C.

1.41

1.46

1.46

1.44

1.43

1.45

1.45

1.49

1.49

1.45

1.45

1.46

1.46

1.29

1.17

1.02

1.15

25
20
15
10
5

50 51 52 53 54 55 56

AS BUILT DRAWINGS
APR 21 1978

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3511		29
By: J.E.G.		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 9-72

STATE JOB No. 10002-3511 — E. GREINER COMPANY, INC. CONSULTING ENGINEERS TAMPA, FLORIDA

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

SCALE: 1"=20'

MATCH LINE STA. 56+00.00 ℄ CONSTRUCTION

P.T. STA. 56+93.49

END CONSTRUCTION P.O.T. STA. 58+75.00 ℄ SURVEY = P.O.T. STA. 58+75.85 ℄ CONSTRUCTION 24.18' R.T.

CONST. 6" CONC. CURB & GUTTER

BT (2-3½" TRANSITE)

Exist. R/W

59

℄ SURVEY

60

N 0°-35'-03.2"E

MATCH EXIST. CURB & GUTTER

MATCH EXIST. PAVEMENT

16' W.L.

24'

57

℄ CONSTRUCTION

N 0°-35'-03"E

HIMES AVE.

58

24'

25.00

CURVE "H-2"

CONST. 6" CONC. CURB & GUTTER

Exist. R/W

CONST. 18" PIPE

Exist. S.C.L. R/W

PLACE SAND CEMENT BAG RIP RAP

CONST 3" CONC DITCH PAV'T.

LINE "2" 103

FINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS — AREAS CHECKED — BY — DATE

END CONSTRUCTION
STA. 58+75.00 ℄ SURVEY
STA. 58+75.85 ℄ CONSTRUCTION
EL. 15.72

150' V.C.

PVC STA. 57+45.00
EL. 16.60

16.46 16.29 16.13 16.01 15.90 15.82 15.75

PVI STA 58+00.00
EL. 15.72

-1.00000%

-0.1700%

PROFILE GRADE HIMES AVE.

EL. 17.85'

PROFILE GRADE HIMES AVE.

Existing ℄ of Pavement

17.85

AVT. STA. 56+10.00
EL. 17.75

16' W.L.

150' V.C.

PVI STA 58+00.00
EL. 15.85

25 20 15 10 5

56 57 58 59 60 61

AS BUILT DRAWINGS
APR 21 1978

Contract Nos. 9A & 9B

84
1

10002	3510		30
WACO			2-73

1 Story Conc. Block Res.

1 Story Conc. Block Res.

1 Story Conc. Block Res.

1 Story Conc. Block Res.

1 Story Conc. Block Res.

1 Story Conc. Block Res.

1 Story Conc. Block Res.

1 Story Conc. Block Res.

GUNLOCK AVE.

CONCORDIA AVE.

2" W.M.

8" San.

Asph. Pav't.

FUTURE RAMP

℄ RAMP "A" (FUTURE) N 40°55'55"E

STA. 11+12.35 ℄ RAMP "A" = STA. 6+81.20

89°50'12"

(+33.22)

(+106.12)

℄ EUCLID ℄ CONSTRUCTION

EUCLID

AVENUE

San. M.H. Inv. 3.52

36" Storm Sewer

BEGIN CONST. STA. 7+00

San. M.H. Inv. 3.31

13.87

13.66

18" To Be Removed

CONST. 6' OF 18" PIPE CONNECT TO 1ST JOINT OF EXISTING PIPE

CONNECT TO EXIST. PAV'T. (+100)

STA. 7+63 CONST. INLET TYPE P-6 F.L. 9.0

15" PIPE TO REMAIN

CONNECT TO EXIST. PAV'T.

60°44'48"

S 89°16'06.7"E

CONST. 6' OF 15" PIPE. CONNECT PIPE TO NEW INLET. OLD INLET TO BE REMOVED.

EXIST. INLET TO REMAIN

CONST. CONC. CURB & GUTTER

Tel. M.H. CONST. 88' OF 24" PIPE WITH STANDARD ENDWALLS AND "U" TYPE WINGS SEE INDEX NO. 200

STA. 9+25.50 ℄ EUCLID = STA. 112+69.87 LINE "A"

CONST. R.R. CROSSING, TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466.

STA. 112+97.80 ℄ LINE "A" (32 LT)

F.L. EL. 11.0

DROP CURB (TYP.)

STA. 113+22 (20 RT.) F.L. EL. 11.0

CONST. 88' OF 24" PIPE WITH STANDARD ENDWALLS AND "U" TYPE WINGS SEE INDEX NO. 200

℄ OF CONST. & ℄ OF SURVEY

18" R.C. PIPE, TO BE REMOVED.

60°48'00"

3' CURB TRANS. (TYP.)

B.T. (400 PR.)

STA. 112+34 (20' RT.) F.L. EL. 11.3

CONST. DITCH SEE CROSS SECTION BELOW

STA. 112+10 (26' LT.) F.L. EL. 11.3

B.T. (100 PR.)

℄ OF PROPOSED RAILROAD

℄ R.R. DITCH

SEABOARD COAST

112 ℄ LOE SURVEY

P.I. - 1 - 0°45' LT (NO CURVE) STA. 104+00.00 ℄ EUCLID = STA. 113+03.96 ℄ SURV. "Y"

EXISTING RAILS TO BE REMOVED

RAILROAD

B.T. (100 PR.)

BMC - 59A-1
Sq. Cut in Curb
Center of N.W. Radius of GUNLOCK & EUCLID
EL. 14.68

FOR SPECIAL PROFILES ON EDGES OF PAVEMENT SEE SHEET NO. 64

EUCLID AVENUE

Natural Ground

2:1

2'

2:1

2' MIN.

Natural Ground

TYPICAL CROSS SECTION DITCH - 60' RT. OF EUCLID

Existing ℄ Profile

100' V.C.

(+42) 14.28

14.35

14.38

14.93

(+40) 15.13

(+00) EL. 14.52

+1.8000%

-0.3600%

+1.8000%

-1.8000%

P.V.I. (+25) EL. 15.53

℄ - PROFILE - EUCLID AVE.

15.46

15.74

15.92

16.00

15.97

15.84

15.61

15.37

15.57

(+55) 15.37

(+95) 15.57

140' V.C.

100' V.C.

B.T.

P.V.I. (+30) EL. 14.20

+0.2%

D.P.I. (+18) EL. 11.94

SPECIAL DITCH 60' RT.

Existing 2" W.M.

Existing 2" W.M.

CONNECT TO FIRST JOINT OF EXIST PIPE AT SAME F.L. ELEV.

CONST. 18" PIPE

18" STORM SEWER (TO BE REMOVED & REPLACED WITH 18" AT NEW LOCATION.)

F.L. EL 9.0

CONST. CONC. COLLAR SEE STD. INDEX NO. 506

F.L. 7.47

36" Storm Sewer

14.44

14.53

14.63

14.83

14.81

14.95

14.66

14.37

14.88

16.42

9.00

20.03

20.17

Existing Sanitary Sewer Elev. 3.30 @ Sta. 7+08

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		31
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA, FLORIDA

SCALE 1"=20

EUCLID AVENUE

114
EXISTING RAILS TO BE REMOVED.
℄ OF SURVEY
RAILROAD
P.I. Δ = 0°45' LT. (NO CURVE)
STA. 10+00.00 ℄ EUCLID =
STA. 113+13.96 ℄ SURVEY.
B.T. (200 PR.)
1 Story Conc. Block Res.
1 Story Conc. Block Res.
1 Story Conc. Block Res.
1 Story Conc. Block Res.
DREXEL AVE.
Asph. Pav't.
STA. 12+64.69 = STA. 214+19.73 RAMP "B"
RAMP "B" (FUTURE) N 12°53'33" E
6" W.M. B.T. (200 & 400 PR.)
18" R.C. PIPE (TO BE REMOVED.)
R/W LINE
CONST. CONC. CURB & GUTTER
S-11A
13.18
CONST. 56' OF 15" PIPE.
13.23
CONNECT TO EXIST. PAV'T.
165 END C & G.
75°
(193.22)
59°54'15"
8" San.
San. M.H.
San M.H.
8' San.
San. M.H. (TO BE ADJUSTED)
℄ CONSTRUCTION
℄ OF SURVEY
EUCLID
AVENUE
CONST. 40' OF 15" PIPE AND CONNECT TO FIRST SECTION OF EXIST. PIPE.
13.25
M.H.
15"
18"
N 89° 58' 53.3" E
2" W.M.
Tel. M.H.
C2" W.M.
CONST. CONC. CURB & GUTTER
R/W LINE
B.T. (400 PR.)
S-11
28.67
END CONSTRUCTION STA. 12+73
RETURN NO. 1
0+49.00
16'
LYNWOOD AVE.
+70.70
13.35
18" ASPH. PAV'T.
6" W.M.
CONST. INLET STA. 11+28.22 TYPE P-5, FL. 9.8
1 Story Conc. Block Res.
COAST
CONST. DITCH
SEABOARD
DITCH (BY OTHERS) SCL R/W Line

FOR SPECIAL PROFILES ON EDGES OF PAVEMENT SEE SHEET NO. 64

B.M.C. 59A-2
SQ. CUT ON TOP OF CONC. CURB
18' RT. STA. 14+00
EL. 13.12

EUCLID AVENUE

Existing ℄ Profile
100' V.C.
-1.8000%
P.V.T. (+9.35) 14.31
℄ PROFILE - EUCLID AVE.
-0.3260%
B.V. (7+46) EL. 14.47
B.T.
S-11 +28.20 RT. INLET P-5
Storm M.H.
(+7.73) EL. 13.73
G.W.M.
San. M.H.
CONST. 15" PIPE (T)
CONST. 15" PIPE
R.F.
R.F. EL. 9.51 (T)
S-11A +27.48 INLET P-6 RT. & LT. FL. EL. 9.8
San M.H.
San M.H.
(97) CONNECT TO FIRST SECTION OF EXIST. PIPE
CONST. CONC. COLLAR SEE STD. INDEX 5061
18" Storm Sewer
20.12 | 19.84 | 18.08 | 16.32 | 14.56 | 13.84 | 13.69 | 13.49 | 13.26 | 12.98 | 12.66 | 12.14
10 | +50 | 11 | +50 | 12 | +50 | 13 | +50 | 14 | +50 | 15 | +50 | 16

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

8A
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		32
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

Scale 1"=20'

EL PRADO BLVD.

R/W LINE

BEGIN CONSTRUCTION STA. 7+40

GRASS

Asphalt Pav't.

℄ SURVEY

S 89°34' 26.7"E

119°30' 15"

CONCORDIA AVE

Asphalt Pav't.

2" W.M.

3" W.M.
12" W.M.

5' Sidewalk To Remain

CONNECT TO EXISTING PAVEMENT CONST. TYPE 'D' CURB

CONNECT TO EXIST. CURB 5R

CONST. TYPE "D" CURB

CONST. ℄ OF ℄ SURVEY

89°21'45"

B.T. 400RR

RETURN #1

0+67.59

2'C.& G.

G' W.M.

CONCORDIA AVE

Asphalt Pav't.

STA. 9+19.70 ℄ EL PRADO = STA. 124+33.83 LINE "A"

STA. 0+65.41 CONNECT TO EXIST. PAVT.

0+65.41

R/W LINE

RETURN #1

CONST. 104' of 18" PIPE

CONST. TYPE "D" CURB

CONST. R.R. CROSSING TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466

CONST. 42' of 18" PIPE (CLASS IV)

CONST. 15" PIPE

RAILROAD

S-17

S-17A

BT (100 PR)

PI STA 124+01.16

STA. 10+00.00 EL PRADO = STA. 124+71.26 ℄ SURVEY

CONST. TYPE "D" CURB

DROP CURB (TYPICAL) 60'-25'

CURB TRANS. (TYPICAL)

CONST. TYPE "D" CURB

FUTURE SIDEWALK

CONST. 30 S.Y. OF CONC. SIDEWALK

5' Sidewalk To Be Removed

R/W LINE

12" W.M.
3" W.M.

Encasement Pipe

NOTE, This S.W. was CONST. on this CONTRACT 30 Children coming from School could cross R.R. ℄ CONST. SITE. Approx. 250 SQ. YDS.

S.C.L. R/W Line

BT (100 PR)

(LINE "A") ℄ PROPOSED RAILROAD

PC STA. 123+49.32

SEABOARD COAST LINE

124 ℄ of SURVEY

EXISTING RAILS TO BE REMOVED.

G' X 4' Box Culvert

1 STY C.B

B.M. C57A-
N.E. FLANGE BOLT
ON FIRE HYDRANT
14' RT. OF STA. 6+41
EL. 15.54

FOR SPECIAL PROFILE ON EDGES OF PAVEMENT SEE SHEET NO. 65

40' V.C.

PVC (7+40) EL 14.80

15.06

PVT (7+80) EL 15.54

+3.0000% PROFILE GRADE

+0.7000%

PVI (10+41) EL 18.96

PVC (12+00) EL 17.90

-1.0000%

BEGIN CONST. STA. 7+40

Existing Profile 10' Lt. ℄

Existing 12" W.M.

Existing ℄ W.M.

PVC (7+40) EL 13.94

PVI (7+60) EL 14.94

PVC (7+40) EL 17.46

100' V.C.

Tel.

S-17A

S-17

SLOT EL 14.95

SLOT EL 14.5

PVT (9+41) EL 18.16

CONST. CONC. COLLAR SEE STD. INDEX 5061

CONST. 44' of 18" PIPE (CLASS IV)

CONST. 15" PIPE

FL 10.95

CONST. 18" PIPE

FL 8.6

IE 10.1

IE 10.7

STA. 125+10.00 (LINE "A") (19.25 RT.)

6'x4' Box Culvert

STA 8+26 ℄ EL PRADO (40' LT) FL 6.60

S-17A
CONST. DITCH BOTTOM INLET TYPE "C" INDEX NO. 5046 (NORTH SIDE SLOTTED)

S-17
CONST. DITCH BOTTOM INLET TYPE "C" INDEX NO. 5046 (NORTH SIDE SLOTTED)

13.12 (7+50) 13.57 14.00 (7+50) 14.80 15.40 (7+50) 16.33 17.33 (7+50) 18.46 20.25

AS BUILT DRAWINGS APR 21 1976

Contract Nos. 9A & 9B

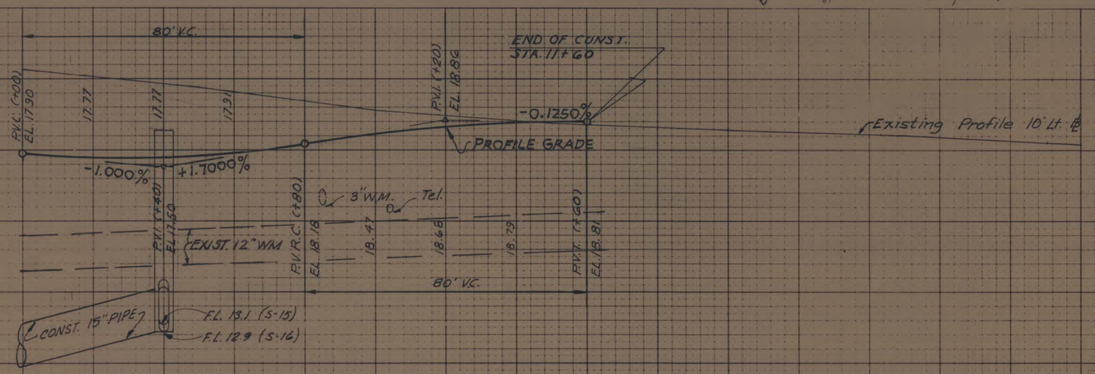
84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		33
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

EL PRADO BLVD.

STA. 124+88.83
℄-SURVEY
Δ = 0°1'-37.2"LT.

℄ OF SURVEY
EXISTING RAILS TO BE REMOVED
RAIL ROAD
Scale 1" = 20'
BT. (600 PR)
R/W Line
DREXEL AVE
3" W.M.
2" W.M.
Plugged
LINE
BT 400 PR
74' CONST. 72' OF 15" PIPE
EL PRADO BLVD.
END OF CONSTRUCTION STA. 11+60.00 EL PRADO
CONST. TYPE "D" CURB
CONNECT TO EXIST. CURB
CONST. 27' 28' OF 15" PIPE
CONST. ℄ ℄ SURVEY
CONNECT TO EXISTING PAVEMENT
S-16
S-15
FUTURE 5' SIDEWALK
SEE NOTE SH. 32
12" W.M.
3" W.M.
Remove Existing Sidewalk
Existing 5' Sidewalk To Remain
℄ R/W Line
S 89° 34' 26.7" E
STA. 10+00.00 EL PRADO = STA. 124+71.26 ℄ SURVEY.
COAST LINE
SEABOARD
S.C.L. R/W Line
BT 400 PR
DREXEL AVE
10 11 12 13 14 15 16



BM 57-B-1
CONC. LIGHT POLE BASE
14' LT. OF STA. 13+34
EL. 18.93

20.25 19.25 (+50) 13.11 18.76 (+50) 18.56 (+50) 18.41 18.14

10 11 12 13 14 15 16

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510	"	34
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

NO	REVISION	BY	DATE
1	DRAINAGE STRUCTURE SYSTEM S-20, S-21, S22, S-23	JNC	9/19/73

PROPOSED RAILROAD LINE "C"
N 29°58'16"E
S.C.L.R.R. R/W LINE
EXISTING TRACKS TO BE REMOVED.
Future Bridge
DROP CURB (TYP.)
Future Pier Location (TYP.)
S-25 STA. 18+90 CONST. INLET TYPE "P-6" FL.EL. 13.30
3' CURB TRANS. (TYP.)
BT. (100 PR.)
12" W.M.
100' TAPER
BT. (300 PR.)
BT. (200 PR.)
17
18
19
20
21
22
23
℄ OF CONSTRUCTION
MACDILL
AVE.
174' TAPER
8" G.M.
BEGIN CONST. STA. 16+78 (CONNECT TO EXIST. PAVT.)
STA. 18+28.16 MACDILL AVE. = STA. 52+92.79 LINE "C"
CONST. R.R. CROSSING, TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
S-24 A. STA. 19+56 (41' Rt.) CONST. INLET TYPE "C" FL.EL. 12.80 GRATE EL. 15.0
S-24 STA. 19+56 CONST. INLET TYPE "P-6" FL.EL. 12.90
CONST. 76' OF 15" PIPE
CONST. 14' OF 15" PIPE
Future Footing Location
℄ CURVE NO. 7
℄ SANTIAGO AVE.
R/W LINE
P.I.
P.C.
P.T.
CURVE "50L"
CURVE "50"
CURVE "50R"
6" W.M.
12" W.M.
CONNECT TO EXIST. PAVT. STA 1+44.32.
S-19 STA. 154+77 LINE "A" (25' RT.) CONST. INLET TYPE "E" FL.EL. 10.7 GRATE EL. 14.75 CONST. SLOT BOTH SIDES.
S-13 STA. 154+77 LINE "A" (20' RT.) CONST. INLET TYPE "E" F.L.EL. 10.9 GRATE EL. 14.65 CONST. SLOT IN S.W. SIDE
℄ DITCH
CONST. 24" PIPE
CONST. 42' OF 24" PIPE (CLASS III)
STA. 20+15.67 MACDILL AVE. = STA. 154+44.32 ℄ SURVEY
CONSTRUCT 98' OF 15" PIPE
DROP CURB (TYP.)
CONST. VALLEY GUTTER SEE INDEX NO. 5080
CONST. 86' OF 15" PIPE (CLASS III)
STA. 21+40.35 MACDILL AVE = STA. 156+04.29 LINE "A"
3' CURB TRANS. (TYP.)
STA. 20+50 (44' RT.) BEGIN DITCH EL. 14.95
PT. STA. 55+29.23 LINE "C"
N1°16'43.9"W
CONST. R.R. CROSSING, TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
STA. 0+71.22 SANTIAGO = STA 54+85.59 LINE "C"
BT. (200 PR.)
S-20
8" PIPE
SANTIAGO AVE.
12' W.M.
Miami Gutter
S-Sam.
5' ST.
RETURN
STA. 0+53.50 CONNECT TO EXIST. PAVT.
S-22 0+48.94
PARKING AREA
Scale: 1"=20'
R/W LINE
CONST. CONC. CURB & GUTTER
℄ OF CONSTRUCTION
8" San.
MANHOLE TO BE ADJUSTED
CONST CONC. CURB & GUTTER CONST. R.R. CROSSING, TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
CONST. 54" PIPE
PROPOSED RAILROAD LINE "A"
N 29°58'16"E
S.C.L.R.R. R/W LINE
Curve No. 8
S-23 STA. 21+50 (42' RT.) CONST. INLET TYPE "C" FL.EL. 11.90 GRATE EL. 15.75 CONST. SLOT IN SOUTH SIDE.
N 24°14'47.1"E
MACDILL AVENUE

CURVE NO. 50
P.I. STA. 1+18.34
Δ = 30°27'34"
D = 57°17.75"
T = 27.23'
L = 53.16'
R = 100
P.C. STA. 0+91.09
P.T. STA. 1+44.25

CURVE NO. 50L
P.I. STA. 1+17.87 (11' Rt. of ℄ TANGENT)
Δ = 30°27'34"
D = 41°44'47"
T = 32.67'
L = 63.79'
R = 120
P.C. STA. 0+44.70 (11' Rt. of ℄)
P.T. STA. 1+48.49 (5' Rt. of STA. 1+43.29)

CURVE NO. 50R
P.I. STA. 1+21.66 (6' Lt. of TANGENT.)
Δ = 30°27'34"
D = 81°51'04"
T = 19.06'
L = 37.21'
R = 70'
P.C. STA. 1+02.60
P.T. STA. 1+39.81 (7' Rt. of ℄ STA. 1+41.32)

NOTE: SEE SHEET No 18 FOR CURVE DATA ON CURVES 7 & 8

C-31A-1 T ON FIRE HYDRANT 2' LT. STA. 16+23 EL. 17.70

NOTE: FOR SPECIAL PROFILES SEE SHEETS 66, 67 E&B

Existing ℄ Profile
℄ PROFILE MACDILL AVE
+0.34117
+0.23907
-0.3000%
-0.30%
PVI (540) EL 18.09
PVI (690) EL 17.94
PVI (492) EL 17.94
100' V.C.
S-20
S-21
S-22
(478) EL. 16.64
(429) EL. 17.16
EXISTING 12" W.M.
BT. (100 PR.)
S-25 INLET (TYPE P-6) INDEX NO. 5047
BT. (300 PR.)
S-24 INLET (TYPE P-6) INDEX NO. 5047
S-24A INLET (TYPE "C") INDEX NO. 5046
S-18 INLET (TYPE "E") INDEX NO. 5046
+50 D.P. EL. 14.95
S-19 INLET (TYPE "E") INDEX NO. 5046
SPEC 2' B.W. DITCH RT.
CONST. 15" PIPE
CONST. 24" PIPE
FL. EL. 13.30
FL. EL. 12.5
FL. EL. 12.80
FL. EL. 11.65
FL. EL. 10.9
FL. EL. 10.7
FL. EL. 10.3
FL. EL. 13.65
F.L.EL. 11.45
F.L.EL. 11.36
FL. EL. 10.20
FL. EL. 10.00
FL. EL. 11.9
FL. EL. 9.6
FL. EL. 6.5
8" SAN.
NOTE: 54" STUB SEE L.R. DRAWN ON SHEET 20
AS BUILT DRAWINGS
APR 21 1975

Contract Nos. 3A & 3B

84
1

SYSTEM	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	3510		35
BY WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		FY 2-73

NO	REVISION	BY	DATE
1	DRAINAGE STRUCTURE SYSTEM S-20, S-21, S-22, S-23	JNC	9/19/73

SCALE 1" = 20'

Note: Due to excessive traffic and poor Detour facilities, also Storm Sewer being in good condition it was found feasible not to tear up entire intersection and construct only the additional areas as shown on Plans, also overlay existing intersection eliminating closing of Streets. New Inlets were tied into Existing Sewer & existing Inlets removed.

MACDILL AVENUE
BAY TO BAY BLVD.

NOTE: FOR SPECIAL PROFILE, SEE SHEETS GG, GT & GB.

AS BUILT DRAWING
APR 9 1976

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		36
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73
NO.	REVISION	BY	DATE
1	ALIGNMENT	JNC	7-73

BAY TO BAY BLVD.

STA. 115+30.02 BAY TO BAY = STA. 24+10.53 MACDILL AVE

STA. 116+75.49 & CONST. BAY TO BAY LINE "A" STA. 159+00.95

For Inter. Detail See SH. 35

MAC DILL AVE

CURVE NO. 51
P.I. Sta. 117+22.67
Δ = 12°00'30"
D = 4°00'00"
T = 150.66'
L = 300.21'
R = 1432.39'
P.C. Sta. 115+72.01
P.T. Sta. 118+72.22

RAMP "B" FUTURE CONSTRUCTION

135 vph (1994)

465 vph (1994)

4 Story Steel and C.B. Office Building.

BAYSIDE BUILDING

FUTURE BRIDGE

FUTURE SIDE WALK

CONST. CURB & GUTTER

FUTURE INLETS

FUTURE STORM SEWER

CONST. CONC. SIDEWALK

CONST. DROP CURB

M.H. to be Adjusted

DROP CURB (TYP.)

6' CURB TRANS. (TYP.)

CONST. CONC. COLLAR PI. STA. 158+60 INDEX NO. 508-1

CONST. 38' of 15" PIPE

S-31 CONST. M.H. TYPE "J-8"

CONST. 12' OF 15" PIPE

S-31-A

CONST. 36' OF 15" PIPE (CLASS IV)

CONST. 54" PIPE (CLASS IV)

CONST. 142' OF 18" PIPE

S-32 STA. 118+20 (55' RT.) CONST. M.H. TYPE "P.B" F.L. EL. 9.0

STA. 158+41.14 LINE "A" STA. 58+41.14 LINE "C" P.I. NO 10 FROG ANGLE

FUTURE PIER LOCATIONS (TYP.)

CONST. 104' OF 18" PIPE

STA. 118+87.5 (28' LT.) 18" PLUG F.L. EL. 9.3

CONSTRUCTION

M.H. TO BE ADJUSTED SURVEY ℄

CURVE NO. 52

CONST. CONC. CURB & GUTTER

CONST. CONC. S/W

Conc. Wall

Conc. Curb.

BAY TO BAY BLVD.

Existing Parking

Exist. R/W Line

4-6" ELECTRIC DUCTS FOR FUTURE UGE.

NOTE: DROP CURBS FOR ENTRANCES TO PARKING AS DIRECTED BY THE ENGINEER.

1 Story Frame Tavern

2-Story Frame Apartment.

2-Story Frame Apartment

B.M. J-40-A-1
E END OF N.W. CONC. PUMP ISLAND OF PHILLIPS GG
S.W. COR. OF BAY TO BAY & MACDILL
EL. 18.28

FOR SPECIAL PROFILES ON EDGES OF PAVEMENT SEE SHEET NO. 69

Existing ℄ Profile

℄ PROFILE BAY TO BAY BLVD.

S-29 INLET P.S

S-28 INLET P.S

Const. 15" Pipe

F.L. EL. 13.8

F.L. EL. 13.6

F.L. EL. 13.9

F.L. EL. 11.80

S-30 STA. 158+40 (25' LT.) INLET "C" - F.L. EL. 11.65 GRATE EL. 14.57 CONST. SLOT IN S.W. SIDE INDEX NO. 504G.

STA. 158+40 (14' RT.) CONST. M.H. (TYPE J-8) 6' DIAMETER TOP EL. 15.9 FL. EL. 2.2 INDEX NO. 5047

S-31-A STA. 158+27 (20' RT.) CONST. INLET TYPE "C" CONST. SLOT S.W. SIDE GRATE EL. 14.8 FL. EL. 11.1

Existing 12" W.M.

CONST. 15" PIPE

F.L. EL. 11.65

F.L. EL. 10.75

F.L. EL. 11.1

F.L. EL. 10.9

S-32 M.H. P.B. TOP EL. 16.4 INDEX NO. 5047

B.T.

B.G.M.

Existing 12" W.M.

CONST. 18" PIPE

18" PLUG

F.L. EL. 9.3

F.L. EL. 9.0

Existing 12" W.M.

San. M.H.

8" San.

CONST. 54" PIPE (CLASS IV)

CONST. 54" PIPE

CONST. CONC. COLLAR SEE INDEX NO. 506-1

F.L. EL. 3.7

F.L. EL. 2.2

-3.000%

+14.000%

-1.3965%

-1.9965%

AS BUILT DRAWINGS
APR. 21 1976

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		37
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73
NO.	REVISION		BY DATE
1	ALIGNMENT		JNC 7-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

CURVE NO. 52 DATA
P.I. STA. 121+43.79
Δ = 6° 30' 55.9"
D = 3° 00' 00"
T = 108.71'
L = 217.19'
R = 1909.86'
P.C. STA. 120+35.08
P.T. STA. 122+52.27

SEE SH. No. 39 FOR CONTINUATION OF 18" PIPE

293' CONST. 18" RCP

12' 12' 40'

℄ SURVEY

ST.

2" W.M.

1 Story Brick Res.

Conc. Driveway

1 Story C.B. Res.

BLVD.

BLVD.

BAY

SCALE 1"=20'

R/W LINE

CONST. CONC. S/W

III Type "D" Curb

+23.87

O+44.52

18.5'

25.2'

10.12

S-33B

10.15

10.04

N. 27° 34' 30" E

P.T. 1+52.27

30'

24'

121

122

123

124

125

126

72" W.M.

CURVE NO. 52

℄ CONSTRUCTION

CONNECT TO EXISTING PAVEMENT

℄ SURVEY

BAY TO BAY BLVD.

S 83° 55' 32.9" E

8" San.

2" G.M.

10.62

10.65

S-33C

Go CONST. 18" RCP

+90.02

25.2'

O+68.50

10.64

16.5

2" W.M.

YSABELLA

2 Story Frame

1 - Story Frame

END CONSTRUCTION = STA. 122+53.56 ℄ CONST. (BAY TO BAY BLVD) = STA. 122+53.89 ℄ SURVEY (BAY TO BAY BLVD.)

Conc. Driveway

2 Story Brick Res.

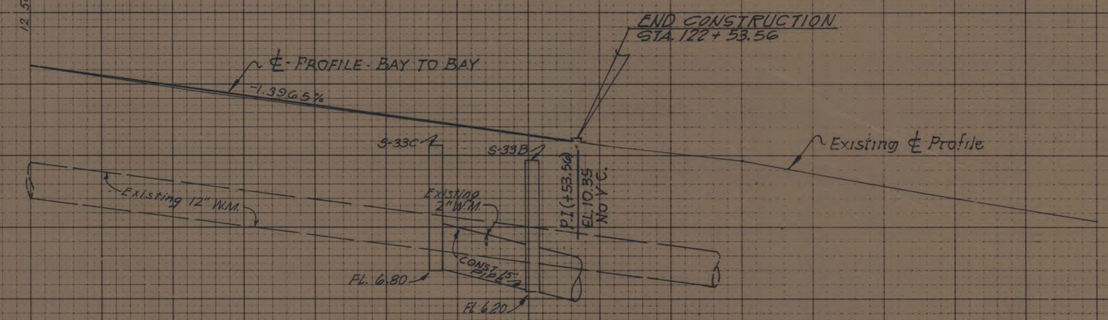
BAYSHORE

BAYSHORE

HILLSBOROUGH

BAY

BAY TO BAY BLVD.



AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84/1

SECTION	CONTRACT		SHEET NO.
10002	3510		38
BY: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		DATE 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SCALE 1"=20'

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

STA. 116+41.04 BAY TO BAY =
STA 0+00 ACCESS DRIVE NO. 1

BAY TO BAY

℄ CONST. BAY TO BAY

BAY BLVD

CONST. 6" CURB & GUTTER

CONST. DROP CURB

116+22.80

R=30.00'

Δ=65°32'09" TC

Underground Fuel Tanks

LOADING DOCK

1 STORY STEEL & MASONRY WAREHOUSE

CONST. 376' OF DROP CURB

R/w Line

S-34
CONST. INLET TYPE V-A
GRATE EL. 15.70 FL. 11.70

FL. 14.6
FL. 14.6

CONST. 368' OF 6" UNDERDRAIN

FL. 15.0

FL. 15.0

N 20° 58' 16.1" E

INSTALL R.R. WHEEL STOPS

℄ LINE "B" PUBLIC TEAM TRACK

℄ LINE "A"

CONST. 60' OF 18" PIPE (CLASS II)

CONST. 54" PIPE

CONST. CONC. COLLAR SEE INDEX NO. 5061

STA. 116+76.73 ℄ CONST. BAY TO BAY =
STA. 159+00.84 - LINE "A"

1 STORY FRAME OFFICE & WAREHOUSE

SEE SHEET NO. 36 FOR DETAILS OF BAY TO BAY.

159 160 161 162 163 164

GRANADA AVE

CONNECT TO EXISTING ASPHALT PAVEMENT STA. 5+07.50

Curve No. 9A

PT+67.96
18R
25R

1 STORY C.B. OFFICE & WAREHOUSE

PLUG 18" PIPE

SWALE TO DITCH

BEGIN DITCH (25' LT.) STA. 164+00

REMOVE 18" PIPE M.H. & INLET

Curve No. 9

STA. 164+00 LINE "A"
P.I. NO. 10 FROG ANGLE

S-33

CONST. 54" PIPE

CURVE NO. 9A
P.I. STA 4+54.78
Δ = 105°20'00"
R = 25.00'
T = 32.78'
L = 45.96'
P.C. STA. 4+22.00
P.T. STA. 4+67.96

SEE SHEET NO. 21 FOR CURVE NO. 9 DATA

ACCESS DRIVE NO. 1

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE AREAS, AREAS CHECKED, NOTE BOOK, NO., BY, DATE

PROFILE RT. EDGE PAVEMENT
PROFILE LT. EDGE PAVEMENT
PROFILE RT. EDGE OF PAV'T.
PROFILE LT. EDGE OF PAV'T.
Exist. Ground Line
0.00%
-0.743%
+0.500%
+0.300%
PVI 15.80 PVI 15.80 NO VC
Const. 6" Underdrain
Const. 6" Underdrain
℄ S-34
CONST. 18" PIPE
CROWN OF 54" PIPE
FL EL. 4.1
Warp Grade to Match Pav't
+100 PVI LT ℄ R
EL. 17.10 RT.
EL. 17.05 LT.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		39A
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 9/73

TERESA TERRACE II APARTMENTS

TERESA TERRACE II APARTMENTS

Sidewalk

18" S/S

15" S/S

15" S/S

18" S/S (To Remain)

Exist Fence

℄ S.C.L. R/W

℄ LINE "A"

S-41

S-42

℄ SURVEY

℄ PROPOSED PROJECT

N 38° 42' 27.0" E

Scale: 1" = 20'

MATCH EXIST. GRADES.

PAVT. TRANSITION TO PARKING LOT

CONST. 96' OF 24" PIPE

CONST. 56' OF 24" PIPE

To Be Removed

R/W Line

Exist Fence

24" S/S

30" S/S

24" S/S (To Remain)

12" W.M.

51° 49' 50"

END CONSTRUCTION STATION 11+00

MISSISSIPPI AVENUE

12" W.M.

S 89° 27' 43" E

BEGIN CONSTRUCTION STATION 7+80

ADJUST MANHOLE TOP TO MEET GRADE

CONST. RAILROAD CROSSING TYPE "L" INDEX NO. 1466

1- Sty. Metal Shop.

N 38° 42' 27.0" E

N 38° 42' 27.0" E

STA. 9+17.32 ℄ MISSISSIPPI AVE. = STA. 198+78.85 LINE "A"

STA. 199+17.69 ℄ SURVEY = STA. 10+00.00 ℄ MISSISSIPPI AVE.

FOR SPECIAL PROFILES OF EDGE OF PAVEMENT SEE SHEET NO. _____

B.M. NO. 43 A
SQ CUT IN CURB
S.E. COR. OF MISSISSIPPI AVE. AND CAROLINA AVE.
EL. 19.62

BEGIN CONSTRUCTION STA. 7+80

P.V.C. (+80) EL. 20.02

90' V.C.

P.V.C. (+70) EL. 21.11

P.V.I. (+20) EL. 22.32

END CONSTRUCTION STATION 11+00

0.00%

+2.42 11%

-1.1383%

100' V.C.

P.V.I. (+26) EL. 20.02

P.V.T. (+70) EL. 21.75

P.V.I. (+00) EL. 20.27 NO V.C.

Existing Manhole

CONST. 96' OF 24" PIPE

CONST. 56' OF 24" PIPE

F.L. 13.4

F.L. 13.5

F.L. 14.2

12" W.M.

12" W.M.

20.07 20.24 20.29 20.50 20.88 21.33 21.68 21.88 21.93 21.85

20.08 20.02 +50 20.02 +75 20.13 20.20 +50 21.16 22.95 +50 21.81 20.27 +50 19.57 +50 19.38 19.23

7 8 9 10 11 12 13

28 26 24 22 20 18

AS BUILT

APR 21 1976

84
1

Contract Nos. 3A & 3B.

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		36
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Scale 1"=50'

STA. 10+00 GRANADA
STA. 162+88.95 ℄ SURVEY

S-33
STA. 9+57.10 GRANADA (10'LT.)
21' LT. OF STA. 163+05.4
CONST. TYPE "C"
DITCH BOTTOM INLET
WITH "J" TYPE BOTTOM
SEE DETAIL THIS SHEET

STA. 9+32.35 GRANADA
STA. 162+72.53 ℄ "A"

℄ LINE "A"
425.7' CONST. 54" PIPE

Asphalt Drive
8T(100 PR)
8T(300 PR)

Edge of Parking Lot
Bayside Parking Asphalt
8"W.M.
S.C.L. R/W Line

STA. 14+83.55 GRANADA
STA. 3+17.45 YSABELLA

S-33A
STA. 14+66.55 (10'LT.)
CONST. "Y" TYPE INLET
WITH "J" TYPE BOTTOM
SEE INDEX NO. 5086

8" W.M.

12" Pines
12" Palm
10" Palm
15" Palm
Palm Cluster

506.54'
3W
8T(400 PR)
Edge of Pav't.
L.P. R/W Line
8" W.M.
Survey

GRANADA ST.
SHEET PILING
54" R.C.P. MOVED OVER

3 Story Building
20" Oak
Palm Cluster

CO. ST. 18" PIPE
YSABELLA
2" W.M.

T.P.
18" Oak
30" Oak
352
18" Palm
Conc. A.C. Base
Conc. & Wood Woman's Club
18" Oak

SEE SHEET NO. 37
for Continuation of
18" Pipe

S-33-D STA. 18+29
SPECIAL JUNCT. BOX
SEE SHEET NO. 171
REMOVE EXIST. SAN.
MANHOLE

24' Asphalt Pav't.
12" W.M.
TEL. M.H.
BLVD.
24' Asphalt Pav't.
Conc. Sidewalk
Seawall

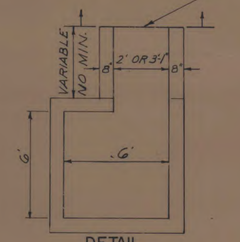
HILLSBOROUGH BAY

CONST. 68' OF 54" PIPE
SEE SHEET NO. 165 FOR SEAWALL DETAIL

12" W.M.
8" W.M.
12" W.M.
Existing 36" San.
8"W.M.
BAYSHORE

NOTE:
1. BUSHES OR TREES REMOVED FROM THE MEDIAN ON BAYSHORE BLVD. ARE TO BE SAVED AND TURNED OVER TO THE CITY PARKS DEPARTMENT FOR REPLANTING.
2. NO CONSTRUCTION WORK WILL BE ALLOWED IN HILLSBOROUGH BAY.

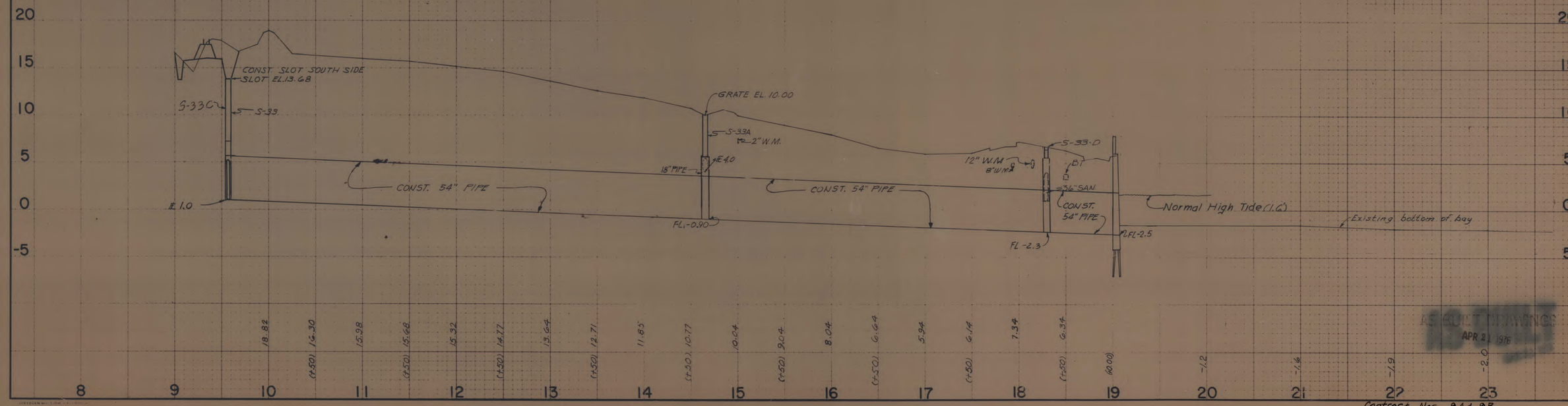
STANDARD "C" DITCH BOTTOM INLET ABOVE THIS POINT



DETAIL

"C" DITCH BOTTOM INLET WITH "J" TYPE BOTTOM. SEE INDEX NO. 5046 AND INDEX NO. 5047

GRANADA ST. OUTFALL
RT. STA. 162+88.95



AS BUILT DRAWINGS
APR 2 1976

Contract Nos. 9A & 9B

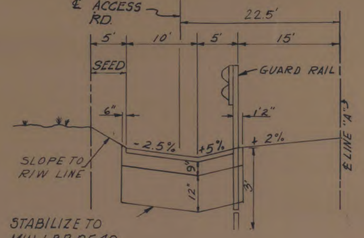
84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		40
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3012 HORATIO STREET
TAMPA FLORIDA

S. MOODY AVE.
STA. 1+80.00 BEGIN CONST.
Asph. Pav't.
CONNECT TO EXIST. PAVT.
5' CURB TRANS.
S-44 STA. 2+00 CONST. INLET TYPE P-6
CONST. 52' OF 15" PIPE
S-43 STA. 2+00 CONST. INLET, TYPE P-6
CONST. 6" CURB, 1.5' GUTTER (BOTH SIDES)
8" G.M.
4" W.M.
INLET TO BE REMOVED
PC STA. 2+16.85
CURVE NO. 1 DATA
PI STA. 2+98.02
Δ = 10°06'04"
D = 14°00'00"
R = 409.26'
T = 36.17'
L = 72.15'
CURVE NO. 2 DATA
PI STA. 3+84.17
Δ = 12°30'04"
D = 14°00'00"
R = 409.26'
T = 44.83'
L = 89.29'
SCALE 1" = 20'
3' CURB TRANS. TO DROP CURB
CONST. DROP CURB
S-45 STA. 214+00 (20' LT.) CONST. VALLEY INLET, TYPE VA
CONST. 118' OF 18" PIPE
ACCESS RD. N 38° 42' 27" E
8' G.M.
CONST. 204' OF 18" PIPE
DROP CURB (TYP.) 18"
CONST. 150' GUARD RAIL INDEX NO. 2300
STA. 215+15 END CONST.
CONST. 12.5' GUARD RAIL, INDEX NO. 2300 Q MOD
S-46 STA. 24+45 (20' LT.) HOWARD AVE. CONST. M.H. TYPE P-7
STA. 216+16.55 ℄ LINE "A"
STA. 24+37.22 ℄ HOWARD AVE.
CONST. R.R. CROSSING TYPE "L". FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
RETURN NO. 4
S-49 STA. 25+22.58 CONST. INLET, TYPE P-6
CONST. DROP CURB
CONST. 38' OF 15" PIPE
3-47 STA. 25+45 CONST. INLET, TYPE P-5
CONST. 6" CURB, 1.5' GUTTER
STA. 25+77.34 END CONST.
CONNECT TO EXIST. PAVT.
5' TRANSITION TO EXIST. CURB
JETTON AVE.
CONNECT TO EXIST. PAVT.
RETURN NO. 5
S-48 STA. 25+59.37 CONST. INLET TYPE P-6 4" Granite Curb
8' G.M.
12" W.M.
4" Granite Curb
R/W LINE
2" W.M.
BT. (600 PR.) R/W LINE
(TO REMAIN) 18" RCP
MH TO REMAIN S-41-D
CONST. 24" PIPE
REMOVE INLET
RCP TO BE REMOVED
STA. 2+91.18 WATROUS
CURB TRANS. NO. 4
213
214
215
216
217
26
25
24
℄ LINE "A"
STA. 217+00
DROP CURB (TYP.)
3' CURB TRANS. (TYP.)
CONST. 38' OF 18" PIPE (CLASS III) WITH STD. ENDWALLS & "U" TYPE WINGS INDEX NO. 200.
CONST. 6" CURB, 1.5' GUTTER
8.0' (TYP.)
5.0' (TYP.)
35.0'
65.0'
200.0'
100.0'
STA. 213+27 (20' RT.) LINE A CONST. STD. HEADWALL WITH "U" TYPE WINGS INDEX NO. 200
STA. 213+44.53 ℄ LINE "A"
STA. 3+24.46 ℄ WATROUS AVE.
CONST. R.R. CROSSING TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
PT STA. 3+34.01
PC STA. 3+39.34
CONST. 84' 24" PIPE
CONST. 6" CURB 1.5' GUTTER BOTH SIDES
STA. 214+11 (20' RT.) LINE A CONST. STD. HEADWALL WITH "U" TYPE WINGS, INDEX NO. 200
NOTE: 10'X 5' BOX EXTENDER 280'
N 38° 42' 27" E
STA. 214+58 (63' RT.) CONST. STD. HEADWALL "U" TYPE WINGS, INDEX NO. 200
CONST. 24' OF 15" PIPE
PT STA. 4+28.63
RETURN NO. 2
S-50 9' G.M. & 12" W.M. CONST. INLET, TYPE P-6
CONST. 10'x 5' CONC. BOX CULVERT SEE DETAIL SHEET NO. 170
CONNECT TO EXIST. 8' G.M. & 12" W.M.
FUTURE PIER LOCATION (TYP.)
HOWARD AVENUE
CONST. 6" CURB, 1.5' GUTTER (BOTH SIDES)
NEW 4" WATER MAIN
4" W.M.
STA. 22+37.45 ℄ HOWARD AVE.
STA. 4+91.23 ℄ WATROUS AVE.
2 B.T. (100 & 200 PR.)
RETURN NO. 1
STA. 21+57 BEGIN CONST.
5' TRANSITION TO EXIST. CURB
B.T. (600 PR.)
P.I. STA. 22+76.01
RETURN NO. 3
5' TRANSITION TO EXIST. CURB
R/W Line
STA. 23+32.03 ℄ HOWARD AVE.
STA. 215+21.60 ℄ SURVEY
4-6" ELECTRIC DUCTS FOR FUTURE USE
1 CONST. 230' OF 10'x 5' CONC. BOX CULVERT FLA. D.O.T. STANDARD INDEX NO. 8013 MOD.
℄ SURVEY
CONNECT TO EXIST. PAVT.
STA. 5+50 END CONST.
WATROUS AVE.
Asph. Pav't.
4" Granite Curb
8" W.M.
SIDEWALK
N 4° 30' E
12" W.M.
S 89° 55' 53" E
20
21
22
6

NOTE; FOR SPECIAL PROFILES SEE SHEETS 41, 70, & 71



STABILIZE TO MIN. LBR. OF 40

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED WITH TYPE S-1 ASPHALTIC CONCRETE SURFACE COURSE (3" THICK) BOTTOM LAYER (1½" THICK) TOP LAYER (1½" THICK)
SCALE 1"= 2' VERT. 1"= 10' HORIZ.

SECTION A-A

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE
1	ADDED 230' of 10'x 5' CONC. BOX CULVERT	JNC	4-25-74

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PLAN
HOWARD AVE. & WATROUS AVE.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE S.P. DATE 4/72 TRACED S.P. DATE 4/72
CHECKED D.M. DATE 4/72 SCALE 1"= 20'

AS BUILT DRAWINGS
Contract Nos. 9A & 9B

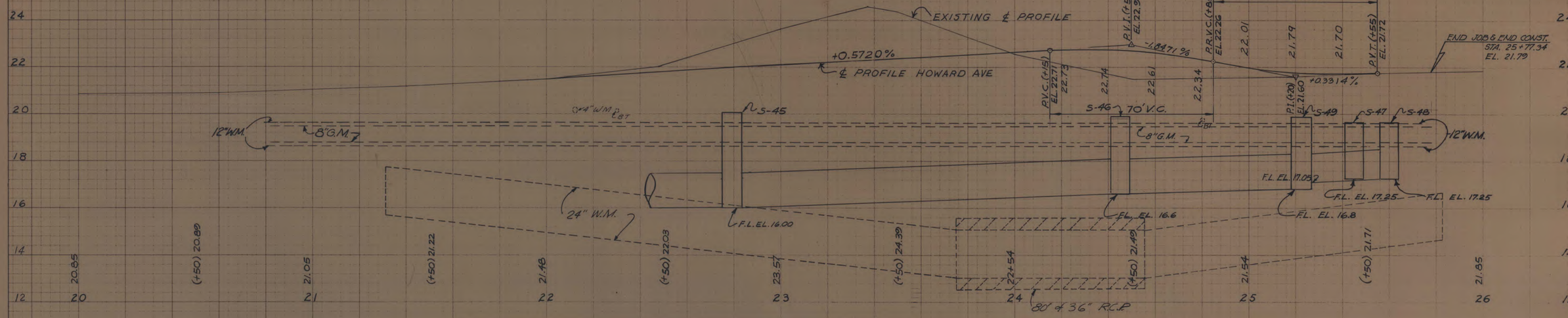
84
1

NO.	REVISION	BY	DATE
1	Added 230'of 10'x 5'CONC. BOX CULVERT	JNC	9-25-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		41
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

NOTE:
FOR SPECIAL PROFILES ON EDGES OF PAV'T
SEE SHEET NO 71



① NOTE:
1. STA 21+62.22
FL. 3.82

2. SEAL END OF CULVERT WITH 12" THICK BRICK WALL. COST OF BRICK WALL TO BE INCLUDED IN CONTRACT UNIT PRICE FOR CLASS "A" CONCRETE

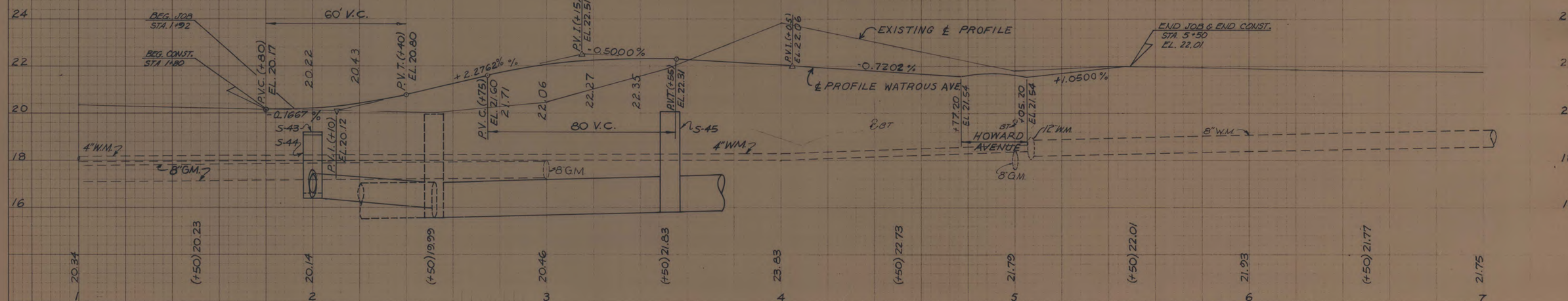
① CONST. 230' of 10'x 5' CONC. BOX CULVERT FLA. D.O.T. STANDARD INDEX NO. 8013 MOD.

① CONNET TO EXIST CULVERT.

5 CONST. 10'x5' CONC. BOX CULVERT SEE SHEET NO. 170.

PROFILE ALONG HOWARD AVE.

NOTE:
FOR SPECIAL PROFILES ON EDGES OF PAVT.
SEE SHEET NO. 70



PROFILE ALONG WATROUS AVE.

AS BUILT DRAWINGS
APR 21 1976
Contract Nos. 9A & 9B

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		42
DIST. WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	DATE 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
5202 HOMETO STREET
TAMPA FLORIDA

Scale 1"=20'

2½" I.P. ON R/W
P.I. STA. 10+00.0
8" NAIL
9°24'02"
170°54'49"
108.52
½" I.P. ON R/W
77.18'
49.1'
47.2'
½" I.P. ON R/W
170°09'24"
10°03'50"
℄SURVEY
3½" I.P. ON R/W
½" I.P. ON R/W

ELETA ST.
Grass
Asphalt Pav't.
STA. 9+17.59 ℄ MORRISON = STA. 221+71.58 LINE "A"
℄ LINE "A"
STA. 222+10.05 ℄ SURVEY
P.I. STA. 10+00.00
℄ MORRISON
Δ = 0°57'17" RT.
NO CURVE
℄ SURVEY
223
EXISTING RAILS TO BE REMOVED
℄ EXPRESSWAY
S.C.L. R/W
+50.0
+60.0
+13.80
+20.60
+33.28
+40.08
R/W Line
B.T.
10' TAPER TO EXIST.
10" WM
7
8
9
10
11
12
13
+85.89
26.2
+49.29
52°04'02"
52°04'02"
S 89°13'31" E
Asph. Pav't.
℄ SURVEY & ℄ CONST.
8" G.M.
MORRISON AVENUE
CONNECT TO EXIST. PAV'T.
DROP CURB (TYP.) 3' CURB TRANS. (TYP.)
222
12'
S 88°16'14" E
℄ CONSTRUCTION
8" G.M.
CONSTRUCT TYPE "D" CURB (TYPICAL, LT & RT)
CONNECT TO EXIST. PAV'T.
B.T.
10" WM
S 89°13'31" E
℄ SURVEY
26.7'
25'
R/W Line
28.0'
32.0'
50'
23.9'
+141.58
+21.38
R/W Line
BEGIN CONSTRUCTION STA. 8+30.00
℄ 183
CONST. R.R. CROSSING, TYPE "L". FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
221
CONST. 88' OF 24" PIPE WITH STD. END WALLS AND "U" WINGS. SEE INDEX NO. 200
N 38°42'27.0"E
N 38°42'27"E
END CONST.. STA. 11+50.02 ℄ CONST. = STA. 11+50.00 ℄ SURVEY 2.50' LT.
R/W Line
SO. ALBANY AVE.
R/W Line
MORRISON AVE.

B.M. 39A-2
60" Nail in 18" Jacaranda Tree
15' Rt. STA. 7+25
EL. 23.24

B.M. NO. 39A
NAIL IN TEL. POLE
LT. STA. 9+00
EL. 23.81

FOR SPECIAL PROFILE ON EDGE OF PAVEMENT SEE SHEET NO. 72

B.M. 39A-1
Top S.W. Bolt on Fire Hydrant
14' Lt. STA. 12+20
EL. 24.77

28
26
24
22
20
18
16
14
12

Existing Profile Grade
(+32) EL. 22.40
+1.1000%
PVI (+48) 23.80'
-0.7560%
PROPOSED PROFILE GRADE -0.2000%
END CONST. STA. 11+30.02 EL. 22.88
PVC (+73) 23.30 23.38
23.53
23.59
23.58
90' V.C.
PVT (+63) 23.46
PVI (+00) EL. 23.18 (NO V.C.)
48" G.M.Z
48" G.M.Z

22.33 | 22.48 | 22.72 | 23.05 | 23.27 | 24.49 | 24.82 | 24.29 | 23.47 | 22.88 | 22.78 | 22.55 | 22.55
7 | 8 | 9 | 10 | 11 | 12 | 13

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84-1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		73
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-79

SCALE 1"=20'

CONNECT TO EXIST. PAV'T STA. 0+48.00
EXIST. 18" R.C.P. (TO REMAIN)
BEGIN CONSTRUCTION STA. 17+90.00
R/W LINE
(B.T. 100 PR & 400 PR)
5'Asphalt Sidewalk
CONST. 37' OF 15" PIPE SEE INDEX NO. 5061 FOR EXTRA BASE CONST. FOR CULVERTS WITH LESS THAN MIN. COVER
5-53 STA. 17+98. CONST. INLET, TYPE P-6. FL. EL. 16.90
CONST. 74' OF 18" PIPE
5-54 STA. 17+98 CONST. INLET TYPE P-6 FL. EL. 16.70
5-55 STA. 18+75 (29'LT) CONST. M.H. (TYPE P7) FL. EL. 16.5
RETURN NO. 1
FL. EL. 15.8
FL. EL. 14.5 RETURN NO. 2
CONST. 168' OF 18" PIPE CONNECT TO EXIST. INLET
FREMONT AVE.
13.3' 13.3'
2" W.M.
4' Concrete Curb
R/W LINE
Dirt Drive
TRANSITION 3' TO MATCH EXISTING CURB.
5-56 STA. 238+83 (26'LT) CONST. INLET (TYPE "H") FL. 14.00 GRATE EL. 17.44 CONST. SLOT IN N.E. SIDE
CONST. 56' OF 30" CLASS II PIPE
5-57 STA. 239+15 (21'RT.) CONST. INLET (TYPE "H") FL. EL. 13.9 GRATE EL. 17.46 CONST. SLOT IN N.E. SIDE
EXISTING RAILS TO BE REMOVED
FUTURE PIER LOCATION (TYP.)
CONST. 168' OF 30" PIPE
5-58 STA. 21+51 (50'LT.) SWANN CONST MANHOLE (TYPE P-7) FL. EL. 13.6
STA. 21+79 (50'LT.) SWANN CONST. STD. ENDWALL INDEX NO. 200 FL. EL. 13.5
CONST. 28' OF 30" PIPE
END CONSTRUCTION STA. 22+00.01 & CONST. STA. 22+00.00 (1.45' RT. OF ℄ SURVEY)
PLUG 24" PIPE AT R/W LINE (B.T. (1200 PR)
(TO REMAIN) 2 - 24" R.C. Pipe
(To be Removed) 24" R.C. Pipe
(B.T. 100 PR & 400 PR)
DROP CURB (TYP.) 3 CURB TRANS. (TYP.)
CONST. 8" CURB, 1.5" GUTTER
92'-0" 18" CONCRETE
℄ OF CONSTRUCTION S 89°27'36"E
6 Way Duct
CONNECT TO EXIST. PAVEMENT
San M.H.
8" San.
℄ OF SURVEY N 89°02'08.2"E
S 89°02'08.2" E
℄ OF SURVEY & CONSTRUCTION. CONNECT TO EXIST. PAVEMENT.
SWANN AVENUE
54°26'16" T.C.
P.I. STA. 238+00 EL. 17.03 (LINE "A")
(To be Removed)
8" W.M.
18" C.M.P.
Sidewalk (To be Removed)
CONST. 168' OF 24" PIPE
CONST. 2' BW DITCH AT 0.14 %
℄ DITCH
D.P.I. STA. 239+00 (GO'RT) (LINE "A") EL. 16.80
(To be Removed)
4' Asph. Sidewalk (To be Removed)
R/W LINE
5-58 A STA. 239+05 (160' RT.) OF LINE "A" CONST. INLET (TYPE "C") GRATE EL. 17.76 FL. EL. 15.0
CONST. 6" CURB, 1.5" GUTTER
90°23'30"
6' Conc. Sidewalk
R/W LINE
TRANSITION 3' TO MATCH EXISTING CURB.
STA. 237+70 LINE "A" (26'LT.) CONST. STD. ENDWALL WITH 'V' TYPE WINGS SEE INDEX NO. 200 FL. EL. 16.4
STA. 19+19.77 SWANN AVE. STA. 238+39.43 LINE 'A'
P.I. STA. 20+00.00 SWANN AVE. Δ = 0°24'55.4" LT. (NO. CURVE) = STA. 238+76.05 ℄ OF SURVEY
G.C.L. R/W LINE
℄ DITCH
FOR SPECIAL EDGES OF PAV'T PROFILES SEE SHEET NO. 73
STA. 23B+50 (60'RT) D.P.I. EL. 17.50
100 Ft. 600 Ft. 100 Ft. -3.0% CONST. 2' B.W. DITCH
PACKWOOD AVE.
2" W.M.
6' Conc. Sidewalk
Asphalt Path
Brick
8' San.
SWANN AVE.
B.M.C. 36-1 Sq. Cut on top of Curb 20' RT. STA. 22+53 EL. 17.87
B.M.C. 36-2 Sq. Cut in top of Curb 20' RT. STA. 17+50 EL. 20.21

80' V.C.
PVC (+90) EL. 20.13
PVI (+30) EL. 19.95
PVT (+70)
+1.900% -0.2000%
CONST. 15" PIPE
CONST. 18" PIPE
18" Storm Sewer
CONST. 24" PIPE
CONST. 30" PIPE
Existing 8" W.M.
Existing 2" W.M.
FL. EL. 16.90
FL. EL. 16.7
FL. EL. 16.5
FL. EL. 16.4
FL. EL. 15.8
FL. EL. 14.9
FL. EL. 14.0
FL. EL. 14.5
FL. EL. 13.9
S-53, S-54 INLET (TYPE P-6) INDEX NO. 5047
S-55 M.H. (TYPE P-7) INDEX NO. 5047
S-56 INLET (TYPE "H") INDEX NO. 5046
S-57 INLET (TYPE "H") INDEX NO. 5046
100' V.C.
PVI (+30) EL. 21.66
PVC (+10) EL. 19.64
PVI (+50) EL. 19.18
-1.9077%
-0.5800%
℄ PROFILE SWANN AVE.
EXISTING ℄ PROFILE.
S-58 M.H. (TYPE P-7) INDEX NO. 5047
S-58A INLET (TYPE "C")
STD ENDWALL INDEX NO. 200
B.T.
BT2
CONST. 18" PIPE
CONST. 30" PIPE
Existing 8" W.M.
FL. EL. 15.0
FL. EL. 14.6
FL. EL. 13.6
FL. EL. 13.5
END CONSTRUCTION STA. 22+00.01 EL. 18.31
San M.H.
8" San. Sewer
20.36 20.17 20.01 20.13 20.11 20.18 20.11 20.80 20.73 22.47 21.81 20.34 19.19 18.81 17.90 17.75
17 18 19 20 21 22 23
28 26 24 22 20 18 16 14

AS BUILT DRAWINGS APR 81 1978

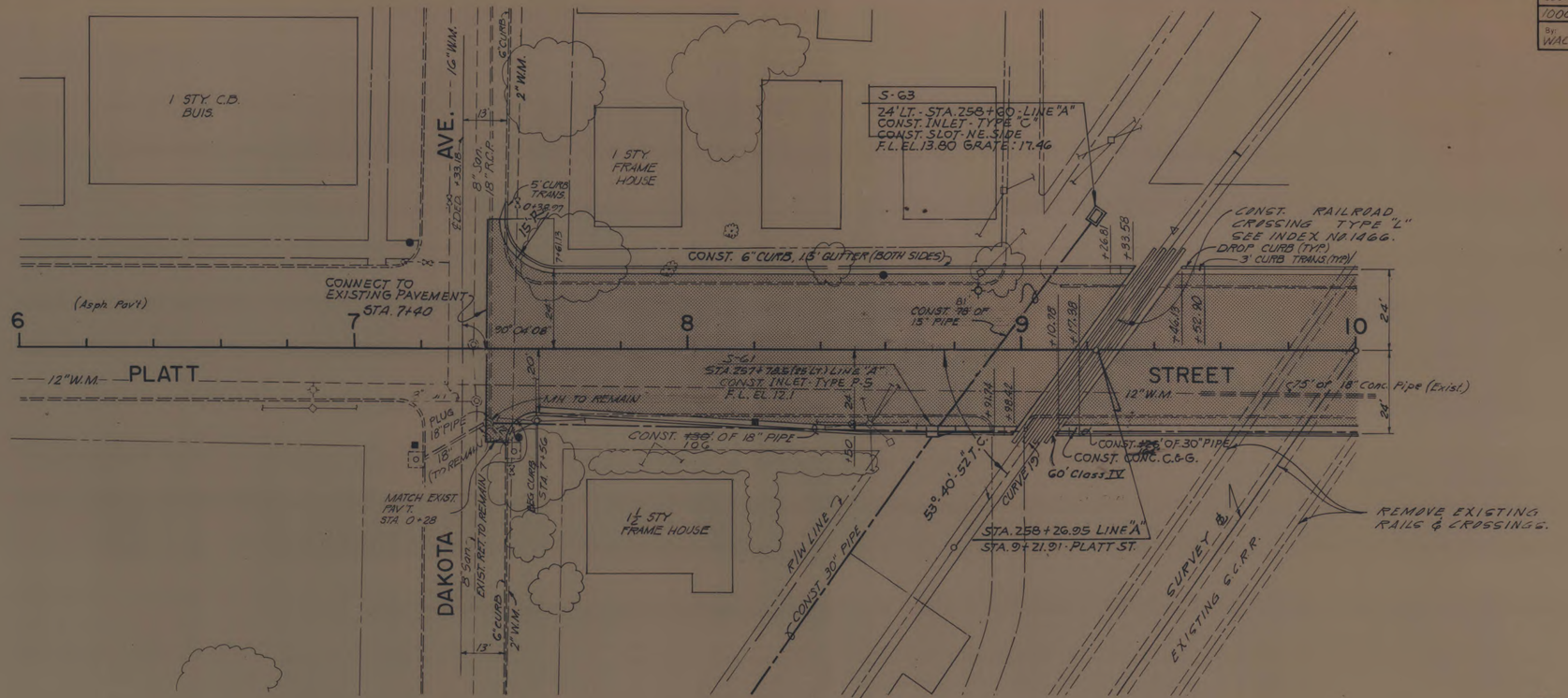
Contract Nos. 9A & 9B

84-1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		44
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

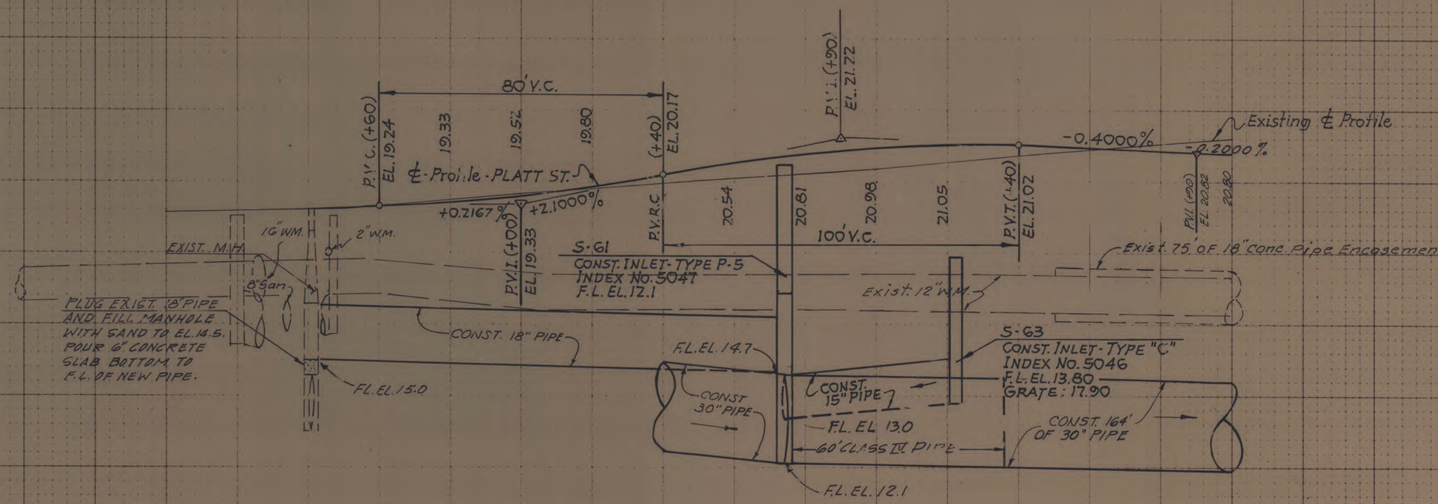
WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SCALE 1"=20'



PLATT STREET

NOTE:
FOR SPECIAL PROFILES
SEE SHEET NO. 74



AS BUILT DRAWINGS
APR 21 1975

Contract Nos. 9A & 9B

84/1

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		45
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Scale 1"=20'

1 Story C.B. Building

REMOVE EXISTING RAILS AND CROSSINGS

C.C.R.R. SURVEY ℄ N 35° 42' 01.8" E

AVE.

8" W.M.

13 KV. Elect

BF. 200 FR. — 2 BF. 200' 100 PR.

C.C.R.R. R/W Line

C.S.T.

8" San.

S-67 STA. 11+48 (24' LT.) CONST. INLET (TYPE P-5) INDEX NO. 5047

R/W Line

CONST. 238' OF 30" PIPE

S-68 STA. 13+90 (24' LT.) CONST. INLET (TYPE P-5) INDEX NO. 5047

1W 3W 4W 1W 1W

2" W.M.

AVE.

CONST. 242' OF 30" PIPE

Sign

19.88

19.40

STA. 10+60 - END CONST. OF PAVEMENT

CONST. 68' OF 30" PIPE.

PLACED 142' - 6" UNDERDRAIN TO REPLACE 6" SEWER (STILL ALIVE)

STA. 12+48

STA. 14+10

S 88° 59' 53" E

10 11 12 13 14 15 16

PLATT STREET

CONST. TEMP CONNECTION TO EXISTING PAVEMENT

12" W.M.

CONST. 30" PIPE

19.98

CONST. 6" CURB, 15' GUTTER (BOTH SIDES)

STA. 10+30 END TEMPORARY PAVEMENT.

S-62 STA. 11+00 (24' RT.) CONST. INLET (TYPE P-5) INDEX NO. 5047

1 Story C.B. Building

1 Story Frame Res.

OREGON

ORLEANS

PLATT STREET

END CONST. STA. 10+60 EL. 20.68

CONNECT TO EXIST. PAV'T STA. 10+68

EXIST. ℄ GRADE -0.2000%

S-62 CONST. INLET (TYPE P-5) INDEX NO. 5047

WARP GRADE

20.90

-0.2000% (Future)

Future P.V.I. EL. 19.80

-0.5524% (Future)

19.24

Exist. 12" W.M.

8" W.M.

Exist 75' OF 18" conc. Pipe Encasement

13 KV. Elect

S-67 CONST. INLET (TYPE P-5) INDEX NO. 5047

S-68 CONST. INLET (TYPE P-5) INDEX NO. 5047

CONST. 30" PIPE

CONST. 30" PIPE

CONST. 30" PIPE

CONST. 30" PIPE

F.L. EL. 11.7

F.L. EL. 11.5

F.L. EL. 11.1

22 20 18 16 14 12 10

21.21 20.75 20.42 20.37 20.27 20.16 20.07 20.00 19.95 19.82 19.64 19.40 19.15

+50 +50 +50 +50 +50 +50

10 11 12 13 14 15 16

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		46
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 2-73

1 Story CB. Building (Business)

1 Story Metal Frame (Business)

1 Story Frame (Res.)

12'X5' Box

Double 7'X5.4' Box

S-69 16+48
STA ~~7+88~~ (24' LT.)
CONST. INLET (TYPE J-5)
INDEX NO. 5047

CONST. 30" PIPE

18.42

CONST ~~755'~~ 268' OF 36" PIPE

PI. STA. 17+34.86
STA. 25+24.00 WILLOW AVE.

89° 32' 31"

24'

16 17 18 19 20 21 22

PLATT STREET

16" San.

12" W.M.

6" W.M.

8" San.

4" G.M.

WILLOW AVE.

NEWPORT AVE.

12"x16" San.

2 Story Brick Building (Business)

2 Story Brick Building (Business)

1 Story C.B. Bldg

87'

(+34.88)

SCALE 1"=20

PLATT STREET

19.24

-0.5524% (Future)

P.I. (+19.88) (Future)

EL. 18.57

6" W.M.

4" G.M.

Existing 12" W.M.

S-69
CONST. INLET (TYPE J-5)
INDEX NO. 5047

CONST. CONC. COLLAR SEE INDEX NO. 5061

B.T.

CONST. 30" PIPE

CONST. 36" PIPE

Existing Double 7'x 5.4' Box

F.L. EL. 10.6

F.L. EL. 10.1

F.L. EL. 9.6

19.15 18.37 18.63 18.48 18.44 18.16 17.94 17.76 17.63 17.31

+50

20 18 16 14 12 10 8

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84/1

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	47A

EUCLID AVE. STATE JOB No. 10002-3510

STA. 113+22 (20' RT.) LINE "A"
CONST. CONCRETE HEADWALL
INDEX NO. 200
F.L. 11.0

15.72 15.93 15.87

STA 112+34 (20' RT.) LINE "A"
CONST. CONCRETE HEADWALL
INDEX NO. 200
F.L. 11.3

CONSTRUCT 88' OF 24" PIPE

Telephone conduit

℄ EUCLID AVE.

STA. 112+97.8 (32' LT.) LINE "A"
CONST. STD. CONCRETE ENDWALL
WITH "U" TYPE WINGS
SEE INDEX NO. 200
F.L. 11.0

15.29 15.86 15.65

STA 112+10 (26' LT.) LINE "A"
CONST. STD. CONCRETE ENDWALL
WITH "U" TYPE WINGS
SEE INDEX NO. 200
F.L. 11.3

CONST. 88' OF 24" PIPE

Telephone conduit

LYNWOOD ST.

FL. 9.5
STA 12+76 (10' RT)
EXISTING MANHOLE
F.EL 7.4

USE ONE SECTION OF
EXISTING 15" PIPE

8' San.

CONST. CONC.
COLLAR, INDEX
NO. 5061

CONST 50' OF 15" PIPE

CONST. 56' OF 15" PIPE

℄ EUCLID AVE.

13.87

S-11
STA 12+28.20 (24' RT)
CONST. INLET TYPE P-5
INDEX NO. 5047
F.L. 9.8

Telephone conduit

S-11A
STA. 12+27.68
CONST. INLET TYPE P-6
INDEX NO. 5047
FL. 9.8

14.37

CONST. CONC. COLLAR
INDEX NO. 5061-2

S-10
STA 7+63 (24.0' RT.)
CONST. INLET TYPE P-6
INDEX NO. 5047
F.L. 9.0

Telephone conduit

EX. 15" PIPE (TO REMAIN)

CONST 6' OF 15" PIPE
CONNECT PIPE TO
NEW INLET. OLD INLET
TO BE REMOVED

℄ EUCLID
AVENUE

56'
CONST 49' OF
18" PIPE

14.59 13.82

8" Water Main
(F.B.)

STA 7+08 (7.5' RT.)
EXISTING MANHOLE
TOP EL. 14.30
F.L 7.47

FL. 8.3

USE 1 SECTION
OF EX. 18" PIPE
CONST. CONC. COLLAR
AT JUNCTION WITH NEW PIPE

8' San.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

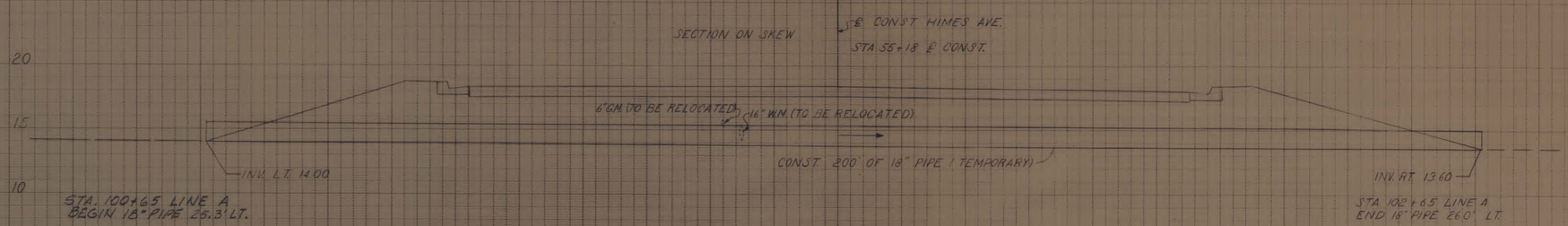
K&E CO. ORLANDO, FLA. ORDER STOCK @ 1004

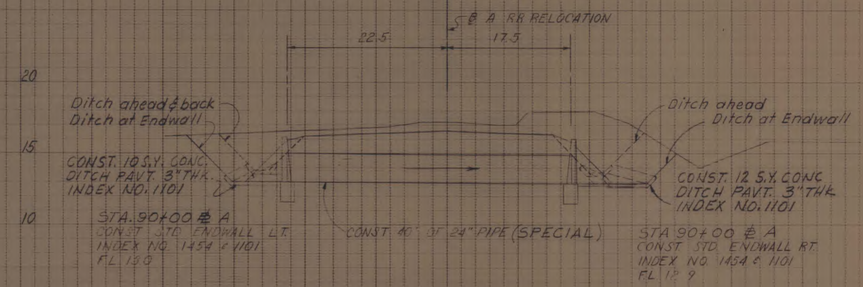
CROSS SECTIONS

Scale 1 inch = 5 feet Vert.
1 inch = 10 feet Horiz.

J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS TAMPA, FLORIDA

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449		47





Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

AS BUILT DRAWINGS
APR 21 1976

DRAINAGE STRUCTURE SECTIONS

Contract Nos. 9A & 9B

84
1

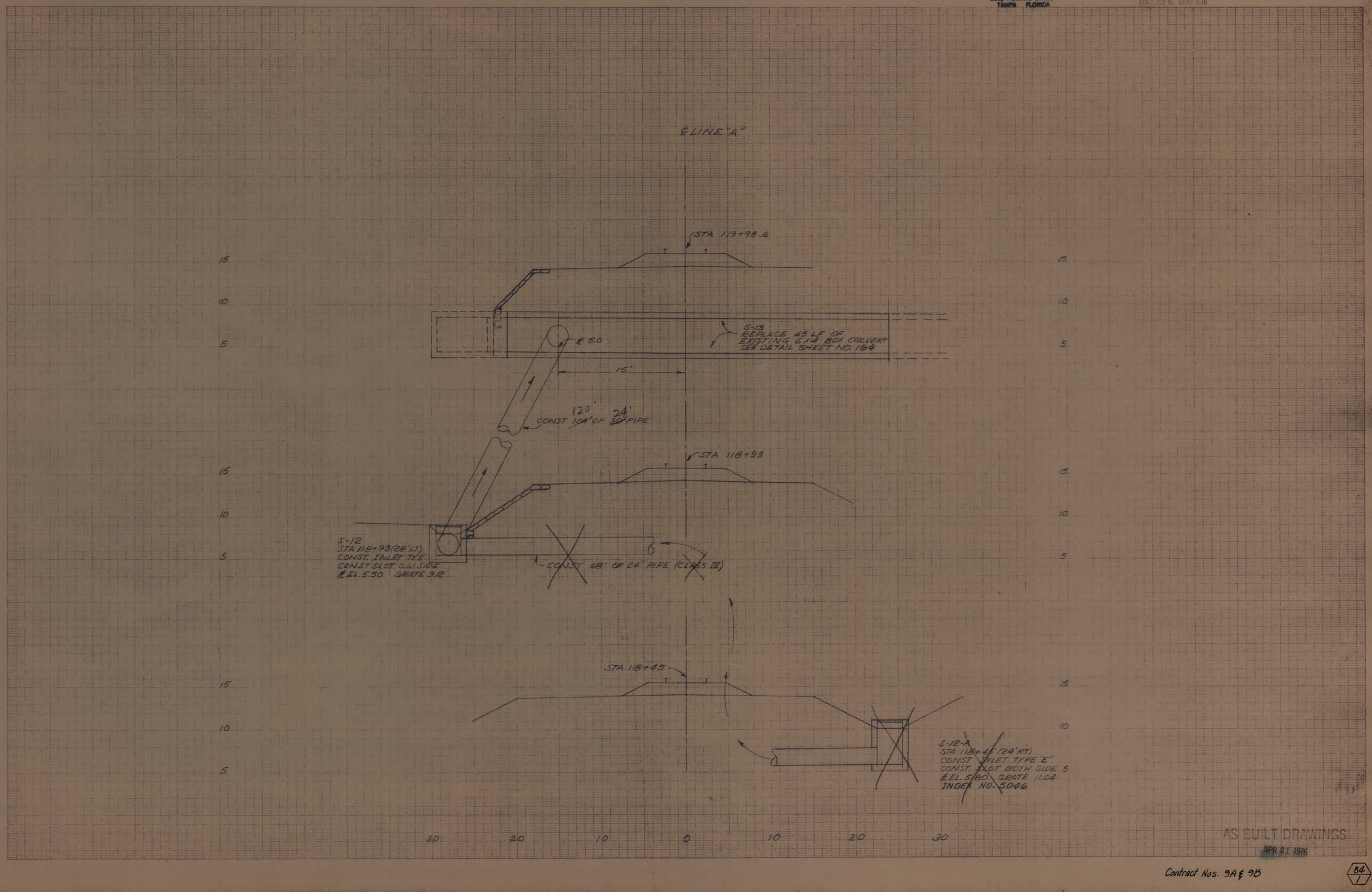
CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	48

STATE JOB No. 10002 3510



AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84/1

Application No.
Route No.
Original Plotted by
" Checked by
Traced by
Area by
Final Plotted by
" Checked by
Area by
" Checked by

A. N. GOODWELL
ACKWORTH-GA. FLA.

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
8013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	49

EL PRADO BLVD. STATE JOB No. 10002-3510

S-17 STA. 125+10 (19.25' RT.) LINE "A"
STA. 9+72.3 (56.6' LT.) EL. PRADO
CONST. INLET TYPE "C" INDEX NO. 5046
CONST. SLOT N. SIDE
E EL. 10.7 ; GRATE EL. 15.95

IDENTICAL

E EL. 10.85

CONST. 12' OF 18" PIPE (CLASS IV)

CONST. 74' OF 15" PIPE

E 12.9

S-16 STA. 10+40 (20.5' LT.)
CONST. INLET TYPE "TS"
INDEX NO. 2892
E EL. 12.9

CONST. 27' OF 15" PIPE

STA. 10+40

℄ EL PRADO

S-15 STA. 10+40 (10' RT.)
CONST. INLET TYPE "TS"
INDEX NO. 2892
E EL. 13.1

3" WATER MAIN

12" WATER MAIN

BURIED TELEPHONE CABLE

STA. 9+72.3

3" WATER MAIN

12" WATER MAIN

℄ EL PRADO

S-17A STA 9+30 (56.6' LT.) EL PRADO
CONST. INLET TYPE "C"
INDEX NO. 5046
CONST. SLOT ON N. SIDE
E EL. 10.1 ; GRATE EL. 15.5

BURIED TELEPHONE CABLE

STA. 9+30

3" WATER MAIN

12" WATER MAIN

℄ EL PRADO

CONST. 104' of 18" PIPE

STA. 8+26

BURIED TELEPHONE CABLE

CONST. CONC. COLLAR
INDEX NO. 5061

CUT HOLE IN BOX CULVERT AND INSTALL PIPE - E EL. 8.6

EXIST. 6'x4' BOX CULVERT

20
15
20
15
10
20
15
10
5

AS BUILT DRAWINGS
APR 21 1976

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by C.W.S.
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

Contract Nos. 3A & 3B

84
1

Scale: 1" = 5'

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		50
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 9-24-73

NO.	REVISION	BY	DATE
1.	DRAINAGE STRUCTURE SYSTEM S-20, S-21, S-22, S-23	JNG	9-19-73

FINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS CHECKED — BY — DATE

ORIGINAL SURVEY — NOTE BOOK — NO. — SURVEYED — PLOTTED — TEMPLATE — AREAS CHECKED — BY — DATE

S-22 STA. 0+21.08 SANTIAGO (10'RT.)
CONST. INLET TYPE "P-5"
INDEX NO. 5047
F.L.EL. 13.55

CONST. PIPE PLUG
INDEX NO. 5061
F.L.EL. 9.34

F.L. EL. 11.0

19'
CONST. 20' OF 15" PIPE

CONST. 12" PIPE

76'
CONST. 22' OF 54" PIPE.

S-21 STA. 0+44.06 SANTIAGO (10' LT)
CONST. INLET TYPE P-5, INDEX NO. 5047
F.L. EL. 10.2

S-20 STA. 21+27 (74' LT) MAC DILL AVE.
CONST. M.H. TYPE "J-8"
INDEX NO. 5047
F.L.EL. 33, TOP EL. 18.0

30'-18" Pipe

INV. 10.3
F.L. 10.0

CONST. 114' 54" PIPE

F.L. 10.2

F.L. 11.45

INV. 8.37

IDENTICAL

S-23 STA. 21+50 (42'RT.) MAC DILL AVE.
CONST. INLET TYPE "C" (SLOT SOUTH SIDE)
INDEX NO. 5046
F.L.EL. 11.85, GRATE EL. 15.75

76'
CONST. 82' OF 15" PIPE (CLASS III)

CONST. CONC. COLLAR (INDEX NO. 820)

INV. 11.85

TO S-31 (SEE SHEET NO. 53)

CONST. 192 OF 54" PIPE
CLASS IV.

℄ LINE "A"

STA. 154+77

CONSTRUCT 72' OF 24" PIPE.

73'

CONST. 42' OF 24" PIPE (CLASS IV).

CONST. 15" PIPE

FROM S-24 (SHEET NO. 51)

INV. EL. 10.7

INV. EL. 10.9

F.L. EL. 11.65

S-19 STA. 154+77 (25' LT.)
CONST. INLET TYPE "E" INDEX NO. 5046
CONST. SLOT N & S SIDE
F.L. EL. 10.7, GRATE EL. 14.75

S-18 STA. 154+77 LINE "A" (20' RT.)
CONST. INLET TYPE "E" INDEX NO. 5046
CONST. SLAT IN S.W. SIDE
F.L. EL. 10.9, GRATE EL. 14.65

AS BUILT
APR 21 1976

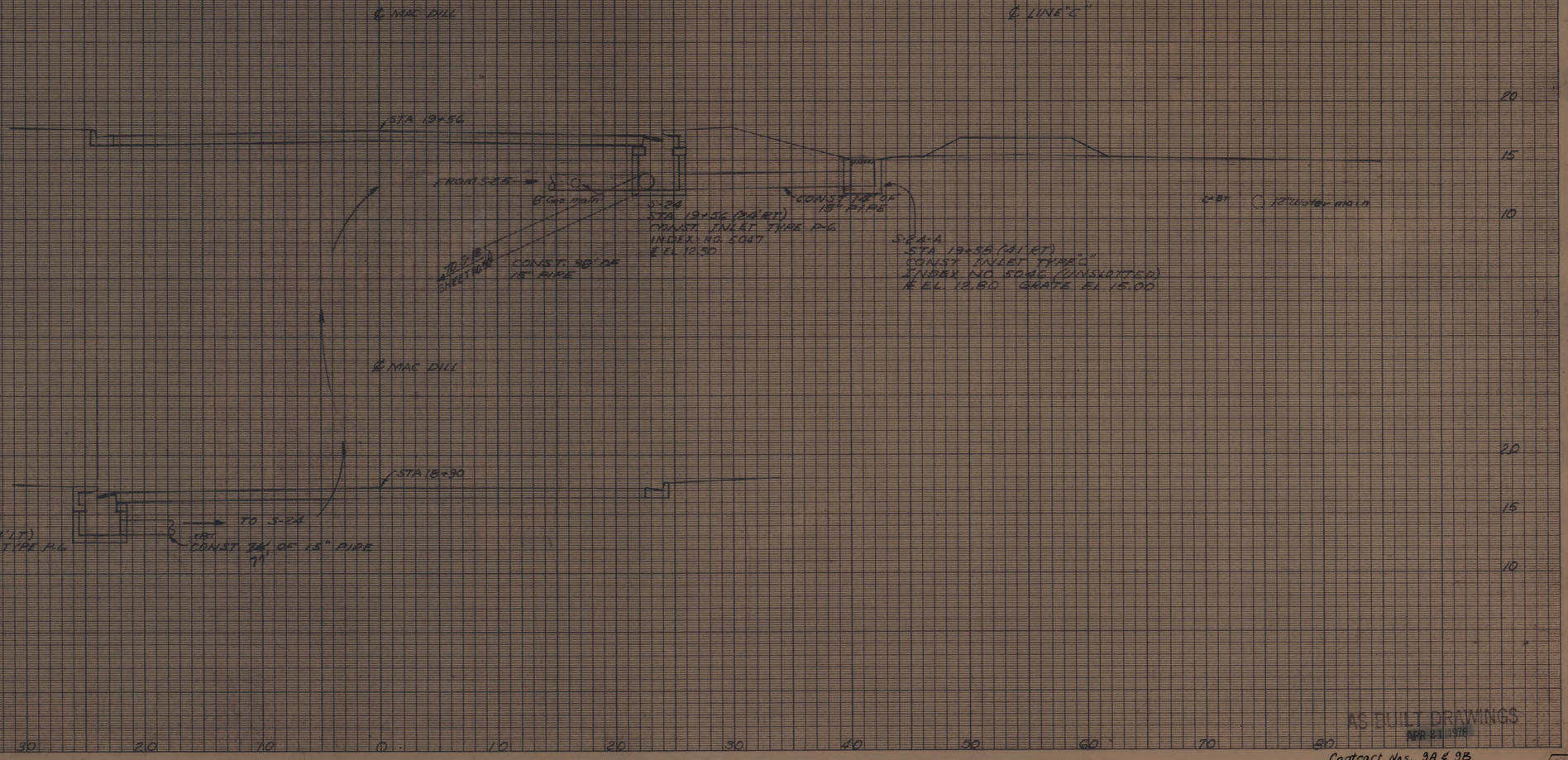
CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
8	Fla.	HILLSBOROUGH		10002-3510	57

MACDILL AVE. STATE JOB No. 10002-3510



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

A. R. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 21 1958

Contract Nos. 9A & 9B

84
1

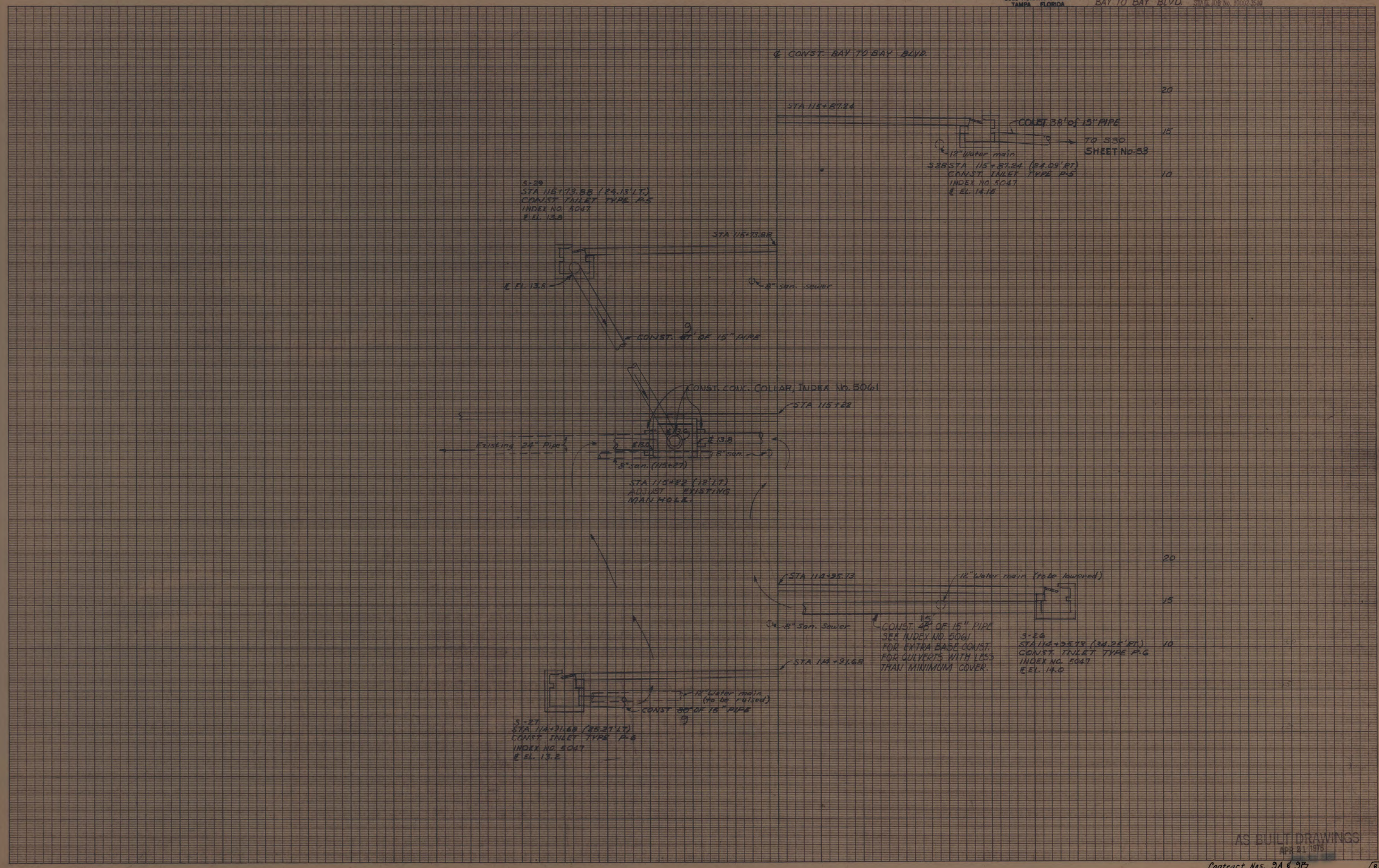
CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
8	Fla.	HILLSBOROUGH		10002-3510	52

BAY TO BAY BLVD. STATE JOB No. 10002-3510



Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. B. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 21 1975

Contract Nos. 9A & 9B

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA, FLORIDA

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	53

BAY TO BAY BLVD. STATE JOB NO. 10002-3510

℄ CONST. BAY TO BAY

293

CONST. 3H" OF 18" PIPE

TO S-33-A
See Sheet 54

NOTE: IE 18" PIPE @ S-33-A IS 4.0

IE 6.40

12" W.M

2" GM

CONST. 68' OF 15" PIPE

S-33-B
STA 122+41 (30' LT.) BAY TO BAY
CONST. INLET TYPE P-6
INDEX NO. 5047
IE EL. 6.20

S-33-C
STA. 122+14 (34' RT.) BAY TO BAY
CONST. INLET TYPE P-6
INDEX NO 5047
IE EL 6.80

STA 118+87 (28' LT.) BAY TO BAY
CONST. PIPE PLUG
INDEX NO. 5061
IE EL 9.3

CONST 104' OF 18" PIPE

TO S-33
See Sheet No. 54

CONST. 54" PIPE

STA 158+60
CONNECT 18" PIPE TO 54" PIPE
CONST. PIPE COLLAR
INDEX NO 5061
IE EL. 3.7

CONST. 142' OF 18" PIPE

S-32
STA 118+20 (55' RT) BAY TO BAY
CONST. MANHOLE TYPE P-8
INDEX NO. 5047
TOP EL 16.4
IE EL. 9.0

CONST. 45℄ OF 54" PIPE
44G

15
10
5

CONST. 38' OF 15" PIPE

S-29
See Sheet No. 52

IE EL. 11.80

CONST. 36' OF 15" PIPE (CLASS IV)

IE. 10.9

IE 10.75

S-30
STA. 158+40 (25 LT.)
CONST. INLET TYPE "C"
INDEX NO. 5046
CONST. SLOT ON S.W. SIDE
IE EL. 11.65; GRATE EL. 15.57

S-31
STA. 158+40 (14' RT.)
CONST MANHOLE TYPE J-8
INDEX NO. 5047

TOP EL 15.9
IE EL 2.2

℄ LINE "A"

CONST 12' OF 15" PIPE

S-31A
STA 158+27 (20' RT.)
CONST INLET TYPE "C"
INDEX NO. 5046
CONST SLOT ON S.W. SIDE
IE EL. 11.1; GRATE EL 14.8

FROM S-20
See Sheet No. 50

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by C.W.S.
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK @ 1964

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B.

84/1

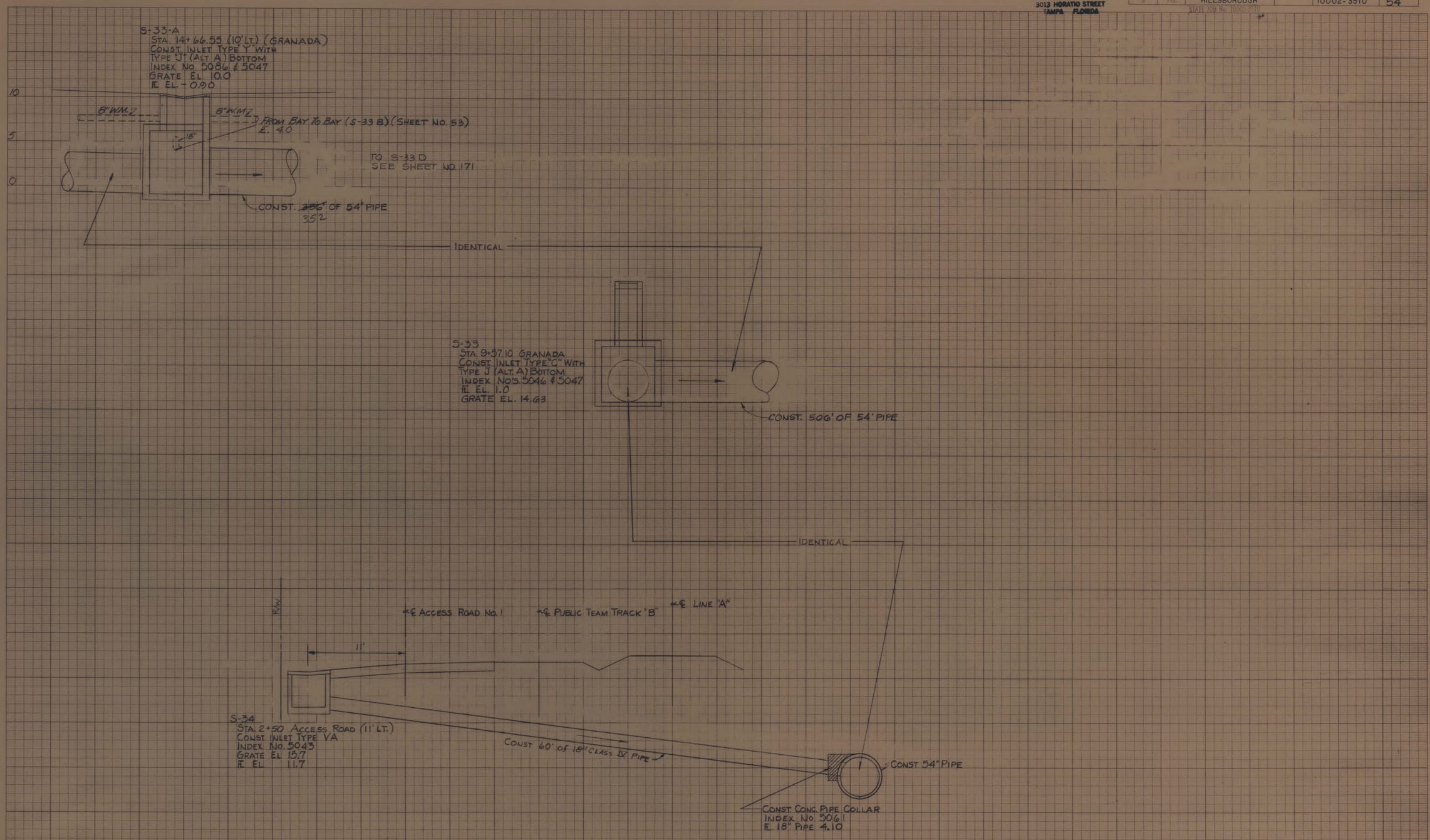
CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	54

STATE JOB No. 10002-3510



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by C.W.S.
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1004

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

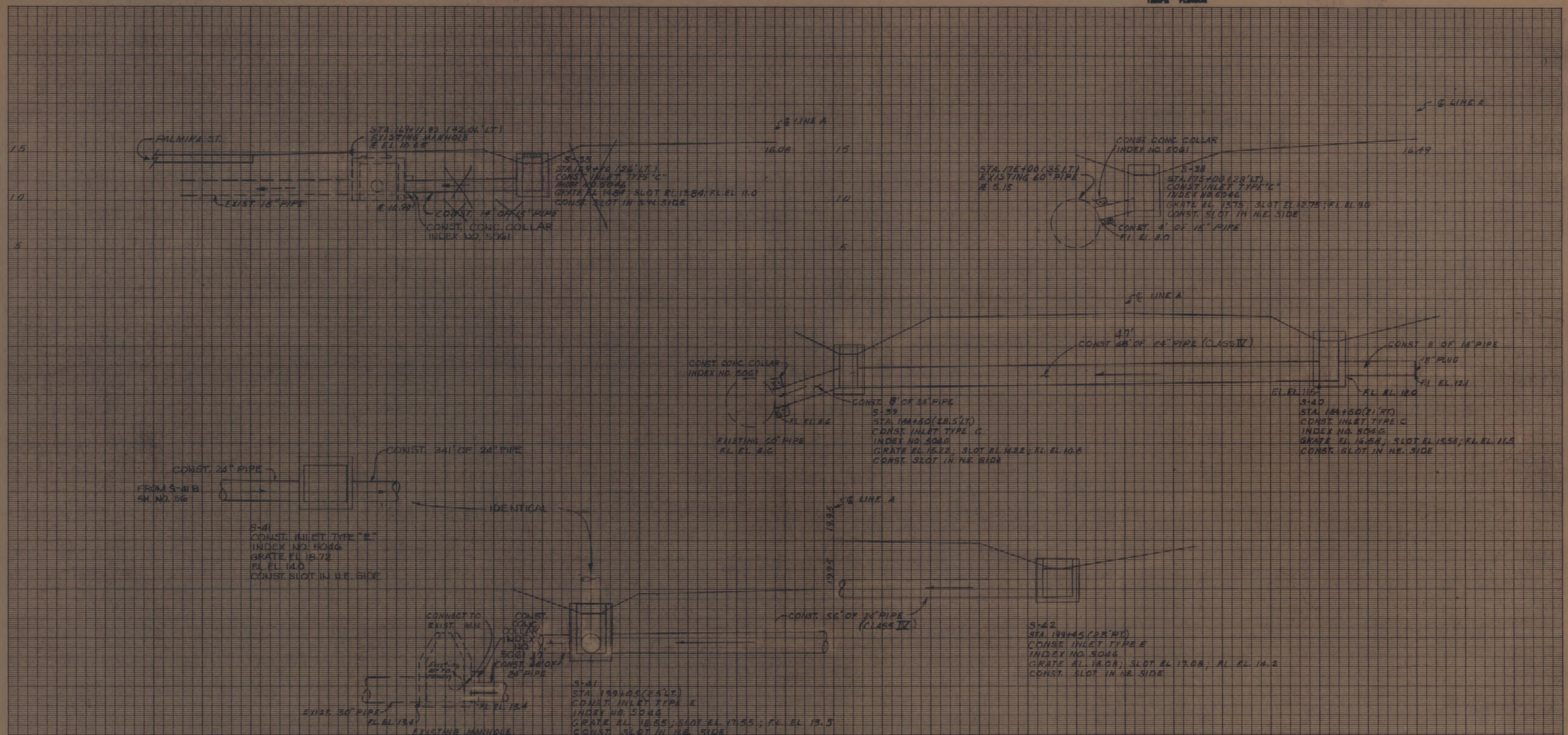
84
1

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
8013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	55



Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. R. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

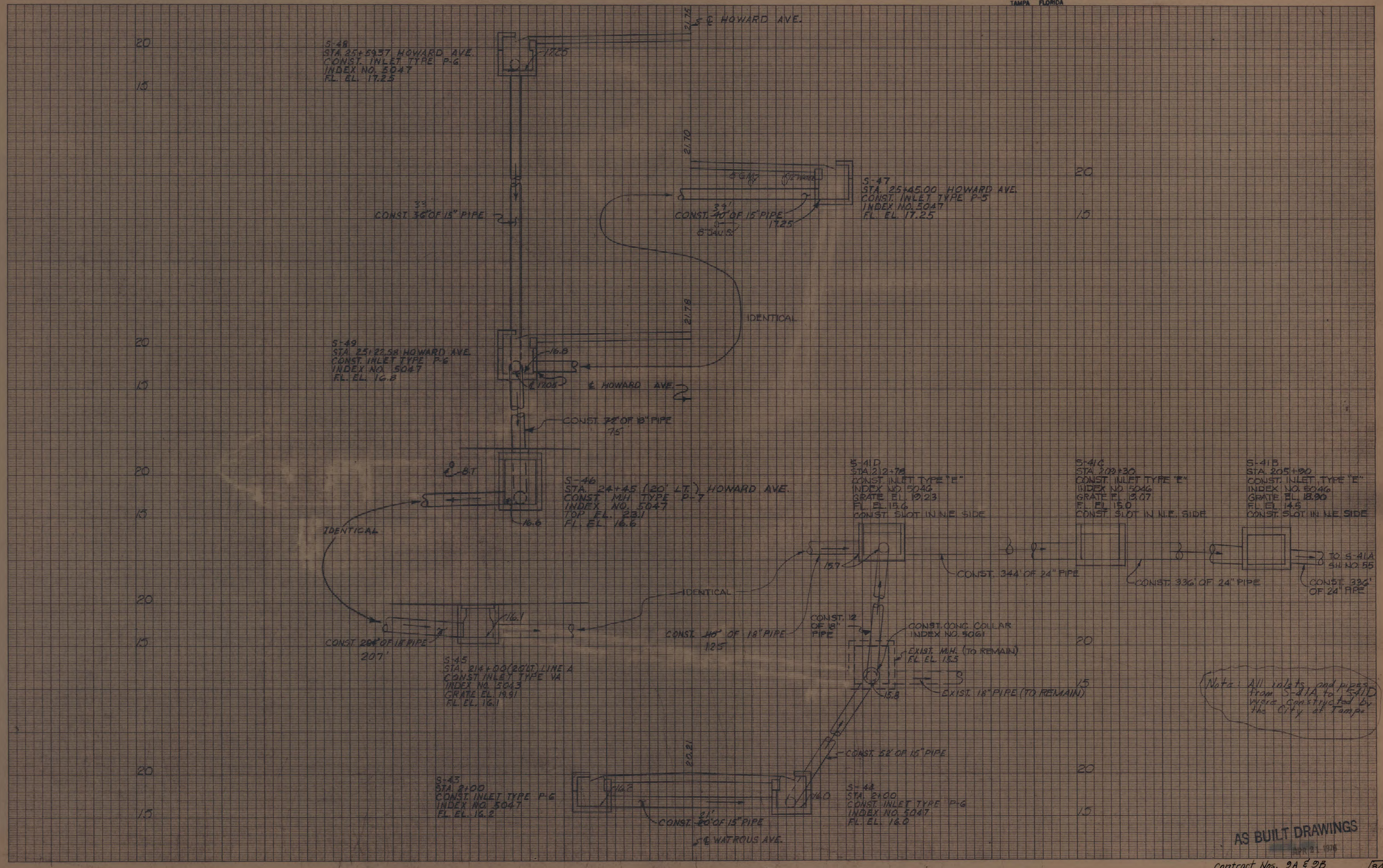
34
1

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
8	Fla.	HILLSBOROUGH		10002-3510	56



Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. R. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 2 1976

Contract Nos. 9A & 9B

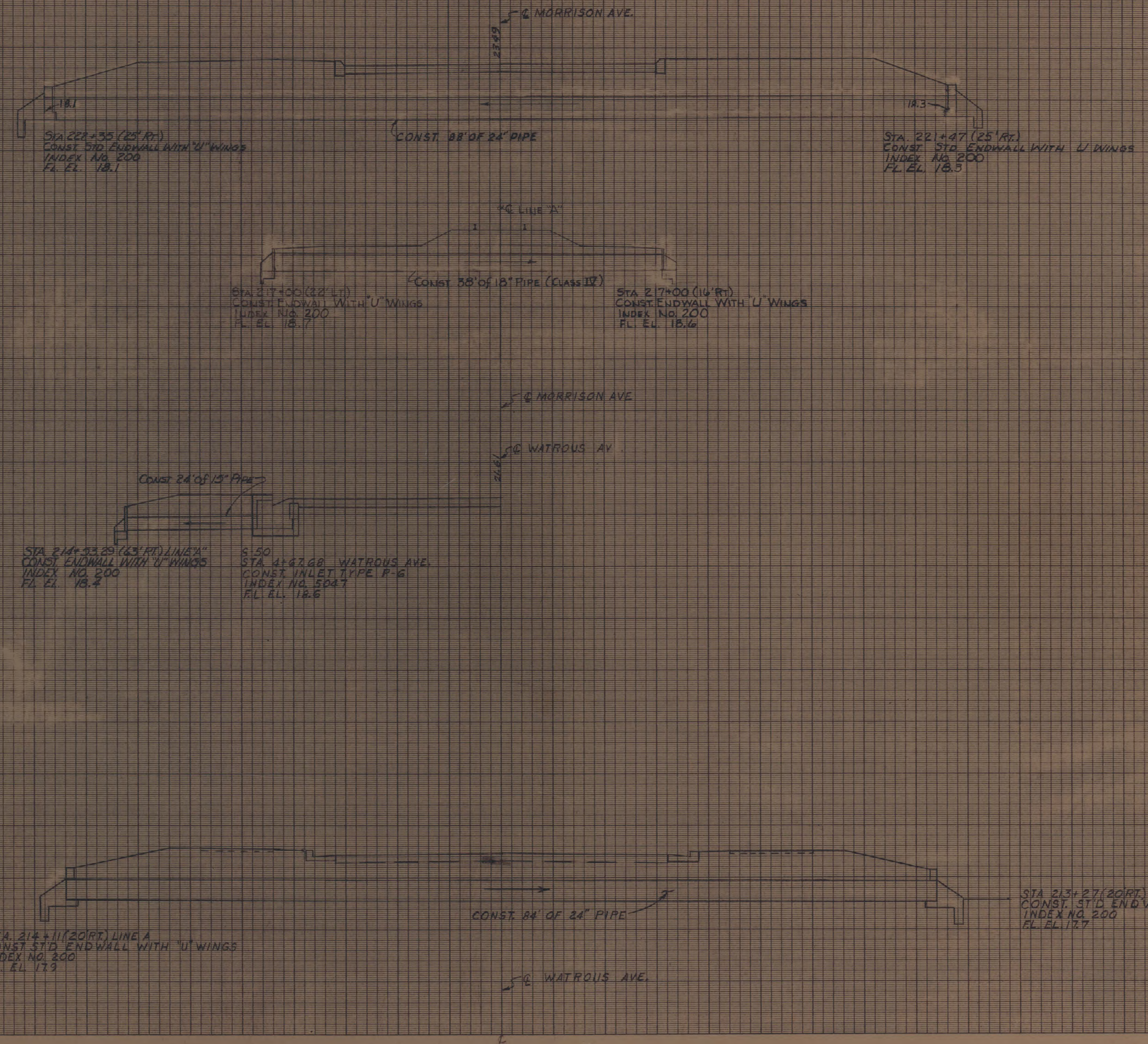
84
1

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
8	Fla.	HILLSBOROUGH		10002-3510	37



Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Final Plotted by
" Checked by
Area by
" Checked by

A. R. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

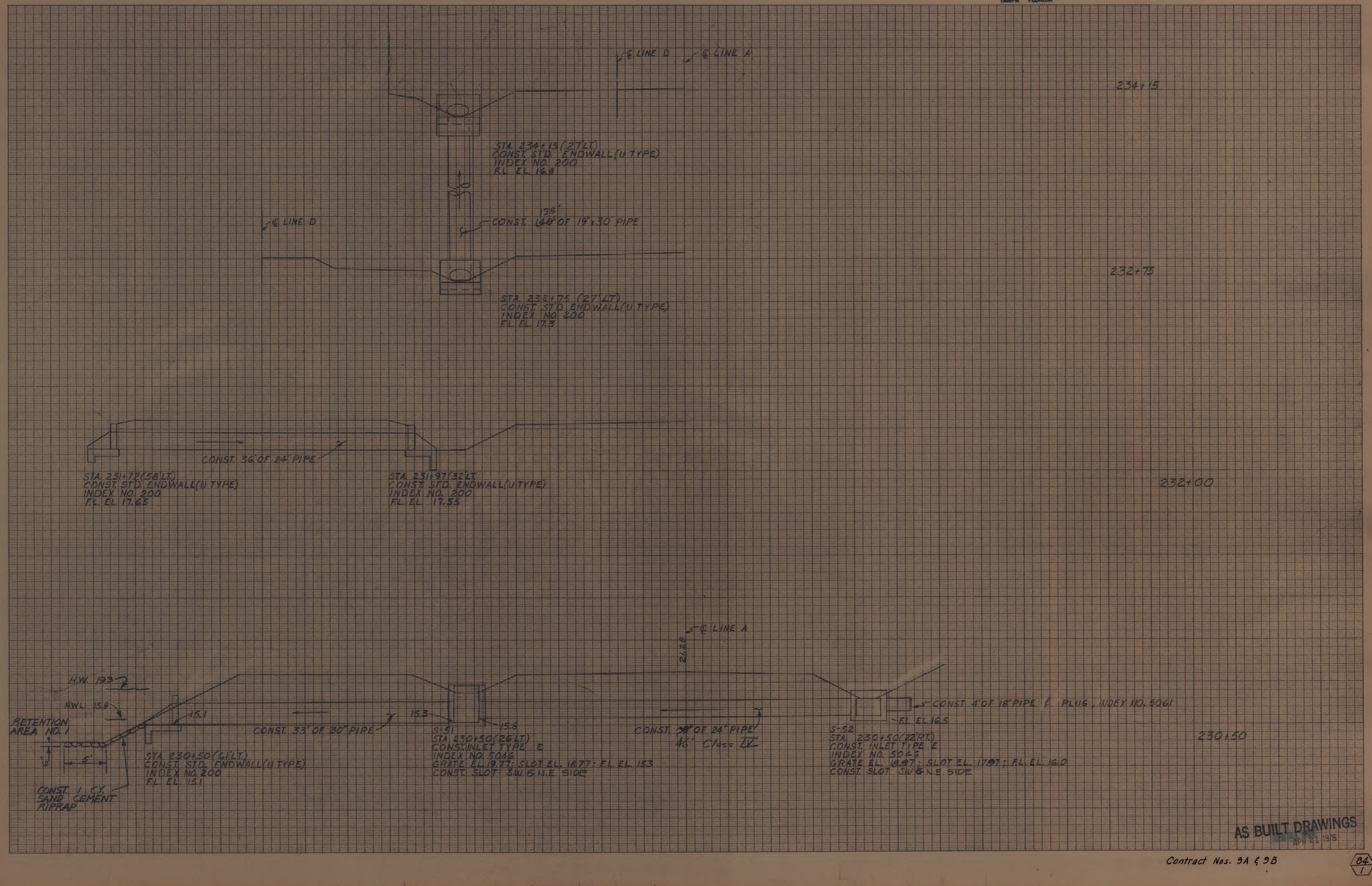
84
1

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dist. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	5B



Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. R. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 21 1976

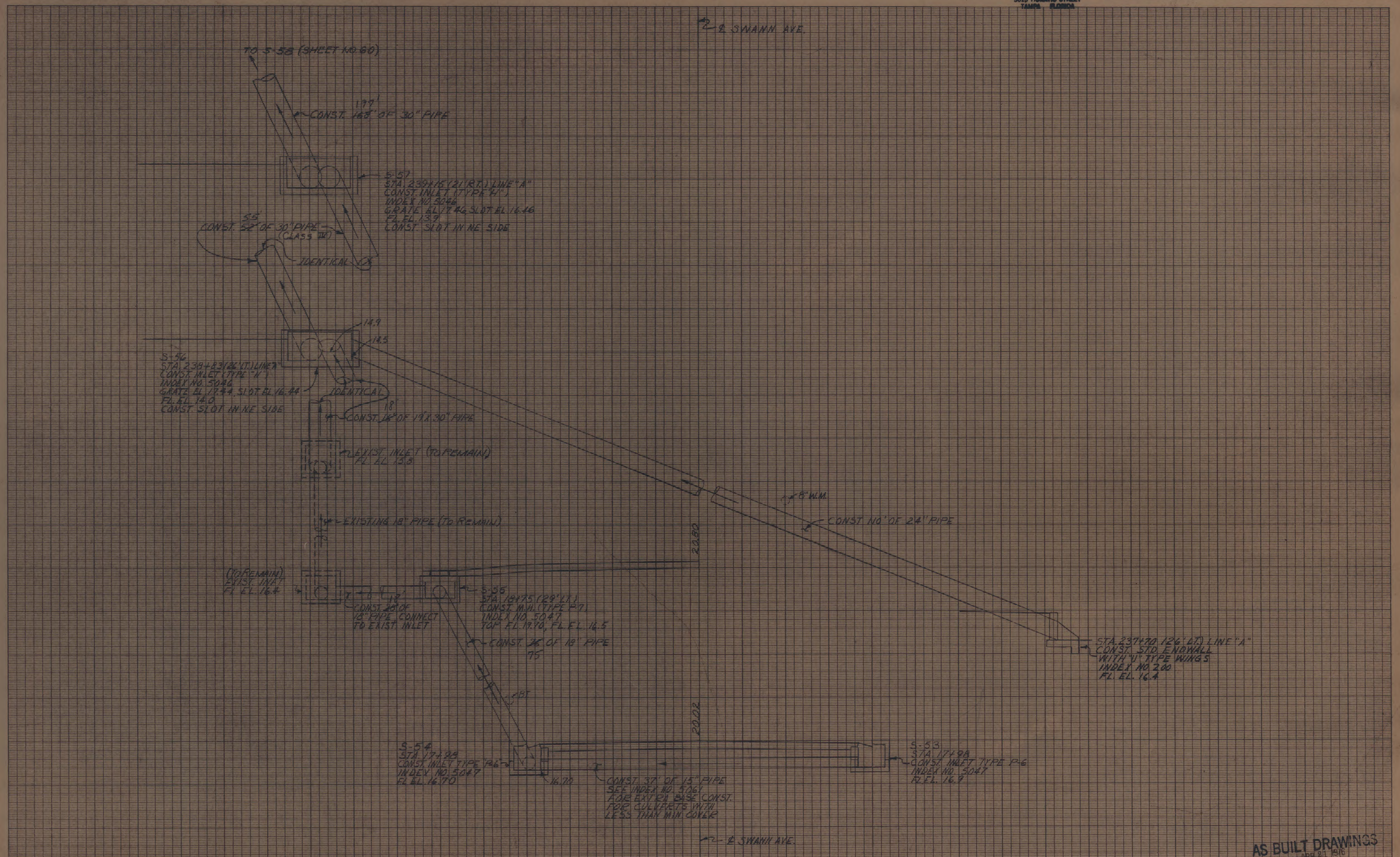
Contract Nos. 9A & 9B

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dsm. No.	State	County	Route	Proj. No.	Sheet No.
8	Fla.	HILLSBOROUGH		10002-3510	59



AS BUILT DRAWINGS
APR 21 1976

Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

A. R. COGSWELL
JACKSONVILLE, FLA.

Contract Nos. 9A & 9B

84
1

CROSS SECTIONS

Scale 1 inch = 5 feet

NO.	REVISION	BY	DATE
1	STA. 245+00 EXTENDED SEC.	JNC	7-24-74

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	60

℄ ROAD

EXIST. M.H. FL EL 12.7

FL EL 12.7 (ACTUAL 12.8)

EXIST. 19"X30" CMPA

CONST. 32' OF 18" PIPE CONNECT TO EXIST. M.H.

6"W.M.

S-59 CONST. INLET TYPE P-5 AT SAME LOCATION AS EXIST. INLET INDEX NO. 5047 FL EL 12.8 (SET 12.9)

CONST. 52' OF 18" PIPE

STA 2+46+00 (185' RT) LINE "A" CONST. STD. ENDWALL WITH "U" TYPE WINGS INDEX NO. 200 FL EL 13.0

℄ ROAD

STA 245+00 (22' LT.) CONST. STD. ENDWALL INDEX No. 1454 FL. EL. 16.45

℄ LINE "A"

℄ LINE "H"

CONST. 54' OF 18" PIPE (CLASS IV)

STA 245+00 (31' RT) CONST. STD. ENDWALL INDEX No. 1454 FL. EL. 16.35

STA 21+79 (50' LT.) CONST. STD. ENDWALL (WITH "U" WINGS) INDEX NO. 200 FL. EL. 13.5

CONST. 28' OF 30" PIPE

CONST. 30" PIPE

Connect to 30" Pipe Collar

S-58 STA. 21+51 (50' LT.) SWANN CONST. M.H. TYPE P-7 INDEX NO. 5047 TOP EL. 19.18 ; FL. EL. 13.6

FROM S-57 (SHEET NO. 59)

58 SWANN

CONST. 40' OF 18" PIPE

℄ SWANN

CONST. SLOT

S-58A STA. 239+05 (160' RT.) LINE "A" CONST. INLET TYPE C INDEX NO. 5046 GRATE EL. 17.76 INLET EL. 16.76 FL. EL. 15.0

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

A. R. COGSWELL
JACKSONVILLE, FLA.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

CROSS SECTIONS

Scale 1 inch = 5 feet

NO.	REVISION	BY	DATE
1	24 Pipe to Str. S-60	J.N.C.	7-9-74

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	61



AS BUILT DRAWINGS
APR 21 1976

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

R. R. COGSWELL
JACKSONVILLE, FLA.

Contract Nos. 9A & 9B

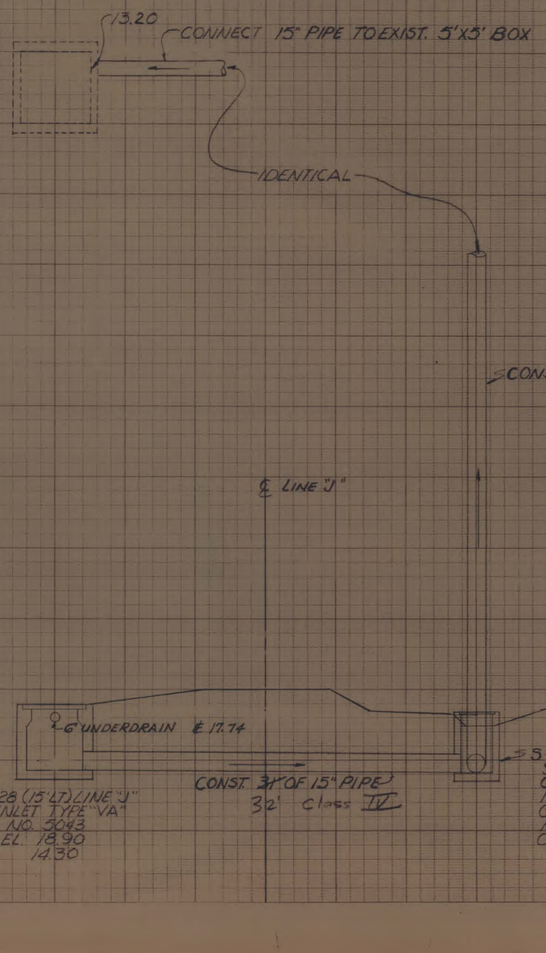
34
1

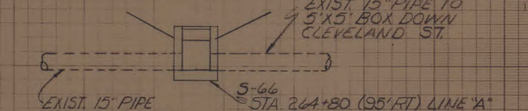
CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Highway Div. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	62





Application No.
Route No.
Original Platted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO.
ORLANDO, FLA.
ORDER STOCK # 1004

AS BUILT DRAWINGS
APR 21 1976

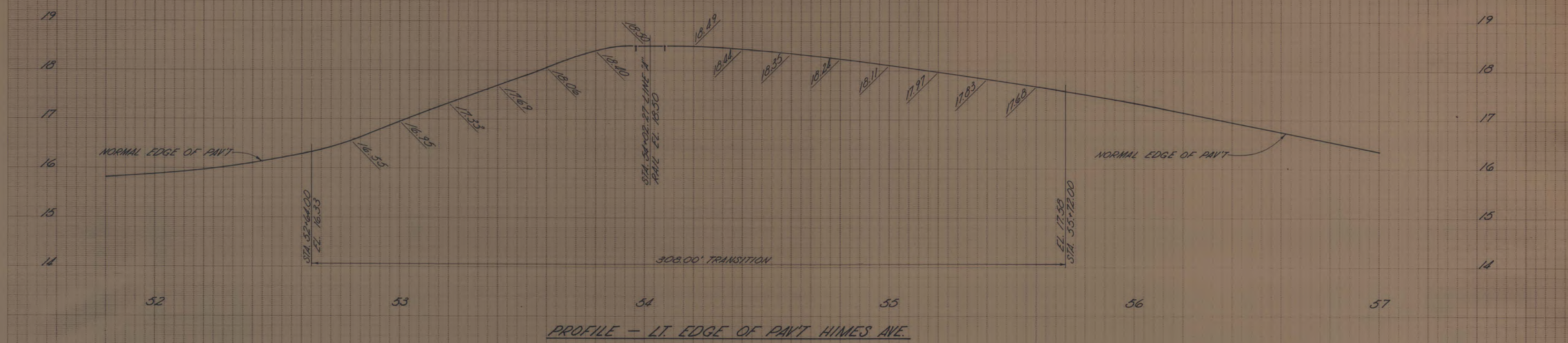
Contract Nos. 9A & 9B

84
1

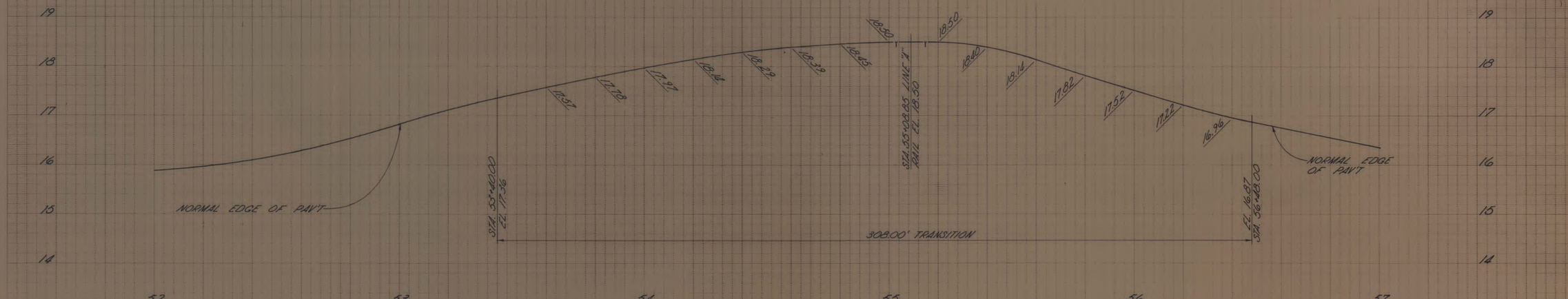
J. E. GREINER COMPANY, INC.
CONSULTING ENGINEERS TAMPA, FLORIDA

Fed. Road Distr. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	449		63

STATE JOB No. 10002-3511



PROFILE – LT. EDGE OF PAV'T HIMES AVE.



PROFILE – RT. EDGE OF PAV'T HIMES AVE

Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

AS BUILT DRAWINGS
APR 21 1976

SPECIAL PROFILES

HIMES AVE.

EDGE OF PAVEMENT
24' LT. & RT. OF
℄ CONSTRUCTION

SCALE:
1"=20' HORZ.
1"=1' VERT.

Contract Nos. 9A & 9B

84
1

CROSS SECTIONS

~~Scale: 1 inch = 5 feet~~

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

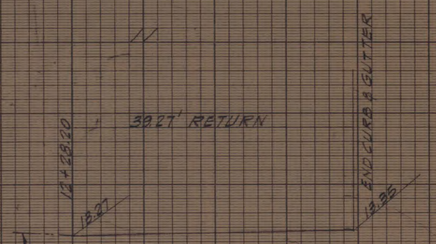
Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	64

STATE JOB No. 10002.3511



PROFILE - LT. EDGE OF PAV'T. EUCLID AVE.
SCALE = 1" = 20' HORIZ
1" = 1' VERT.

PROFILE - RT. EDGE OF PAV'T. EUCLID AVE.
SCALE = 1" = 20' HORIZ
1" = 1' VERT.



RETURN NO. 1
SCALE = 1" = 10' HORIZ.
1" = 1' VERT.

AS BUILT DRAWINGS
APR 21 1976

SPECIAL PROFILES
EUCLID AVE.
EDGE OF PAVEMENT
22.5' LT. & RT. - ℄ CONST.

Contract Nos. 9A & 9B

84/1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Xsgs by
" Checked by

KAE CO.
ORLANDO, FLA.
ORDER STOCK # 1004

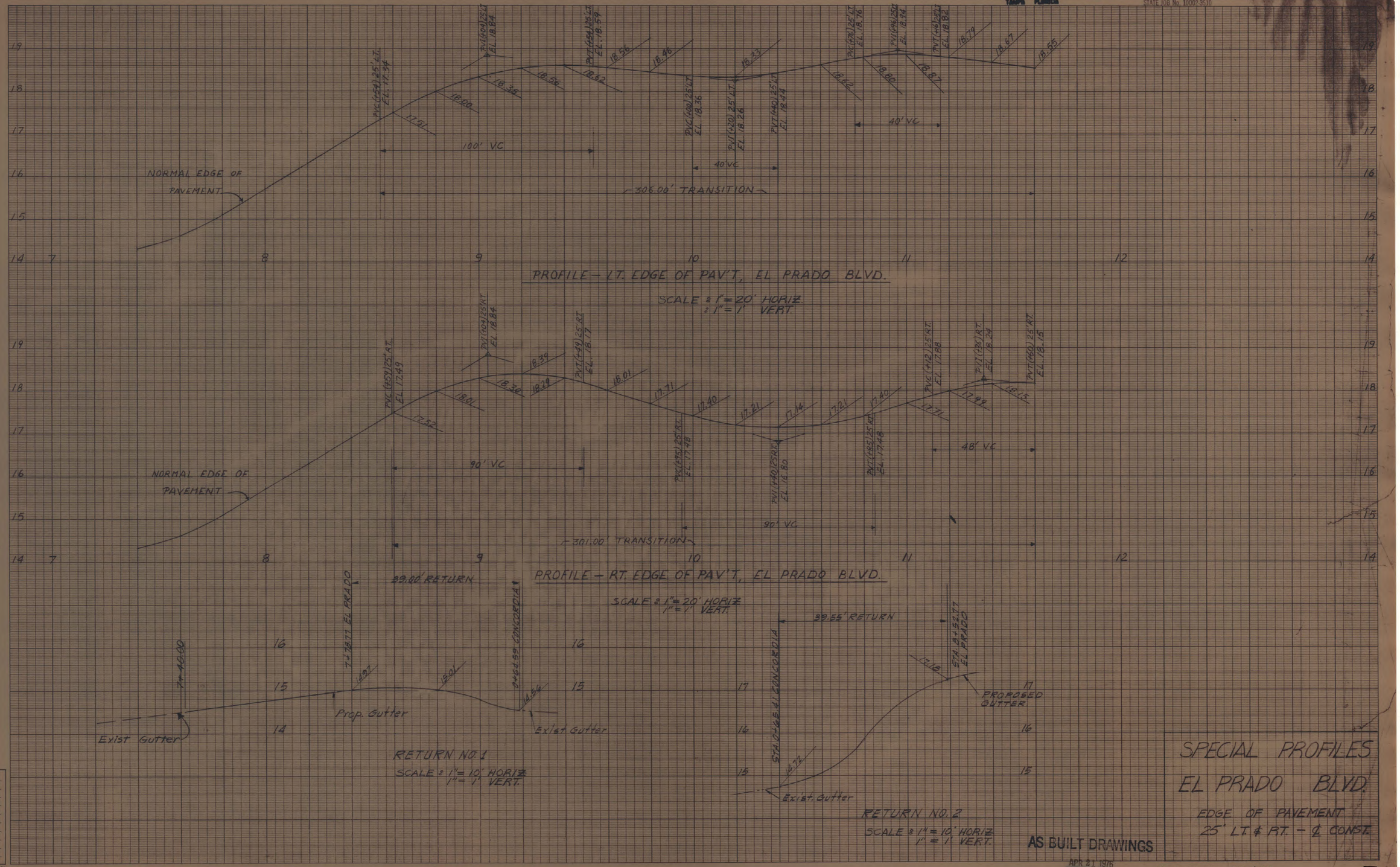
CROSS-SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
2013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	68

STATE JOB No. 10002 3510



SPECIAL PROFILES
EL PRADO BLVD.
EDGE OF PAVEMENT
25' LT. & RT. – ℄ CONST.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84/1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

K&E CO. ORLANDO, FLA. ORDER STOCK # 1894

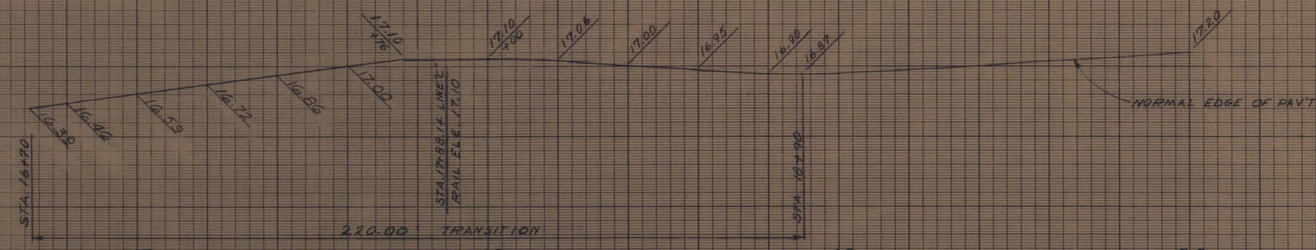
~~CROSS SECTIONS~~

~~Scale 1 inch = 5 feet~~

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

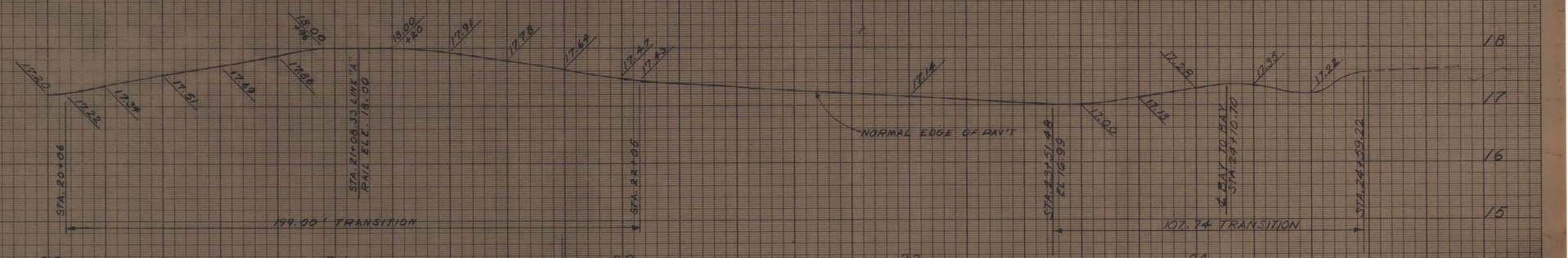
Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	66

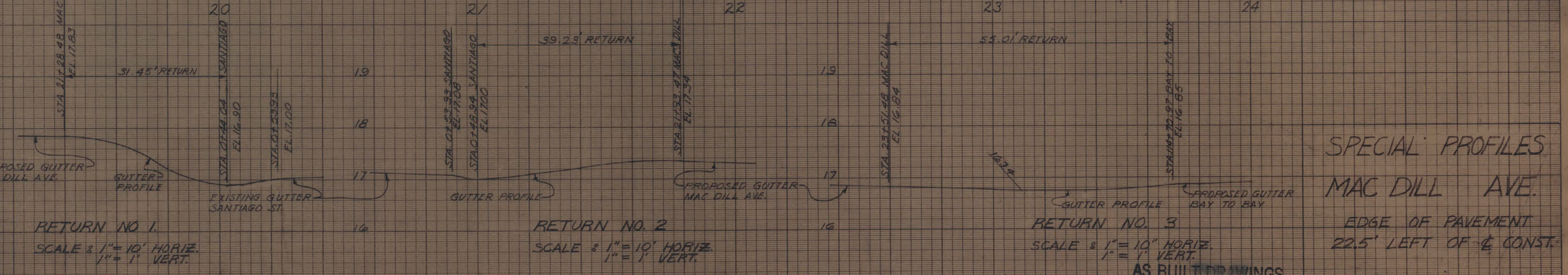
STATE JOB No. 1000-4-76



PROFILE - LT. EDGE OF PAV'T MAC DILL AVE.

SCALE = 1" = 20' HORIZ.
1" = 1' VERT.





AS BUILT DRAWINGS
APR 21 1976

SPECIAL PROFILES
MAC DILL AVE.
EDGE OF PAVEMENT
22.5' LEFT OF ℄ CONST.

Contract Nos. 9A & 9B

84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

KAE CO. ORLANDO, FLA. ORDER STOCK @ 1964

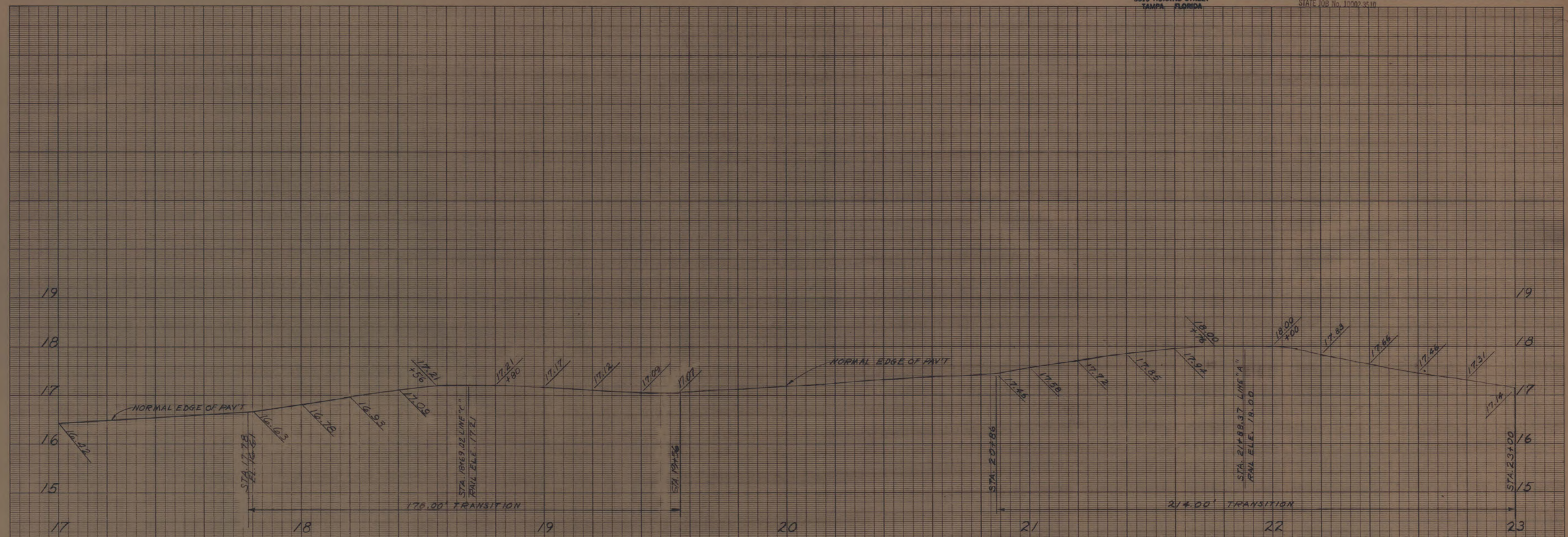
~~CROSS SECTIONS~~

~~Scale 1 inch = 5 feet~~

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

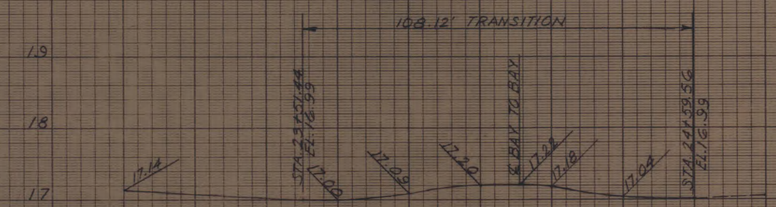
Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002 - 3510	67

STATE JOB No. 10002-3510



PROFILE - RT. EDGE OF PAV'T MAC DILL AVE.

SCALE 1" = 20' HORIZ.
1" = 1' VERT.



SCALE 1" = 20' HORIZ.
1" = 1' VERT.

SPECIAL PROFILES
MACDILL AVE

EDGE OF PAVEMENT
22.5' RIGHT OF
& CONSTRUCTION

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

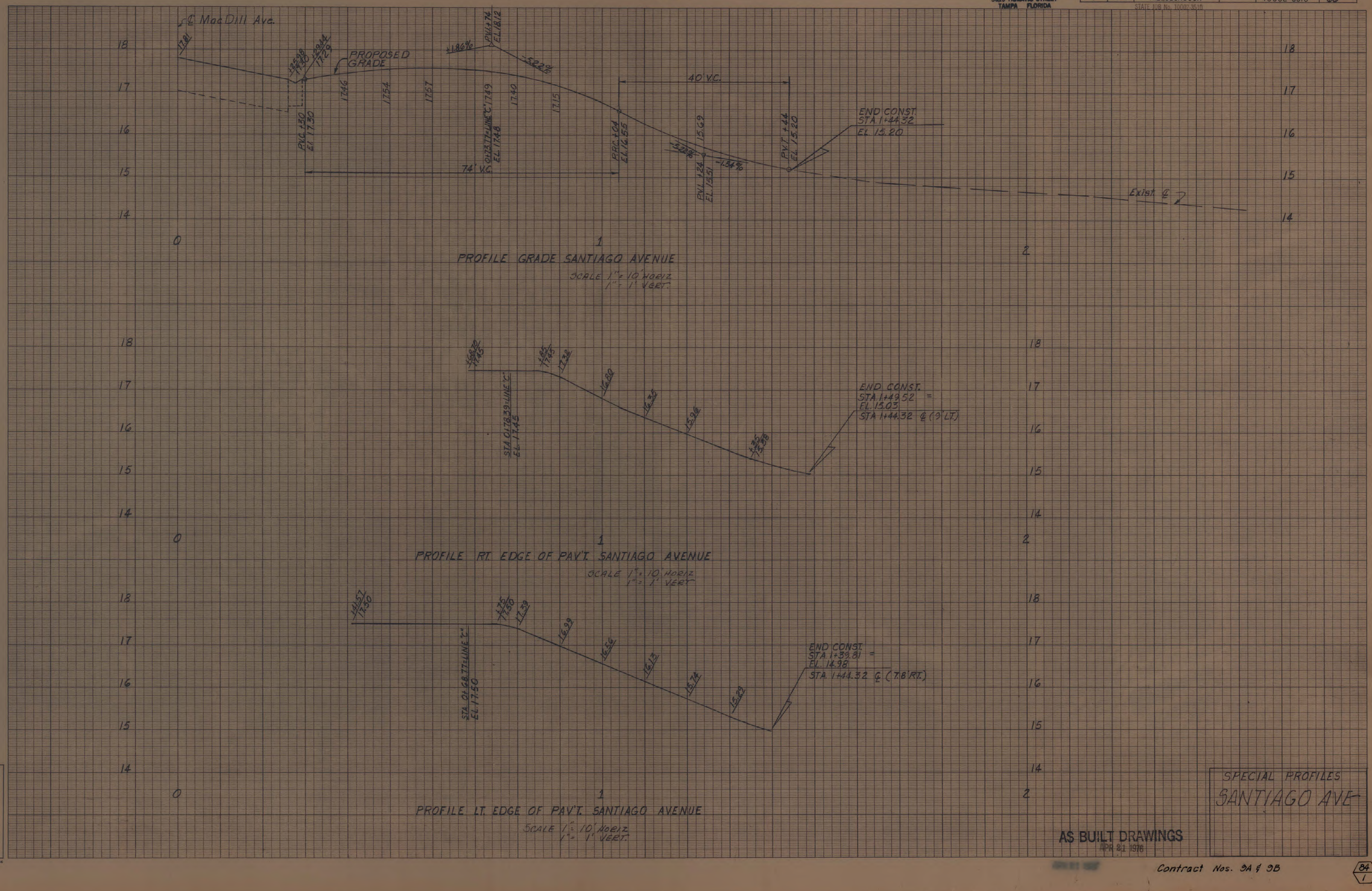
K&E CO. ORLANDO, FLA. ORDER STOCK © 1964

~~CROSS SECTIONS~~
~~Scale 1 inch = 5 feet~~

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	68

STATE JOB No. 10002-3510



SPECIAL PROFILES
SANTIAGO AVE

AS BUILT DRAWINGS
APR 81 1976

Contract Nos. 9A & 9B

84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

KEE CO. ORLANDO, FLA. ORDER STOCK # 1004

CROSS SECTIONS

~~Scale 1 inch = 5 feet~~

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	69

STATE JOB No. 10002-3510



SPECIAL PROFILES

BAY TO BAY BLVD.

EDGE OF PAVEMENT
22.5' LT & RT. OF
℄ CONSTRUCTION

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 3A & 3B.

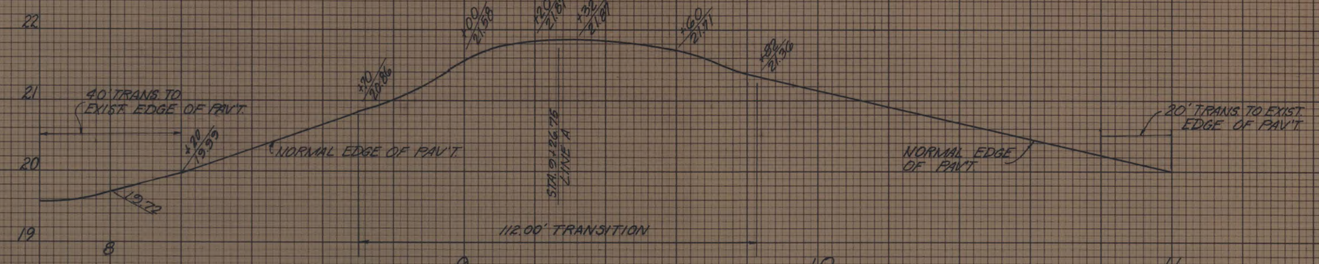
84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

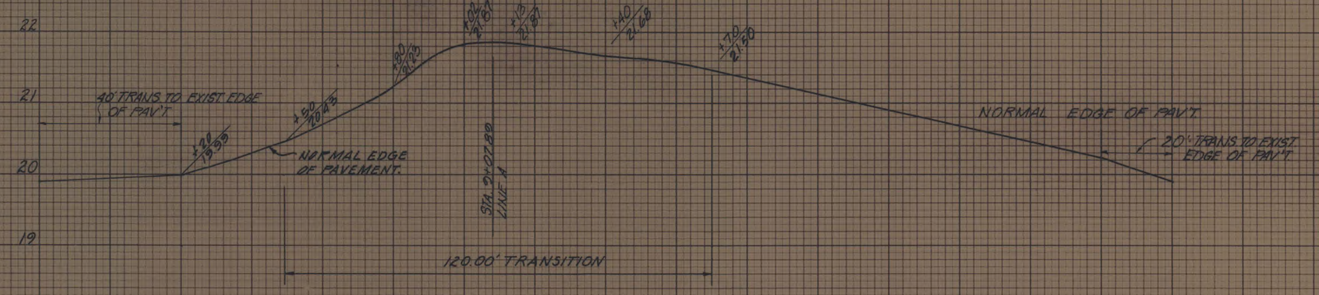
KEE CO. ORLANDO, FLA. ORDER STOCK # 1094

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO
10002	350		69A
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 9/73

FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE



PROFILE LT. EDGE OF PAVEMENT



PROFILE RT. EDGE OF PAVEMENT

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, AREAS CHECKED — NOTE BOOK — NO. — BY — DATE

AS BUILT
APR 21 1978

SPECIAL PROFILES

MISSISSIPPI AVENUE

EDGE OF PAVEMENT 12' LT. & RT. OF ℄ OF CONSTRUCTION

SCALE: 1"=20' HOR. 1"=1' VERT.

84/1

Contract Nos. 9A & 9B

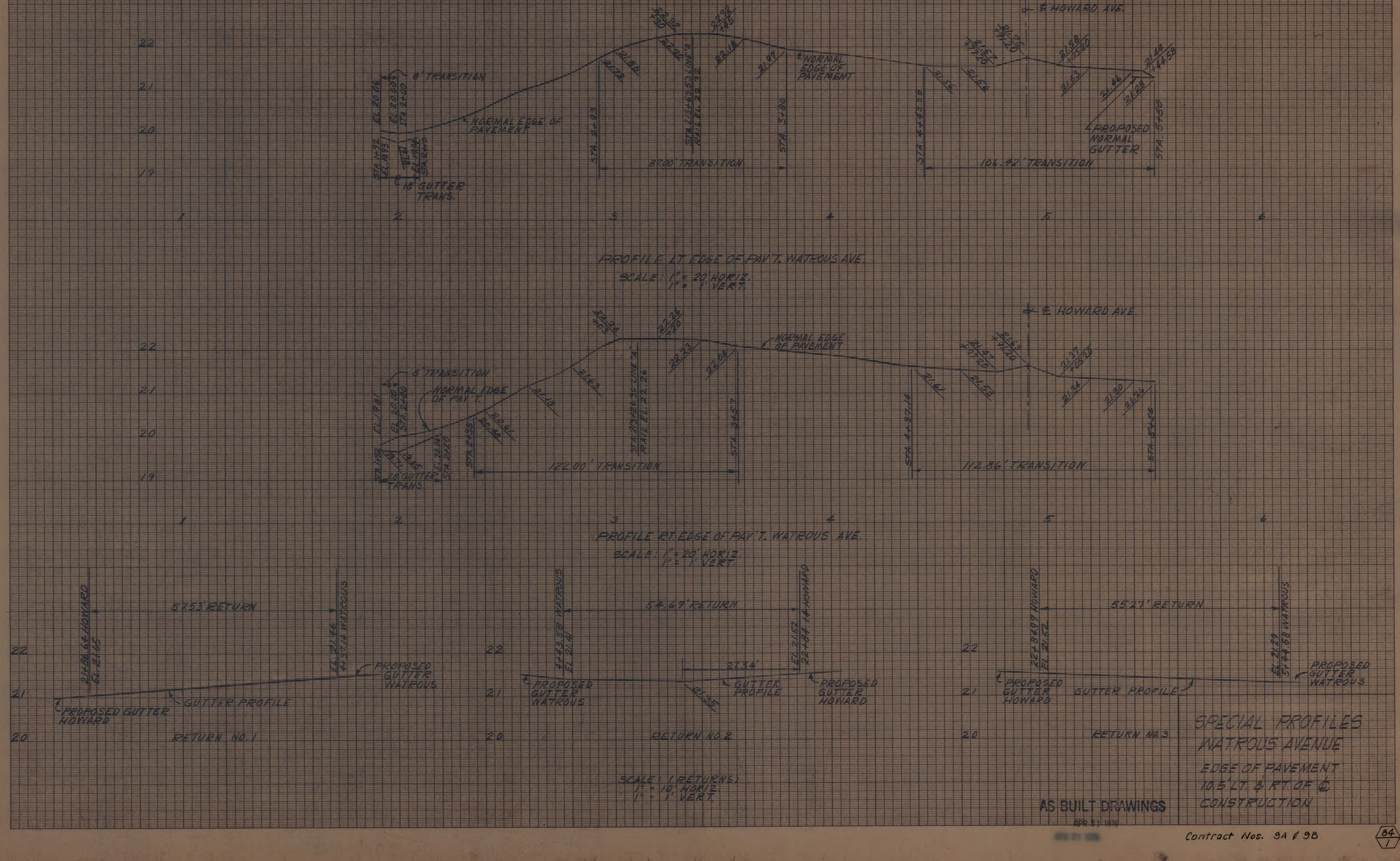
CROSS SECTIONS

Scale: 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3019 HOBARTB STREET
TAMPA FLORIDA

Fed. Road Serv. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	70

STATE JOB No. 10207-3510



SPECIAL PROFILES WATROUS AVENUE

EDGE OF PAVEMENT 10.5 LT. & RT OF ℄ CONSTRUCTION

AS BUILT DRAWINGS
APR 11 1978

Contract Nos. 9A & 9B

84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

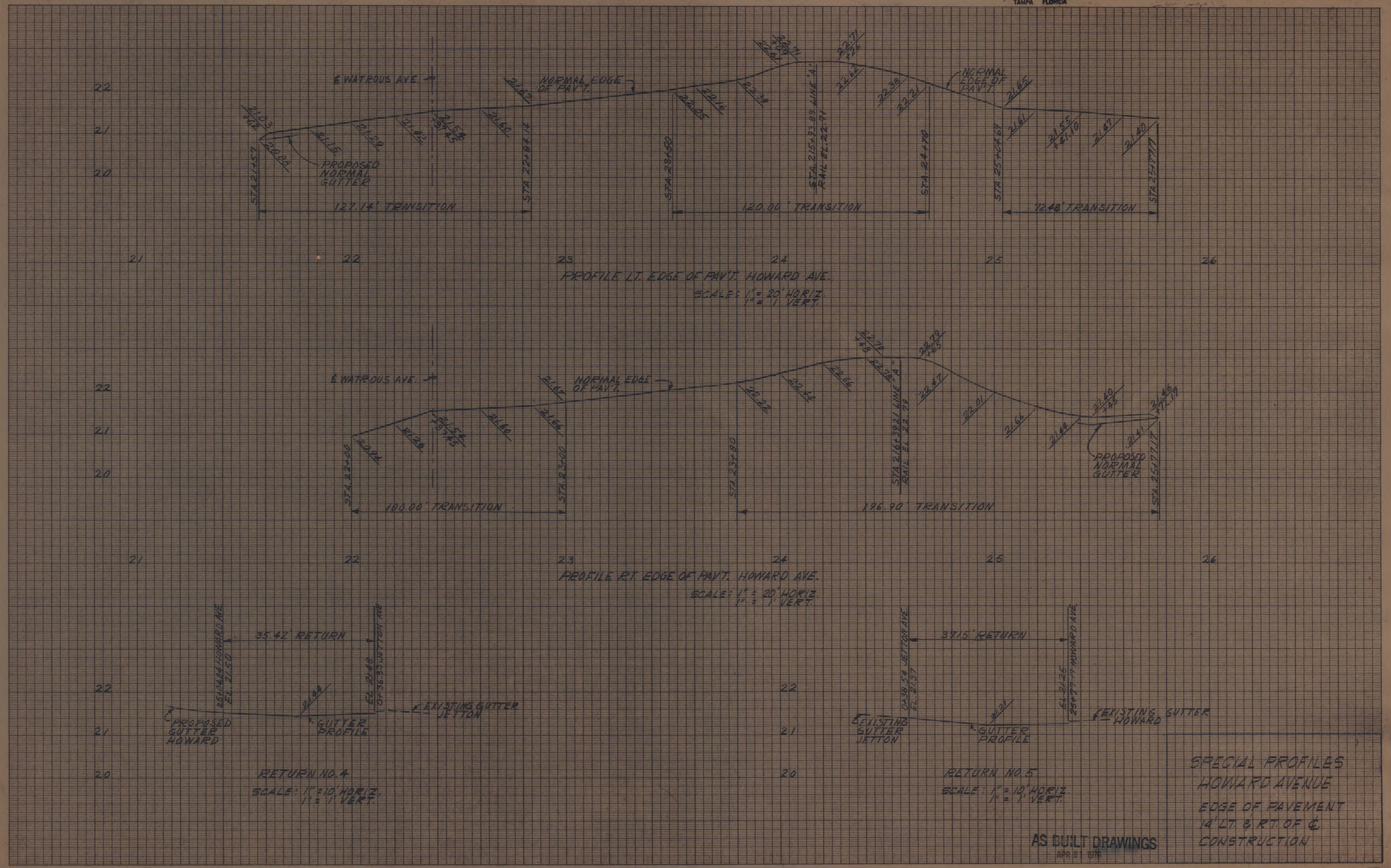
A. R. COGSWELL
JACKSONVILLE, FLA.

CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Dem. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH	-	10002-3510	71



SPECIAL PROFILES
HOWARD AVENUE
EDGE OF PAVEMENT
14' LT & RT. OF ℄
CONSTRUCTION

AS BUILT DRAWINGS
APR 21 1976

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

A. R. COGSWELL
JACKSONVILLE, FLA.

Contract Nos. 9A & 9B

84
1

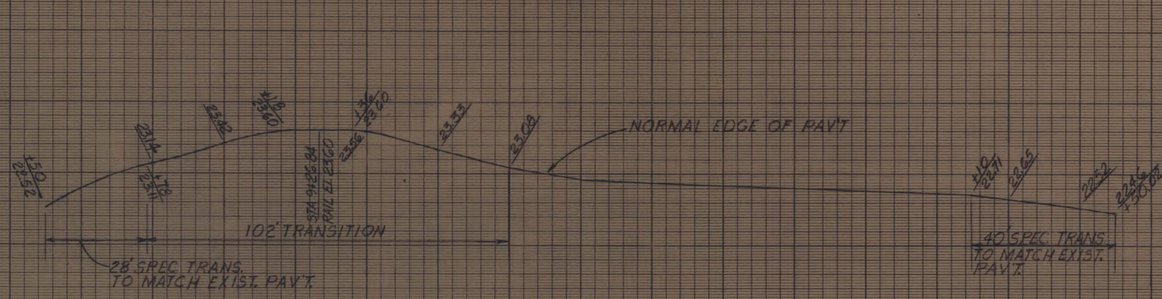
CROSS SECTIONS

Scale 1 inch = 5 feet

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

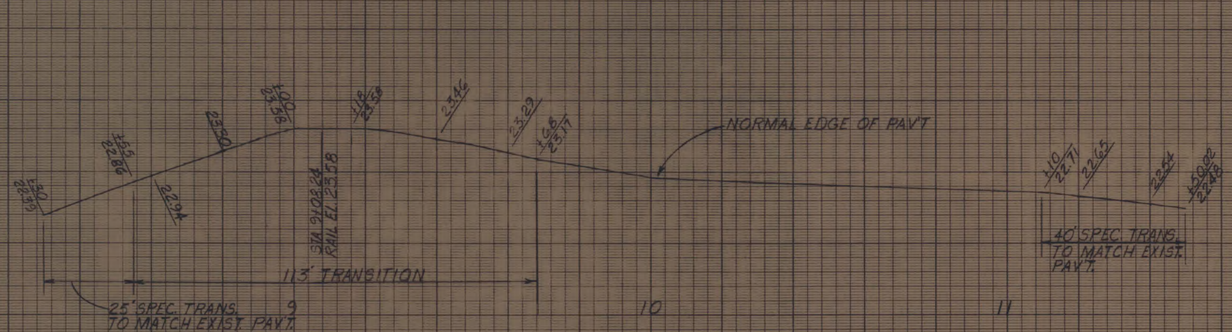
Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	72

STATE JOB No. 10002-3510



PROFILE LT. EDGE OF PAV'T. MORRISON AVE.

SCALE: 1" = 20' HORIZ.
1" = 1' VERT.



PROFILE RT. EDGE OF PAV'T MORRISON AVE.

SCALE: 1" = 20' HORIZ.
1" = 1' VERT.

SPECIAL PROFILES
MORRISON AVENUE
EDGE OF PAVEMENT
12' LT. & RT. OF ℄ CONST.

AS BUILT DRAWINGS
APR 21 1976

Contract Nos. 9A & 9B

84
1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

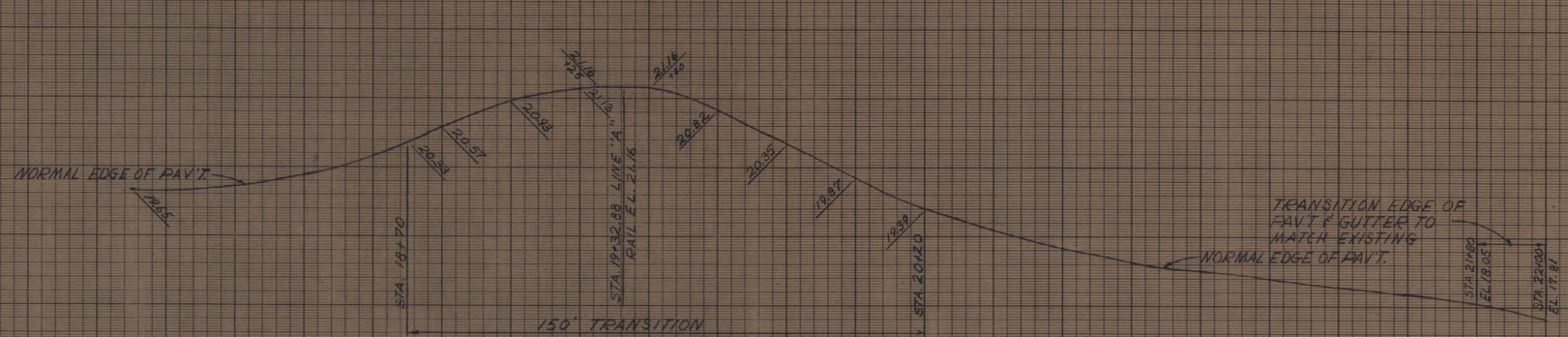
K&E CO. ORLANDO, FLA. ORDER STOCK # 1604

CROSS SECTIONS

Scale 1 inch = 5 feet

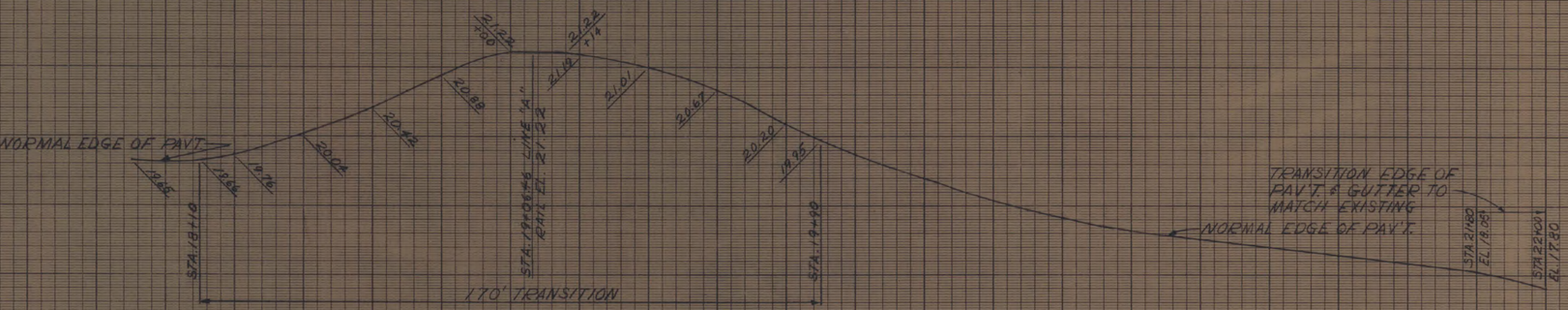
WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

Fed. Road Divn. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	73



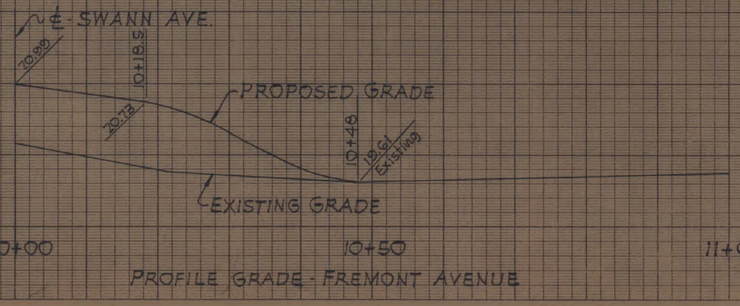
PROFILE – LT. EDGE OF PAV'T. – SWANN AVE.

SCALE: 1" = 20' HORIZ.
1" = 1' VERT.

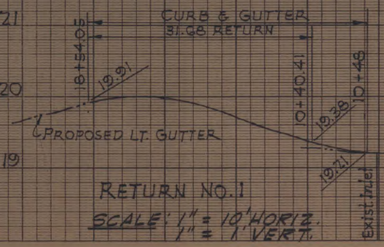


PROFILE – RT. EDGE OF PAV'T. – SWANN AVE.

SCALE: 1" = 20' HORIZ.
1" = 1' VERT.

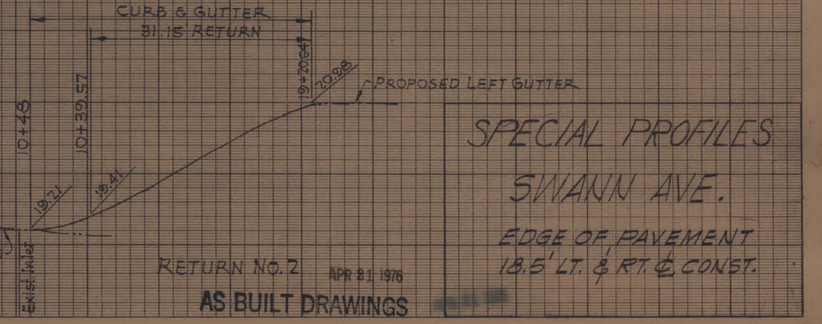


PROFILE GRADE - FREMONT AVENUE



RETURN NO. 1

SCALE: 1" = 10' HORIZ.
1" = 1' VERT.



RETURN NO. 2

APR 81 1976

AS BUILT DRAWINGS

SPECIAL PROFILES

SWANN AVE.

EDGE OF PAVEMENT
18.5' LT. & RT. ℄ CONST.

Contract Nos. 9A & 9B

84/1

Application No.
Route No.
Original Plotted by
" Checked by
Template by
Area by
Finals Plotted by
" Checked by
Area by
" Checked by

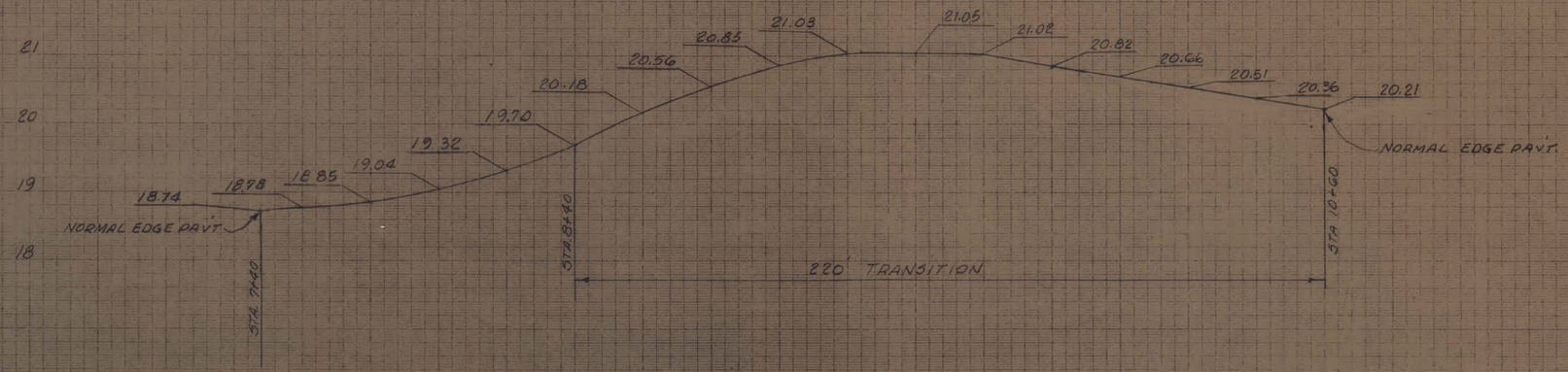
KAE CO. ORLANDO, FLA. ORDER STOCK # 1004

CROSS SECTIONS

Scale 1 inch = 5 feet

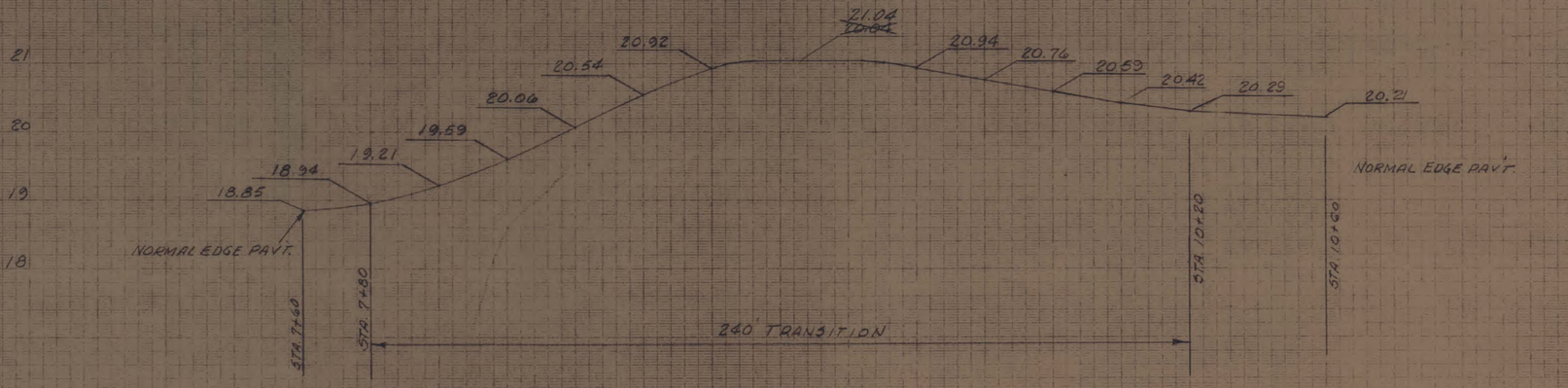
WATSON AND COMPANY
ENGINEERING DIVISION
9013 HORATIO STREET
TAMPA FLORIDA

Fed. Aid Proj. No.	State	County	Route	Proj. No.	Sheet No.
3	Fla.	HILLSBOROUGH		10002-3510	74



PROFILE LEFT EDGE PAVEMENT PLATT ST.

SCALE: 1" = 20' HORIZ.
1" = 1' VERT.



PROFILE RIGHT EDGE PAVEMENT PLATT ST.

SCALE: 1" = 20' HORIZ.
1" = 1' VERT.

SPECIAL PROFILES
PLATT STREET

EDGE OF PAYMENT.

AS BUILT

AS BUILT DRAWINGS
APR 8, 1976

Application No. _____
Route No. _____
Original Plotted by _____
" Checked by _____
Template by _____
Area by _____
Finals Plotted by _____
" Checked by _____
Area by _____
" Checked by _____

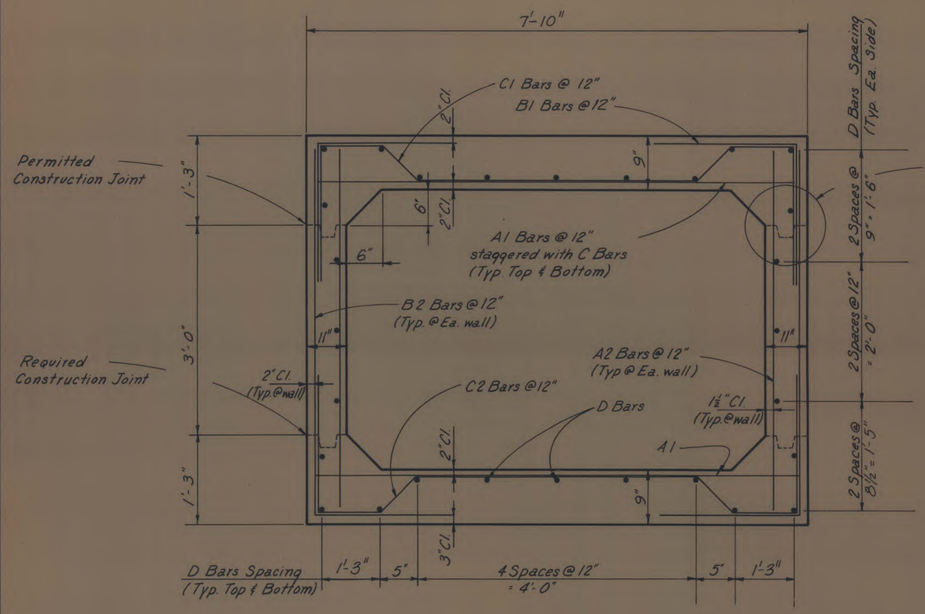
A. B. CAGWELL
JACKSONVILLE, FLA.

Contract Nos. 9A & 9B

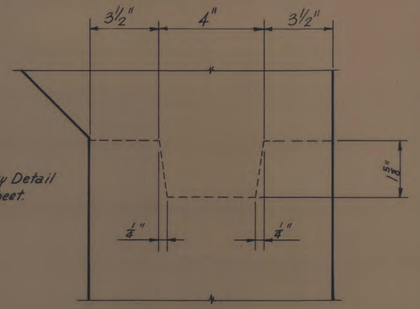
84
1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		164
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

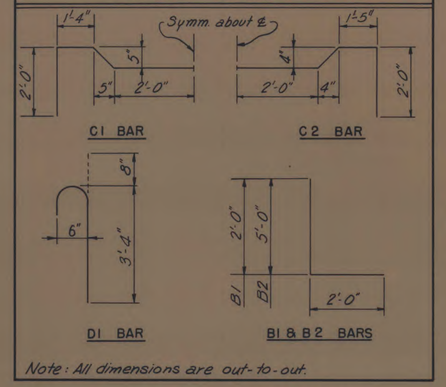


TYPICAL CROSS SECTION



KEY DETAIL

BENDING DIAGRAM



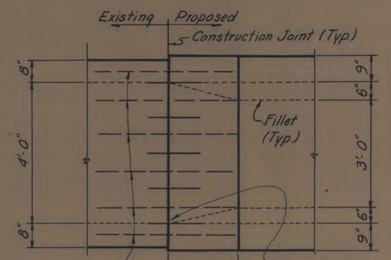
Note: All dimensions are out-to-out.

BILL OF REINFORCING STEEL

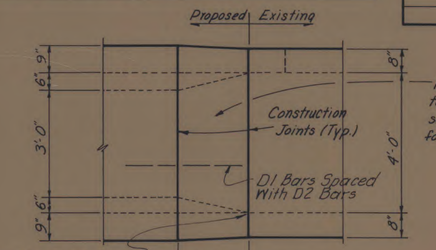
MARK	SIZE	NO. REQ'D	LENGTH	BENDING
A1	6	90	7'-6"	Straight
A2	4	90	5'-1"	"
B1	4	90	4'-0"	See diagram
B2	5	90	7'-0"	"
C1	6	45	11'-10"	"
C2	6	45	11'-10"	"
D1	6	28	4'-0"	"
D2	4	28	44'-8"	Straight

ESTIMATED QUANTITIES

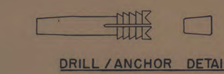
ITEM	UNIT	QUANTITIES
Concrete	Cu. Yd.	32.64
Reinforcing Steel	Lb.	4,819



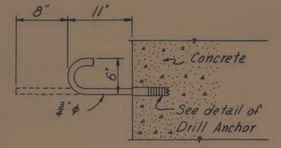
ELEVATION



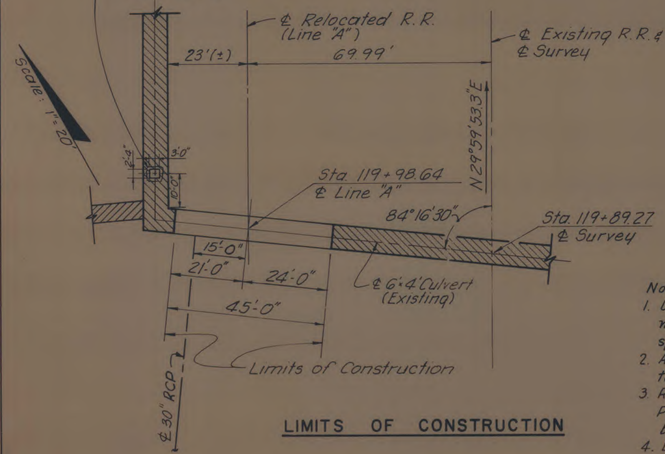
ELEVATION



DRILL / ANCHOR DETAIL

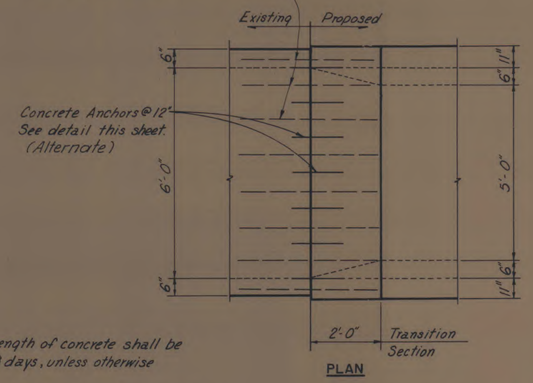


DETAIL OF EXPANSION ANCHOR
(ALTERNATE)



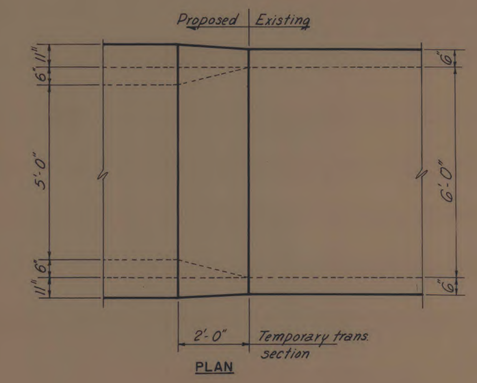
LIMITS OF CONSTRUCTION

Notes:
1. Ultimate compressive strength of concrete shall be not less than 3500 psi. in 28 days, unless otherwise specified.
2. All dimensions shall be reduced at transition section to match crossection of existing culvert at joint.
3. Required construction joints located as shown. Location of Permitted construction joints may be changed if approved by the Engineer.
4. Live Loading — COOPER E-72.



PLAN

JOINT AT LEFT OF R.R.



PLAN

JOINT AT RIGHT OF R.R.

AS BUILT

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

IMPROVEMENT OF EXISTING SINGLE 6'x4' CULVERT UNDER R.R. AT STA. 119 + 98.64

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE O.C.	DATE 9/71	TRACED O.C.	DATE 9/71
CHECKED E.A.M.	DATE 7/72	SCALE As Shown or N.T.S.	

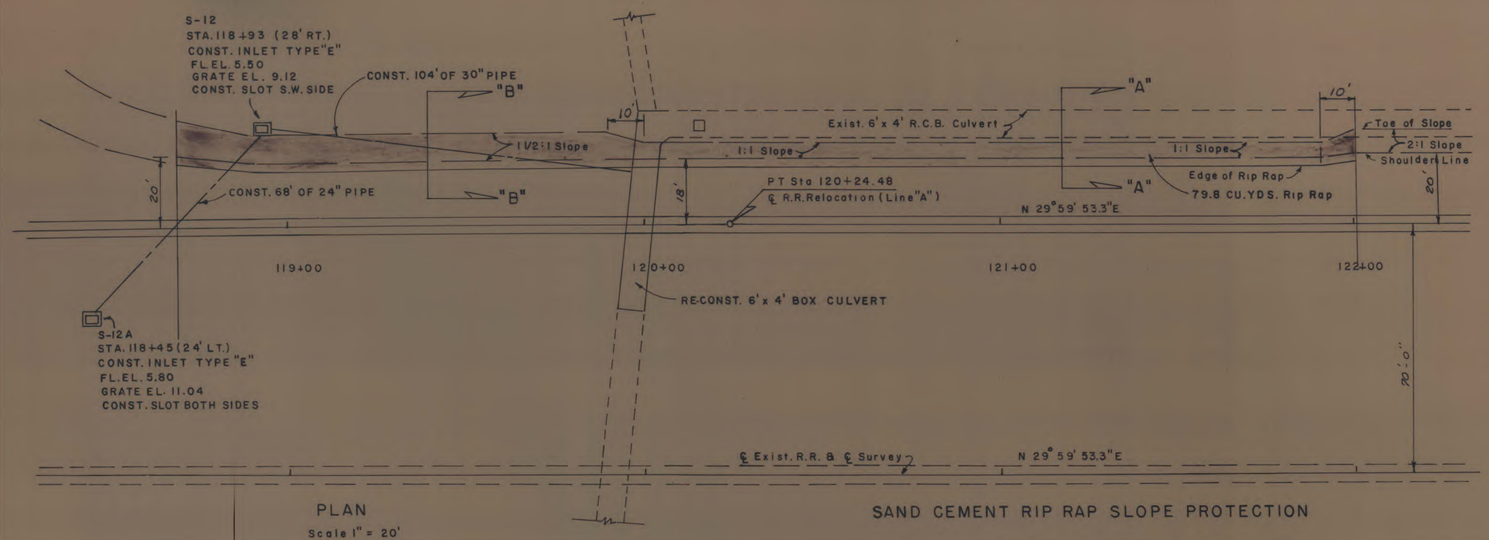
AS BUILT DRAWINGS

Contract Nos. 9A & 9B

84/1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

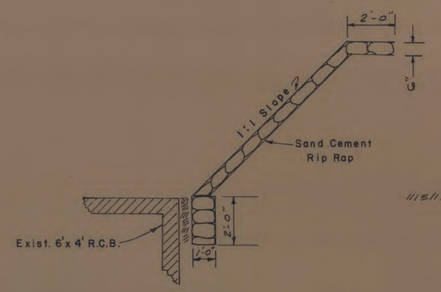
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		165
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73



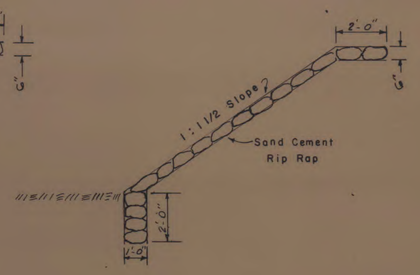
PLAN
Scale 1" = 20'

SAND CEMENT RIP RAP SLOPE PROTECTION

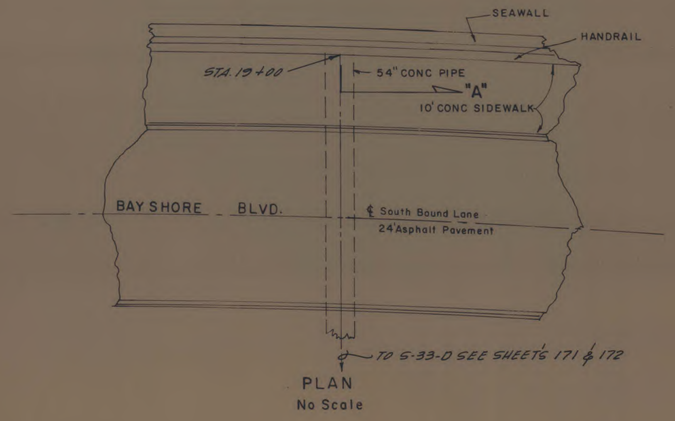
SCALE 1"=20'



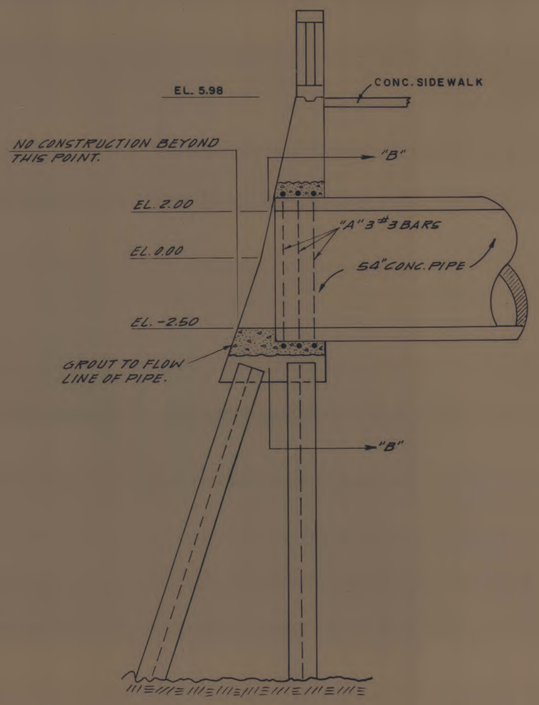
SECTION "A-A"
Scale 1" = 30'



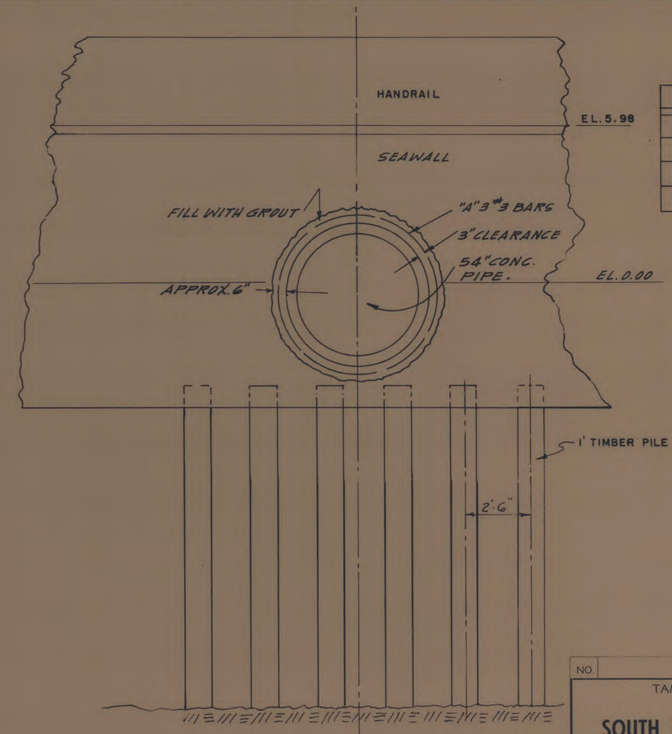
SECTION "B-B"
Scale 1" = 30'



PLAN
No Scale



SECTION "A-A"
Scale 3/8"= 1'



SECTION "B-B"
Scale 3/8"= 1'

REINFORCING BAR LIST			
MARK	SIZE	NO. RQ'D.	L'NGTH.
A	#3	3	20'-0"

54" STORM SEWER THRU SEAWALL
AT BAYSHORE BLVD.

APR 21 1976

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SPECIAL DETAILS

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE D.M.	DATE 9/72	TRACED E.J.	DATE 9/72
CHECKED D.M.	DATE 9/72	SCALE AS SHOWN	

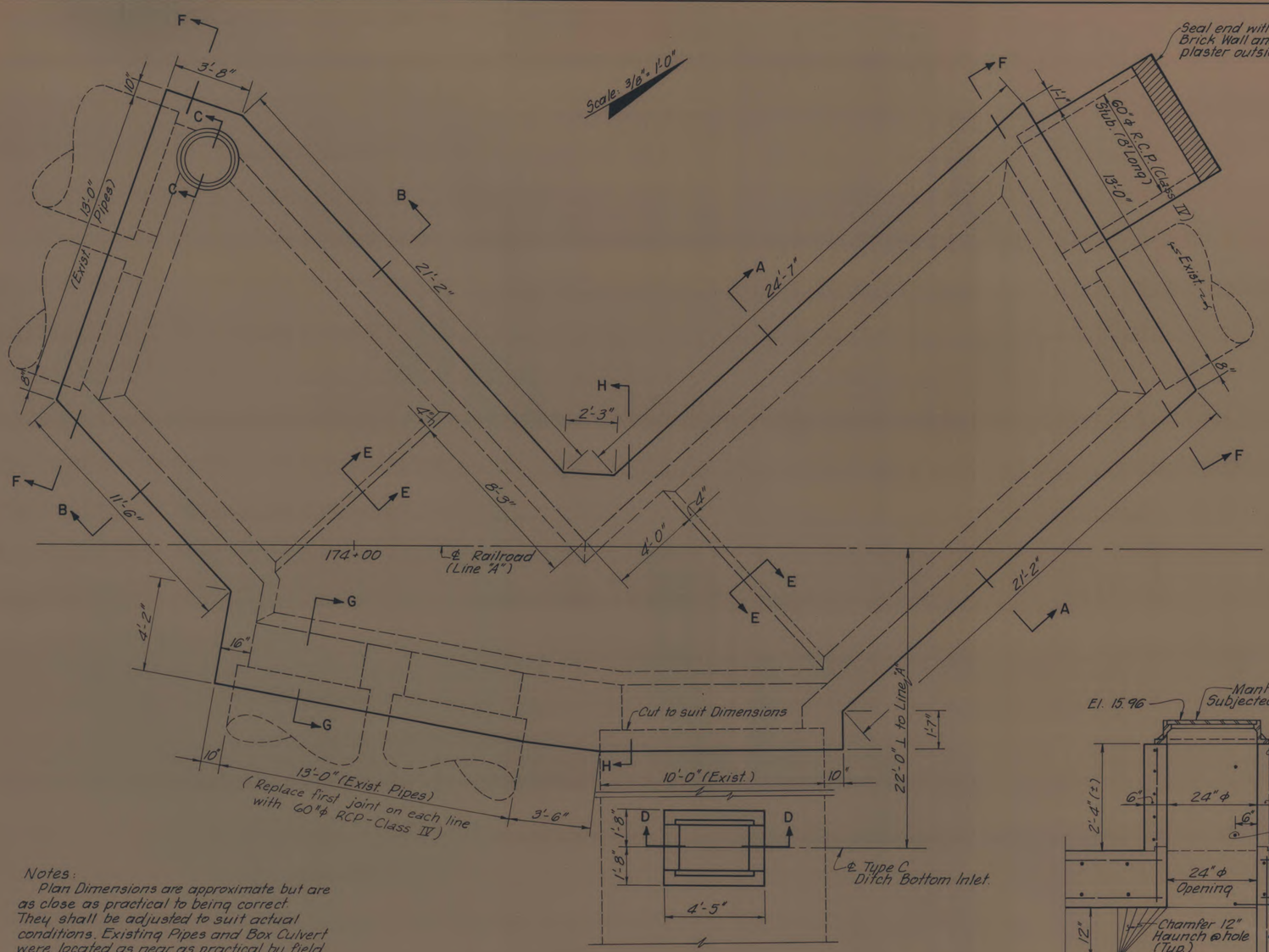
AS BUILT DRAWINGS
Contract Nos. 9A & 9B

84
1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		166
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

STATE JOB NO. [illegible]



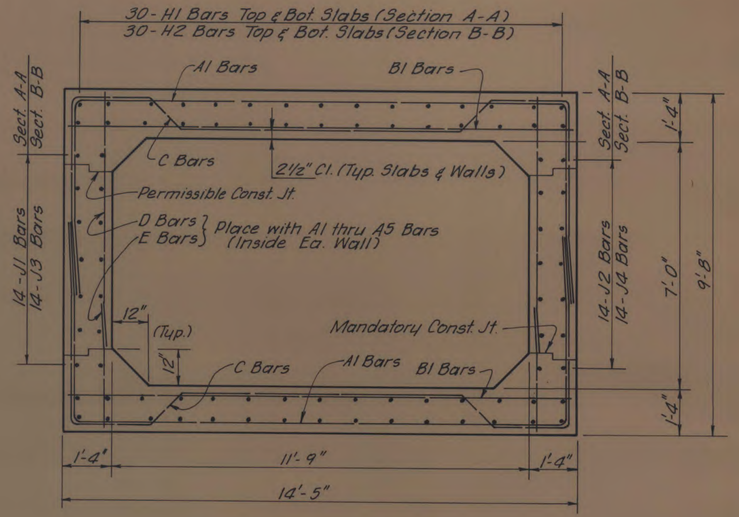
PLAN

Notes:

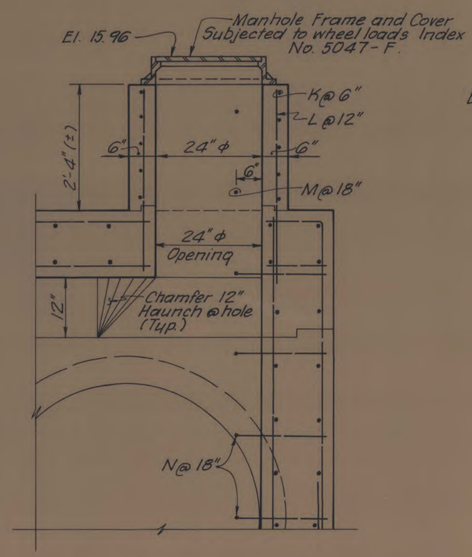
Plan Dimensions are approximate but are as close as practical to being correct. They shall be adjusted to suit actual conditions. Existing Pipes and Box Culvert were located as near as practical by field measurements and old plans. The end lengths of the existing Pipes (60" ϕ), a portion of the existing Box Culvert and the existing Junction Box are to be removed.

Existing invert elevations are to be matched as close as practical with the top of the bottom slab.

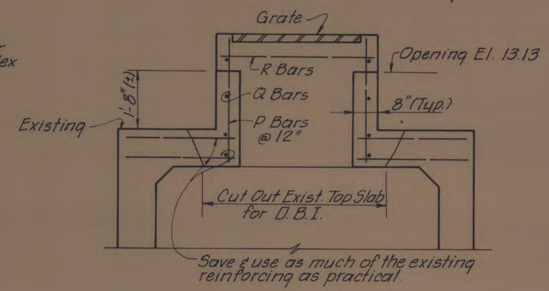
Live Load - COOPER E-72.



SECTIONS A-A & B-B
Scale: 1/2" = 1'-0"



SECTION C-C
Scale: 3/4" = 1'-0"



SECTION D-D
Scale: 1/2" = 1'-0"

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

STORM SEWER
JUNCTION BOX
STA. 174 ± (LINE "A")

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE E.A.M.	DATE 9/72	TRACED P.K.	DATE 9/72
CHECKED P.K.	DATE 9/72	SCALE AS shown	

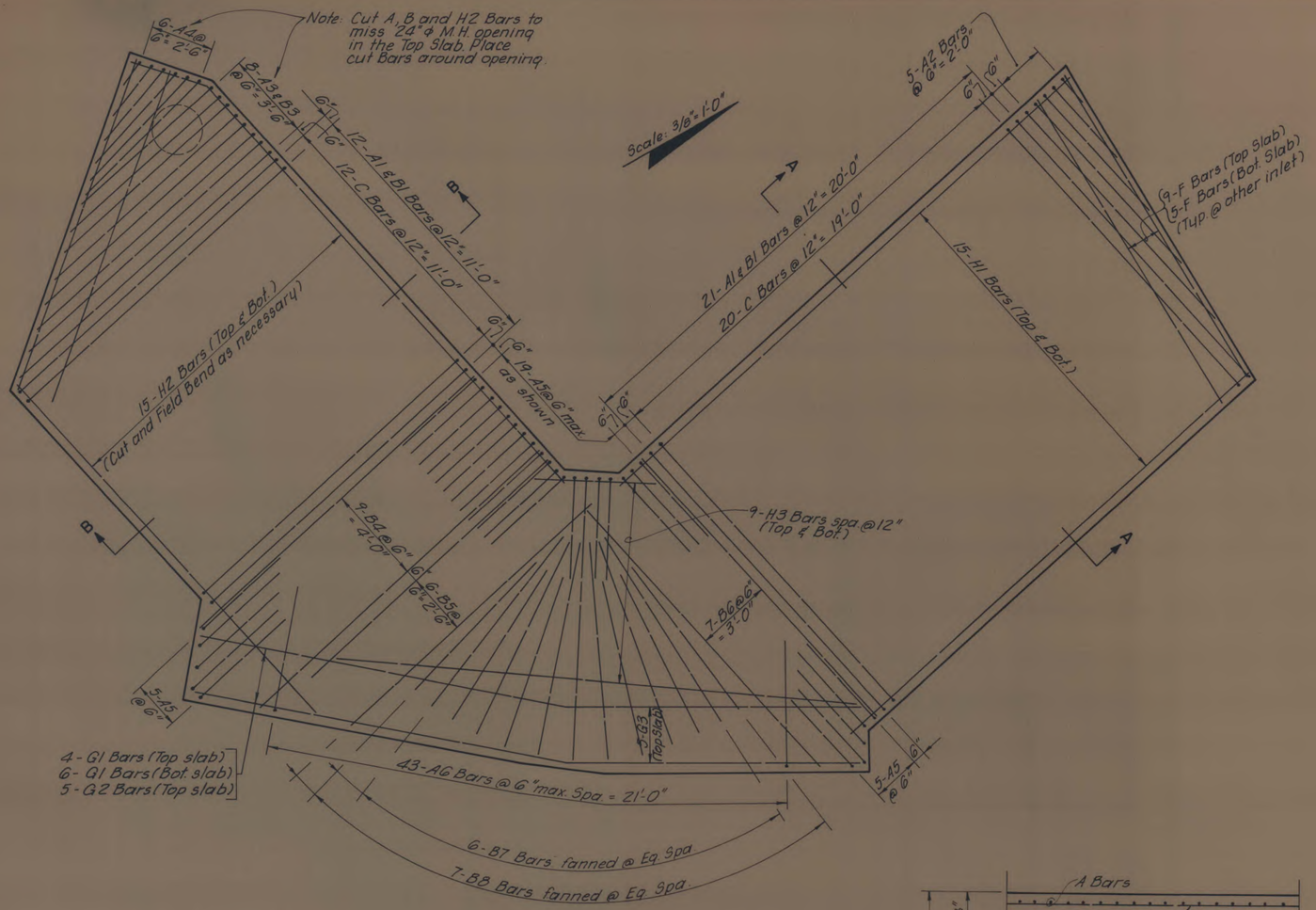
AS BUILT DRAWINGS

Contract Nos. 3A & 3B

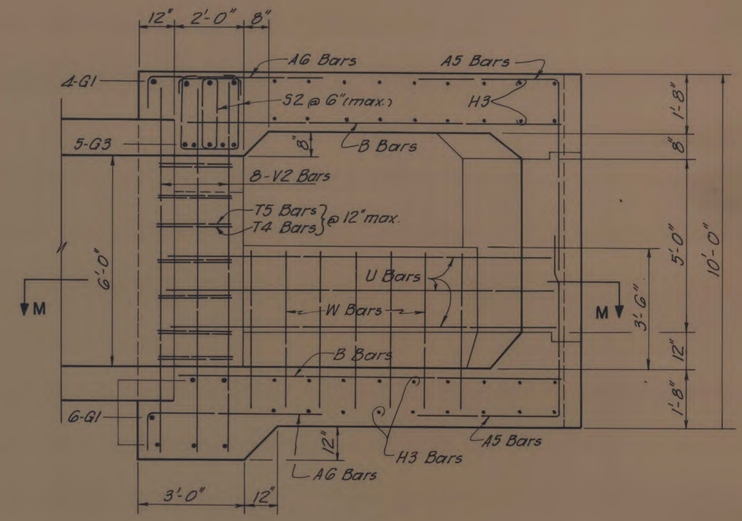
Work this sheet with sheets 167 & 168.

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

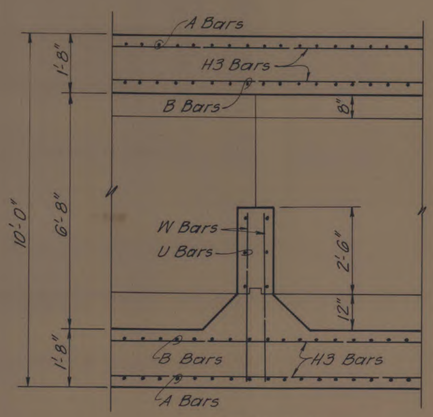
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		167
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73



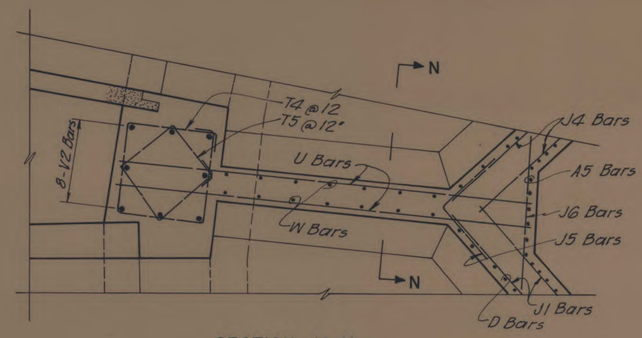
TOP AND BOTTOM SLAB PLAN



SECTION H-H



SECTION N-N



SECTION M-M

APR 21 1976

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

STORM SEWER
JUNCTION BOX
STA. 174 ± (LINE "A")

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE E.A.M. DATE 9/72 | TRACED P.K. DATE 9/72
CHECKED P.K. DATE 9/72 | SCALE 1/2"=1'-0"

AS BUILT DRAWINGS

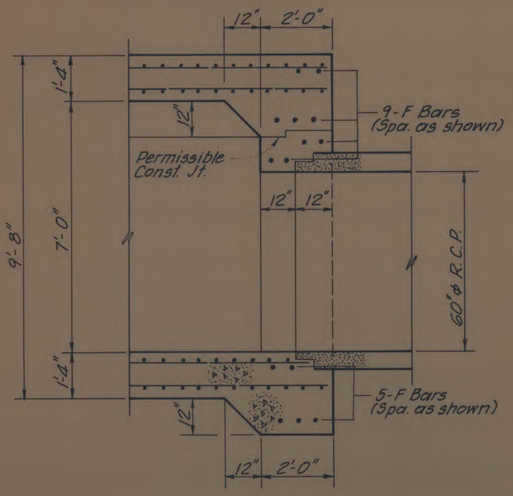
Work this sheet with sheets 166 & 168.

Contract Nos. 9A & 9B

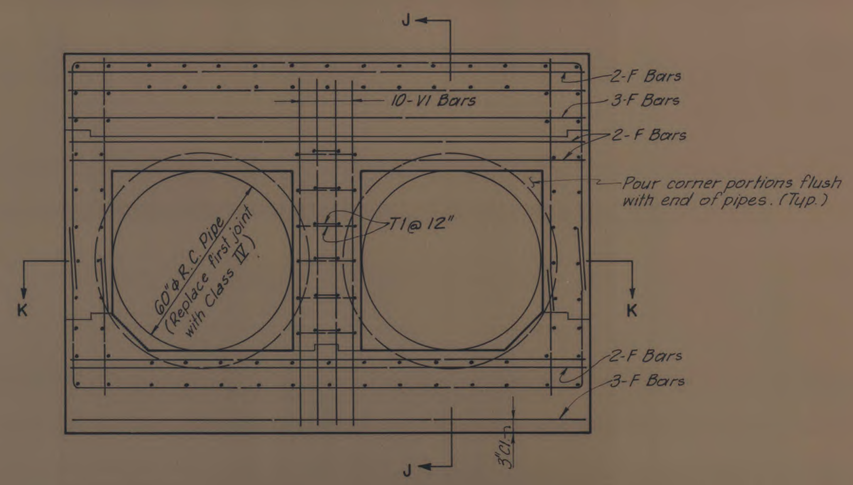
84/1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

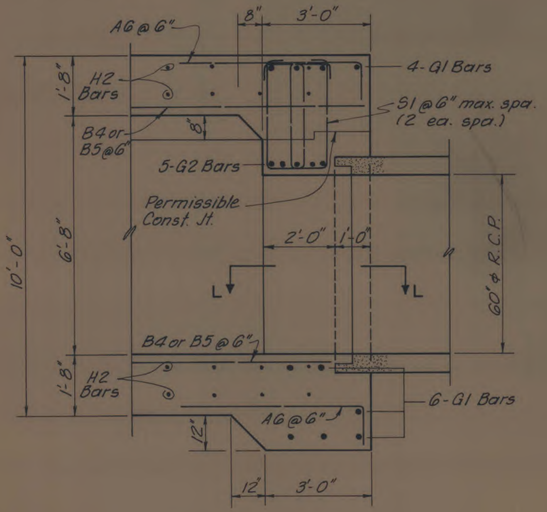
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		168
By WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date 2-73



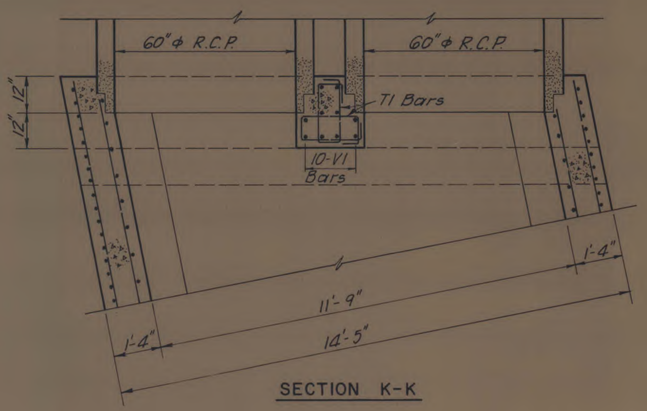
SECTION J-J



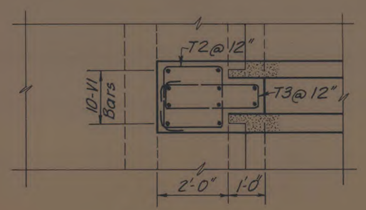
SECTION F-F



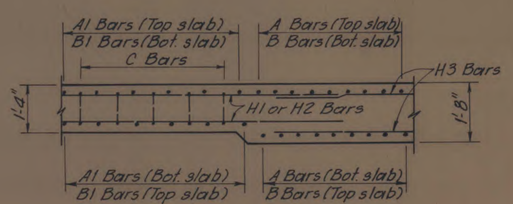
SECTION G-G



SECTION K-K



SECTION L-L

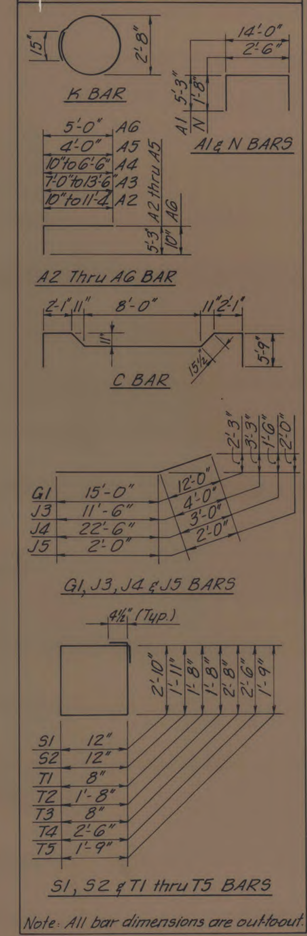


SECTION E-E

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Class "A" Conc.	C.Y.	143.91
Reinforcing	Lb.	23,634
Remove Exist. Box	L.S.	1

BENDING DIAGRAM



Note: All bar dimensions are outboard.

REINFORCING STEEL

MARK	SIZE	NO. REQ'D	LENGTH	TYPE
A1	5	60	24'-6"	Bent
A2	5	10	②	"
A3	5	16	③	"
A4	5	12	④	"
A5	5	58	9'-3"	"
A6	5	86	5'-10"	"
B1	7	66	14'-1"	Str.
B3	7	16	⑤	"
B4	9	18	15'-0"	"
B5	9	12	13'-0"	"
B6	9	14	14'-1"	"
B7	9	12	8'-9"	"
B8	9	14	7'-0"	"
C	8	64	26'-3"	Bent
D	5	114	7'-0"	Str.
E	5	114	3'-0"	"
F	8	28	14'-2"	"
G1	11	10	27'-0"	Bent
G2	11	5	16'-6"	Str.
G3	11	5	13'-6"	"
H1	5	60	⑥	"
H2	5	60	⑦	"
H3	6	36	⑧	"
J1	5	14	26'-6"	"
J2	5	14	22'-0"	"
J3	5	14	15'-6"	Bent
J4	5	14	25'-6"	"
J5	5	7	4'-0"	"
J6	5	7	4'-9"	Str.
K	3	5	9'-6"	Bent
L	4	8	3'-4"	Str.
M	7	2	2'-9"	"
N	7	5	5'-10"	Bent
P	4	14	3'-4"	Str.
Q	4	8	3'-1"	"
R	4	8	4'-2"	"
S1	4	44	8'-5"	Bent
S2	4	34	6'-7"	"
T1	4	24	5'-5"	"
T2	4	6	7'-5"	"
T3	4	6	7'-5"	"
T4	4	7	10'-9"	"
T5	4	7	7'-9"	"
U	4	6	11'-6"	Str.
V1	6	30	10'-0"	"
V2	7	8	10'-0"	"
W	4	14	4'-6"	"

② Varies from 6'-1" to 16'-7"
③ Varies from 12'-3" to 18'-9"
④ Varies from 6'-1" to 11'-9"
⑤ Varies from 7'-0" to 13'-6"
⑥ 4-Sets of 15 each; Varies from 21'-9" to 24'-6"
⑦ 4-Sets of 15 each; Varies from 18'-0" to 24'-9"
⑧ 4-Sets of 9 each; Varies from 5'-0" to 21'-0".

Work this Sheet with sheets 166 & 167.

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

STORM SEWER JUNCTION BOX STA. 174 ± (LINE "A")

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE E.A.M. DATE 9/72 | TRACED P.K. DATE 9/72
CHECKED P.K. DATE 9/72 | SCALE 1/2" = 1'-0"

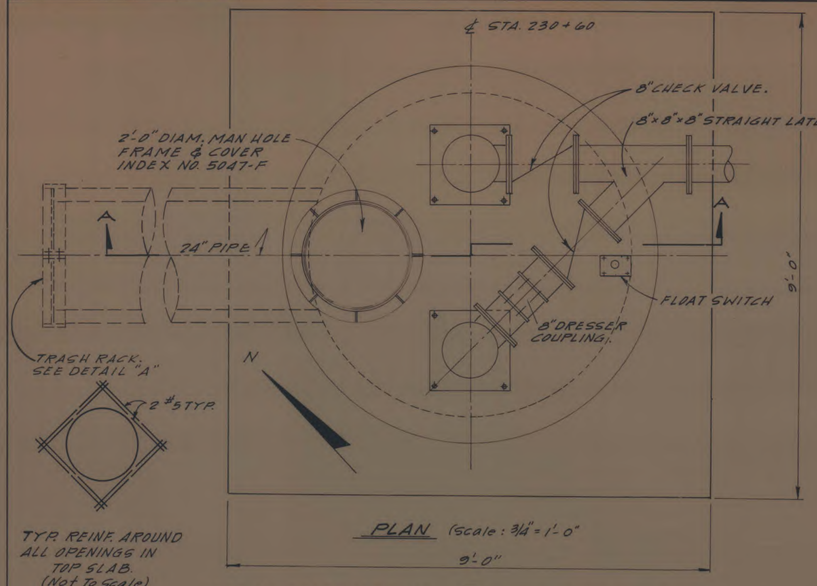
AS BUILT DRAWINGS APR 21 1976

Contract Nos. 9A & 9B

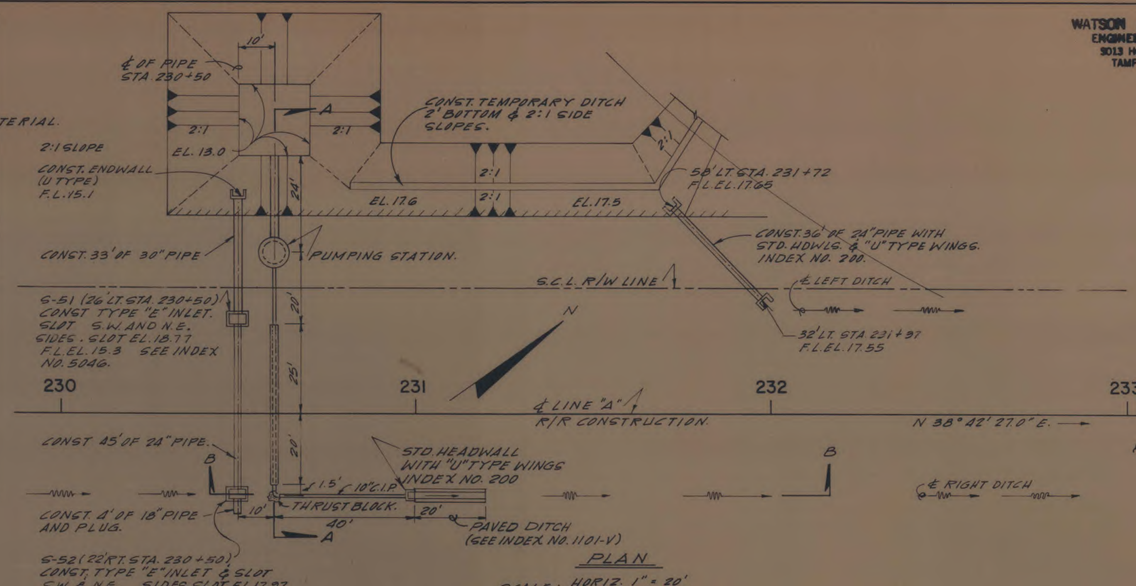
84/1

WATSON AND COMPANY
ENGINEERING DIVISION
2013 HORATIO STREET
TAMPA FLORIDA

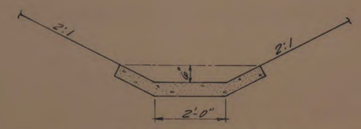
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		169
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73



TYP. REINF. AROUND ALL OPENINGS IN TOP SLAB. (Not To Scale)



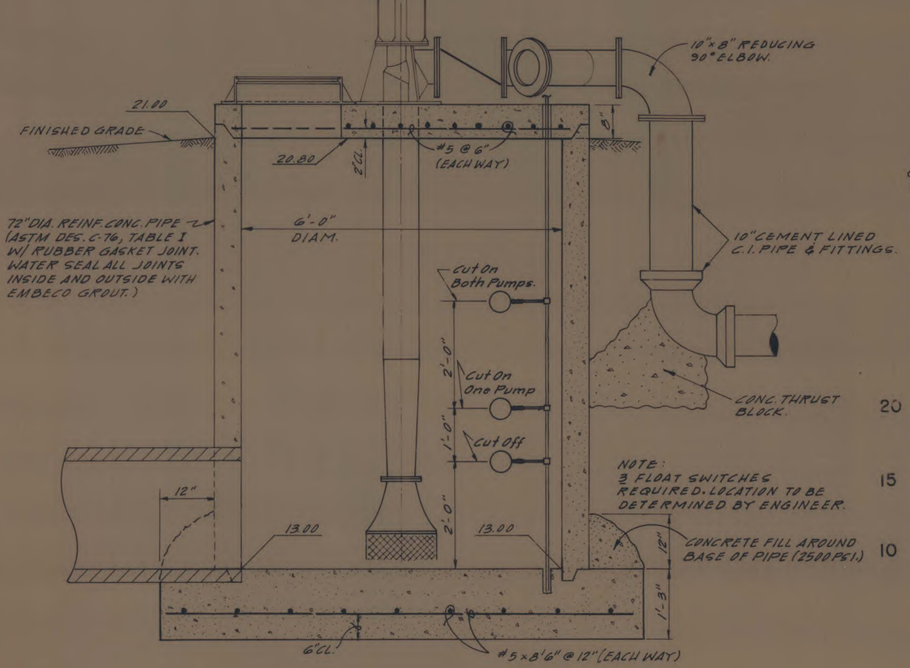
PLAN
SCALE: HORIZ. 1" = 20'
VERT. 1" = 20'



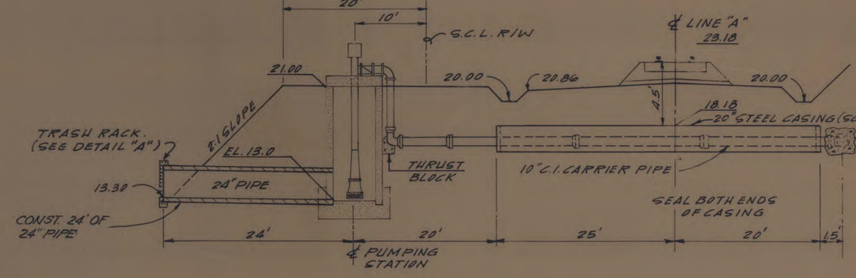
DETAIL OF DITCH PAVING.
(SEE STD. INDEX NO. 1101-V)
NOT TO SCALE.

VERTICAL PROPELLER PUMP 1500 G.P.M. @ 10 FT. T.D.H. MIN. H.P. 6. MOTOR SHALL BE TOTALLY ENCLOSED AND WATERPROOF.

NOTE: CONTRACTOR WILL FURNISH SOURCE OF POWER AT A LOCATION TO BE DETERMINED BY THE ENGINEER.

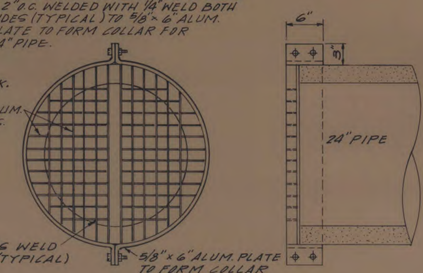


SECTION "A-A"
SCALE: 3/4" = 1'-0"

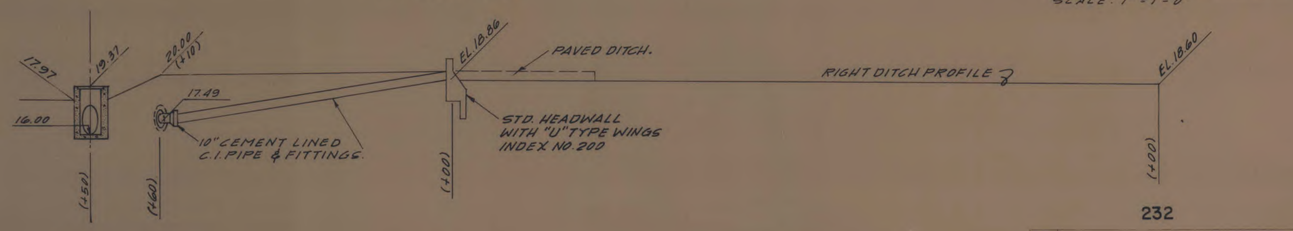


SECTION "A-A"
SCALE: HORIZ. 1" = 10'
VERT. 1" = 5'

1/2" x 1/4" ALUM. FLAT BARS, BOTH WAYS @ 2" A.C. WELDED WITH 1/4" WELD BOTH SIDES (TYPICAL) TO 5/8" x 6" ALUM. PLATE TO FORM COLLAR FOR 24" PIPE.



TRASH RACK - DETAIL "A"
SCALE: 1" = 1'-0"



SECTION "B-B"
SCALE: HORIZ. 1" = 10'
VERT. 1" = 5'

NOTE: THE STEEL CASING, 10" C.I. CARRIER PIPE & THE ALUM. TRASH RACK SHALL BE CONSIDERED AS A PART OF THE PUMPING STATION FOR PURPOSES OF PAYMENT.

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PUMP STATION AND DRAINAGE DETAIL

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE D.M.	DATE 9/72	TRACED E.J.	DATE 9/72
CHECKED D.M.	DATE 9/72	SCALE AS SHOWN	

AS BUILT DRAWINGS APR 21 1975

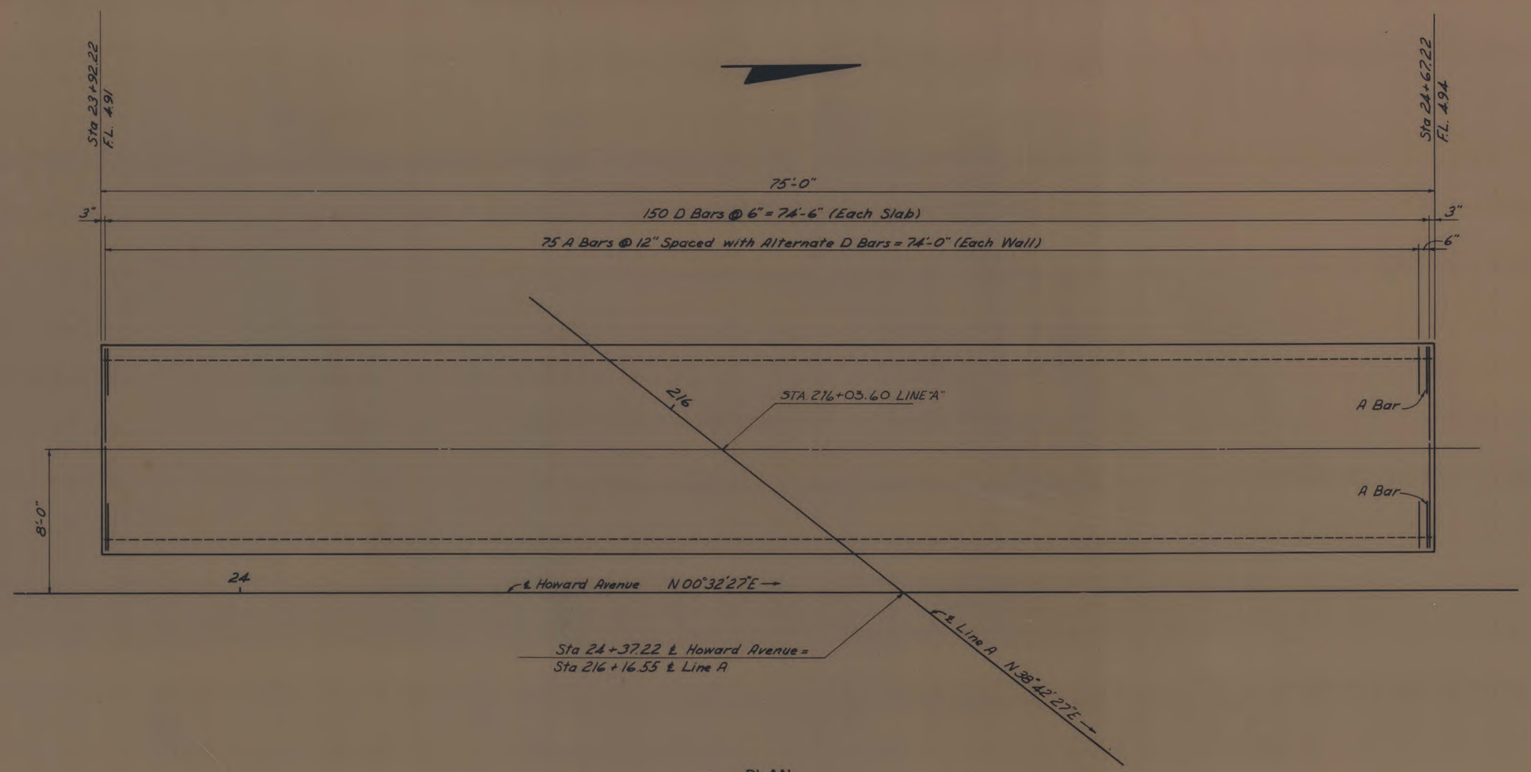
Contract Nos. 9A & 9B

184
1

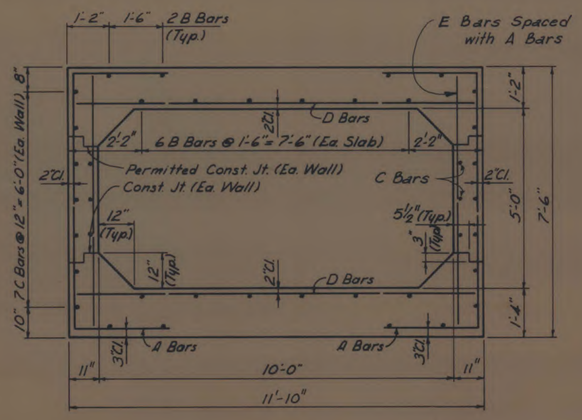
WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		170
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

STATE JOB No. 10002-[illegible]



PLAN



SECTION

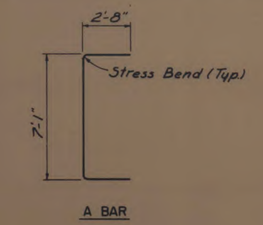
Notes:

1. *Design is in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, 1969 Edition, and A.R.E.A. Manual of Recommended Practice, Chapter 8, 1968 Edition.*
2. *Loadings are HS20-44 and Cooper E 72.*
3. *Maximum Foundation Pressure is 3330 psf.*
4. *Construction shall be in accordance with Florida State Road Department Standard Specifications for Road and Bridge Construction, 1966 Edition.*
5. *Seal Ends of Culvert with 12" thick Brick Walls. Cost of Brick Walls to be included in Contract Unit Price for Class A Concrete.*

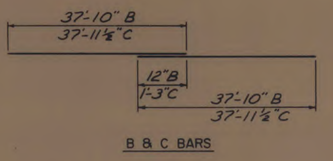
BILL OF REINFORCING

MARK	SIZE	NO. REQ'D	LENGTH	BENDING
A	9	152	12'-5"	Bent
B	4	20	75'-8"	See Diag.
C	5	20	75'-11"	"
D	8	300	11'-4"	Straight
E	4	152	7'-0"	"

BENDING DIAGRAMS



A BAR



B & C BARS

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Class A Concrete	C.Y.	113.2
Grade 40 Rein. Steel	Lb.	18,800

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

BOX CULVERT AT HOWARD AVE.

J. E. GREINER COMPANY — CONSULTING ENGINEERS
WATSON & COMPANY — TAMPA, FLORIDA

MADE	T.D.	DATE	1/73	TRACED	T.D.	DATE	1/73
CHECKED	E.A.M.	DATE	1/73	SCALE			

AS BUILT DRAWINGS APR 21 1976

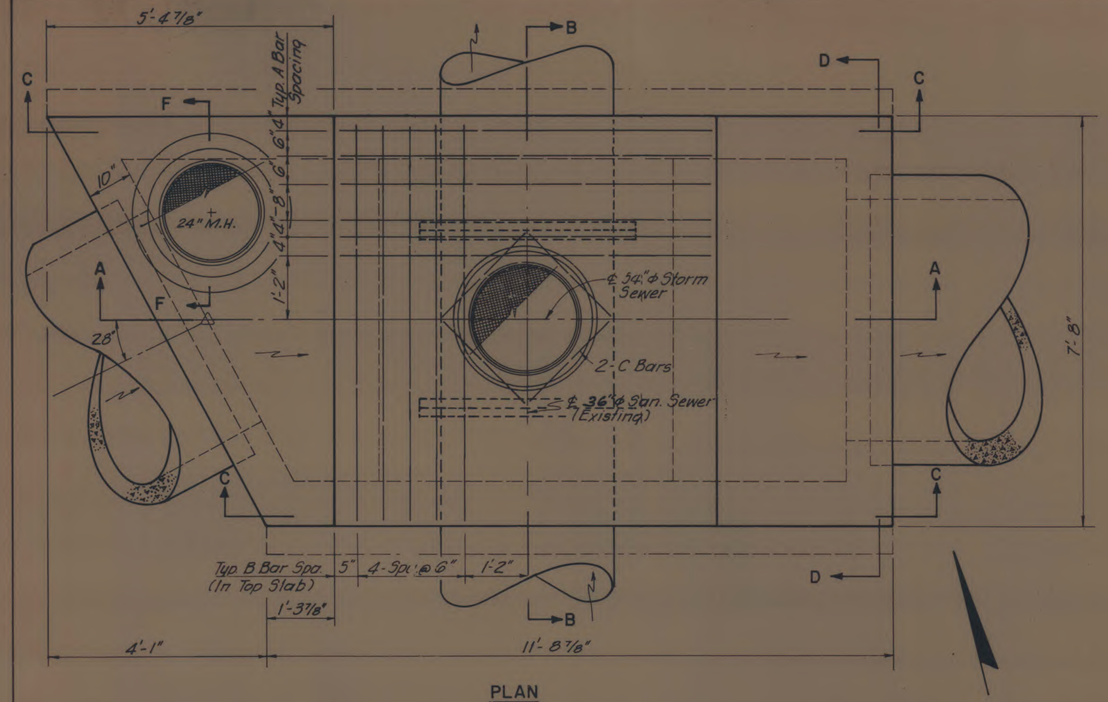
Contract Nos. 9A & 9B

84
1

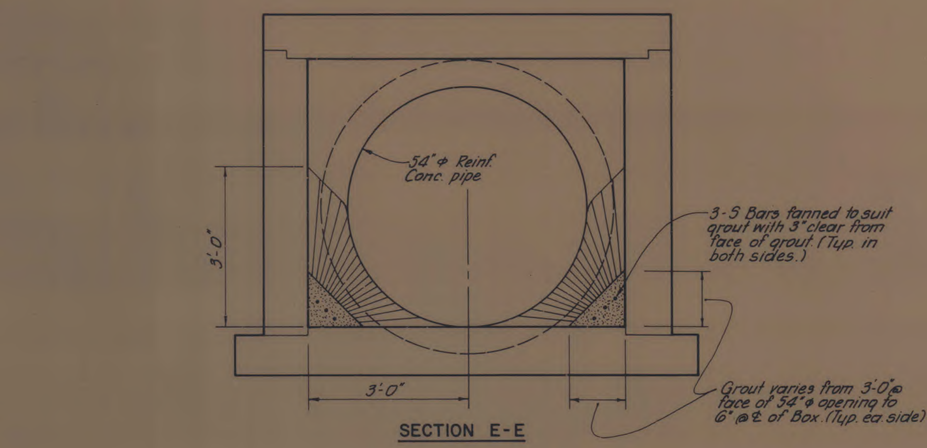
WATSON AND COMPANY
ENGINEERING CONSULTANTS
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		171
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

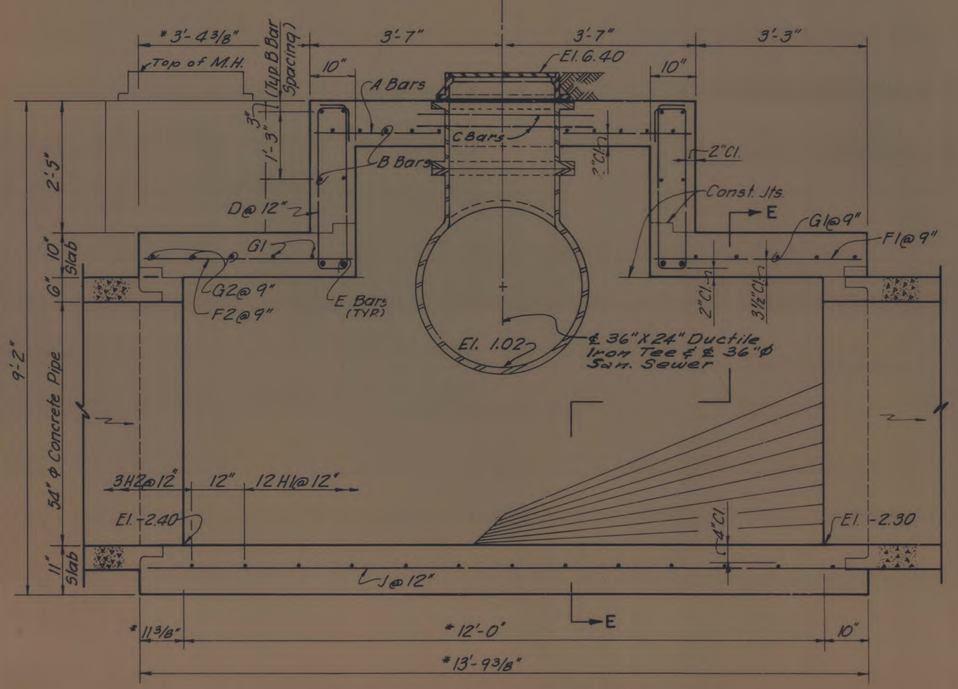
STATE JOB No. 10002-3510



PLAN

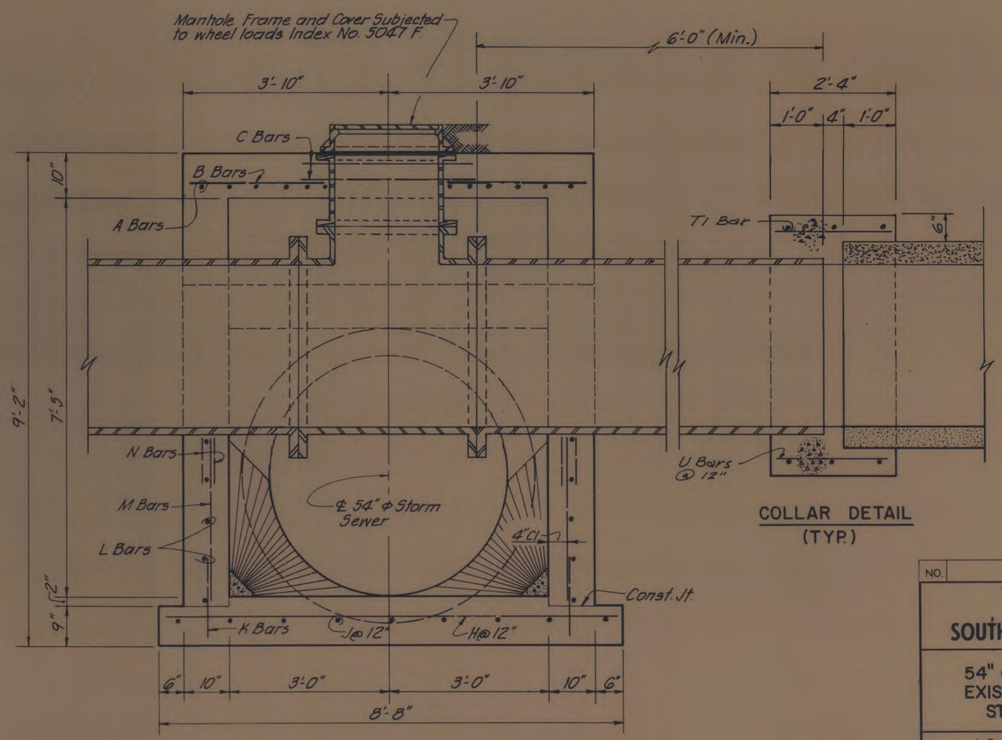


SECTION E-E



* Dimensions measured along ℄ of Box.

SECTION A-A



SECTION B-B

COLLAR DETAIL (TYP.)

Work this sheet with sheet No. 172

NO.	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

54" ϕ STORM SEWER CROSSING EXIST. 36" ϕ SAN. SEWER IN MED. STRIP OF BAYSHORE DRIVE

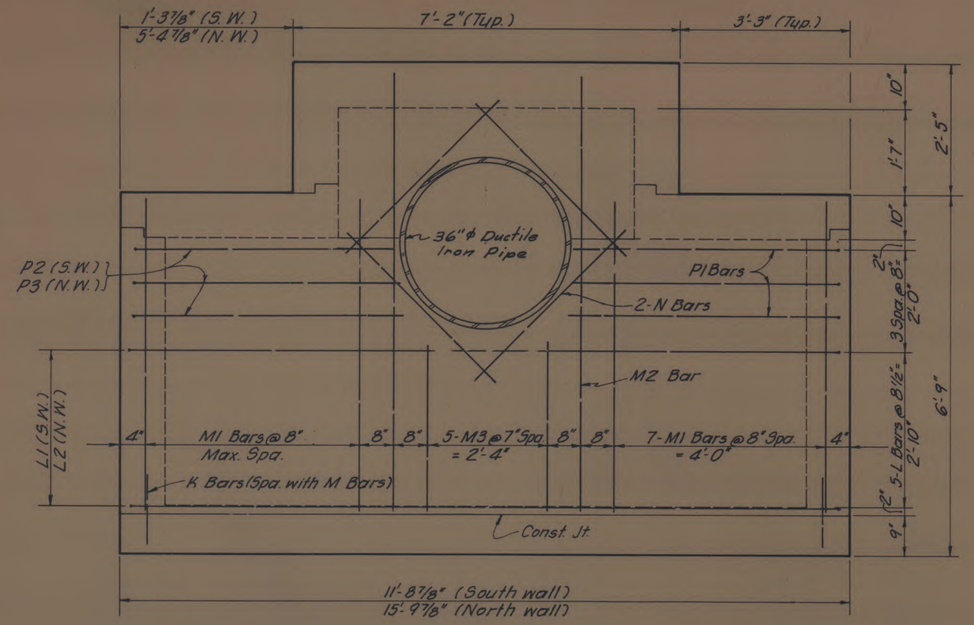
J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE E.A.M.	DATE 8/72	TRACED P.K.	DATE 8/72
CHECKED P.K.	DATE 8/72	SCALE 3/4" = 1'-0"	

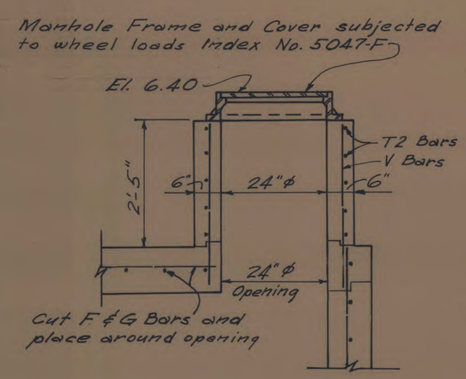
AS BUILT DRAWINGS APR 21 1976

Contract Nos. 3A & 3B

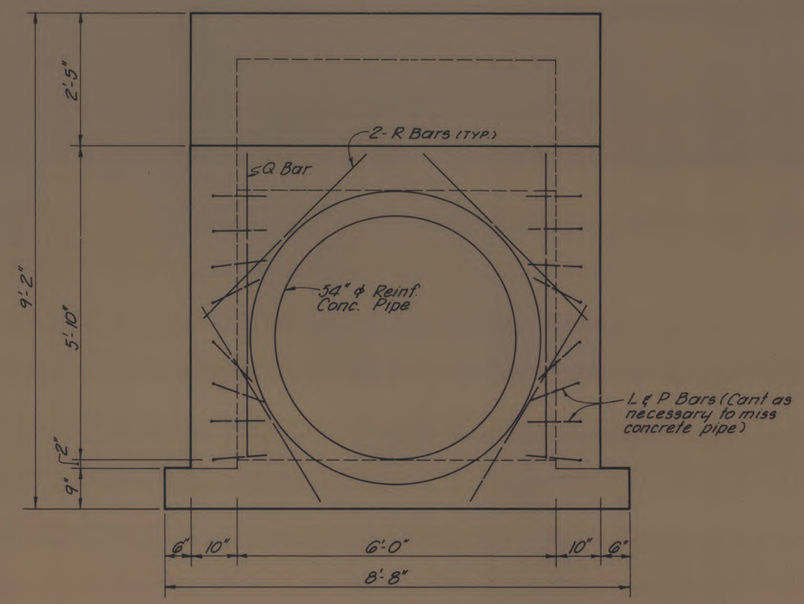
84/1



SECTION C-C



SECTION F-F



SECTION D-D

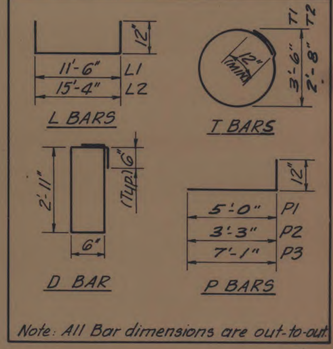
Note:
Section D-D is taken at outlet end of Box. The entrance end of the Box is similar.

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Class "A" Conc.	C.Y.	15.15
Reinforcing Steel	Lbs.	1483
2000 psi Grout	C.Y.	0.71

① Varies from 2'-1" to 5'-8"
② Varies from 2'-9" to 7'-0"
③ Varies from 2'-6" to 6'-3"
④ Varies from 11'-5" to 15'-7"

REINFORCING STEEL				
MARK	SIZE	NO. REQ'D	LENGTH	TYPE
A	6	12	6'-10"	Str.
B	5	18	7'-4"	"
C	4	8	2'-3"	"
D	4	16	7'-10"	Bent
E	6	4	7'-4"	Str.
F1	4	10	3'-9"	"
F2	4	10	①	"
G1	4	7	7'-4"	"
G2	4	4	②	"
H1	8	12	8'-4"	"
H2	8	3	③	"
J	5	9	④	"
K	4	44	1'-6"	"
L1	4	5	13'-6"	Bent
L2	4	5	17'-4"	"
M1	4	30	5'-9"	Str.
M2	4	4	8'-0"	"
M3	4	10	3'-0"	"
N	4	16	4'-0"	"
P1	4	6	6'-0"	Bent
P2	4	3	4'-3"	"
P3	4	3	8'-1"	"
Q	4	4	5'-7"	Str.
R	4	16	4'-3"	"
S	3	6	6'-0"	"
T1	3	6	12'-0"	Bent
U	3	34	2'-0"	Str.
T2	3	5	9'-4"	Bent
V	4	8	3'-0"	Str.

BENDING DIAGRAM



Note: All Bar dimensions are out-to-out.

NOTE:

This structure shall be paid for under the item, MANHOLE (SPECIAL). Included in this item shall be the cost of removal of existing manhole and pipe, cost of concrete, reinforcing, new pipe, manhole frame and cover and all other incidental material and labor necessary to complete the construction of this structure.

Work this sheet with sheet No. 171

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		172
By: WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

STATE JOB No. 10002-3510

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

54" ϕ STORM SEWER CROSSING EXIST. 36" ϕ SAN. SEWER IN MED. STRIP OF BAYSHORE DRIVE

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE E.A.M. DATE 8/72 TRACED P.K. DATE 8/72
CHECKED P.K. DATE 8/72 SCALE 3/4" = 1'-0"

AS BUILT DRAWINGS APR 21 1976

Contract Nos. 9A & 9B

84

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		173
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

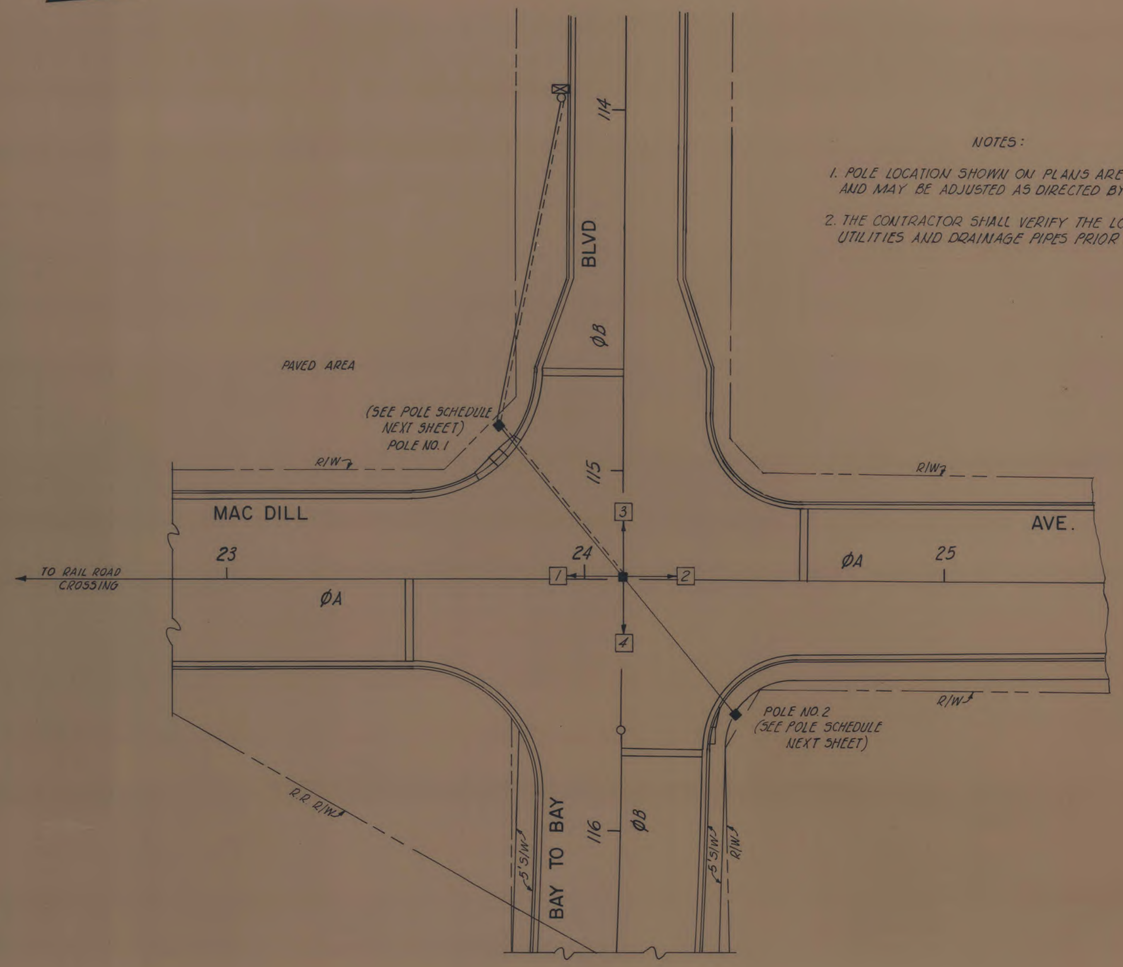
PHASE	INT.	SIGNAL FACE NOS. 1	2	3	4	MOVEMENTS
ØA MAC DILL AVE. (FIXED TIME)	R/W	G	G	R	R	
	CL.	Y	Y	R	R	
ØB BAY TO BAY BLVD. (FIXED TIME)	R/W	R	R	G	G	
	CL.	R	R	Y	Y	

SIGNAL OPERATION PLAN

CONTROLLER

EXISTING CONTROLLER TO BE WIRED TO POLE NO. 1 AND EXISTING TRAFFIC SIGNAL HEAD AS REQUIRED BY THE ENGINEER.

SCALE 1"=20'



NOTES:

1. POLE LOCATION SHOWN ON PLANS ARE APPROXIMATE AND MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF UTILITIES AND DRAINAGE PIPES PRIOR TO CONSTRUCTION.

SIGNAL FACE NOS 1 2 3 4



3-SECT., 4-WAY
NOTE: ONE(1) EXISTING TO BE REUSED FOR TEMPORARY INSTALLATION BETWEEN POLE NOS. 1&2, AS SHOWN ON PLAN

NO.	REVISION	BY	DATE

TAMPA - HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SIGNALIZATION PLAN
MAC DILL AVE. AT BAY TO BAY BLVD.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE D. MARCH DATE 8-72 TRACED G.T. DATE 7-72
CHECKED D.M. DATE 8-72 SCALE 1"=20'

APR 21 1976

AS BUILT DRAWINGS

Contract Nos. 9A & 9B

84
1

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

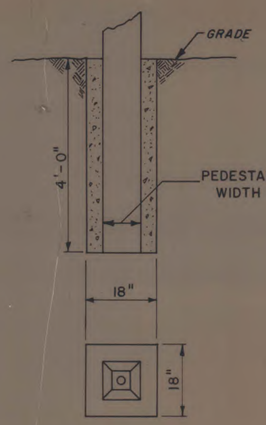
SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		174
WACO	TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY		Date: 2-73

POLE SCHEDULE

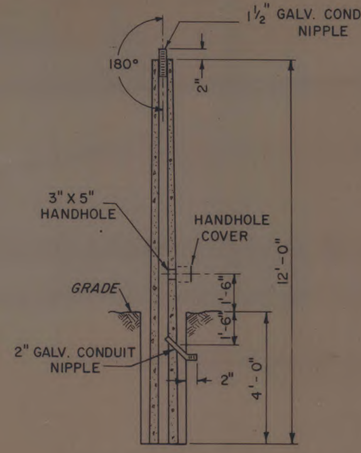
POLE NO.	TYPE	ITEM NO.	"A"	"B"	"C"	"D"	"E"	QUANTITY
1 & 2	V		6'-0"	6'-6"	8'-0	38'	3'-0	2

GENERAL NOTES

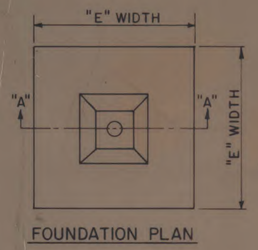
1. SALVAGE AND REUSE ALL EXISTING TRAFFIC SIGNAL EQUIPMENT WITH THE EXCEPTION OF THOSE POLES PRESENTLY BEING USED TO SUSPEND THE EXISTING TRAFFIC SIGNAL HEAD.
2. AS INDICATED ON THE SIGNALIZATION PLAN SHEET, CONCRETE STRAIN POLES NUMBERED ONE(1) AND TWO(2), (AS DESCRIBED IN POLE SCHEDULE), SHALL BE INSTALLED IN THE LOCATIONS SHOWN.
3. ANY ADDITIONAL MATERIALS REQUIRED TO COMPLETE THIS INSTALLATION WILL BE FURNISHED BY THE CONTRACTOR.



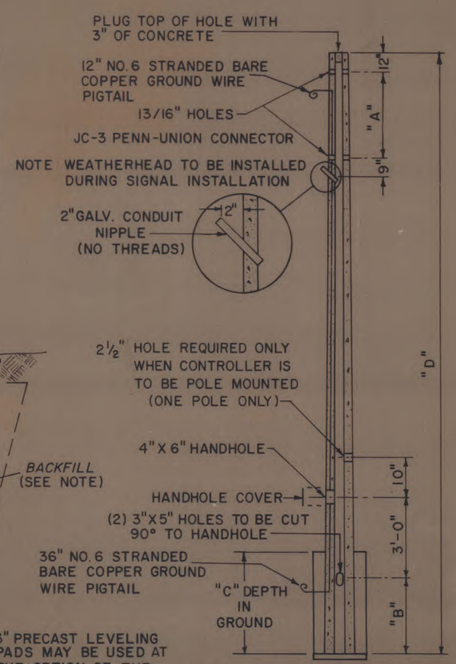
DETAIL OF CONCRETE PEDESTAL BASE



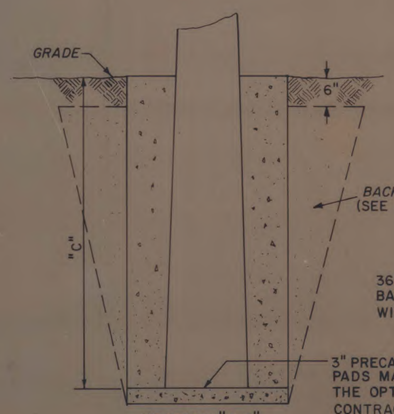
CONCRETE PEDESTAL TYPE II



FOUNDATION PLAN



DETAIL OF PRESTRESSED CONCRETE STRAIN POLES; TYPE V, VI, & VII



SECTION "A-A"

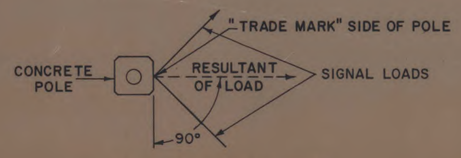
FOUNDATION NOTES

EXCAVATION & BACKFILL EXCAVATION AND BACKFILL FOR FOOTINGS SHALL BE IN ACCORDANCE WITH ARTICLES 125-4 AND 125-8.2 WITH THE FOLLOWING EXCEPTION. IN LIEU OF THE REQUIREMENTS FOR OBTAINING THE SPECIFIED DENSITY, THE BACKFILL MAY BE HAND TAMPED IN FOUR INCH MAXIMUM LAYERS OR MACHINE TAMPED IN SIX INCH MAXIMUM LAYERS. THE MATERIAL SHALL BE NEITHER DRY NOR SATURATED. BACKFILLING MAY BE DONE WITH POURED CONCRETE AT THE OPTION OF THE CONTRACTOR.

CONCRETE FOOTING: TO BE POURED WITH CLASS "NS" CONCRETE.

FORMS: SHALL BE IN ACCORDANCE WITH ARTICLE 600-8.3 (IF THE FOOTING IS POURED IN AN OVERSIZED HOLE, THE CONCRETE IN TOP SIX INCHES SHALL BE PLACED IN A FORM AND ALL EXPOSED SURFACES SHALL BE TROWELED TO A SMOOTH FINISH.

FOUNDATION SIZE REQUIREMENTS		
POLE TYPES	"E" WIDTH	"C" DEPTH
V	3'-0"	7'-0"
VI	3'-6"	8'-0"
VII	4'-0"	8'-0"
NOTE: THE DIMINSIONS ABOVE ARE MINIMUM.		



POLE PLACEMENT PLAN

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

SIGNALIZATION DETAILS
MAC DILL AVE. AT BAY TO BAY BLVD.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS — TAMPA, FLORIDA

MADE D. MARCH DATE 8-72 | TRACED G.T. DATE 7-72
CHECKED D.M. DATE 8-72 | SCALE NOT TO SCALE

APR 21 1975

AS BUILT DRAWINGS

Contract Nos. 9A & 9B

84/1

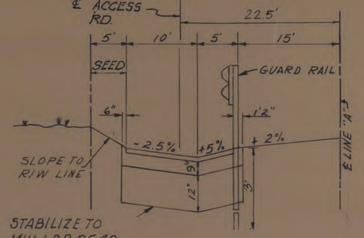
Q.6 THEA South Crosstown Expressway – Howard Ave and Watrous Ave (includes existing 5’ x10’ box culvert beneath CSX railroad)

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		40
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3012 HORATIO STREET
TAMPA FLORIDA

S. MOODY AVE.
STA. 1+80.00 BEGIN CONST.
Asph. Pav't.
CONNECT TO EXIST. PAVT.
5' CURB TRANS.
S-44 STA. 2+00 CONST. INLET TYPE P-6
CONST. 52' OF 15" PIPE
S-43 STA. 2+00 CONST. INLET, TYPE P-6
CONST. 6" CURB, 1.5' GUTTER (BOTH SIDES)
8" G.M.
4" W.M.
INLET TO BE REMOVED
PC STA. 2+16.85
CURVE NO. 1 DATA
PI STA. 2+98.02
Δ = 10°06'04"
D = 14°00'00"
R = 409.26'
T = 36.17'
L = 72.15'
CURVE NO. 2 DATA
PI STA. 3+84.17
Δ = 12°30'04"
D = 14°00'00"
R = 409.26'
T = 44.83'
L = 89.29'
SCALE 1" = 20'
3' CURB TRANS. TO DROP CURB
CONST. DROP CURB
S-45 STA. 214+00 (20' LT.) CONST. VALLEY INLET, TYPE VA
CONST. 118' OF 18" PIPE
ACCESS RD. N 38° 42' 27" E
8' G.M.
CONST. 204' OF 18" PIPE
DROP CURB (TYP.) 18"
CONST. 150' GUARD RAIL INDEX NO. 2300
STA. 215+15 END CONST.
CONST. 12.5' GUARD RAIL, INDEX NO. 2300 Q MOD
S-46 STA. 24+45 (20' LT.) HOWARD AVE. CONST. M.H. TYPE P-7
STA. 216+16.55 ℄ LINE "A"
STA. 24+37.22 ℄ HOWARD AVE.
CONST. R.R. CROSSING TYPE "L". FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
RETURN NO. 4
S-49 STA. 25+22.58 CONST. INLET, TYPE P-6
CONST. DROP CURB
CONST. 38' OF 15" PIPE
3-47 STA. 25+45 CONST. INLET, TYPE P-5
CONST. 6" CURB, 1.5' GUTTER
STA. 25+77.34 END CONST.
CONNECT TO EXIST. PAVT.
5' TRANSITION TO EXIST. CURB
JETTON AVE.
CONNECT TO EXIST. PAVT.
RETURN NO. 5
S-48 STA. 25+59.37 CONST. INLET TYPE P-6 4" Granite Curb
8' G.M.
12" W.M.
4" Granite Curb
R/W LINE
2" W.M.
BT. (600 PR.) R/W LINE
(TO REMAIN) 18" RCP
MH TO REMAIN S-41-D
CONST. 24" PIPE
REMOVE INLET
RCP TO BE REMOVED
STA. 2+91.18 WATROUS
CURB TRANS. NO. 4
213
214
215
216
217
26
25
24
℄ LINE "A"
STA. 217+00
DROP CURB (TYP.)
3' CURB TRANS. (TYP.)
CONST. 38' OF 18" PIPE (CLASS III) WITH STD. ENDWALLS & "U" TYPE WINGS INDEX NO. 200.
CONST. 6" CURB, 1.5' GUTTER
8.0' (TYP.)
5.0' (TYP.)
35.0'
65.0'
200.0'
100.0'
STA. 213+27 (20' RT.) LINE A CONST. STD. HEADWALL WITH "U" TYPE WINGS INDEX NO. 200
STA. 213+44.53 ℄ LINE "A"
STA. 3+24.46 ℄ WATROUS AVE.
CONST. R.R. CROSSING TYPE "L" FOR ADDITIONAL DETAILS SEE INDEX NO. 1466
PT STA. 3+34.01
PC STA. 3+39.34
CONST. 84' 24" PIPE
CONST. 6" CURB 1.5' GUTTER BOTH SIDES
STA. 214+11 (20' RT.) LINE A CONST. STD. HEADWALL WITH "U" TYPE WINGS, INDEX NO. 200
NOTE: 10'X 5' BOX EXTENDER 280'
N 38° 42' 27" E
STA. 214+58 (63' RT.) CONST. STD. HEADWALL "U" TYPE WINGS, INDEX NO. 200
CONST. 24' OF 15" PIPE
PT STA. 4+28.63
RETURN NO. 2
S-50 9' G.M. & 12" W.M. CONST. INLET, TYPE P-6
CONST. 10'x 5' CONC. BOX CULVERT SEE DETAIL SHEET NO. 170
CONNECT TO EXIST. 8' G.M. & 12" W.M.
FUTURE PIER LOCATION (TYP.)
HOWARD AVENUE
CONST. 6" CURB, 1.5' GUTTER (BOTH SIDES)
NEW 4" WATER MAIN
4" W.M.
STA. 22+37.45 ℄ HOWARD AVE.
STA. 4+91.23 ℄ WATROUS AVE.
2 B.T. (100 & 200 PR.)
RETURN NO. 1
STA. 21+57 BEGIN CONST.
5' TRANSITION TO EXIST. CURB
B.T. (600 PR.)
P.I. STA. 22+76.01
RETURN NO. 3
5' TRANSITION TO EXIST. CURB
R/W Line
STA. 23+32.03 ℄ HOWARD AVE.
STA. 215+21.60 ℄ SURVEY
4-6" ELECTRIC DUCTS FOR FUTURE USE
1 CONST. 230' OF 10'x 5' CONC. BOX CULVERT FLA. D.O.T. STANDARD INDEX NO. 8013 MOD.
℄ SURVEY
CONNECT TO EXIST. PAVT.
STA. 5+50 END CONST.
WATROUS AVE.
Asph. Pav't.
4" Granite Curb
8" W.M.
SIDEWALK
N 4° 30' E
12" W.M.
S 89° 55' 53" E
20
21
22
6

NOTE; FOR SPECIAL PROFILES SEE SHEETS 41, 70, & 71



STABILIZE TO MIN. LBR. OF 40

LIMEROCK BASE (9" THICK, DOUBLE COURSE) PRIMED WITH TYPE S-1 ASPHALTIC CONCRETE SURFACE COURSE (3" THICK) BOTTOM LAYER (1½" THICK) TOP LAYER (1½" THICK)
SCALE 1"= 2' VERT. 1"= 10' HORIZ.

SECTION A-A

AS BUILT
APR 21 1976

NO.	REVISION	BY	DATE
1	ADDED 230' of 10'x 5' CONC. BOX CULVERT	JNC	4-25-74

TAMPA - HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

PLAN
HOWARD AVE. & WATROUS AVE.

J. E. GREINER COMPANY — WATSON & COMPANY
CONSULTING ENGINEERS TAMPA, FLORIDA

MADE S.P. DATE 4/72 TRACED S.P. DATE 4/72
CHECKED D.M. DATE 4/72 SCALE 1"= 20'

AS BUILT DRAWINGS
Contract Nos. 9A & 9B

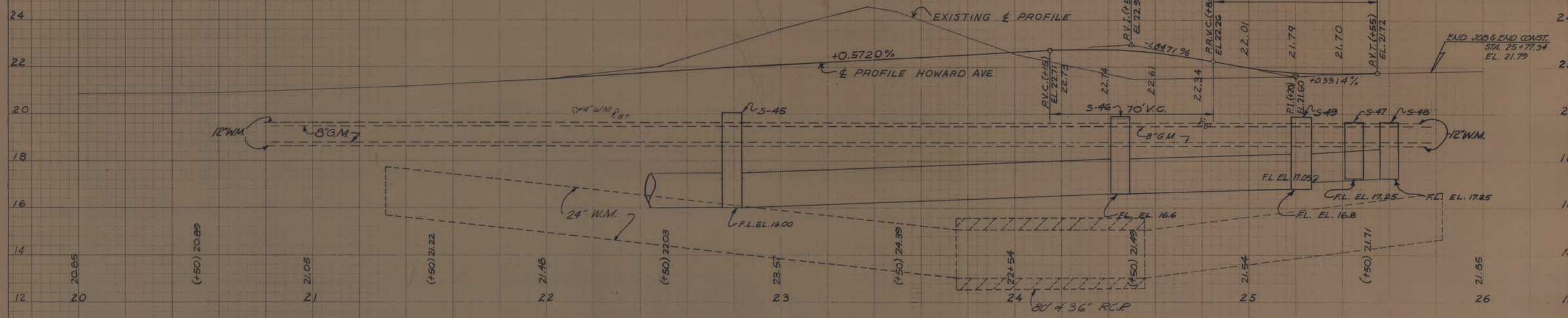
84
1

NO.	REVISION	BY	DATE
1	Added 230'of 10'x 5'CONC. BOX CULVERT	JNC	9-25-74

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		41
By: WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date: 2-73

WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

NOTE:
FOR SPECIAL PROFILES ON EDGES OF PAV'T
SEE SHEET NO 71



① NOTE:
1. STA 21+62.22
FL. 3.82

2. SEAL END OF CULVERT WITH 12" THICK BRICK WALL. COST OF BRICK WALL TO BE INCLUDED IN CONTRACT UNIT PRICE FOR CLASS "A" CONCRETE

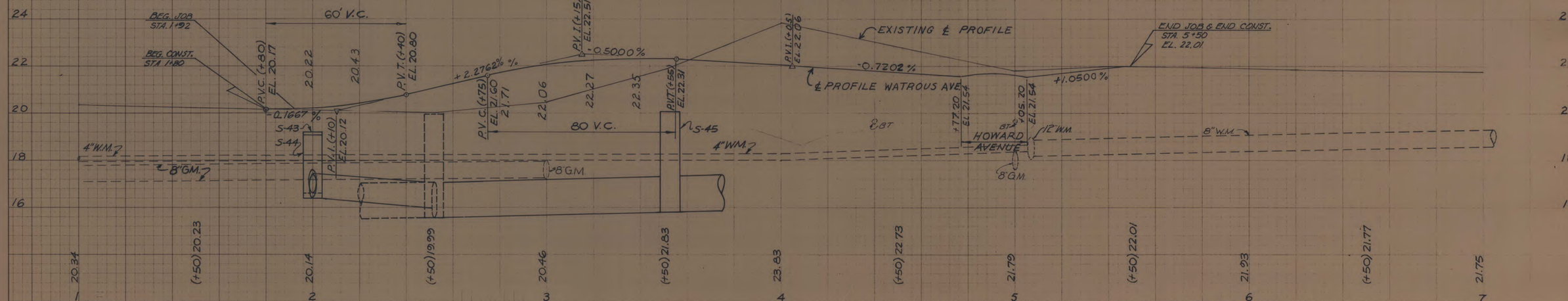
① CONST. 230' of 10'x 5' CONC. BOX CULVERT FLA. D.O.T. STANDARD INDEX NO. 8013 MOD.

① CONNET TO EXIST CULVERT.

5 CONST. 10'x5' CONC. BOX CULVERT SEE SHEET NO. 170.

PROFILE ALONG HOWARD AVE.

NOTE:
FOR SPECIAL PROFILES ON EDGES OF PAVT.
SEE SHEET NO. 70



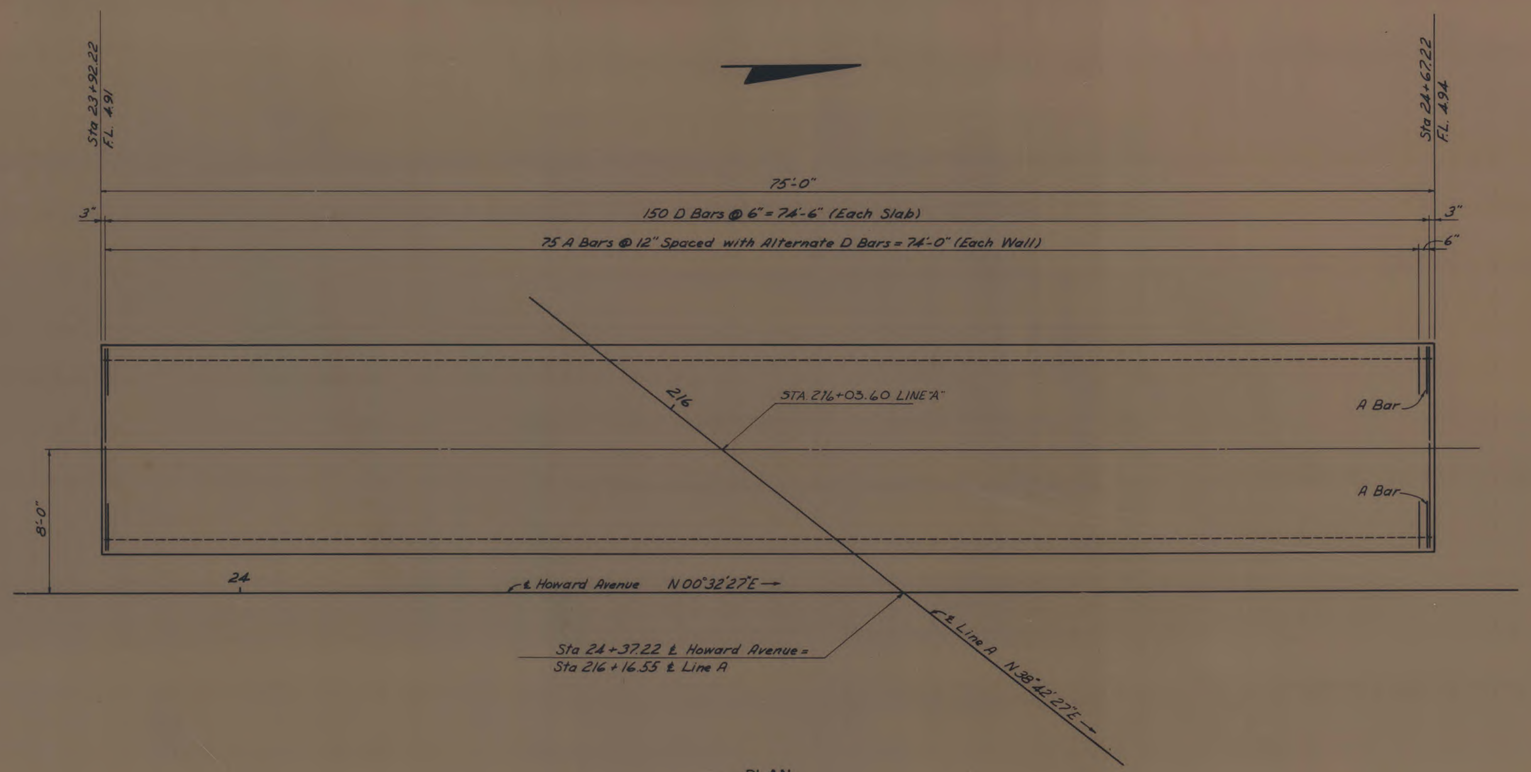
PROFILE ALONG WATROUS AVE.

AS BUILT DRAWINGS
APR 21 1976
Contract Nos. 9A & 9B

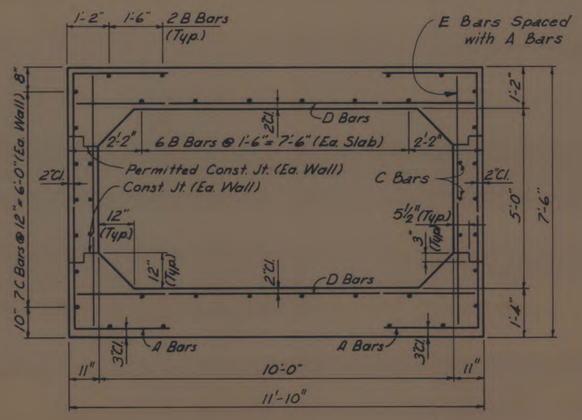
WATSON AND COMPANY
ENGINEERING DIVISION
3013 HORATIO STREET
TAMPA FLORIDA

SECTION	CONTRACT	SOUTH CROSSTOWN EXPRESSWAY	SHEET NO.
10002	3510		170
By WACO		TAMPA-HILLSBOROUGH COUNTY EXPRESSWAY AUTHORITY	Date 2-73

STATE JOB No. 10002-[illegible]



PLAN



SECTION

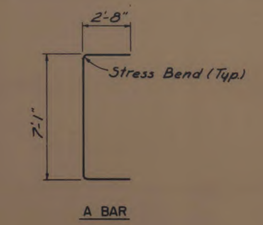
Notes:

1. *Design is in accordance with A.A.S.H.O. Standard Specifications for Highway Bridges, 1969 Edition, and A.R.E.A. Manual of Recommended Practice, Chapter 8, 1968 Edition.*
2. *Loadings are HS20-44 and Cooper E 72.*
3. *Maximum Foundation Pressure is 3330 psf.*
4. *Construction shall be in accordance with Florida State Road Department Standard Specifications for Road and Bridge Construction, 1966 Edition.*
5. *Seal Ends of Culvert with 12" thick Brick Walls. Cost of Brick Walls to be included in Contract Unit Price for Class A Concrete.*

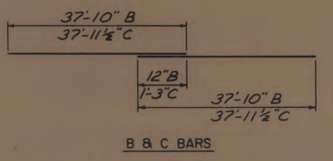
BILL OF REINFORCING

MARK	SIZE	NO. REQ'D	LENGTH	BENDING
A	9	152	12'-5"	Bent
B	4	20	75'-8"	See Diag.
C	5	20	75'-11"	"
D	8	300	11'-4"	Straight
E	4	152	7'-0"	"

BENDING DIAGRAMS



A BAR



B & C BARS

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
Class A Concrete	C.Y.	113.2
Grade 40 Rein. Steel	Lb.	18,800

NO	REVISION	BY	DATE

TAMPA-HILLSBOROUGH COUNTY
EXPRESSWAY AUTHORITY

SOUTH CROSSTOWN EXPRESSWAY

BOX CULVERT AT HOWARD AVE.

J. E. GREINER COMPANY — CONSULTING ENGINEERS
WATSON & COMPANY — TAMPA, FLORIDA

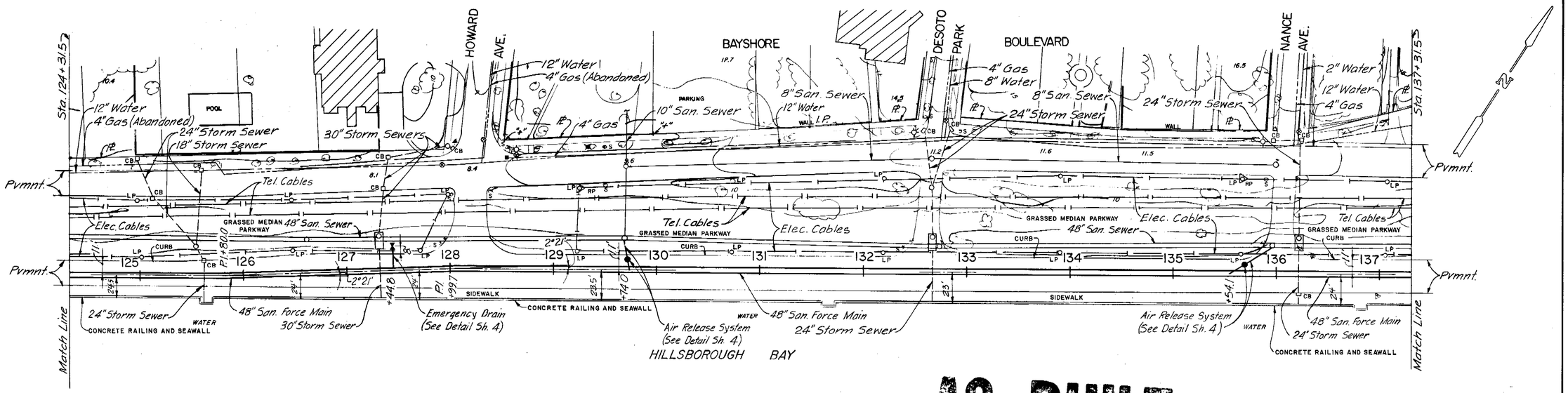
MADE	T.D.	DATE	1/73	TRACED	T.D.	DATE	1/73
CHECKED	E.A.M.	DATE	1/73	SCALE			

AS BUILT DRAWINGS APR 21 1976

Contract Nos. 9A & 9B

84
1

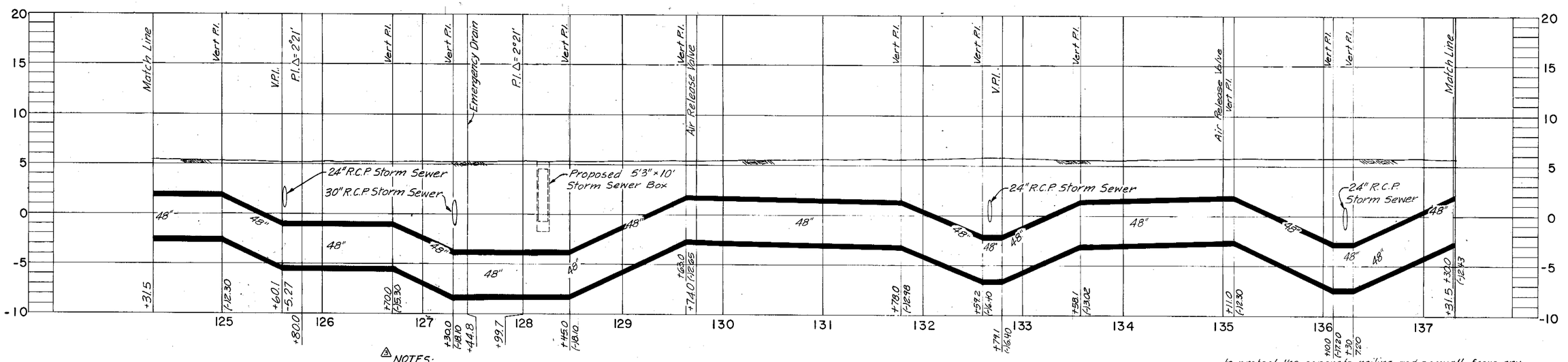
Q.7 Interbay Force Main (City of Tampa Sewage Disposal System)



AS BUILT

△PLAN

Existing Pavement: Asphaltic Concrete on Red Brick



△NOTES:

1. Under no circumstances shall the Contractor operate any equipment or store any materials upon the grassed median parkway along Bayshore Blvd. other than light-weight trenching equipment as required to install air release and emergency drain piping. The Contractor shall protect the grassed median parkway and its adjacent curb from any damage due to his operations.
2. The Contractor shall take all precautions necessary to protect the concrete railing and seawall from any damage due to his operations.

△PROFILE

COMPILED BY PHOTOGRAMMETRIC METHODS BY
ABRAMS AERIAL SURVEY CORPORATION
LANSING, MICHIGAN
DATE OF PHOTOGRAPHY OCTOBER 1970 DATE OF MAPPING FEBRUARY 1971

△RP REFERENCE POINT
THESE SELECTED POINTS ARE PLOTTED WITH EXTREME CARE AND ARE RECOMMENDED AS BASIC TIES DURING CONSTRUCTION.

GREELEY AND HANSEN
ENGINEERS
14 E. JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604

DESIGNED JRT, RAK, TLW
DRAWN AA
CHECKED TLW

APPROVED
DATE
SUPT., DEPT. OF SANITARY SEWERS
DATE
GREELEY AND HANSEN, ENGINEERS

NO.	DATE	APP.	REVISION
△3	11/82	CQ	AS-BUILT/CONTRACTOR SURVEY
△2	11/1/79	TLW	Add Note 1 & 2
△2	10/31/79	TLW	Rev. Title & Sheet Number
△1	7/6/79	TLW	Rev. Entire Plan & Profile

SCALE
50 0 50 100 FT HORIZ. 1"=50'
5 0 5 10 VERT. 1"=5'

CITY OF TAMPA, FLORIDA
SEWAGE DISPOSAL SYSTEM
INTERBAY FORCE MAIN

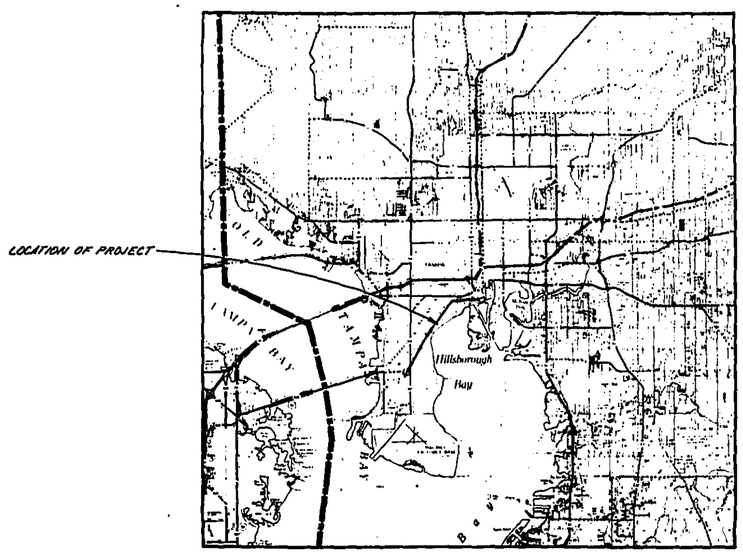
△DIVISION 4F5A
PLAN AND PROFILE
STA. 124+31.5 TO STA. 137+31.5

PROJ. NO. S202-70-30 D 4F5A
SHEET 16 △ OF 34
DATE JAN. 1973 REV. 3

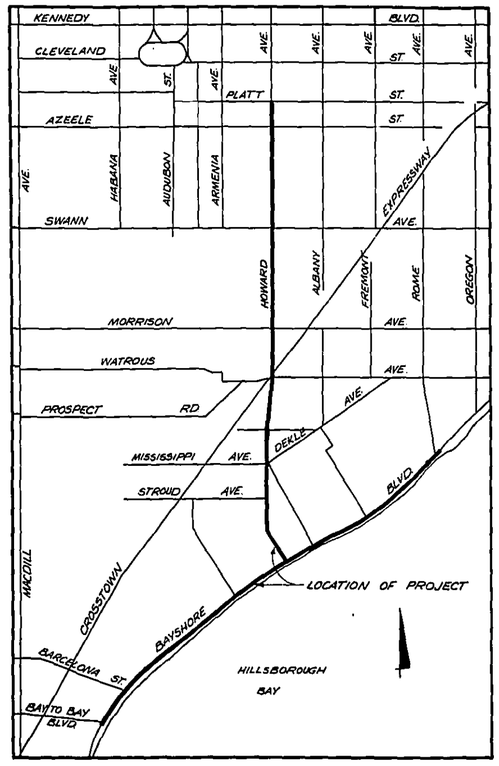
172-11

Q.8 City of Tampa Water Department – Cleaning and Lining (Bashore Blvd, Howard Ave)

TAMPA WATER DEPARTMENT



VICINITY MAP



LOCATION MAP

SPINIELLO CONSTRUCTION COMPANY
SUPERINTENDENT: A. SPADONE
877-6061
EXT. 645

CONTRACTOR'S EMERGENCY NIGHT
TELEPHONE NUMBER: 839-7319
EXT. 2

INDEX OF SHEETS

1. COVER SHEET
2. QUANTITY SHEET & PLAN
2A. PLAN
3. PLAN
3A. PLAN

JAE 7-8-82
✓ 7-8-82

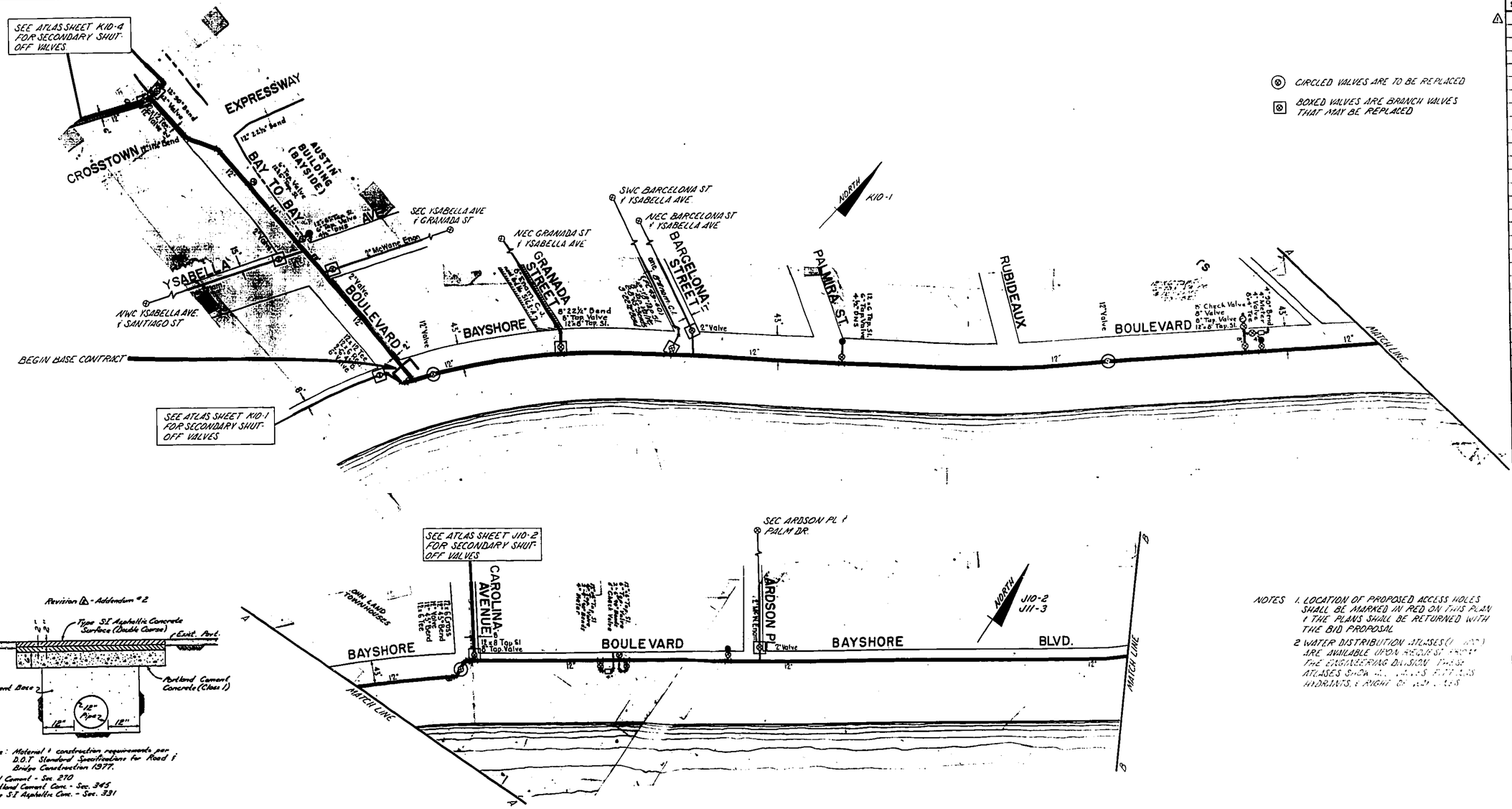
ENGINEERING DIVISION
CITY OF TAMPA
WATER DEPARTMENT

SHEETS 1 TO 3 INCLUSIVE, CERTIFIED BY:

CHIEF ENGINEER
FLA. PE No. 17622
DATE 12/17/81

CHIEF DESIGN ENGINEER
FLA. PE No. 31378
DATE 17 Dec 81

A7-2-27



NOTES
1. LOCATION OF PROPOSED ACCESS HOLES SHALL BE MARKED IN RED ON THIS PLAN & THE PLANS SHALL BE RETURNED WITH THE BID PROPOSAL
2. WATER DISTRIBUTION ATLASES (1" = 100') ARE AVAILABLE UPON REQUEST FROM THE ENGINEERING DIVISION. THESE ATLASES SHOW ALL VALVES, FITTINGS, HYDRANTS, & RIGHT OF WAY LINES

BILL OF MATERIALS

Size	Item	Make-Type	Est	Act
12"	GATE VALVE		11	

GE	1-22-82	Addendum #2
GE	1-5-82	Addendum #1
No.	By	Date	Revision

PERMIT ■ City ☐ County ☐ State ☐
Approved
Number
Date Released For Construction

CALL "CANDY" 1-800-282-8881 | Date | Request No

Contractor				
Inspector				
Job Started		Completed		
Job Stopped		Reason		
Pressure Test	Date	Allowable leakage	Actual Leakage	Inspector
Re-Test				
Bacteriological Test	No. 1 Date / Results	No. 2 Date / Results	Re-Test Date / Results	
Final Inspection	Date / Inspector	Re-Inspection	Date / Inspector	
Acceptance	Date	Const. Eng.		
"As-Built" Submitted	Accepted / Approved By	Date		

Atlas Ref. | As-Built Ref.
Scale
100 0 100 200 FT HORIZ 1"=100'

CITY OF TAMPA
WATER DEPARTMENT
ENGINEERING DIVISION

CLEANING & LINING

BAYSHORE BLVD. - from Bay to Bay Blvd. to Rome Ave.
HOWARD AVE. - from Bayshore Blvd. to Platt St.

Approved W.A. Wilson Jr. Date 17 Dec 81
Des: WAW
Dwn: GE
Ckd: WAW
W.O. 8626 | File: Bayshore Blvd.
Drawing Number: 82-034 | File Number
Sheet 2 of 3 Sheets

SEE ATLAS SHEET J10-4 FOR SECONDARY SHUT-OFF VALVES

EXPRESSWAY

CROSSTOWN

AUSTIN BUILDING (BAYSIDE)

BAY TO BAY BLVD

YSABELLA AVE

NWC YSABELLA AVE & SANTIAGO ST

SEC ISABELLA AVE & GRANADA ST

NEC GRANADA ST & ISABELLA AVE

8" MAIN WAS CUT & PLUGGED BY CITY MONTHS AGO. VALVE BOX FOUND, BUT NO VALVE.

NEW VALVE PREVIOUSLY INSTALLED

GRANADA STREET

NO 8" CI MAIN WAS FOUND ON BARCELONA

SWC BARCELONA ST & ISABELLA AVE

NEC BARCELONA ST & ISABELLA AVE

BARCELONA STREET

REPT. #3 5-5-82

(2) 1½" "KE" TAPS INST. TO FEED TEMP. MAIN

NORTH

J10-1

PALMIRA ST

2" TEMP. EXTENDED 2.50' AND CONNECTED 5-5-82 REPORT #3

RUBIDEAUX

BOULEVARD

BAYSHORE

TAP

TEMP. HYDRANT

2.50' OF 2"

BEGIN BASE CONTRACT

LINED 3-11-82

650'

ACCESS HOLE

650' LINED 3-11-82

ACCESS HOLE

LINED 3-11-82

TAP

590'

4"

SEE ATLAS SHEET J10-1 FOR SECONDARY SHUT-OFF VALVES

SEE ATLAS SHEET J10-2 FOR SECONDARY SHUT-OFF VALVES

CAROLINA AVENUE

FEED HYDRANT

OAK LAND TOWNHOUSES

TEMP. HYDRANT

ARDSON PL

SEC ARDSON PL & PALM DR

NORTH

J10-2

J11-3

BAYSHORE

BOULEVARD

TAP LINED 3-20-82

660'

ACCESS HOLE

660'

ACCESS HOLE

BAYSHORE BLVD.

MATCH LINE

Revision ⚠ - Addendum #2

Type SI Asphaltic Concrete Surface (Double Course)

Exist. Pvt.

Soil Cement Base

Portland Cement Concrete (Class I)

Note: Material & construction requirements per D.O.T. Standard Specifications for Road & Bridge Construction 1977.

Soil Cement - Sec. 270

Portland Cement Conc. - Sec. 345

Type SI Asphaltic Conc. - Sec. 331

STANDARD ACCESS HOLE FILL & PATCH DETAIL

BEGIN LIMIT OF DEDUCTION FOR ALTERNATE #1

SEE SHEET 3 OF 3 FOR CONTINUATION

HOWARD AVENUE

SEE ATLAS SHEET J11-3 FOR SECONDARY SHUT-OFF VALVES

FEED HYDRANT

DESOTA AVE

SEC NANCE AVE & RICHARDSON PL

NANCE AVE

INSTALLED: NEW 2½" GATE VALVE 3-6-82

TEMP. HYDRANT

ALBANY AVE

GUNBY AVE

ROME AVE

BOULEVARD

BAYSHORE

Exist. 4" Gas

BLVD.

LINED 3-19-82

675'

ACCESS HOLE

LINED 3-19-82

675'

ACCESS HOLE

LINED 3-18-82

510'

ACCESS HOLE

600'

ACCESS HOLE

J11-3

VAE 9-8-82

9-8-82

BILL OF MATERIALS

Size	Item	Make-Type	Est	Act

PERMIT ■ City ☐ County ☐ State

Appl. No.

Number

Date Received ... Instruction

CALL "CANDY" 1-800-282-8881 | Date | Request No

Contractor SPINELLO CONST

Inspector

Job Started | Completed

Job Stopped | Reason

Pressure Test	Date	Time	Press. psi	Inspector
Re-Test				
Bacteriological Test	Date	Results	Date	Results
Final Inspection	Date / Inspector		Re-inspection	Date / Inspector

Acceptance Date ... Const. Eng. ...

"As Built" ... Accepted

Submitted ... Approved By ... Date ...

Atlas Ref. | As-Built Ref.

Scale

100 0 100 200 FT

HORIZ 1"=100'

CITY OF TAMPA
WATER DEPARTMENT
ENGINEERING DIVISION

CLEANING & LINING

TEMPORARY PIPING & HYDRANTS, & ACCESS LOCATIONS

BAYSHORE BLVD - from Bay to Bay Blvd to Rome Ave

HOWARD AVE. - from Bayshore Blvd to Platt St

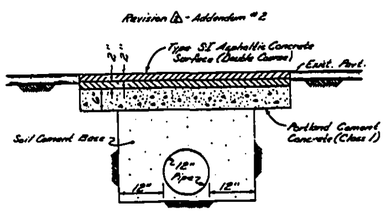
Approved H.A. Niles Jr. Date 17 Dec 81

Des: ... | W.O. 8626 | File: Bayshore Blvd

Drawing Number 82-034 | Job Number A7-2-29

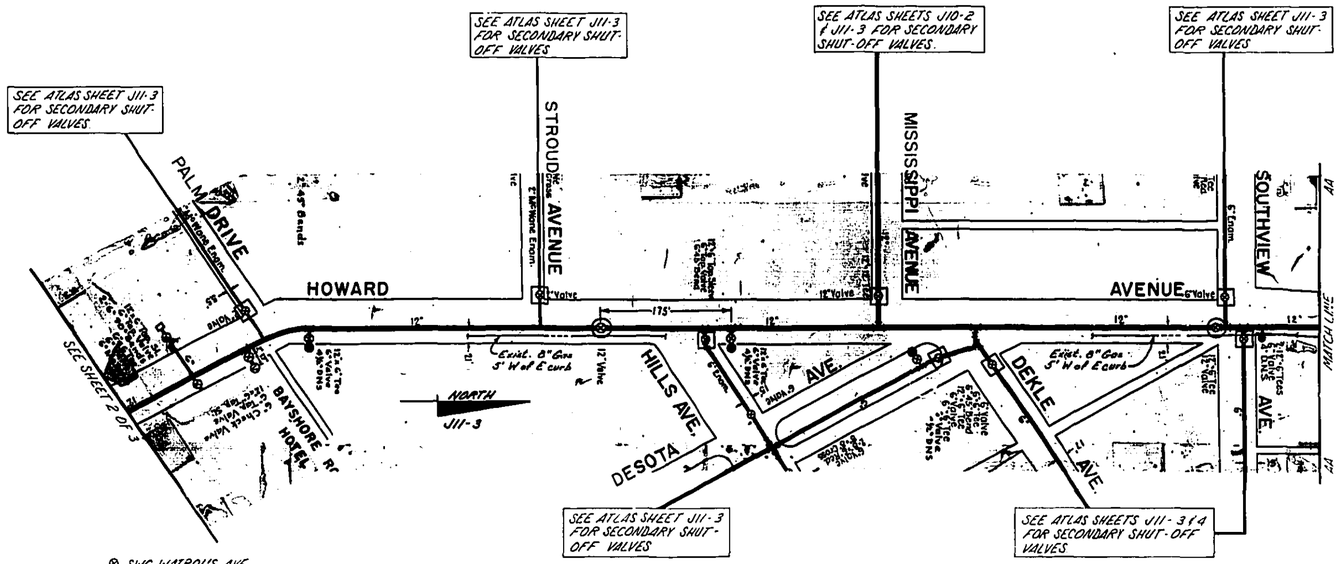
Dwn: ... | Ckd: ... | Sheet 2A of 3 Sheets

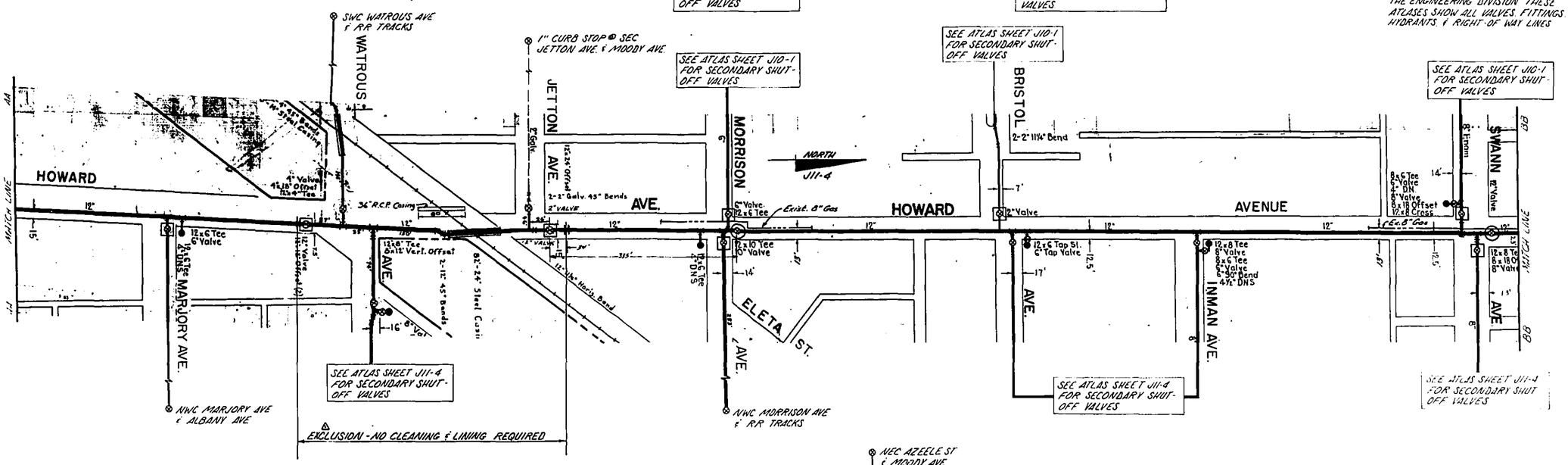
No	By	Date	Revision
⚠	GE	2-19-82	Temp Piping, Hydrants, etc. added
⚠	GE	1-22-82	Addendum #2
⚠	GE	1-5-82	Addendum #1

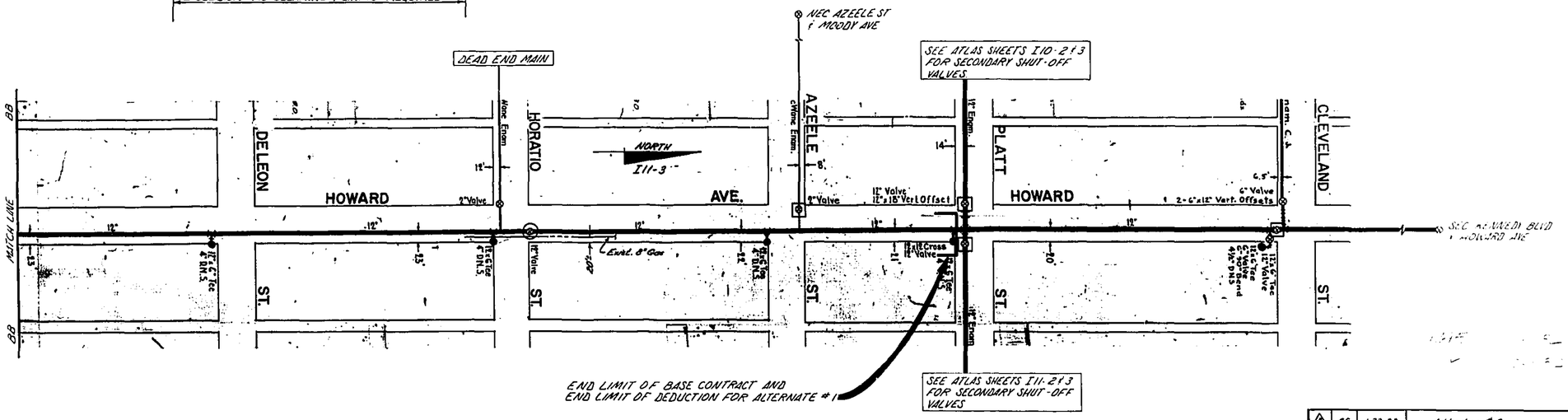


Note: Material & construction requirements per D.O.T. Standard Specifications for Road & Bridge Construction 1977.
Soil Cement - Sec. 270
Portland Cement Conc. - Sec. 345
Type S.I. Asphaltic Conc. - Sec. 331

STANDARD ACCESS HOLE FILL & PATCH DETAIL







⊗ CIRCLED VALVES ARE TO BE REPLACED

⊠ BOXED VALVES ARE BRANCH VALVES THAT MAY BE REPLACED

NOTES: 1 LOCATION OF PROPOSED ACCESS HOLES SHALL BE MARKED IN RED ON THIS PLAN & THE PLANS SHALL BE RETURNED WITH THE BID PROPOSAL

2 WATER DISTRIBUTION ATLASES (1"=100') ARE AVAILABLE UPON REQUEST FROM THE ENGINEERING DIVISION. THESE ATLASES SHOW ALL VALVES, FITTINGS, HYDRANTS, & RIGHT-OF-WAY LINES

BILL OF MATERIALS

Size	Item	Make-Type	Est	Act
	SEE SHEET 2 OF 3			

PERMIT ■ City ☐ County ☐ State ☐ _____
Approved
Number
Date Released For Construction

CALL "CANDY" 1-800-282-8881	Date / Request No
Contractor	
Inspector	
Job Started	Completed
Job Stopped	Reason

	Date	Allowable Leakage	Actual Leakage	Inspector
Pressure Test				
Re-Test				

Bacteriological Test	No. 1 Date / Results	No. 2 Date / Results	Re-Test Date / Results

Final Inspection	Date / Inspector	Re-Inspection	Date / Inspector

Acceptance Date — Const. Eng.
"As-Built" Submitted — Accepted / Approved By — Date

Atlas Ref.	As-Built Ref.

Scale: 100 0 100 200 FT — HORIZ 1"=100'

CITY OF TAMPA
WATER DEPARTMENT
ENGINEERING DIVISION

CLEANING & LINING

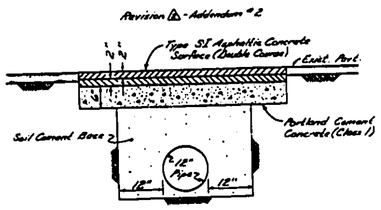
BAYSHORE BLVD. - from Bay to Bay Blvd. to Rome Ave.
HOWARD AVE. - from Bayshore Blvd. to Platt St.

Approved W. A. Wilson Date 17 Dec 81

No.	By	Date	Revision
2	GE	1-22-82	Addendum #2
1	GE	1-5-82	Addendum #1

Des: HAN
Dwn: GE
Ckd: DEW

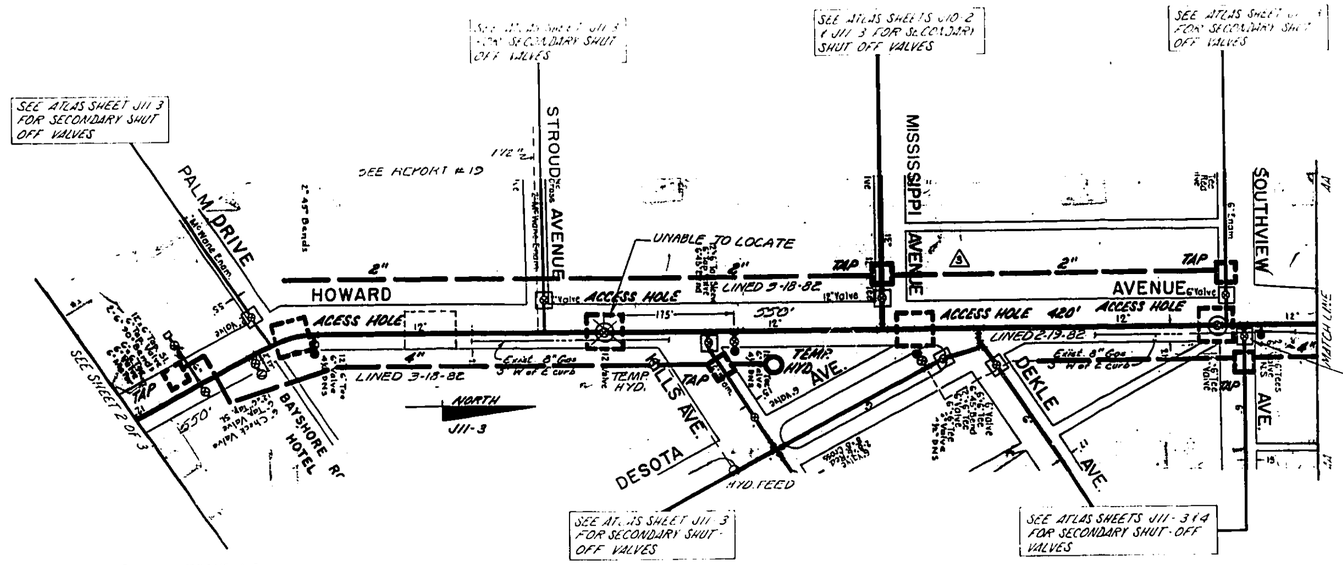
W.O. 8626 — File Bayshore Blvd.
DRAWING NUMBER 82-034 — FILE NUMBER A1C-30
Sheet 3 of 3 Sheets



Note: Material & construction requirements per D.O.T. Standard Specifications for Road & Bridge Construction 1977.

Soil Cement - Sec. 270
Portland Cement Conc. - Sec. 345
Type S.I. Asphaltic Conc. - Sec. 331

STANDARD ACCESS HOLE FILL & PATCH DETAIL

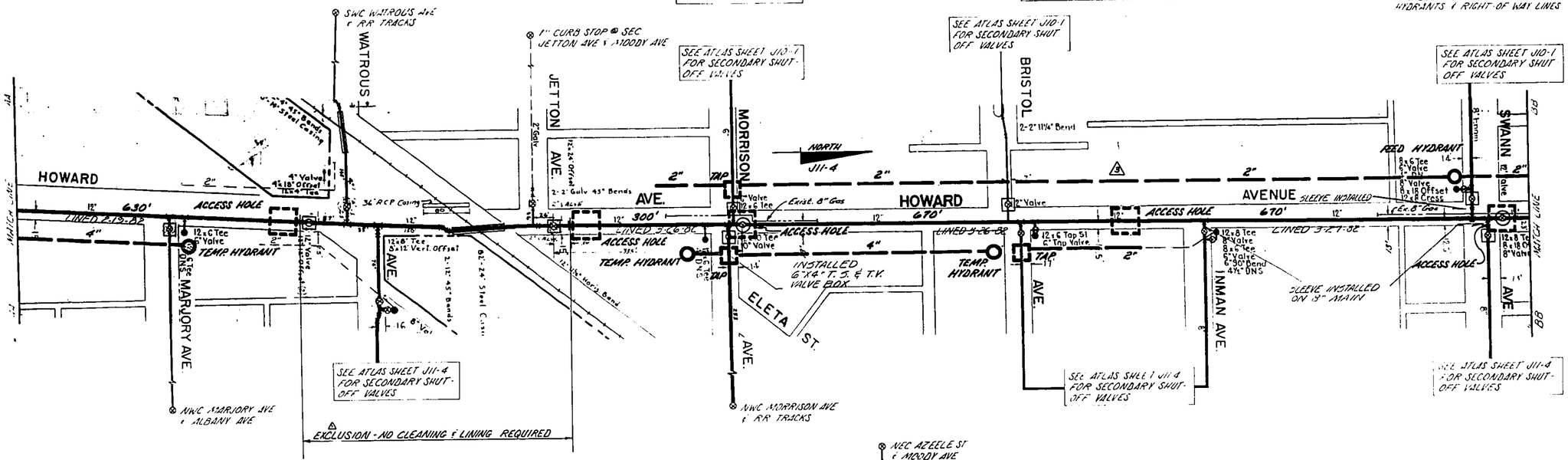


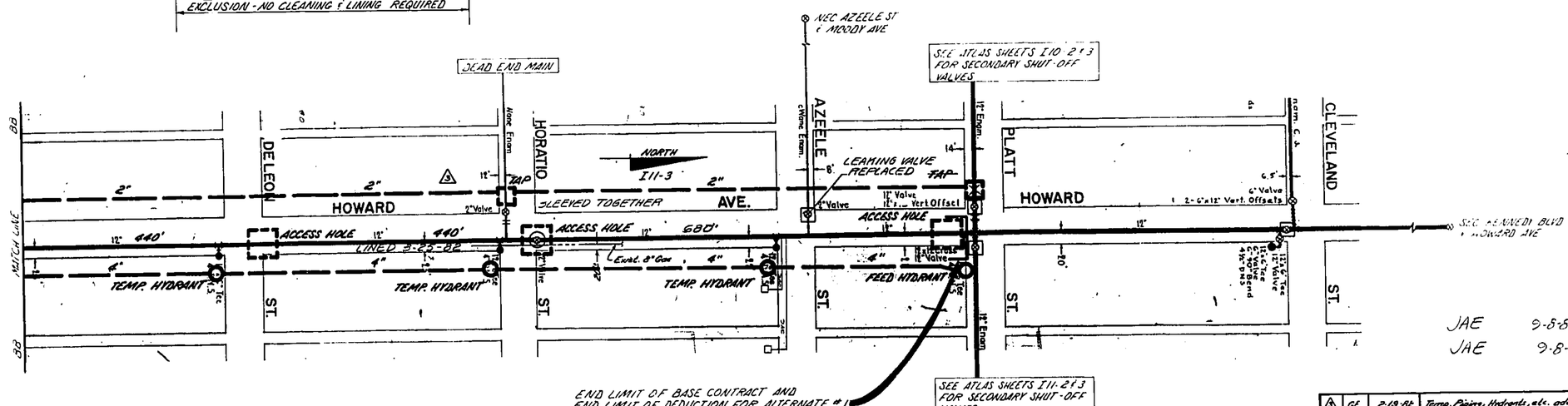
Ⓢ CIRCLED VALVES ARE TO BE REPLACED

Ⓢ BOXED VALVES ARE BRANCH VALVES THAT MAY BE REPLACED

NOTES 1 LOCATION OF PROPOSED ACCESS HOLES SHALL BE MARKED IN RED ON THIS PLAN & THE PLANS SHALL BE RETURNED WITH THE BID PROPOSAL

2 WATER DISTRIBUTION ATLASES (1"=100') ARE AVAILABLE UPON REQUEST FROM THE ENGINEERING DIVISION THESE ATLASES SHOW ALL VALVES, FITTINGS HYDRANTS & RIGHT-OF-WAY LINES





JAE 9-8-82
JAE 9-8-82

No.	By	Date	Revision
3	GE	2-19-82	Tempo. Piping, Hydrants, etc. added
2	GE	1-22-82	Addendum # 2
1	GE	1-5-82	Addendum # 1

BILL OF MATERIALS

Size	Item	Make-Type	Est	Act

PERMIT ■ City ☐ County ☐ State ☐
Approved
Number
Date Released For Construction

CALL "CANDY" 1-800-282-8881 | Date | Request No.
Contractor
Inspector
Job Started | Completed
Job Stopped | Reason

	Date	Allowable Leakage	Actual Leakage	Inspector
Pressure Test				
Re-Test				

Bacteriological Test	No. 1 Date	No. 2 Date	Re-Test Date
	Results	Results	Results

Final Inspection: Date / Inspector — Re-Inspection: Date / Inspector
Acceptance Date | Const. Eng.
"As-Built" Submitted | Accepted / Approved By | Date

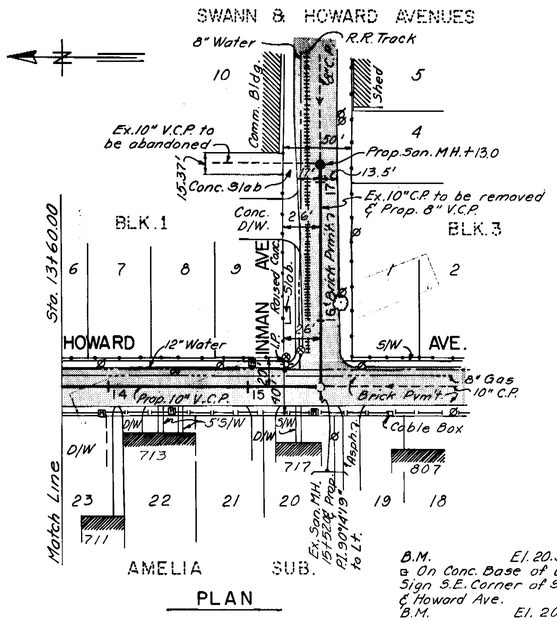
Atlas Ref. | As-Built Ref.
Scale: 100 0 100 200 FT HORIZ 1"=100'

CITY OF TAMPA
WATER DEPARTMENT
ENGINEERING DIVISION

CLEANING & LINING
TEMPORARY PIPING & HYDRANTS, & ACCESS LOCATIONS
BAYSHORE BLVD. - from Bay to Bay Blvd. to Rome Ave.
HOWARD AVE. - from Bayshore Blvd to Platt St.

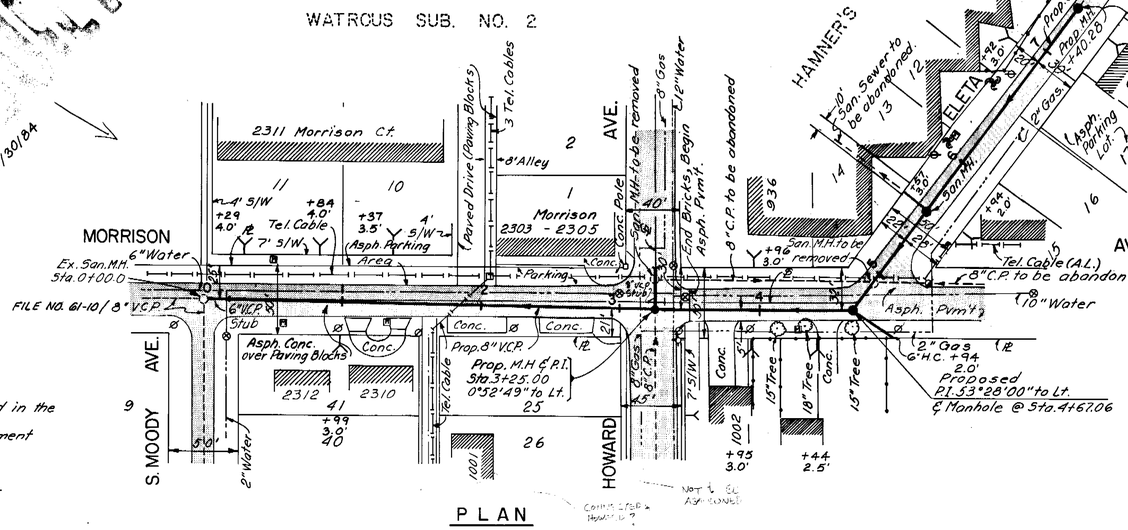
Approved R. H. Tilbrook Date 17 Dec 81
Des: HAN | W.O. 8626 | File Bayshore Blvd.
Dwn: GE | Drawing Number 82-034 | File Number A7-2-31
Ckd: DEW | Sheet 3A of 3 Sheets

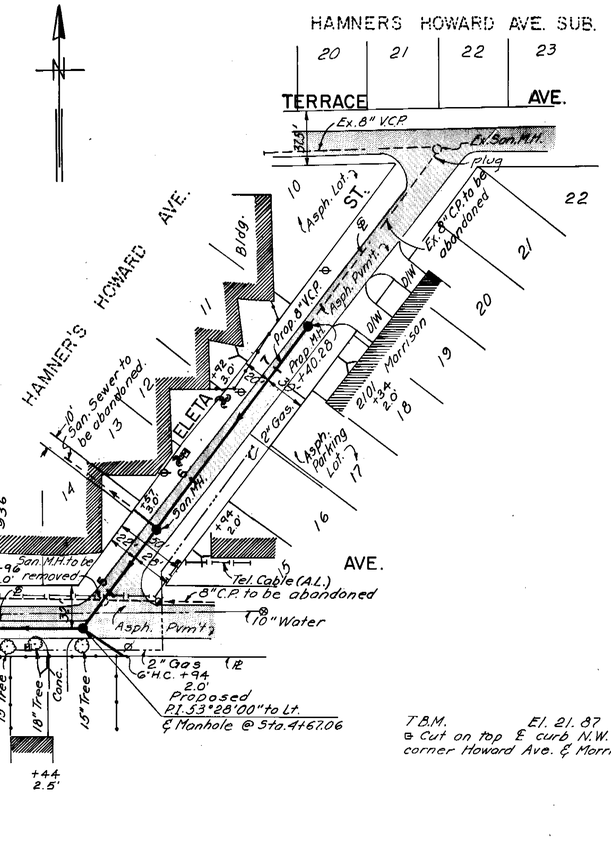
Q.9 City of Tampa Sewer Improvements (Howard-Swann Area)



B.M. El. 20.50
⊡ On Conc. Base of Commercial Sign S.E. Corner of Swann Ave. & Howard Ave.
B.M. El. 20.58
⊡ Cut on Conc. Base of Commercial Sign S.E. Corner of Swann Ave. & Howard Ave.



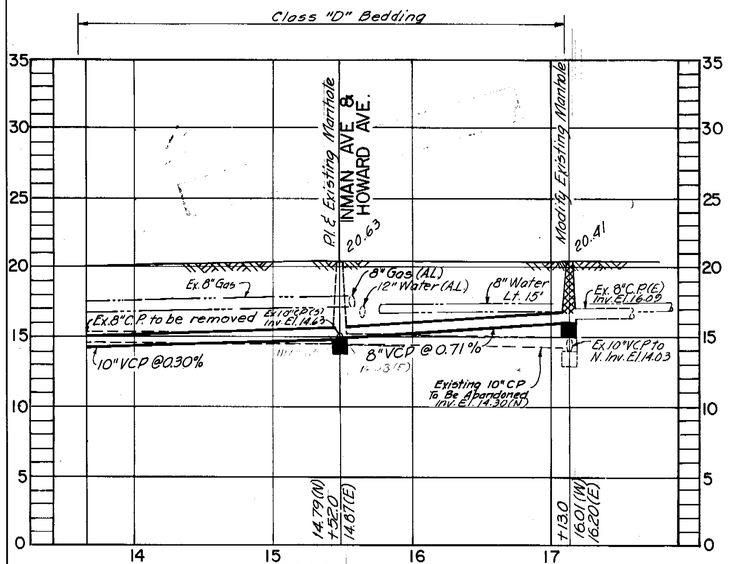


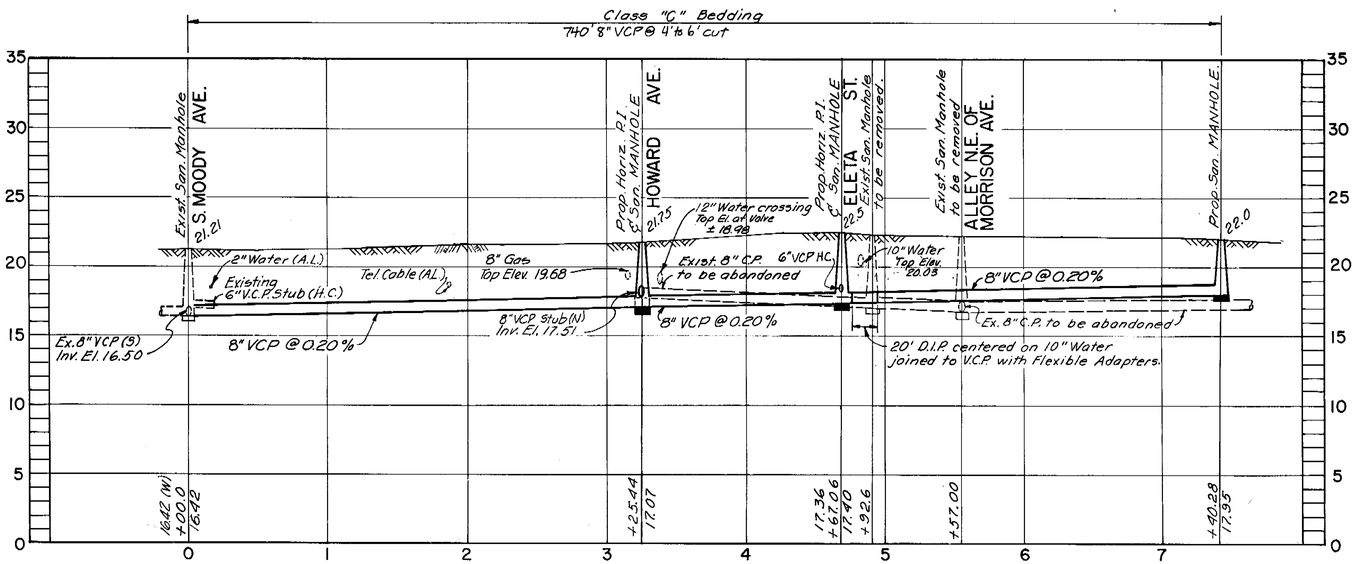


T.B.M. El. 21.87
⊡ Cut on top E curb N.W. corner Howard Ave. & Morrison Ave.

NOTES

1. Exact location of house laterals to be determined in the field.
2. Reconnect house connections to proposed replacement line while maintaining continuous sewage flow.
3. Replace brick in place
4. All utility locations are approximate. Notify proper authorities prior to beginning construction.





BRUNING 44-132 29917

Ralph L. Metcalf II
RALPH L. METCALF, II, P.E. # 23041
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

DES: J.A. / W.M.A.
DRN: Clerk
CKD: RLM
DATE: 7/83

APPROVED BY
E. G. Smith
ELTON G. SMITH, P.E.
DIRECTOR
DEPARTMENT of SANITARY SEWERS

No.	DATE	REVISIONS
1	9/14/83	ADDED STUB @ M.H. STA 3+25.0; H.C.'s;
2		HOUSE LATERAL @ M.H. STA 4+67.0
3		
4		
5		

SCALE
50 0 50 100
1" = 50'

DEPARTMENT of SANITARY SEWERS
CITY of TAMPA, FLORIDA
RENEWAL & REPLACEMENT
SEWER IMPROVEMENT

HOWARD - SWANN AREA.: [redacted]
Morrison Ave., from S. Moody Ave. to Eleta St., Eleta St. from Morrison Ave. to N.E. 273' ±

SHEET 4 OF

C 177-36 <847

Q.10 Swann Ave – Armenia Ave to Packwood Ave – Utility Adjustment Plans (potable water)

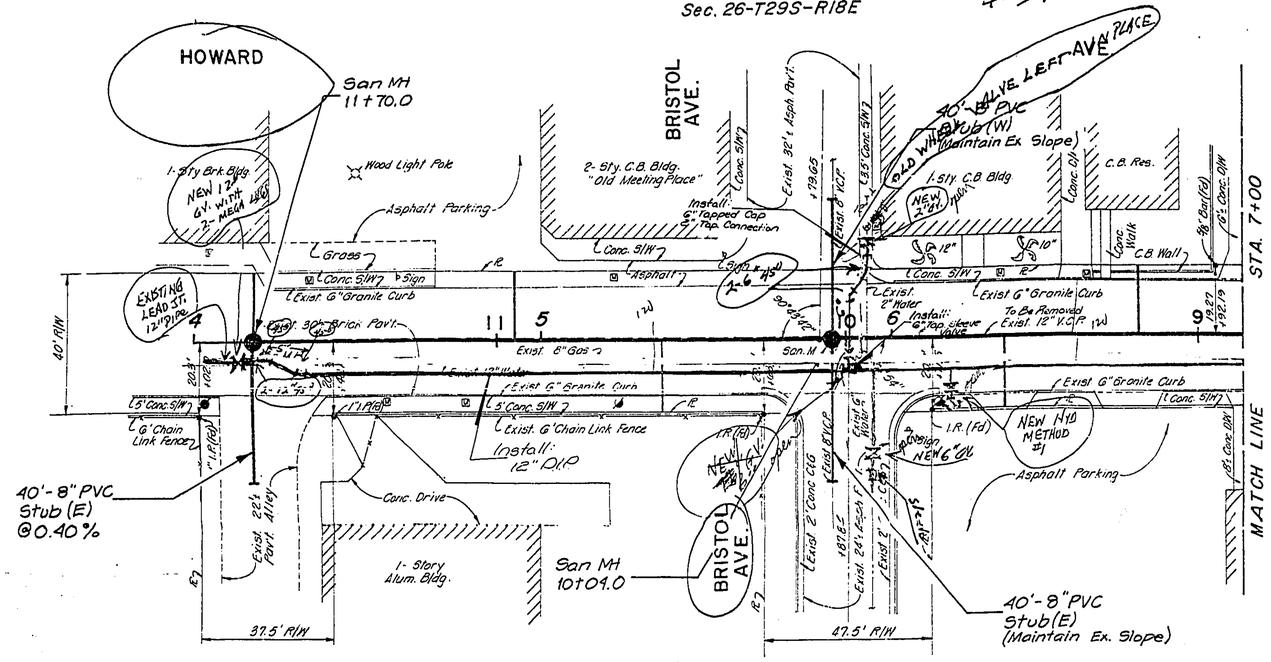
AF 12087

SHEET #39

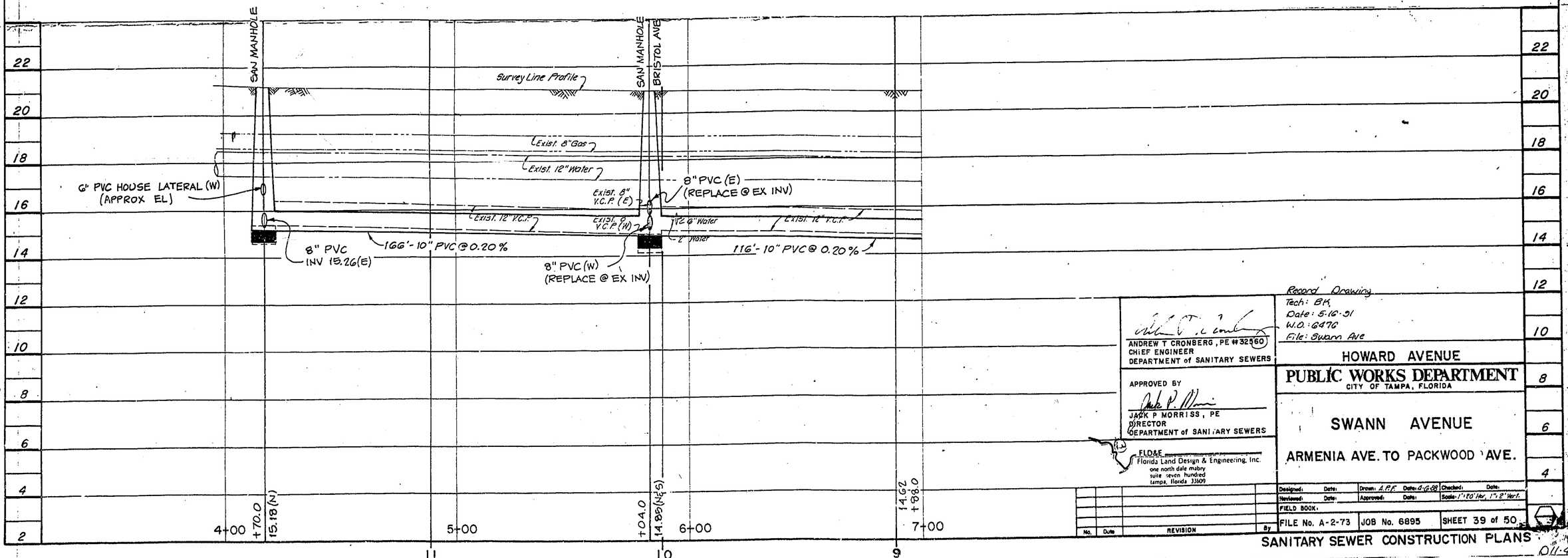
Scale: 1"=20'

Sec. 26-T29S-R18E

Benchmark Elev. 20.58
Cut In N.E. Cor. Conc. Sign Foundation Of Union 76 Sign S.E. Cor. Swann Ave. And Howard Ave.



NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.



ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

Record Drawing
Tech: BK
Date: 5-16-91
W.O.: 6476
File: Swann Ave

HOWARD AVENUE

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE. TO PACKWOOD AVE.

Designed:	Date:	Drawn: A.P.F.	Date: 4-6-88	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=2' Vert.	
FIELD BOOK:					
FILE No. A-2-73	JOB No. 6895	SHEET 39 of 50			

No.	Date	REVISION	By

SANITARY SEWER CONSTRUCTION PLANS

011-4-50

AF 13087

(18) STA 4+55 (LT) (@ HOWARD AVE)
CONST. INLET TYPE B-R-1
F.L. 15.75

MATCH LINE See Sht #48

STA. 5+00

(19) STA. 4+55 (RT) (@ HOWARD AVE)
CONST INLET TYPE B-R-1
F.L. 14.00

(29) STA 10+66 (LT)
CONST. INLET TYPE B-R-2
F.L. 14.31

(28) STA. 11+38 (LT)
CONST. INLET TYPE B-R-1
F.L. 14.50

SHEET 45

T29S-R18E

SWANN AVE.

(20) STA. 4+55 (@ HOWARD AVE) (18' LT)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 15" (W) 13.71
INV. 15" (E) 13.86
F.L. 13.31

+80 ℄ 20' D/W

CONST 28' OF 15" R.C.P.

(40) STA 8+12 (LT)
CONST. INLET TYPE B-S-1
F.L. 14.00

STA 7+52.83 SWANN AVE ℄ =
STA 4+00 ℄ "B" FROM SOUTH

2110 W. SWANN AVE
METER # 76072069 (3/4")
3/4" SERVICE LINE

1-Sty Masonry Bldg

BEGIN PAVT. TRANS.

8" G.V.

CONST 48' OF 18" R.C.P.

"G.V. & Box
STA 10+35 (43' LT)
8"-45° BENDS RM.
STA 10+35 (43' LT)
STA 10+63 (31' LT)

PROPOSED 8" DIP Asph. Lot
WATER MAIN CL 50

8"x8"x6" TEE
STA 10+63 (28' LT)

2-Sty. Office Bldg.
2111 W. SWANN AVE
METER # 02028368 (1½")
1½ SERVICE LINE

8"x8"x6" TEE
STA. 11+38 (28' LT.)

(15) STA. 6+50 (LT.)
CONST. INLET TYPE B-V-1
F.L. 15.60

CONST. 6' OF 15" R.C.P.
12"-45° BENDS
STA. 4+62.33 (37' LT) (@ B)
STA. 4+23.5 (52' LT) (@ B)
12"x12"x8" TEE
STA. 4+31 (44' LT.) (@ B)
8"-45° BEND RM. J
STA. 4+28 (42' LT.) (@ B)

CONST 48' OF 36" R.C.P.

CONST. 5' CONC. S/W

CONST. 12' OF 15" RCP

CONST. 45' OF 34"x53" RCP

94"x53" RCP

PROPOSED 12" DIP WM

PROP 8" SAN

ABANDON 8" GAS

CONST. 67' OF 43"x68" RCP

CONST CONC D/W

CONST. 12' OF 15" RCP

Exist 8" Meter TO BE REMOVED

L. PROP 10" SAN.

Exist 8" Conc Curb

CONST STD CONC CURB & GUTTER

CONST 110' OF 43"x68" R.C.P.

SURVEY ℄

CONST. 24' OF 15" R.C.P.

L. PROP 10" SAN.

CONST. 216' OF 43"x68" R.C.P.

CONST STD CONC CURB & GUTTER

CONST. 20' OF 18" R.C.P.

8"x8"x6" TEE
STA. 11+28 (28' LT.)

8" G.V. & Box
STA. 11+28 (28' LT.)

PROPOSED 8" DIP
C.L. 150 W.M.

43"x68" R.C.P.

CONST. 36' OF 18" R.C.P.

NEW G.V.

Exist G" Conc. Curb
10" Pine

2" High Mast Lighting (30' LT.)
C+2" PVC THRU CAP
STA. 11+14 (36' LT.)

NOTE FOR PROPOSED SANITARY SEWER DETAILS, SEE SANITARY SEWER CONSTRUCTION PLANS

CONST. 32' OF 15" R.C.P.

(30) STA. 11+30 (RT.)
CONST. INLET TYPE B-R-1
F.L. 14.75

(32) STA. 10+70 (5' LT)
CONST. M.H. TYPE J-7T
(5.5' x 8' I.D.)
INV. 18" (N) 14.23
INV. 18" (S) 14.23
F.L. 12.75

(31) STA 10+70 (RT)
CONST INLET TYPE B-R-1
INV. 13" (E) 14.62
F.L. 14.37

ABANDON 8" GAS

MATCH LINE

(24) PROPOSED 8" DIP
WATER MAIN CL 50

USP 54
54 Surv
1990
9-12-90

2303 W. SWANN AVE
METER # 77139228 (3/4")
3/4" SERVICE LINE

(26) STA. 3+45 (8' LT) (@ HOWARD AVE)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 15" (W) 15.72
INV. 18" (E) 13.43
F.L. 13.24

(27) STA. 7+45 (5' LT)
CONST M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 30" (S) 13.18
INV. 36" (N) 13.21
F.L. 13.08

FH ASSEMBLY
STA. 7+06 (22' RT)

12"x8" REDUCER
STA. 7+06 (28' RT) (@ A)

12"x12"x12" TEE
STA. 7+11 (28' LT.) (@ A)

12"-45° BENDS
STA. 3+55 (23' LT.) (@ B)
STA. 3+71 (40' LT.) (@ B)
12" G.V. & BOX
STA. 3+77 (42' LT.) (@ B)

CONST. 10' OF 15" R.C.P.

END HORIZ DEFLECTION
STA. 3+07
(23' LT.)

HOWARD

PROP 8" GAS

PROFILE GRADE TO BE REMOVED

CONST 60' OF 30" R.C.P.

FH ASSEMBLY
STA. 7+06 (22' RT)

46.57

CONST 24' OF 18" R.C.P.
END D/W

STA. 7+62.78 SWANN AVE ℄ =
STA. 4+00 ℄ "B" TO NORTH

(41) STA. 8+05 (RT.)
CONST. INLET TYPE B-R-2
F.L. 15.80

Aluminum Overhang

702 S. HOWARD AVE
METER # 85079199 (1")
1" SERVICE LINE

(42) STA. 8+12 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 13.93
INV. 15" (S) 13.70
F.L. 18.01

MATCH LINE

(24b) STA. 3+75 (8' LT) (@ HOWARD)
CONST. CONC. COLLAR
INV. 15" N. 13.90
℄ 30" 13.18

(25) STA. 3+45 (RT) (@ HOWARD AVE)
CONST. INLET TYPE B-V-1
F.L. 18.50

(39) STA. 9+22 (5' LT)
CONST. CONFLICT M.H. TYPE J-7T
(4' x 8' I.D.)
F.L. 12.90
BOTTOM EL. 11.40

NOTE: ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY OF TAMPA TECHNICAL SPECIFICATIONS.

WESTLAND AVE.

60' R/W

0 10 20 40 60
Scale

(16) STA. 6+50 (RT.)
CONST. INLET TYPE B-V-1
F.L. 14.00

(17) STA. 6+50 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 15.58
INV. 15" (S) 13.89
F.L. 13.18

E. STORM M.H. #17

12"x8" RED.

12"x12"x8" TEE

8" G.V. & Box

8"-45° BEND (RM)

8"-45° BEND (RM)

E. Inlet 2
E. Inlet 2

E. STORM M.H. #27

8"-45° BEND (RM)

+35 P.V.I. (-) 8.45% GRADE
EL. 19.67

E. STORM M.H. #42

(-) 0.40%

+05 P.V.I. (NO V.C.)
EL. 19.87

C. CONFLICT M.H. #39

E. STORM M.H. #32

8"x8"x6" TEE

8"-45° BEND (RM)

8"-45° BEND (RM)

8"x8"x6" TEE

8" G.V. & Box

+50 P.V.I. (NO V.C.)
EL. 19.90

(-) 0.3%

+0.3584%

+0.33%

Survey Line Profile

2017

PROFILE GRADE LINE

PROPOSED 8" PVC SAN. SEW.

8" Water

Exist Tel

15" RCP (N)

12" RCP

15" RCP

15" RCP

8" Gas

15" RCP (S)

24" RCP

94" x 53" RCP.

94" x 53" R.C.P. @ (-) 0.10%

21" RCP

15" RCP

18" RCP

36" R.C.P. (N)
30" R.C.P. (S)

43" x 68" R.C.P. @ (-) 0.10%

15" R.C.P. (N)

EX. 8" WM TO BE REMOVED

PROPOSED 8" DIP WATER MAIN CL 50

8" PVC D.R.18

PROPOSED 10" PVC SAN SEWER

8" Gas

2" Gas

2" Water

8" Water

8" RCP (W&S)

43" x 68" R.C.P. @ (-) 0.10%

Record Drawing
Tech: BK
Date: 5-16-91
W.O: 6476 MFB-91
File: Swann Ave.

SWANN AVE. 12+00

6+00 7+00 8+00 9+00 10+00 11+00

FLD&E
Florida Land Design & Engineering, Inc
one north dale mabry
suite seven hundred
tampa, florida 33609

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

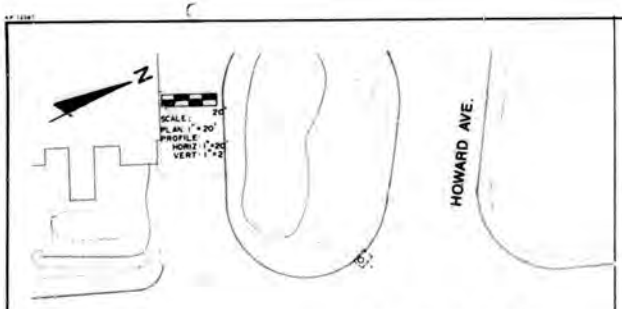
ARMENIA AVE TO PACKWOOD AVE

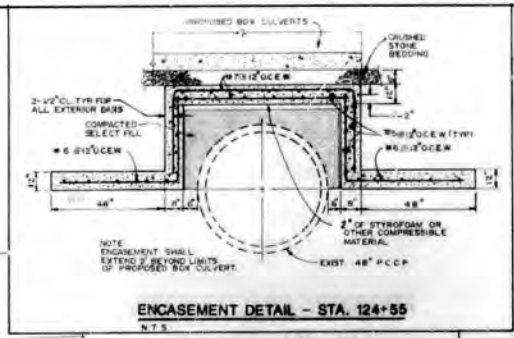
Designed: WGR Date: 7/88	Drawn: DGE Date: 7/88	Checked: WGR Date: 11/88			
Reviewed: Date:	Approved: Date:	Scale: 1"=20' Hor., 1"=2' Ver.			
FIELD BOOK: 1992-5					
FILE No. A-2-73	JOB No. 6895	SHEET 45 of 50			

No. 1 Date 11/88 REVISION Gen Revision Per Water Dept By DGE

UTILITY ADJUSTMENT PLANS 011-4-52

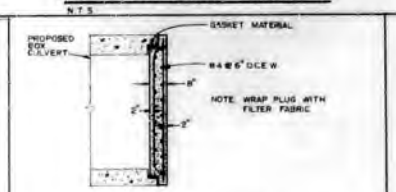
Q.11 Bayshore Blvd Storm Sewer Replacement at Howard and Albany Aves





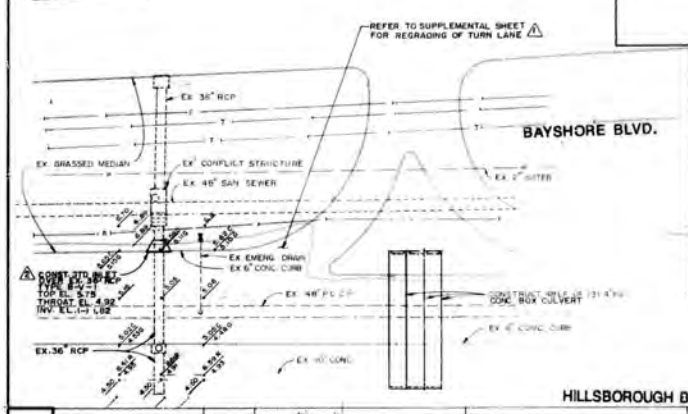
ENCASEMENT DETAIL – STA. 124+55

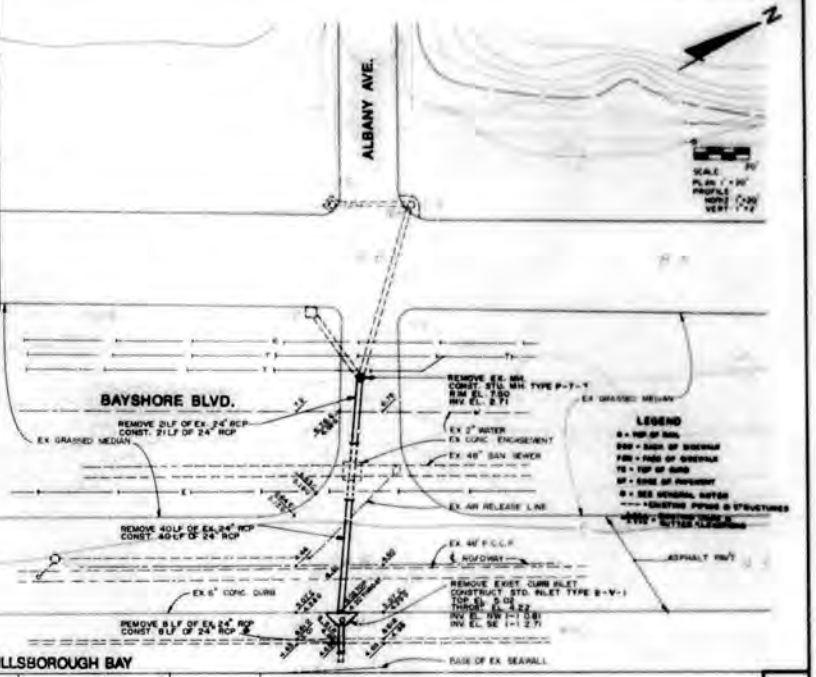
N.T.S.

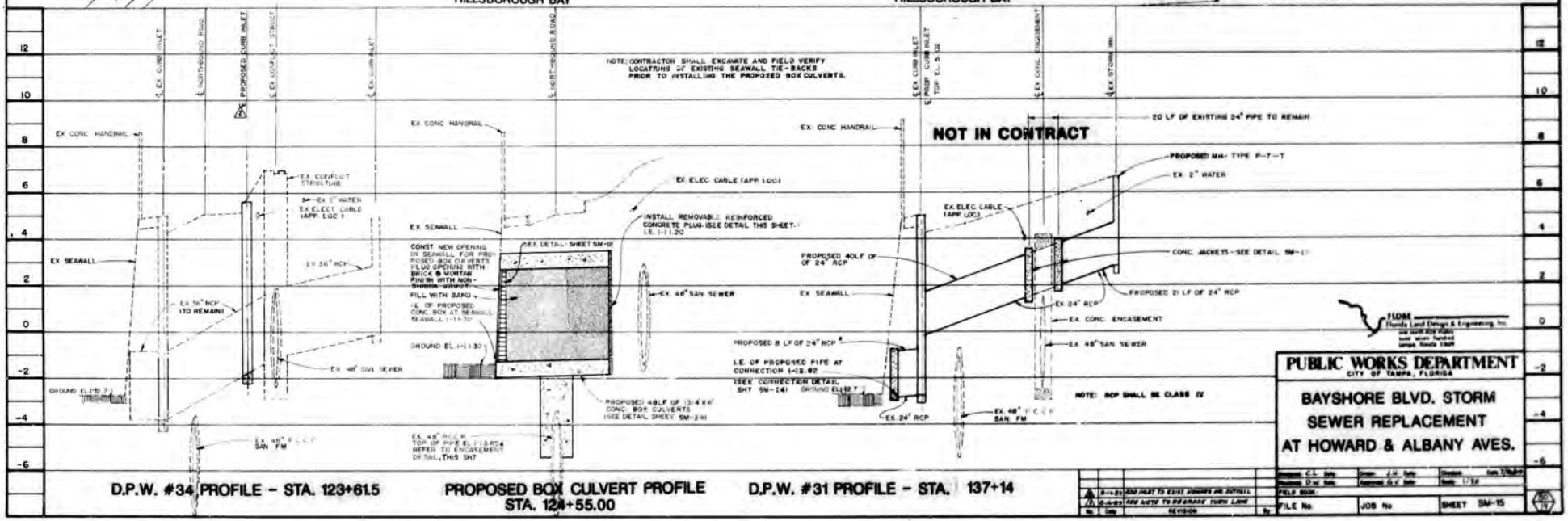


REINFORCED CONCRETE PLUG DETAIL

N.T.S.







D.P.W. #34 PROFILE – STA. 123+61.5

PROPOSED BOX CULVERT PROFILE STA. 124+55.00

D.P.W. #31 PROFILE – STA. 137+14

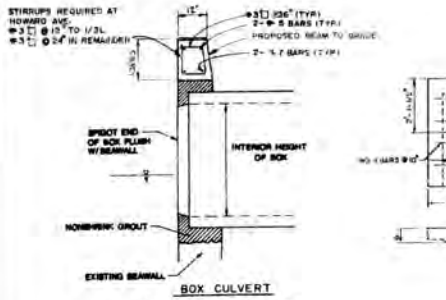
FLDBE
Florida Land Design & Engineering, Inc.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

BAYSHORE BLVD. STORM SEWER REPLACEMENT AT HOWARD & ALBANY AVES.

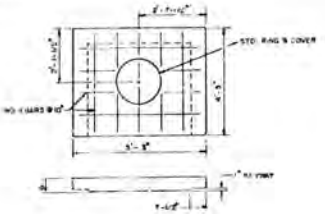
Designed: C.L.	Drawn: J.H.	Checked:
Processed: D.M.	Approved: G.V.	Scale: 1"=10'
FIELD BOOK:		
FILE No.	JOB No.	SHEET SM-15

No.	Date	REVISION	By
1	8-11-87	ADD NOTE TO EXIST. SIDEWALK AND ASPHALT	
2	8-11-87	ADD NOTE TO REGRADE TURN LANE	



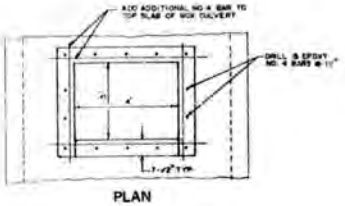
BOX CULVERT

SEAWALL DETAIL

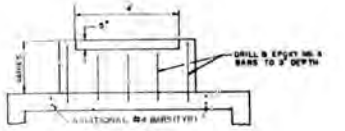


TOP SLAB

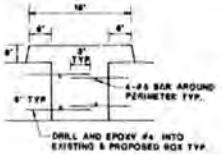
NOTE: CONTRACTOR SHALL ALIGN INLET TO AVOID INTERFERENCE WITH BOX JOINT



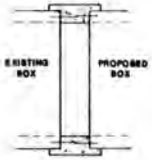
PLAN



ELEVATION



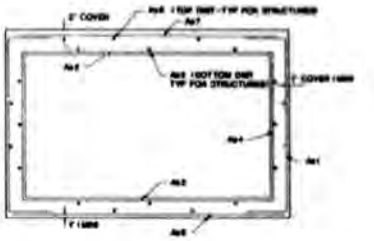
JOINT DETAIL



CLOSURE PIECE DETAIL

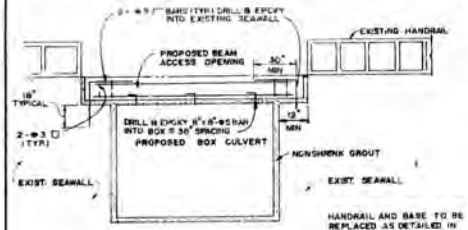
CONTRACTOR SHALL NOT BACKFILL UNTIL CONCRETE IN CLOSURE PIECE HAS REACHED 75% OF DESIGN STRENGTH.

CLOSURE DETAILS



LOCATION	SIZE (Interior) (ft)	THICKNESS Top Slab (in)	THICKNESS Bottom Slab (in)	THICKNESS Wall (in)	REINFORCING STL. fy = 70.0 ksi #6	#5	#4	#4	#5	#6	#7	#8
RUSKIN AVE.	8'x4' (2)	6	6	6	0.27	0.31	0.27	0.49	0.56	0.70	0.76	0.90
N. OF BAY VILLA	8'x4'	6	6	6	0.27	0.31	0.27	0.49	0.56	0.70	0.76	0.90
ALLINE	8'x4' (3)	6	6	6	0.27	0.31	0.27	0.49	0.56	0.70	0.76	0.90
HOWARD	8'x4' (2)	6	7	7	0.26	0.45	0.24	0.47	0.53	0.68	0.73	0.87

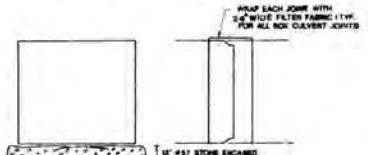
TYPICAL BOX CULVERTS

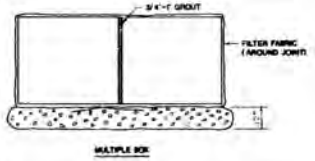


HANDRAIL AND BASE TO BE REPLACED AS DETAILED IN APPROPRIATE SECTION OF PLANS

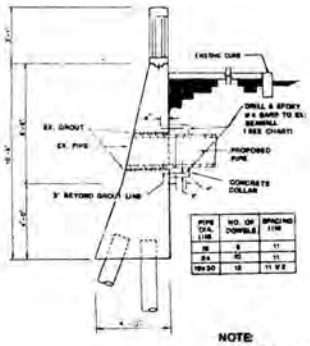
SEAWALL DETAIL

INLET DETAIL FOR BOX CULVERT

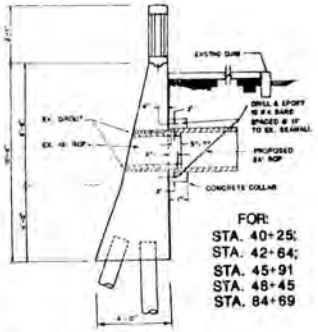




BEDDING DETAILS



PIPE DIA. (IN)	NO. OF DOWELS	SPACING (IN)
36	8	11
54	10	11
18x30	10	11 1/2



FOR:
STA. 40+25;
STA. 42+64;
STA. 45+91
STA. 48+45
STA. 84+69

NOTE:
IF FIBERGLASS OR PVC IS USED, CONTRACTOR SHALL ROUGH UP O.D. OF PIPE AND INSTALL AN O-RING GASKET PRIOR TO POURING CONCRETE.

SOUTH OF STATION 121+90

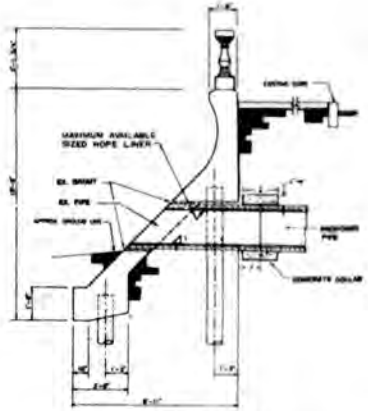
SEAWALL CONNECTION DETAIL-A

SEAWALL CONNECTION DETAIL-B

REFER TO DETAIL 'B' FOR EXCEPTIONS

NOTES:
... CONCRETE COLLAR INSTALLATIONS SHALL BE WRAPPED WITH FILTER FABRIC AND SEALED TO THE PROPOSED PIPE WITH STAINLESS STEEL BAND. REFER TO SHEET SM-25 FOR DETAILS.

SEAWALL CONNECTION DETAILS



NORTH OF STATION 121+90

SEAWALL CONNECTION DETAIL C

FLD&I
Florida Land Design & Engineering, Inc.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

BAYSHORE BLVD. STORM SEWER REPLACEMENT

MISCELLANEOUS DETAILS

No.	Date	REVISION	By

Designed J.L. | Drawn J.L. | Checked | Quantities | Date
Reviewed J.M. | Approved R.E. | Date | Survey
Field Book
FILE No. | JOB No. | SHEET SM-24

Q.12 Roadway and Drainage Improvements – Swann Ave – Armenia Ave to Packwood Ave (used for Swann Ave Pipe Rehabilitation – SW2010-03

SW 2010-03
Swann Ave. Pipe Rehabilitation
WO #5658
Contract 10-C-00038

PIPE TO BE REHABILITATED

AS-BUILT
REVIEWED BY ____ DATE 6-17-93

NOTE: FOR PROPOSED SANITARY SEWER DETAILS, SEE SANITARY SEWER CONSTRUCTION PLANS.

SWANN AVE. 12+00

PUBLIC WORKS DEPARTMENT
TAMPA

SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

Reviewed: Date	Approved: Date	Scale 1"=20' Hor, 1"=2' Ver
FIELD BOOK 1982-5		
FILE No A-2-73	JOB No 6895	SHEET 9 OF 50

SW 2010-03
Swann Ave. Pipe Rehabilitation
WO #5658
Contract 10-C-00038

SWANN AVE

MELVIL AVE.

ALBANY AVE.

60' R/W

STA. 12+00

STA. 18+00

MATCH LINE

MATCH LINE

Scale: 1" = 20'

CONST. 322' OF 43"x68" R.C.P.

CONST. 335' OF 43"x68" R.C.P.

CONST. STD. CONC. CURB & GUTTER

CONST. STD. CONC. CURB & GUTTER

Exist. 8" Water

Exist. 6" Conc. Curb

5' Conc. S/W

1' High Conc. Curb

Asphalt D/W

Planters

Exist. Telephone

Conc. Port

Tree

5' Asphalt S/W

5' Cl. Fence

San. M.H.

Abandoned 8" San.

Asphalt Drive

Asphalt Parking

Conc. Drive

4" Trees

8" Palm

Exist. 9.3' Conc. S/W

SAW-CUT

Exist. 6" Conc. Curb

Exist. Telephone

G.T.E. U.G.

16" Oak

8" Oak

8" Cedar Hedge

Exist. 8" San Sewer

Exist. 8" Water

Exist. 6" Conc. Curb

5.5" Asphalt S/W

5' Cl. Fence

Asphalt Drive

Exist. Telephone

Exist. 6" Conc. Curb

Exist. 8" Water

Exist. 6" Conc. Curb

Exist. 6" Conc. Curb

Exist. 6" Conc. Curb

SW 2010-03
Swann Ave. Pipe Rehabilitation
WO #5658
Contract 10-C-00038

PIPE TO BE REHABILITATED

SWANN AVE

FREMONT AVE.

STA. 18+00

STA. 23+00

MATCH LINE

60' R/W

CONST. STD. CONC. CURB & GUTTER

CONST. 378' OF 43"x68" R.C.P.

CONST. 148' OF 43"x68" R.C.P. 170.5'

CONST. 42' OF 43"x68" R.C.P.

CONST. 60' OF 96" STEEL CASING

REMOVE 36' OF 24" R.C.P.

PLUG & ABANDON 24" R.C.P.

REMOVE EXIST. 30" R.C.P.

REPLACE S/W AS REQ'D

Existing Landscaped Area (Heavy Vegetation)

X-Town Ret. Wall

Existing Grate Inlet (To Remain)

Exist. 36" R.C.P. (To Remain)

Exist. 30" R.C.P. (To Remain)

Exist. 18" R.C.P. To Remain

Exist. 18" R.C.P. (To Remain)

Exist. Telephone

Exist. 6" Conc. Curb

Exist. 8" Water

Abandoned 8" San.

Abandoned San. M.H.

Exist. 8" Conc. Curb & Gutter

Exist. Endwall (To Remain)

Exist. 18" C.M.P. (To Remain)

5' Conc. S/W

5' Asph. S/W

5' Ch. Link Fence

4' Conc. Headwall

16" Steel Casing

Conc. Ditch Pav't

END PAVEMENT CONSTRUCTION BEGIN RESURFACING STA. 20+00

END PAVEMENT CONSTRUCTION STA. 23+00

(35A) STA 91+83, 5' LT.
J-7T MH
F.L. 11.63 (E & W)
F.L. 14.95 (S)

(36) STA. 22+58 (5' LT.)
CONST. M.H. TYPE J-7T
(7' X 7' I.D.)
F.L. 11.57 11.53

(37) STA. 22+58 (50' LT.)
CONST. M.H. TYPE J-7T
(7' X 7' I.D.)
F.L. EXIST. 30" 13.00 13.57
F.L. 11.53 11.50

20+96 (5' LT) ... TYPE J-7T ... 24" 15.35 (THRU-M.H.)

Abandoned San. M.H.

END PAVEMENT CONST. BEGIN RESURFACING STA. 20+00

PROFILE GRADE LINE

Survey Line Profile

(-) 0.2727%

20.05

Top Of Rail El. 21.04

8" Water

18" R.C.P.

2" Water

18" C.M.P.

18" R.C.P.

Exist. 24" R.C.P.

30" R.C.P.

43"x68" R.C.P. @ (-) 0.10%

96" STEEL CASING

50' OF CL. V R.C.P.

+00 P.I. (NAVD) EL. 20.10

F.L. 19"x30" 11.98

F.L. EXIST. 24" 15.35

E. Inlet

E. Storm M.H.

E. Endwall

E. State Inlet

E. Grate Inlet

E. Storm M.H. #36 & #37

E. Grate Inlet

E. Storm M.H. #44

18+00 19+00 20+00 21+00 22+00 23+00

AS-BUILT
REVIEWED BY [illegible] DATE 6-17-97

SWANN AVE.
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE

FIDSE
Florida Land Design & Engineering, Inc
one north dale mabry
suite seven hundred
tampa, florida 33609

Designed: A.R.F. Date: | Drawn: S.A.N. Date: | Checked: Date:
Reviewed: Date: | Approved: Date: | Scale:
FIELD BOOK:
FILE No. A-2-73 | JOB No. 6895 | SHEET 11 of 50

No. Date REVISION By

SW 2010-03
Swann Ave. Pipe Rehabilitation
WO #5658
Contract 10-C-00038

FOR DETENTION POND MODIFICATION SEE SHEET No. 15

EXISTING DETENTION POND
N.W.L. 10.98
D.L.W. 12.28
25 YR. D.W.L. 14.98

Scale 1"=20'

PIPE TO BE REHABILITATED

SWANN AVE.

S. PACKWOOD AVE.

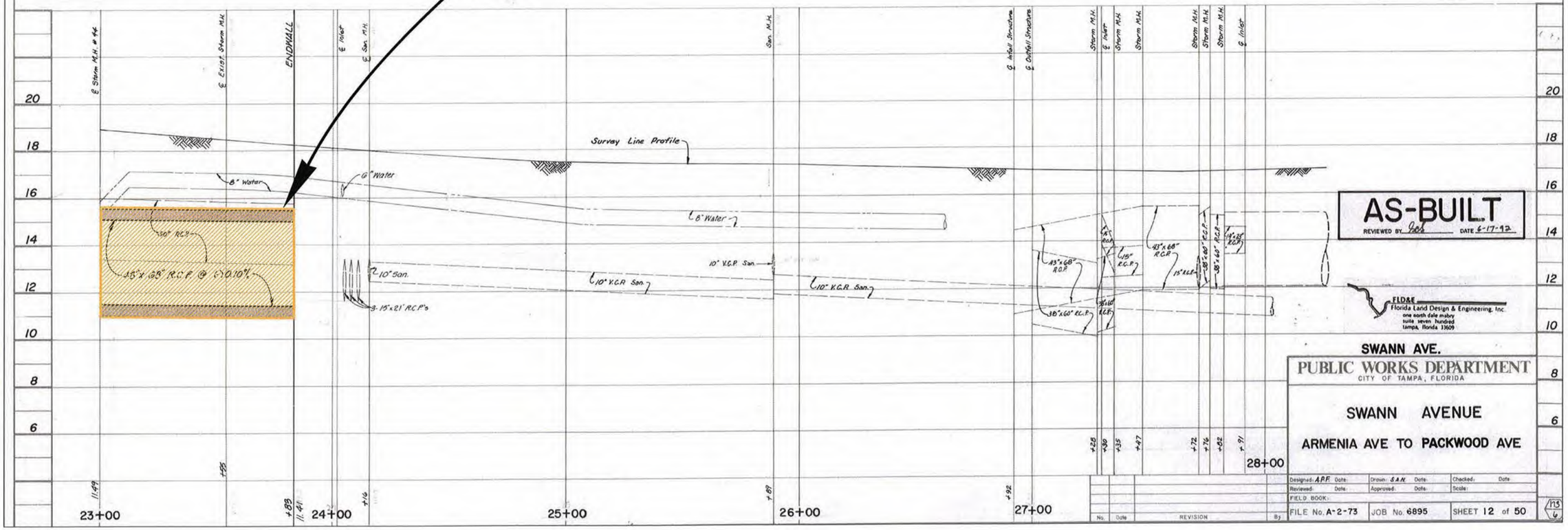
S. ROME AVE.

MATCH LINE STA. 23+00

X-Town Ret. Wall
Exist Landscaped Area (Heavy Vegetation)
Pit Hedge
Crosstown X-Way
CONST. 83' OF 48"x68" R.C.P. Elliptical
Remove Exist Storm M.H. & 30" R.C.P. 18"
Remove Exist 30" R.C.P. & Endwall
CONST. 35' OF STAKED SILT FENCE
CONST. CLEANOUT (TYP.) INV. EL. 10.49
CONST. 250' OF 6" UNDERDRAIN
CONST. 10' OF 6" SOLID P.V.C.
EXISTING CONTROL STRUCTURE TO BE MODIFIED SEE SHEET No. 5
CONST. 500' OF 6" UNDERDRAIN
CONST. 45' OF 6" SOLID P.V.C.
Remove Exist Storm M.H.
15" R.C.P. (To Remain)
Exist. Telephone
Exist. 6' C.L. Fence
Exist. Curb & Gutter To Remain
Exist. 6" Curb
Elec. & Tele. Cables
Exist. 2' Curb & Gutter
Exist. Tel. Duct
Ex. 5' Conc. S/W
G.T.E. M.H.
3-15"x21" R.C.P.'s (To Remain)
San. M.H.
10" San.
Survey
Exist. 8" Water
Exist. 6" Conc. S/W
F.I.R.
Exist. 4" Gas
Exist. Storm Sewer To Remain
Storm M.H.
30"x60" R.C.P.
38"x60" R.C.P.
14"x23" R.C.P.
45" R.C.P.
60' R/W
24
25
26
27
28

(44) STA. 23+00 (50' LT.)
CONST. M.H. TYPE J-7T (3.5'x7'1.0)
INV. EXIST. 18" 16.10±
F.L. 11.49

(38) STA. 23+89 (50' LT.)
CONST. STRAIGHT CONC. ENDWALL
F.L. 11.59 11.18



AS-BUILT
REVIEWED BY Jas DATE 6-17-97

FLD&E
Florida Land Design & Engineering, Inc.
one eonth dale mabry
suite seven hundred
tampa, florida 33609

SWANN AVE.

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Designed: A.P.F. Date:	Drawn: S.A.N. Date:	Checked: Date
Reviewed: Date:	Approved: Date:	Scale:
FIELD BOOK:		
FILE No. A-2-73	JOB No. 6895	SHEET 12 of 50

No. Date REVISION By

Q.13 Swann Avenue – Armenia Ave to Packwood Ave – Sanitary Sewer Construction Plans

AF 12087

(18) STA. 4+44 (LT.) (@ HOWARD AVE.)
CONST. INLET TYPE B-R-1
F.L. 15.25

(19) STA. 4+38 (RT.) (@ HOWARD AVE.)
CONST. INLET TYPE B-R-1
F.L. 15.15

(20) STA. 4+44 (@ HOWARD AVE.)
CONST. M.H. TYPE J-7T
(3.5' x 4.5' I.D.)
INV. 15" (W) 15.19
INV. 15" (E) 15.03
F.L. 13.09

(22) STA. 10+66 (LT.)
CONST. INLET TYPE B-R-2
F.L. 16.35

(29) STA. 11+38 (LT.)
CONST. INLET TYPE B-R-2
INV. 15" (W) 16.07
F.L. 15.82

MATCH LINE — STA. 5+00 — MATCH LINE — STA. 6+00

SWANN AVE.

HOWARD AVE.

WESTLAND AVE.

(42) STA. 8+12 (LT.)
CONST. INLET TYPE B-S-1
F.L. 15.70

T29S-R18E

STA 7+52.83 SWANN AVE. ℄ =
STA 4+00 ℄ "B" FROM SOUTH

BEGIN PAV'T TRANS.

Ex San MH (Fiberglass)
0+00.0
Inv 12.71 (N)
12.61 (Conn. 5' CONC. S/W)
12.07 (S)

Ex 8" San To Be Removed

6" PVC House Lateral

P.I. & San MH
0+47.0

P.I. & San MH
1+74.0
19°-45' (SW)

STA. 7+62.78 SWANN AVE ℄ =
STA 4+00 ℄ "B" TO NORTH

P.I. & San MH
2+15.0

Conflict San MH
2+43.0
(SEE SHT. 37 FOR PROFILE)

8" PVC

(24) STA. 3+57 (LT.) (@ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 15.25
INV. 15" (W) 15.25

(26) STA. 3+45 (8' LT.) (@ HOWARD AVE.)
CONST. M.H. TYPE J-7T
(3.5' x 6' I.D.)
INV. 15" (W) 15.21
INV. 18" (E) 13.92
F.L. 13.14

(27) STA. 7+45 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 30"(S) 14.66
INV. 36"(W) 13.05
F.L. 13.03

(25) STA. 3+45 (RT.) (@ HOWARD AVE.)
CONST. INLET TYPE B-V-1
F.L. 13.50

(28) STA. 8+05 (RT.)
CONST. INLET TYPE B-R-2
F.L. 15.70

SEE SHEET 37

(44) STA. 8+12 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 15.60
INV. 24" (S) 15.20
F.L. 12.63

(31) STA. 11+30 (RT.)
CONST. INLET TYPE B-R-1
INV. 15" (W) 15.97
F.L. 15.22

(32) STA. 11+38 (5' LT.)
CONST. M.H. TYPE J-7T
(4' x 7.5' I.D.)
INV. 18" (N) 15.77
INV. 24" (S) 15.16
F.L. 12.63

(32) STA. 10+70 (RT.)
CONST INLET TYPE B-R-1
F.L. 16.15

(39) STA. 9+22 (5' LT.)
CONST. CONFLICT M.H. TYPE J-7T
(4' x 8' I.D.)
F.L. 12.85
BOTTOM EL. 11.40

(40) STA. 6+50 (RT.)
CONST. INLET TYPE B-V-1
F.L. 14.00

(41) STA. 6+50 (5' LT.)
CONST. M.H. TYPE J-7T
(6' x 8' I.D.)
INV. 15" (N) 5.55
INV. 15" (S) 4.50
F.L. 13.13

Survey Line Profile

G" PVC HOUSE LATERAL (N&S)
(APPROX EL)

42'-8" PVC @ 0.40%
200'

40'-10" PVC
@ 0.20%

128'-10" PVC @ 0.20%
130'

10" PVC
(INV 12.80 (N)
12.08

10" RCP Stub (TO BE REMOVED)

PROFILE GRADE LINE

5+89.0
14.84 (E&W)
6+00
15.06 (W) 14.99
+31.0
7+00
13.28 (S)
+15.0
13.23 (NE) 13.24
13.15 (SW) 13.28
+74.0
13.11 (E)
+12
12.96
9+00
12.85 (W) 12.74
01+47.0
10+00
12+00

ANDREW T CRONBERG, PE # 32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

AS-BUILT
REVIEWED BY CR DATE 6-17-92

FLORIDA LAND DESIGN & ENGINEERING INC.
planning / engineering / landscape architecture
2007 pan am circle suite 200 tampa, florida 33607 (813) 875-1115

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE

Designed: A.P.F. Date:	Drawn: J.S.W. Date: 3-23-82	Checked: Date
Reviewed: Date:	Approved: Date:	Scale: 1"=20' Hor., 1"=2' Ver.
FIELD BOOK: 1992-5		
FILE No. A-2-73	JOB No. 6895	SHEET 36 of 50

No. Date REVISION By

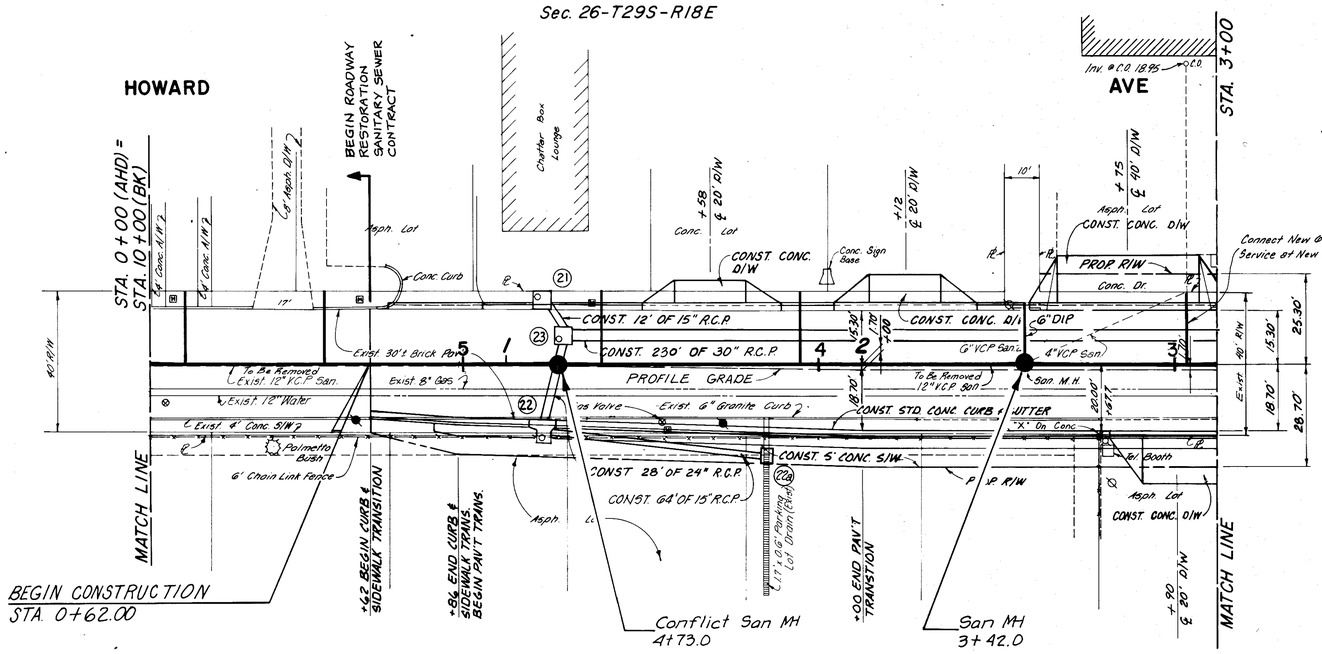
SANITARY SEWER CONSTRUCTION PLANS

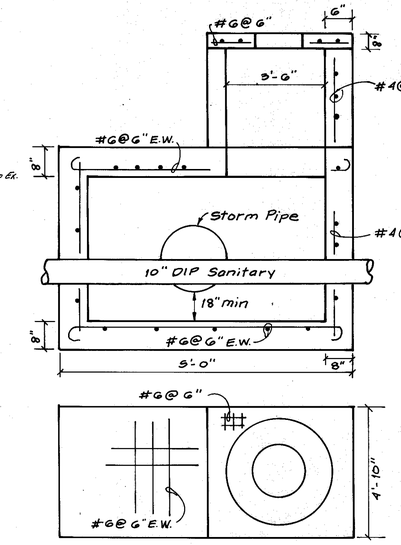
C 273-1 (92)

AF 12087

Scale: 1" = 20'

Sec. 26-T29S-R18E





TYPE J-7T CONFLICT MANHOLE
NOT TO SCALE

GENERAL NOTES

1. Remove existing pipe and manhole as necessary to install new pipe.
2. All connections between existing and proposed pipe shall be made with flexible coupling.
3. All pipe bedding shall be Class C.

(22a) STA. 1+73 (RT.)
CONST. INLET TYPE "C" (MODIFIED) w/HANDRAIL F.D.O.T. INDEX No. 282
SLOT(E) EL. 19.50, F.L. 17.50

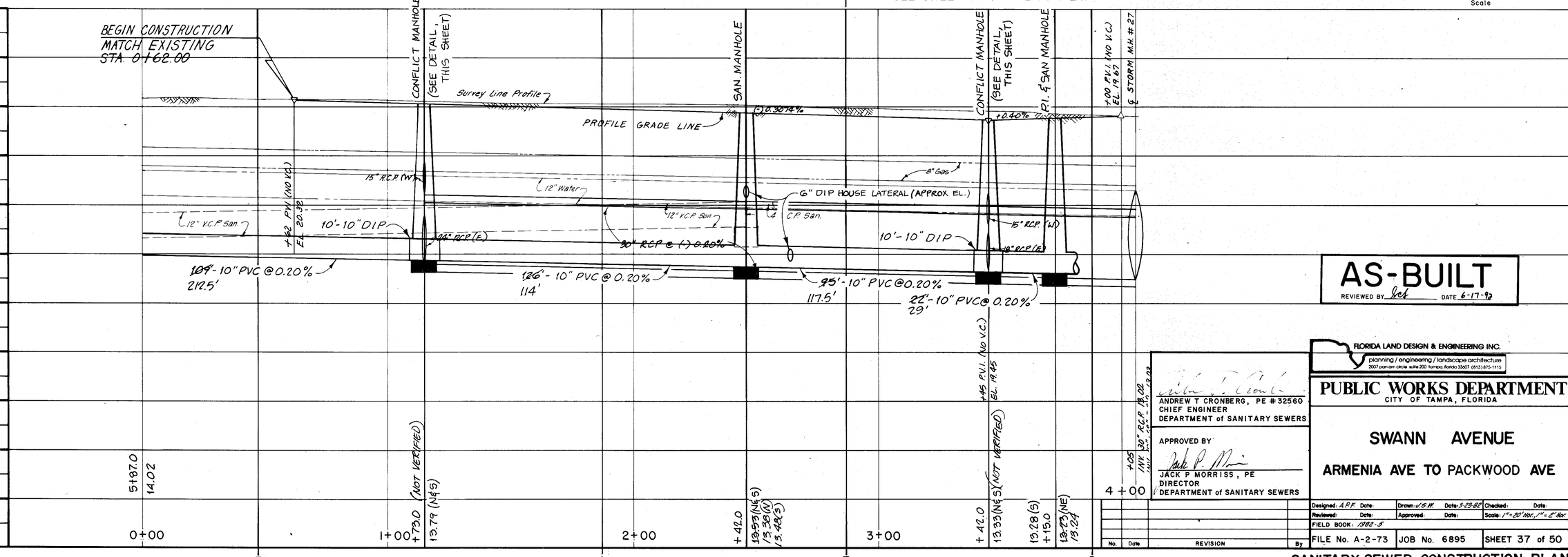
(21) STA. 1+10 (LT)
CONST. INLET TYPE I
F.L. 16.55

(22) STA. 1+10 (RT.)
CONST. INLET TYPE 'B-S-1
INV. 15"(N) 17.00
F.L. 13.80

(23) STA. 1+15 (8' LT.)
CONST. M.H. TYPE P-7T
INV. 15" (W) 16.51
INV. 24" (E) 13.72
F.L. 13.70

→ SEE SHEET I FOR PLAN VIEW

0 10 20 40 60
Scale



AS-BUILT
REVIEWED BY Jack DATE 6-17-92

FLORIDA LAND DESIGN & ENGINEERING INC.
planning / engineering / landscape architecture
2007 pan am circle suite 200 tampa, florida 33607 (813) 875-1115

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE

Designed: A.P.F. Date:	Drawn: J.S.W. Date: 3-23-82	Checked: Date:
Reviewed: Date:	Approved: Date:	Scale: 1"=20' Hor., 1"=5' Ver.
FIELD BOOK: 1982-5		
FILE No. A-2-73	JOB No. 6895	SHEET 37 of 50

No.	Date	REVISION	By

SANITARY SEWER CONSTRUCTION PLANS

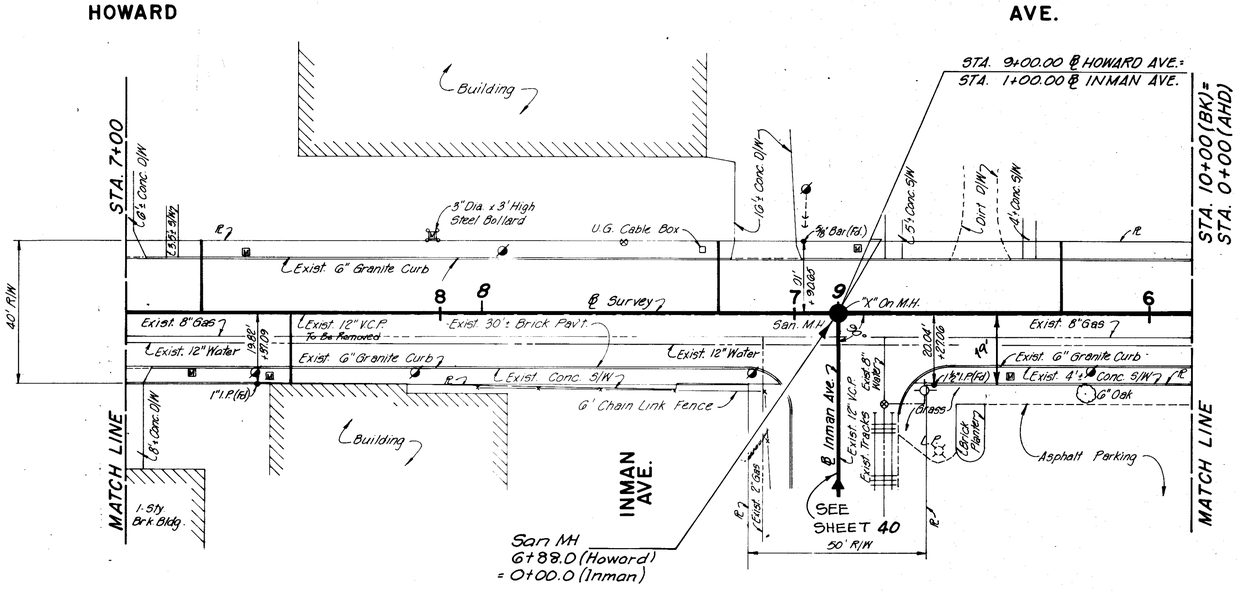
C273-2(92)

AF 12087

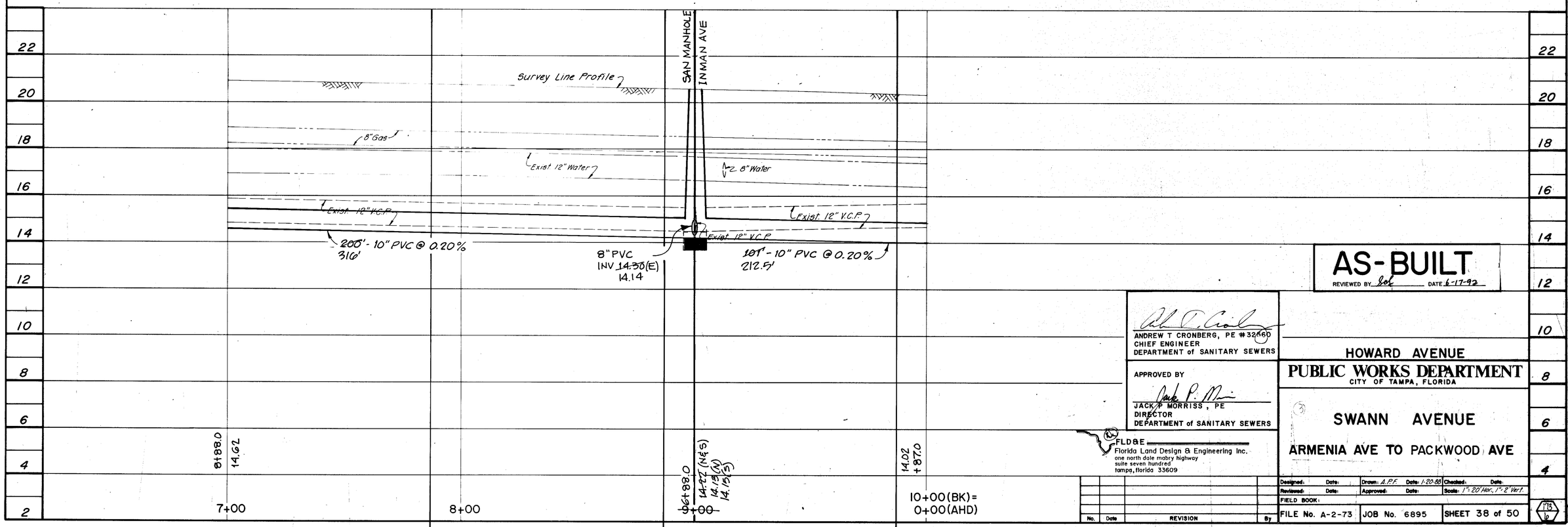
Benchmark Elev. 20.58
⊟ Cut In N.E. Cor. Conc. Sign Foundation Of Union 76 Sign S.E. Cor. Swann Ave. And Howard Ave.

Scale: 1"=20'

Sec. 26-T29S-R18E



NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.



ANDREW T CRONBERG, PE #32660
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P. MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

AS-BUILT
REVIEWED BY JPM DATE 6-17-92

FLD&E
Florida Land Design & Engineering Inc.
one north dale mabry highway
suite seven hundred
tampa, florida 33609

HOWARD AVENUE
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA
SWANN AVENUE
ARMENIA AVE TO PACKWOOD AVE

No.	Date	REVISION	By

Designed:	Date:	Drawn: A.P.F.	Date: 1-20-88	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=2' Vert.	
FIELD BOOK:					
FILE No. A-2-73	JOB No. 6895	SHEET 38 of 50			

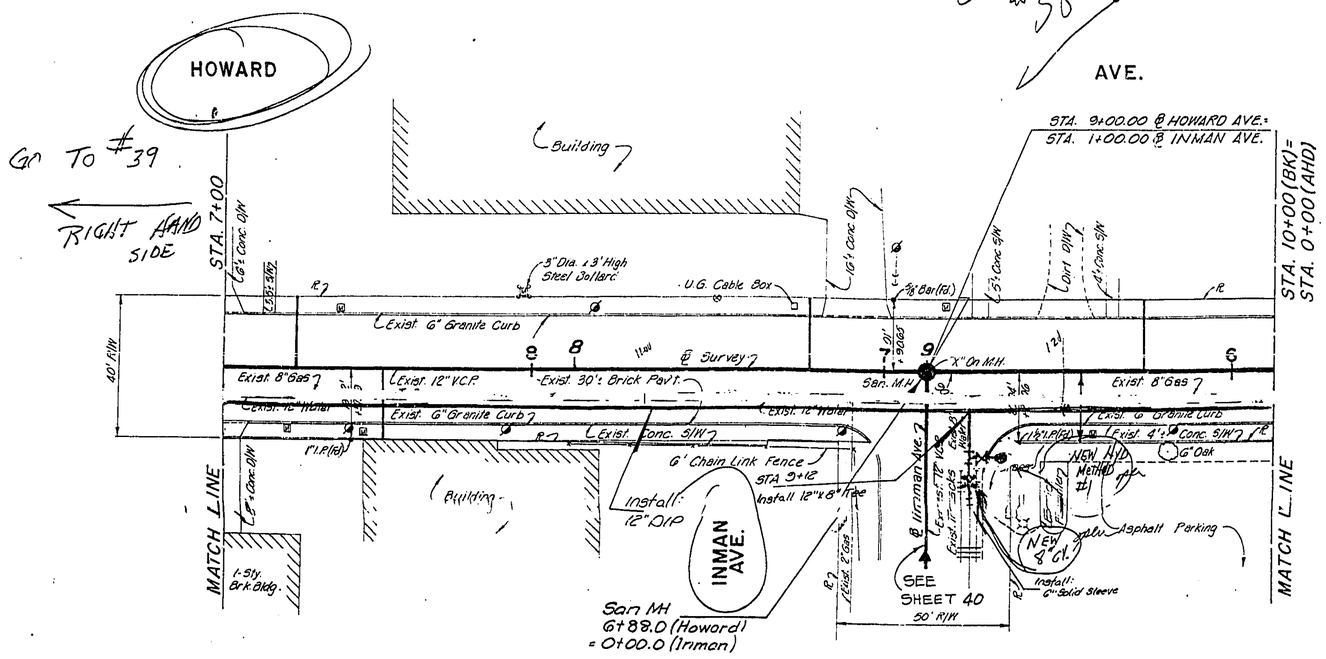
SANITARY SEWER CONSTRUCTION PLANS

C 273-3(92)

Scale: 1"=20'

Sec. 26-T29S-R18E

Sheet #38

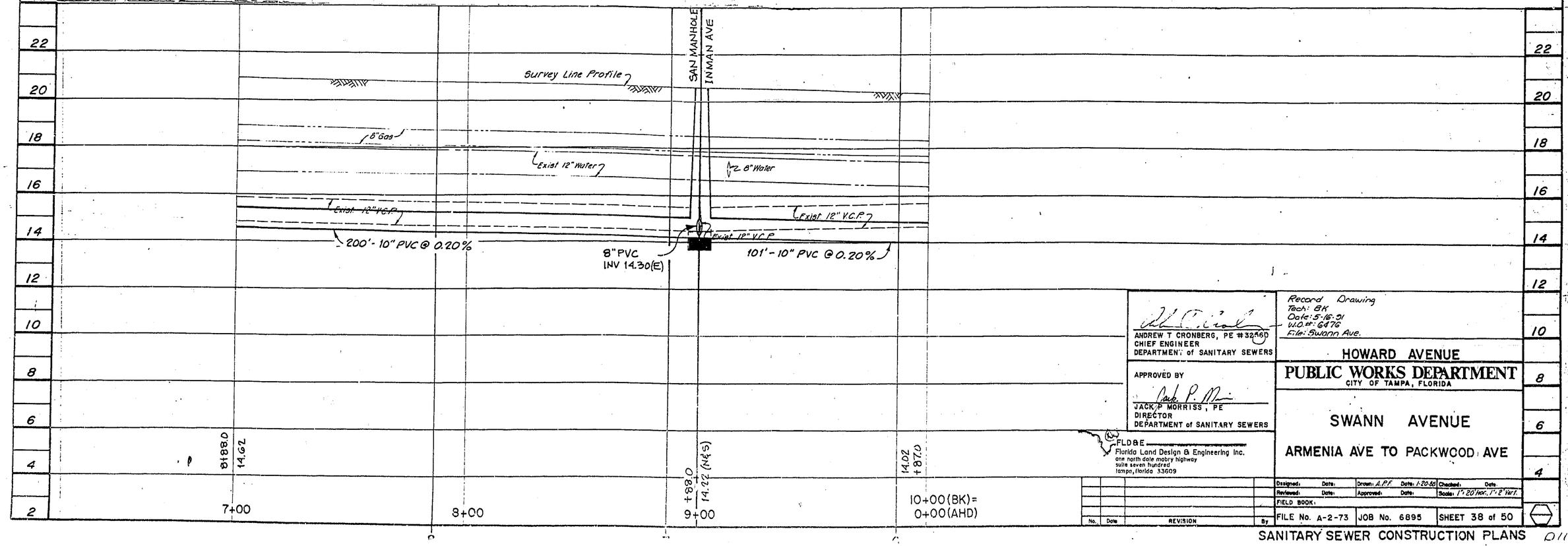


Benchmark Elev. 20.58
Cut In N.E. Cor. Conc. Sign Foundation Of Union 76 Sign S.E. Cor. Swann Ave. And Howard Ave.

BILL OF MATERIALS

SIZE	ITEM	MAKE / TYPE	EST.	ACT.
8"	DIP			1,495'
12"	DIP			2086'
6"	DIP			22'
5½"	Hydrant Assembly			5
2"	Gate Valve			2
6"	Gate Valve			4
8"	Gate Valve			7
12"	Gate Valve			3
12"x12"	Tee			1
12"x8"	Tee			2
12"x6"	Tee			1
8"x8"	Tee			1
8"x6"	Tee			4
12"x6"	TS&V			2
8"x6"	TS&V			1
10"x8"	Tee			1
8"	Solid Sleeve			1
6"	Solid Sleeve			3
12"x8"	Reducer			1
12"	45° Bend			12
12"	22½° Bend			1
8"	45° Bend			9
8"	11¼° Bend			1
6"	45° Bend			8
6"	22½° Bend			2
6"	11¼° Bend			1
6"	Tapped Cap			3
2"	Tap. Connection			2
2"	B.O. Assembly			1
12"	DIP - Removed			1651'
8"	DIP - Removed			832'

NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.



ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering Inc.
one north dale mobry highway
suite seven hundred
tampa, florida 33609

Record Drawing
Tech: BK
Date: 5-16-91
W.O.#: 6476
File: Swann Ave.

HOWARD AVENUE

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

Designed:	Date:	Drawn: A.P.F.	Date: 1-20-92	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor., 1"=2' Vert.	

FIELD BOOK:

FILE No. A-2-73 | JOB No. 6895 | SHEET 38 of 50

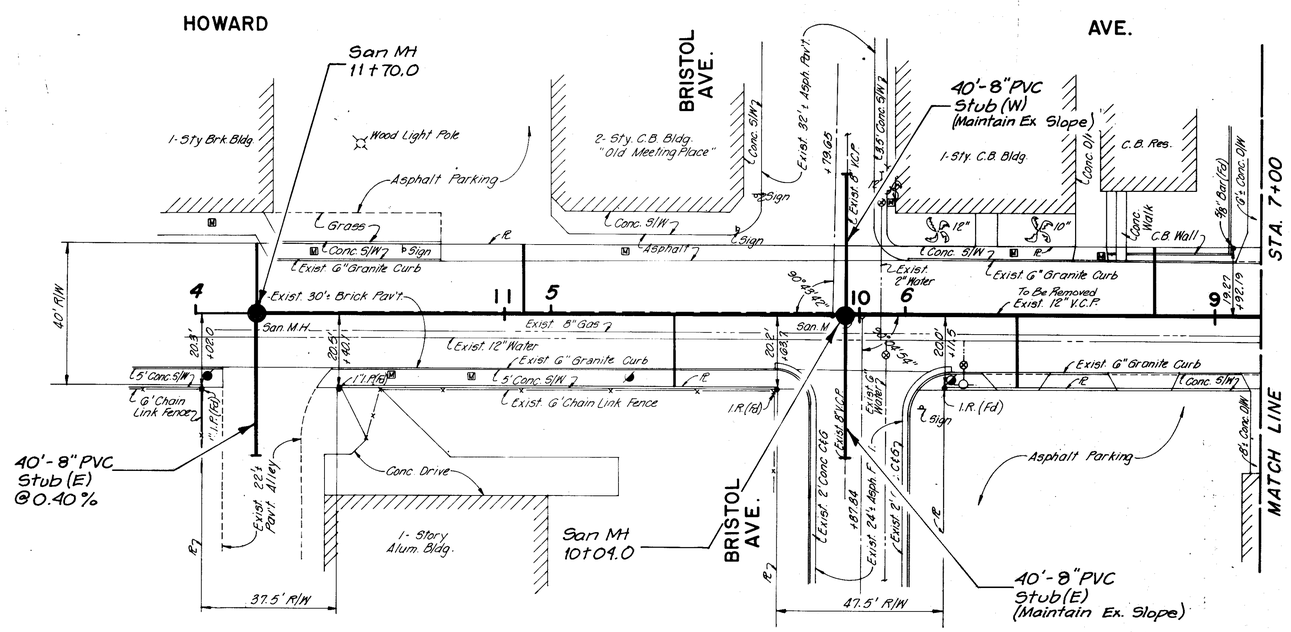
No. | Date | REVISION | By

SANITARY SEWER CONSTRUCTION PLANS 011-4-40

AF 12087

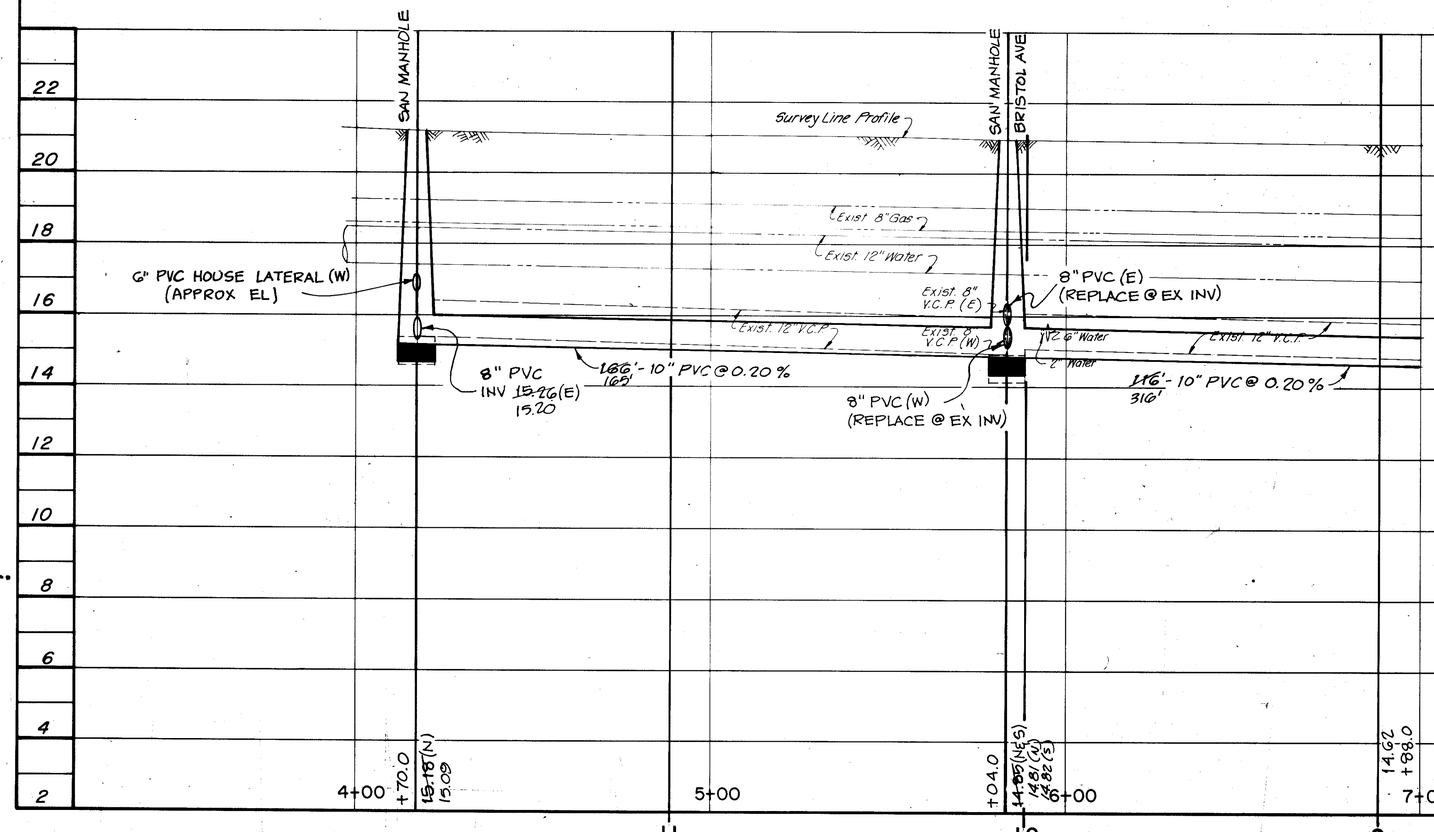
Scale: 1"=20'

Sec. 26-T29S-R18E



Benchmark Elev. 20.58
Cut In N.E. Cor. Conc. Sign Foundation Of Union 76 Sign S.E. Cor. Swann Ave. And Howard Ave.

NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.



AS-BUILT
REVIEWED BY bek DATE 6-17-92

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

APPROVED BY
JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering, Inc.
one north dale mabry
suite seven hundred
tampa, florida 33609

HOWARD AVENUE
PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA
(4)
SWANN AVENUE
ARMENIA AVE. TO PACKWOOD AVE.

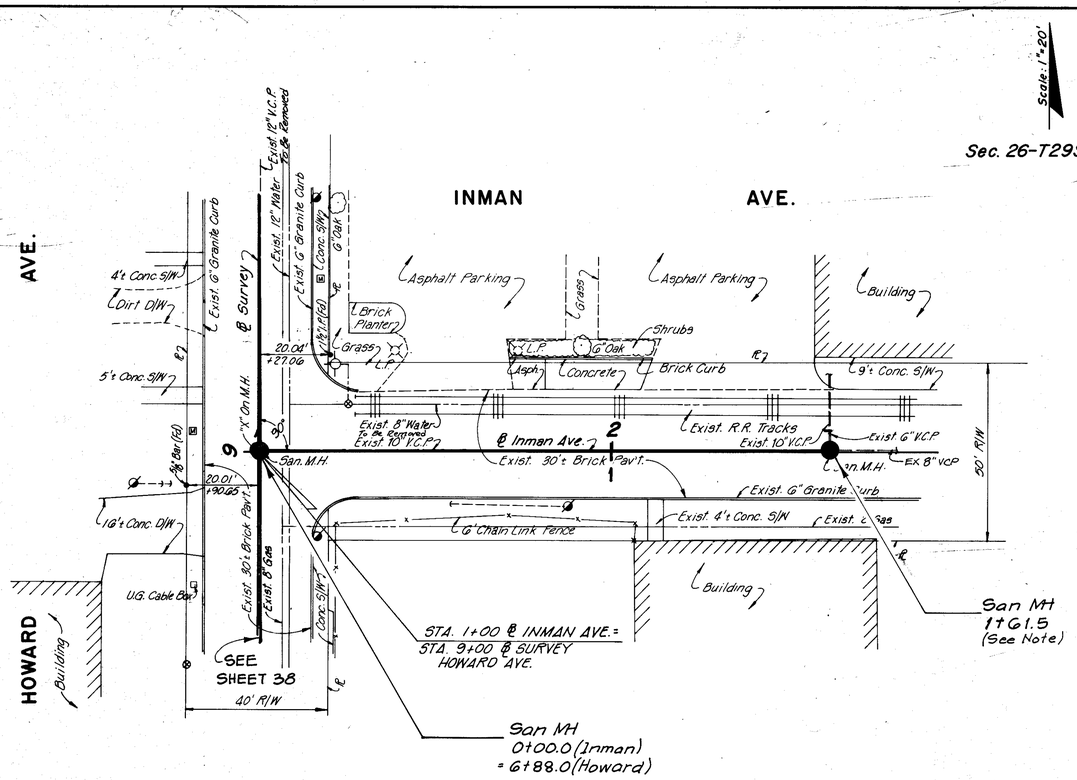
Designed:	Date:	Drawn: A.P.F.	Date: 4-6-88	Checked:	Date:
Reviewed:	Date:	Approved:	Date:	Scale: 1"=20' Hor, 1"=2' Vert.	
FIELD BOOK:					
FILE No. A-2-73	JOB No. 6895	SHEET 39 of 50			

No. | Date | REVISION | By

SANITARY SEWER CONSTRUCTION PLANS

C273.4(92)

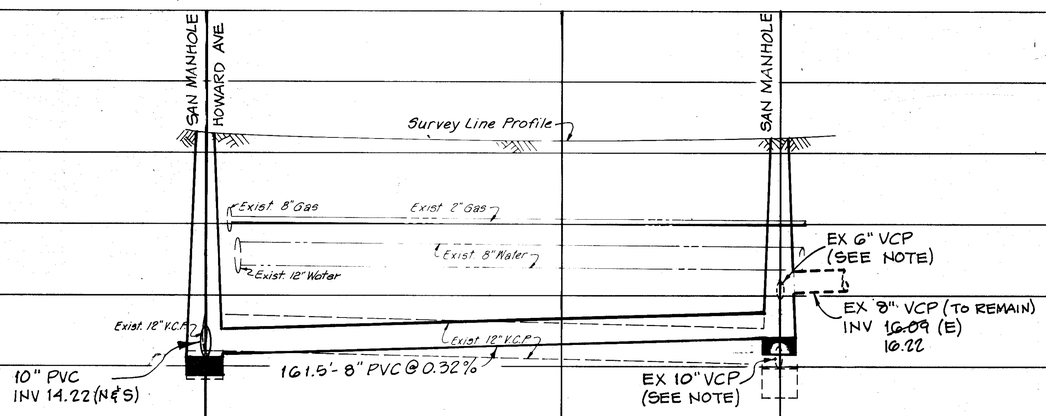
AF 12087



Benchmark Elev. 20.58
⊟ Cut In N.E. Cor. Conc. Sign Foundation Of Union 76 Sign S.E. Cor. Swann Ave. And Howard Ave.

NOTE
Plug and abandon Existing 10" line to the North; Reconnect Existing 6" to new manhole.

NOTE:
WATER AND GAS LOCATIONS ARE APPROXIMATE AS SHOWN.



AS-BUILT
REVIEWED BY [illegible] DATE 1-17-92

ANDREW T CRONBERG, PE #32560
CHIEF ENGINEER
DEPARTMENT of SANITARY SEWERS

JACK P MORRISS, PE
DIRECTOR
DEPARTMENT of SANITARY SEWERS

FLD&E
Florida Land Design & Engineering Inc.
one north dale mabry highway
suite seven hundred
tampa, florida 33609

INMAN AVENUE

PUBLIC WORKS DEPARTMENT
CITY OF TAMPA, FLORIDA

SWANN AVENUE

ARMENIA AVE TO PACKWOOD AVE

No.	Date	REVISION	By

Designed: Date: | Drawn: A.P.F. Date: 1-2086 | Checked: Date:
Reviewed: Date: | Approved: Date: | Scale: 1"=20' Hor., 1"=2' Vert.
FIELD BOOK:-
FILE No. A-2-73 | JOB No. 6895 | SHEET 40 of 50

SANITARY SEWER CONSTRUCTION PLANS

C 273-5(52)

AF 12087

SWANN AVE.

ARMENIA AVE.

MOODY AVE.

PARKLAND BLVD.

BEGIN CONSTRUCTION
STA. 0+25.00

T29S-R18E

Scale 1" = 20'

60' R/W

40' R/W

San MH
Inv 15.93 (S)
15.92

59'
60'-8" PVC
@ 0.75%

P.I. & San MH
4+13.0

CONST. 35' OF
24" R.C.P.

CONST. 30' OF 18" R.C.P.

CONST. 5' CONC. S/W

CONST. 12' OF 24" R.C.P.

CONST. CONC. D/W

CONST. 270' OF 24"x38" RCP

CONST. 5TO CONC. CURB & GUTTER

CONST. 55' OF 15" R.C.P

CONST. 240 OF 24"x38" RCP

Ex 8" San.
To Be Removed

55'-8" PVC
Stub (S)
@ 0.40%
Inv 14.93 (@ S. End of Stub)

P.I. & San MH
4+24.5

Replace Existing
with 6" PVC, install
cleanout @ R/W

CUT & PLUG
TO REMAIN

CUT & PLUG
Exist. 15" R.C.P.
(TO REMAIN)

San MH
0+85.0

Survey ℄

Exist. 8" V.C.P. San
To Be Removed

Exist. 6" Conc. Curb

Exist. 24" R.C.P.

Exist. 15" R.C.P.

Exist. 36" R.C.P.
TO REMAIN

Exist. 6" Water

Exist. 2" Gas

Exist. Telephone

Exist. 8" Water

Conc. Dr.

Conc. Man.

Storm M.H. (TO REMAIN)

Storm M.H.

San. M.H.

San. H.C.

Exist. 24' Asph. Pav't

Exist. 16' Asph. Pav't

Exist. 15' Asph. Pav't

Exist. 18' Asph. Pav't

Exist. 20' Asph.

Asph. Lot

Conc. S/W

Conc. D/W

Business

1-Sty Masonry Bldg.

P.K. Nail (Control)

6" San. H.C.

6' Chain Link Fence

Guy Pole

1" I.P.

1/2" I.P.

1/2" I.R.

L.P.

P.C.

P.T.

℄ R/W

℄ Conc. A/W

℄ Asph. D/W

℄ Exist. Telephone

℄ Exist. 6" Water

℄ Exist. 2" Gas

℄ Exist. 6" Conc. Curb & Gutter

℄ Exist. 6" Conc. Curb

℄ Exist. 6" Water

℄ Exist. 15" R.C.P. San

℄ Exist. 8" V.C.P. San

℄ Exist. 24" R.C.P.

℄ Exist. 15" R.C.P.

℄ Exist. 36" R.C.P.

℄ Exist. 6" Conc. Curb

℄ Exist. 8" Water

℄ Exist. 2" Gas

℄ Exist. Telephone

℄ Exist. 6" Water

℄ Exist. 20' Asph.

℄ Exist. 5' Conc. S/W

℄ Exist. 24" R.C.P.

℄ Exist. 6" Conc. Curb

℄ Exist. 15" R.C.P.

℄ Exist. 6" Conc. Curb

℄ Exist. 15' Asph. Pav't

℄ Exist. 16' Asph. Pav't

℄ Exist. 6" Conc. Curb

℄ Exist. 6" Conc. Curb & Gutter

℄ Exist. 6" Water

℄ Exist. Telephone

℄ Exist. 6" Water

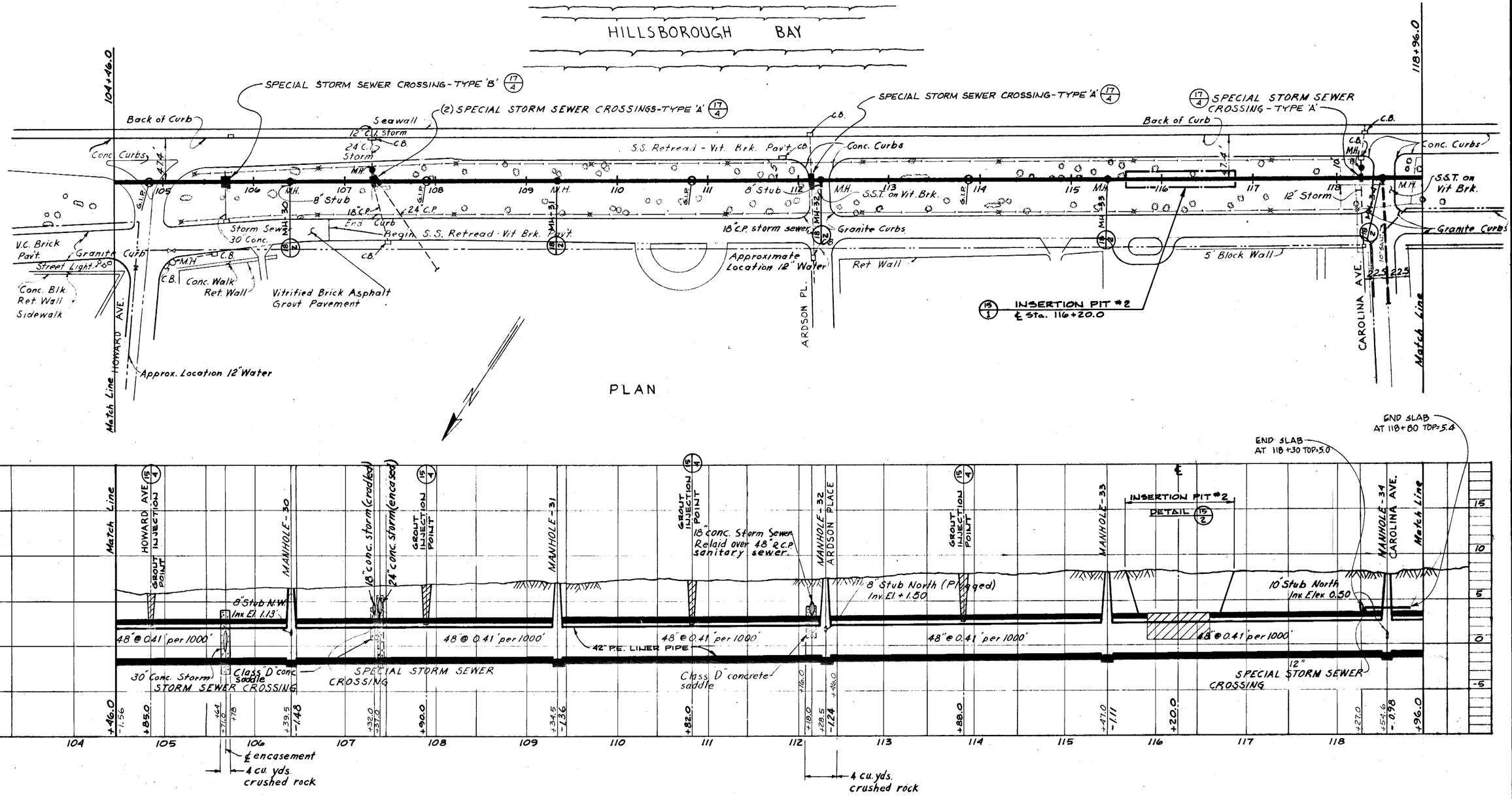
℄ Exist. 2" Gas

℄ Exist. Telephone

℄ Exist. 8" Water

℄ Exist. 2" Gas

Q.14 Bayshore Interceptor Rehabilitation Project (City of Tampa Dept. of Sanitary Sewers)



BASE INFORMATION DERIVED FROM RECORD DRAWINGS PREPARED BY GREELEY & HANSEN ENGINEERS DATED JANUARY 30, 1952.

UTILITIES AND STREET IMPROVEMENTS UPDATED FROM DRAWINGS SUPPLIED BY CITY OF TAMPA OR PRIVATE UTILITIES.

CONTRACTOR TO VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATION.

AS BUILT

REYNOLDS, SMITH AND HILLS
ARCHITECTS • ENGINEERS • PLANNERS
INCORPORATED
TAMPA FLORIDA

DALE D. ERNSBERGER, P.E. #13768

DES. D.D.E.
DRN. G.M.T.
CKD. D.D.E.
DATE: 1-30-85

DEPARTMENT OF SANITARY SEWERS
ELTON G. SMITH, DIRECTOR
RALPH L. METCALF, II, CHIEF ENGINEER

No	DATE	REVISIONS
1	12/93	AS-BUILT PER MARKED-UP PRINTS

SCALE
50 0 50 100 150
HORIZONTAL: 1" = 50'
VERTICAL: 1" = 5'

DEPARTMENT of SANITARY SEWERS
CITY of TAMPA, FLORIDA
BAYSHORE INTERCEPTOR REHABILITATION PROJECT

PLAN AND PROFILE
STA. 104+46 to STA. 118+96

SHEET 12 OF 18

39-106

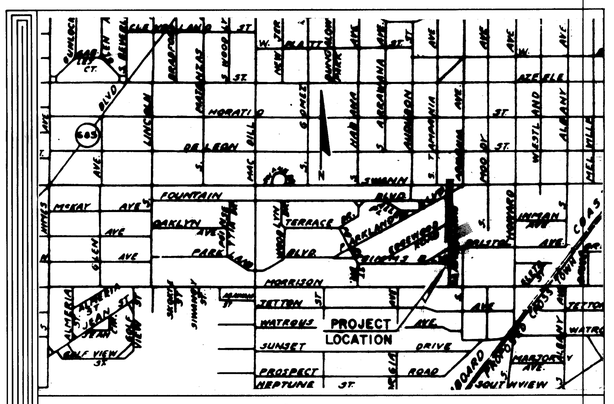
Q.15 Lakeview Road Drainage – Parkland Blvd to Bristol Ave

AF 43400

CITY OF TAMPA
DRAINAGE IMPROVEMENTS

LAKEVIEW ROAD DRAINAGE

Parkland Blvd. to Bristol Ave.



VICINITY MAP
Scale: 1" = 1000'

INDEX OF SHEETS

Sheet No.	Description
1	Cover Sheet and Vicinity Map
2	Summary of Quantities, General Information and Legend
3-5	Plan and Profile

APPLICABLE CITY STANDARD DRAWINGS

D-2	Standard Inlets Types 1,2,3,"D","E", & "H" (Rev. 10/88)
D-8	Manhole Frame & Cover (Rev. 5/83)
D-10	Guidelines For Conflict M.H. (12/81)
P-3	Curb & Gutters (5/81)

APPLICABLE D.O.T. STANDARD DRAWINGS - (1990)

102	Baled Hay or Straw Barriers and Silt Fences (3 Sheets)
200	Structure Bottoms Types J&P (Rev. 12/88)
211	Curb Inlet Tops Types 5&6
280	Misc. Drainage Details (Sheet 1 of 4)

FILE No. PW87-75 JOB No. 5445

CONTRACT No. 3-92

AS-BUILT PLANS PREPARED FROM COMPLETED CONSTRUCTION INFORMATION SUBMITTED BY CONSTRUCTION ENGINEER AND REVIEWED FOR CONFORMATION OF GENERAL SITE CONDITIONS

Project Engineer _____ Date 10-21-93

Construction Engineer _____ Date _____

APPROVED BY
HENRY DORZBACK, PE #39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

APPROVED BY
RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

STORMWATER MANAGEMENT DIVISION
CITY OF TAMPA
Sheet to Inclusive, Certified By:

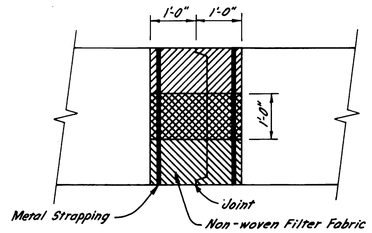
STORMWATER MANAGEMENT DIVISION
DEPARTMENT OF SANITARY SEWERS
CITY OF TAMPA, FLORIDA

AF 44781

LEGEND

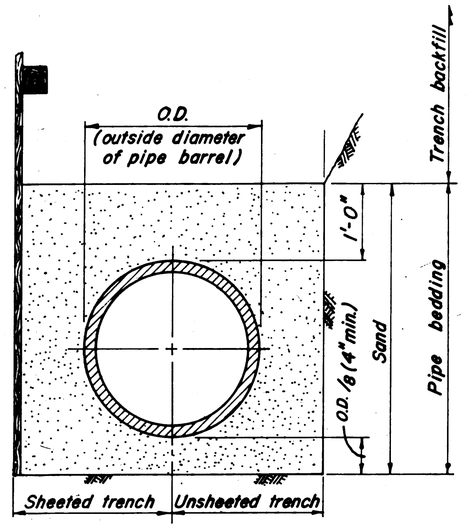
EXISTING Up to 15"	EXISTING 15" & Over	PROPOSED Up to 15"	PROPOSED 15" & Over	TYPE
12" R.C.P.	24" R.C.P.			STORM SEWER
8" V.C.P.	24" V.C.P.			SANITARY SEWER
8" Water	24" Water			WATER
6" Gas	18" Gas			GAS
				POWER (Electric)
				TELEPHONE
F F		F F		FIRE ALARM CABLE
4" Roof Drain				ROOF DRAIN
		3.5'-Depth Below Grade at ℄		WYE AT PROPERTY LINE (San. Sewer House Conn.)
				TEE AT PROPERTY LINE (San. Sewer House Conn.)
				STORM SEWER MH
				SANITARY SEWER MH
				OTHER (Type Identified)
V		V		VALVE BOX
M		M		METER
Gas Drip				GAS DRIP
				HANDHOLE OR PULL-BOX
				VALVE
Cleanout				SANITARY SEWER CLEANOUT
				FIRE HYDRANT
				POWER POLE (Electric)
				TELEPHONE POLE
				COMBINATION POLE (Power & Telephone)
				STREET LIGHT ON POST
				TRAFFIC LIGHT ON POST
P		P		POLICE CALL BOX
S		S		STREET SIGN ON POST (Marker)
				GUY POLE & WIRES
				GUY WIRE
Shrubs				SHRUBS
10" Pine				CONIFER TREES
6" Palm				PALM TREES
8" Oak				MISC. TREES (Identified)

NOTES:
1. For construction drawings, items listed under PROPOSED are items to be constructed.
2. All pipes and conduits to be drawn to scale in profile.

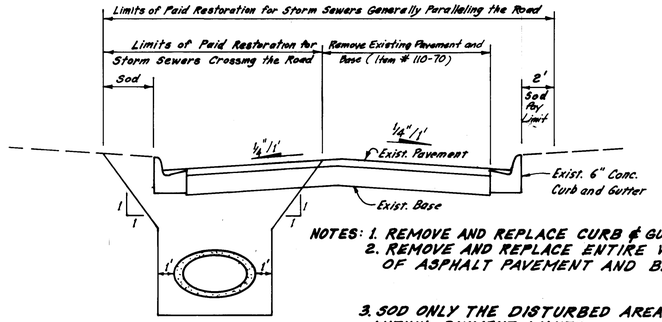


FILTER FABRIC JACKET DETAIL

Not to Scale



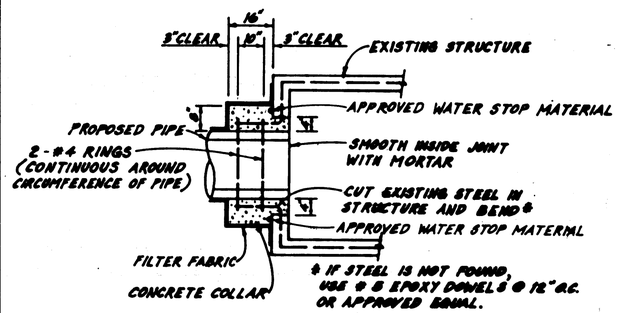
CLASS C BEDDING



NOTES: 1. REMOVE AND REPLACE CURB & GUTTER.
2. REMOVE AND REPLACE ENTIRE WIDTH OF ASPHALT PAVEMENT AND BASE
3. SOD ONLY THE DISTURBED AREA AND/OR WITHIN PAYMENT LIMITS.

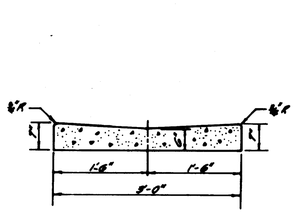
RESTORATION OF EXISTING PAVEMENT

Not to Scale



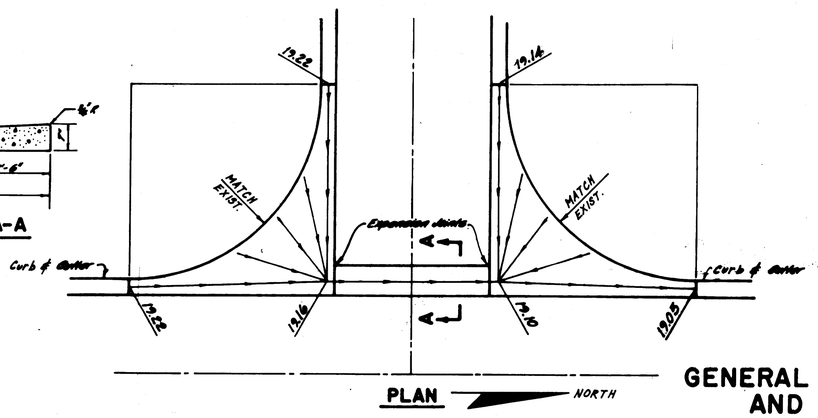
TYPICAL CONNECTION DETAIL TO EXISTING DRAINAGE STRUCTURE

NOT TO SCALE



SECTION A-A

N.T.S.



PLAN

NORTH

INTERSECTION VALLEY GUTTER

N.T.S.

GENERAL NOTES

1. ALL ELEVATIONS ARE REFERRED TO THE MEAN SEA LEVEL DATUM OF THE U.S.C. AND G.S. (N.O.S.).
2. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE AT LEAST 48 HOURS NOTICE TO THE VARIOUS UTILITY COMPANIES IN ADVANCE OF CONSTRUCTION, BY CALLING CANDY: 1-800-282-8881.
4. WHERE CONNECTIONS TO EXISTING WALKS AND DRIVES ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT DIRECTION OF THE ENGINEER.
5. STATIONS GIVEN ARE TO THE CENTERLINE OF THE INLETS AND MANHOLES.
6. THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE LATEST "TREE ORDINANCE" OF THE CITY OF TAMPA. THE CONTRACTOR IS REQUIRED TO RELOCATE THE TREES REMOVED AS A PART OF THE NECESSARY CONSTRUCTION INDICATED ON PLANS. HOWEVER, NO TREE SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER. CONTRACTOR SHALL PROTECT TREES TO REMAIN.
7. STREET SIGNS, STREET MARKERS AND R-O-W MARKERS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER.
8. WHEN IN CONFLICT, UTILITY POLES, GAS LINES, UNDERGROUND ELECTRIC AND TELEPHONE CABLES WILL BE RELOCATED BY THE RESPECTIVE UTILITY OWNERS AT THEIR OWN EXPENSE AS DIRECTED BY THE ENGINEER.
9. DRIVEWAYS SHALL BE RECONSTRUCTED IN ACCORDANCE WITH CHAPTER 45, ARTICLE XIII OF THE CITY CODE, AS AMENDED BY ORDINANCE NO. 7582-A ADOPTED MARCH 17, 1981. DEVIATION FROM THE ESTABLISHED STANDARDS SHALL BE APPROVED BY THE CITY TRAFFIC ENGINEER.
10. USE CLASS 'C' BEDDING FOR ALL PIPES.
11. ALL PRECAST STRUCTURES SHALL FOLLOW D.O.T. CITY STANDARDS AS WELL AS SPECIFIC PROVISIONS
12. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL CURRENT ENVIRONMENTAL AND PERMIT RULES AND REGULATIONS OF THE CITY, STATE, (D.E.R. & SWFWMD), TAMPA PORT AUTHORITY, E.P.C. AND OTHERS.
13. PRIOR TO ANY CONSTRUCTION, CONTACT TAMPA ELECTRIC CO. (PH. 228-4714) FOR EXACT LOCATION OF UNDERGROUND LINES. TECO TO RELOCATE ANY CONFLICTING LINES.
14. IF LESS THAN 18" OF CLEARANCE IS NOT PROVIDED BETWEEN ANY OF THE 8" VCP SANITARY SEWERS OR 6" VCP SANITARY HOUSE CONNECTIONS AND THE PROPOSED STORM SEWERS CROSSING, REMOVE THE VCP AND AND REPLACE IT WITH THE SAME SIZE, CLASS 54 DIP WITH POLYBOND LINING, CONNECT WITH APPROVED FLEXIBLE CONNECTIONS.
15. ALL INLET APRONS SHALL BE 6" THICK CONCRETE OVER COMPACTED BASE. IF CURB IS SHOWN ON THE SIDES OF THE APRON, IT SHALL BE CONSTRUCTED INTEGRALLY WITH THE APRON. APRONS SHALL BE CONSTRUCTED AT 45 DEGREE ANGLES TO THE EDGE OF PAVEMENT.
16. ALL RCP'S AND ERCP'S SHALL BE MANUFACTURED AND INSTALLED WITHOUT LIFTHOLES.
17. ALL RCP'S AND ERCP'S SHALL BE CLASS III UNLESS NOTED OTHERWISE ON THE PLANS.

EROSION CONTROL

1. The erosion control shall comply with SP-21 (Latest Specification) along with the current Local, State and Federal erosion control regulations.
2. D.O.T. Index No. 102 (sheet 2 of 3) baled hay or straw barriers and silt fences is included as part of this sheet set for erosion control during construction.

APPROVED BY
RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

APPROVED BY
HENRY DORZBACK, PE # 39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

No.	Date	REVISION	By

GENERAL INFORMATION AND LEGEND

DEPT. OF SANITARY SEWERS
CITY OF TAMPA, FLORIDA

LAKEVIEW ROAD DRAINAGE

Parkland Blvd. to Bristol Ave.

Designed: [illegible] Date: 3/92 | Drawn: M.E. Date: 8-19-92 | Checked: Date:
Reviewed: Date: | Approved: W.H. Date: 3-92 | Scale:
FIELD BOOK:

FILE No. PW87-75 | JOB No. 5445 | SHEET 2 of 5

AF 12087

Scale: 1" = 20'

Sec. 27-T29S-R18E

POLES TO BE PROTECTED OR RELOCATED BY TECO

TECO TO PROTECT

CONST. STD. TYPE 'J-7T' (4'x6') STA. 11+~~44±, 95~~ +45 7.5 LT.

TOP OF M.H. RIM ELEV. = 17.63
INV. N. ELEV. = 12.42
INV. (S) ELEV. = 12.57

CONST. 164' OF 19"x30" R.C.P.

CONST. 109' OF 19"x30" R.C.P.

CONST. STD. CONFLICT M.H. TYPE 'J-7T' (6'x4') STA. ~~12+33~~, 6' LT. 12+57
TOP ELEV. = ~~17.96~~ 17.96
INV. (W) ELEV. = 14.87
INV. (N) ELEV. = 12.85
INV. (E) ELEV. = 15.96
INV. (S) ELEV. = 12.89

PEOPLES GAS TO RELOCATE

CONST. 8' OF 12"x18" R.C.P., CL II @ 1.0%

CONST. STD. INLET TYPE I STA. 12+60, 12' ± LT. 15.94
INV. 12"x18" R.C.P. = ~~16.08~~
TOP OF INLET at M.H. RIM ELEV. = 18.28
THROAT ELE. = 17.48

CONST. 98' OF 19"x30" R.C.P.

TECO TO RELOCATE - SEE NOTE #2

CONST. STD. M.H. TYPE 'J-7T' (4'x4') STA. ~~13+91~~, 6' LT. 13+49
TOP ELEV. = ~~15.16±~~ 18.14
INV. (N) ELEV. = 13.13
INV. (S) ELEV. = 13.31
INV. (W) ELEV. = 15.43

CONST. 99' OF 14"x23" R.C.P.

T.B.M. # 2 Elev. 18.73
T-cut & conc. S/W on S.W. corner Edgewood Rd. & Lakeview Rd., 35' ± S. & Edgewood Rd. & 20' ± W. & Lakeview Rd.

T.B.M. # 3 Elev. 17.86
T-cut & conc. S/W on S.E. corner Lakeview Dr. & Parkland Blvd., 20' ± E. & Lakeview Rd. & 30' ± S. & Parkland Blvd.

PARKLAND BLVD.

LAKEVIEW RD.

EDGEWOOD RD.

STA. 14+50

MATCH LINE

50' R/W

Survey & Profile

CONST. STD. M.H. TYPE 'J-7T' (4'x4') STA. 9+80.1, 8' LT. 17.46
TOP ELEV. = ~~17.46~~
RECONNECT EXISTING 36" R.C.P. (E. & W.)
TOP OF M.H. RIM ELEV. = 17.46
INV. (E) ELEV. = 11.90
INV. (W) ELEV. = 11.87
INV. (S) ELEV. = 11.83

Approx. Location of U/G Electric

Approx. Location of U/G Telephone Cable

Approx. Location of U/G Electric

Dbl. 8" Mulberry Tree

4" Chain Link Fence

3- Cherry Laurels

26" Oak

8" Cherry Laurel

2- 6" Cherry Laurel

50" Oak

2- Water

Conc. D/W

Conc.

Grass Med.

Curb Inlet

16' Conc. Inlet

Storm M.H. 19"-R.C.P.

MATCH EXISTING CURB & GUTTER

PROTECT 8" WATER

REMOVE EXIST. 8" V.C.P. AND INSTALL 20' OF 8" D.I.P. WITH POLYBOND LINING AND APPROVED FLEXIBLE CONNECTION

PEOPLES GAS TO RELOCATE

STA. 11+06.25

STA. 11+05.67

R = 143.24'
L (A) = 73.656'

(AS PER SKETCH RECEIVED 12/7/92)

CONST. 16' OF 15" R.C.P. @ 0.5%

CONST. STD. INLET TYPE P-5 12.58 STA. ~~12+99~~ ±, 10' ± RT.
INV. 15" R.C.P. = ~~15.00~~ 15.08
TOP OF INLET at M.H. RIM ELEV. = 18.36
THROAT ELEV. = 17.58

REMOVE EXIST. 8" V.C.P. AND INSTALL 20' OF 8" D.I.P. WITH POLYBOND LINING AND APPROVED FLEXIBLE CONNECTION

MATCH EXIST. CURB & GUTTER

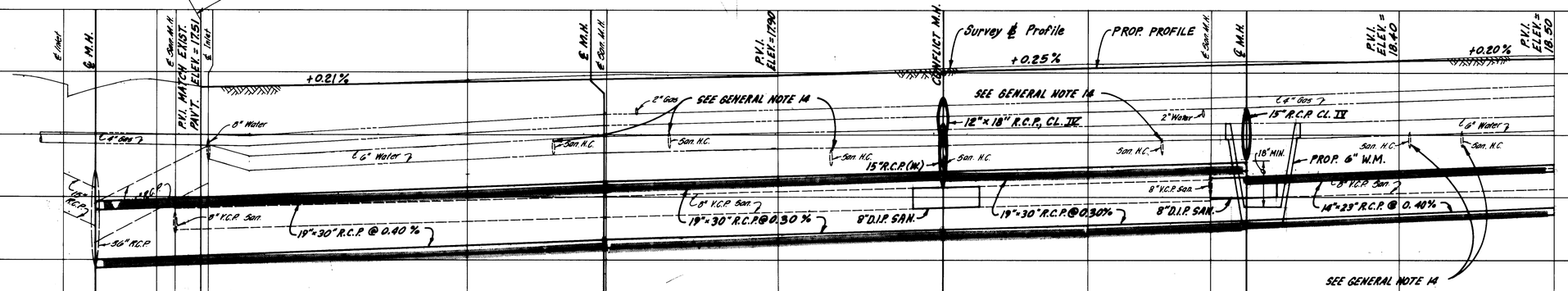
CONST. 42' OF 15" R.C.P. CLASS II @ 0.5%

TOP OF INLET at M.H. RIM ELEV. = 18.56
CONST. STD. INLET TYPE II STA. 13+73, 36' RT.
THROAT ELEV. = ~~18.00~~ 17.85
INV. 15" R.C.P. = ~~17.61~~ 15.62

OFFSET/RELOCATE 6" W.M. AS PER CURRENT WATER DEPT. STD.
INSTALL 45° BEND AT STA. 13+50, 13.5' RT.,
45° BEND AT STA. 13+53, 13.5' RT.
45° BEND AT STA. 13+71, 13.5' RT.
45° BEND AT STA. 13+74, 13.5' RT.
ALL JOINTS SHALL BE RESTRAINED FROM STA. 13+18 TO STA. 14+06.

LEGEND:
O_S Sprinkler Head

NOTES:
1. REMOVE AND REPLACE STANDARD CURB & GUTTER FROM STA. 10+05 ± TO STA. 14+50. (BOTH SIDES OF LAKEVIEW ROAD)
2. TECO SHALL LOCATE AND PROTECT U/G ELECTRIC CABLES FOR ENTIRE PROJECT AREA, AND RELOCATE CABLE WHERE IN CONFLICT WITH PROPOSED STORM SEWERS.



APPROVED BY
RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

APPROVED BY
HENRY DORZBACK, PE #39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

AS-BUILT
REVIEWED BY [illegible] DATE 10-21-93

DEPT. OF SANITARY SEWERS
CITY OF TAMPA, FLORIDA

LAKEVIEW ROAD DRAINAGE

Parkland Blvd. to Bristol Ave.

Designed:	Date: 7/92	Drawn: AHW	Date: 4-27-93	Checked:	Date:
Reviewed:	Date:	Approved: W.L.H	Date: 3/92	Scale: 1" = 20' Hor., 1" = 2' Ver.	
FIELD BOOK: 1988-1					
FILE No. PW87-75	JOB No. 5445	SHEET 3 of 5			

No.	Date	REVISION	By

25

AF 12087

Scale: 1"= 20'

Sec. 27 T29S R18E

LAKEVIEW RD.

BRISTOL AVE.

SIMMS BLVD.

MATCH LINE

STA. 14+50

STA. 11+50

STA. 19+11 MATCH EXISTING

50' R/W

35' R/W

CONST. STD. CONFLICT M.H. TYPE 'J-7T' (5'x 4') STA. 15+65±, 6' LT. TOP ELEV. = 18.61 ± (SEE NOTE # 4)

CONST. 12' OF 15" R.C.P. @ 0.5% TOP OF INLET at M.H. ELEV. = 18.96
CONST. STD. INLET TYPE 'I' STA. 16+72 ±
THROAT ELEV. = 18.23 14.77
INV. 15" R.C.P. = ~~14.80~~

OFFSET/RELOCATE 2" WATER MAIN AS PER CURRENT WATER DEPT. STD. INSTALL 45° BEND AT STA. 16+76, 6' LT., 45° BEND AT STA. 16+80, 9' LT., 45° BEND AT STA. 16+80, 12' LT., 45° BEND AT STA. 16+76, 15' LT.

NOTE: SANITARY SEWER LINE IS 3' SOUTH OF OUTSIDE WALL OF JUNCTION BOX. BOX WAS SHIFTED NORTH SO NOT TO BE IN CONFLICT WITH SANITARY.

P.I. Survey @ Sta. 11+71.93 N & C.

CONST. 28' OF 18" R.C.P.

MATCH EXIST. CURB & GUTTER

CONST. 16' OF 12"-18" R.C.P. CLASS II @ 0.5%
TOP OF INLET at M.H. RIM ELEV. = 19.03
CONST. STD. INLET TYPE 'I'
STA. 17+~~05~~03
THROAT ELEV. = 18.23
INV. 12"x 18" R.C.P. = ~~16.50~~ 16.39

CONST. 50' OF 14"-23" R.C.P. CLASS II

CONST. STD. M.H. TYPE 'P-7T' (WITH INVERTED M.H. FRAME & COVER)
STA. 17+37, 6' LT.
TOP ELEV. = ~~18.95~~ ± 18.97
INV. ELEVs (N) = 15.95, (S) = 15.99, (W) = 16.16.

CONST. 9' OF 14"-23" R.C.P. CLASS II STUB

CONST. 18' OF 12"-18" R.C.P. CLASS II @ 0.5%

TOP OF INLET at M.H. RIM ELEV. = 19.29
CONST. STD. INLET TYPE 'I'
STA. 17+39±
THROAT ELEV. = 18.47
INV. 12"-18" R.C.P. = ~~16.25~~ 16.31

26.5' RT. MATCH EXIST.

CONST. INTERSECTION VALLEY GUTTER AS PER DETAIL ON SH. 2

CONST. 116' OF 14"-23" R.C.P.

PEOPLES GAS TO PROTECT 2" GAS

4" GAS TO BE RELOCATED BY PEOPLES GAS FROM STA. 16+50± TO STA. 17+40±

CONST. STD. CONFLICT M.H. TYPE 'J-7T' (8' x 5') STA. 16+~~88~~, ~~17+23~~ LT. 6.00 TOP ELEV. = 18.85 ± (SEE DETAIL THIS SHEET) WITH INVERTED M.H. FRAME & COVER.

CONST. 120' OF 14"-23" R.C.P.

CONST. 18' OF 12"x 18" R.C.P, CLASS II @ 0.50%

CONST. STD. INLET TYPE 'I' STA. 16+~~88~~89
TOP OF INLET at M.H. RIM ELEV. = 19.03
INV. 12"x 18" R.C.P. = ~~16.30~~ 16.27
THROAT ELEV. = 18.26

REMOVE EXIST. 8" V.C.P. AND INSTALL 20' OF 8" D.I.P. WITH POLYBOND LINING AND APPROVED FLEXIBLE CONNECTION

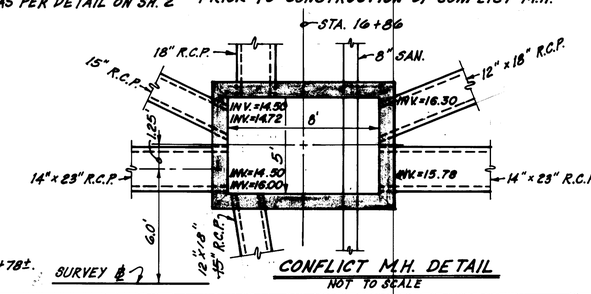
OFFSET/RELOCATE 6" W.M. AS PER CURRENT WATER DEPT. STANDARD. INSTALL 45° BEND AT STA. 16+82, 13.5' RT., 45° BEND AT STA. 16+88, 18.0' RT. 45° BEND AT STA. 17+40, 18.0' RT. 45° BEND AT STA. 17+46, 19.5' RT. ALL JOINTS SHALL BE RESTRAINED FROM STA. 16+50±, TO STA. 17+78±. RECONNECT 2" W.M. @ STA. 17+88±, 18.0' RT.

LEGEND: ⊙S Sprinkler Head

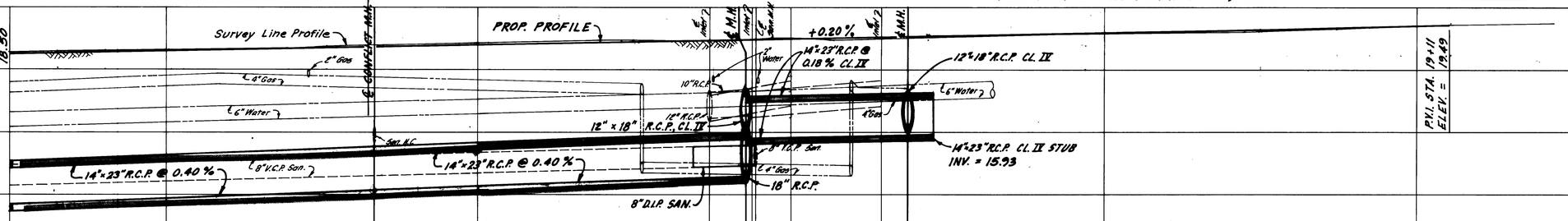
T.B.M. #1 Elev. 20.14
T- cut Bk conc. S/W @ Radius @ S.W. Cor. Lakeview Rd. & Simms Blvd. Ref. Bk # 1987-10

T.B.M. #2 Elev. 18.79
T- cut @ conc. S/W on S.W. corner Edgewood Rd. & Lakeview Rd., 95'± S. @ Edgewood Rd. & 20'± W. @ Lakeview Rd.

NOTES:
1. REMOVE AND REPLACE STD. CURB & GUTTER FROM STA. 14+50 TO STA. 19+11.
2. ALL EXISTING INLETS AND STORM SEWER PIPES AT THE INTERSECTION OF BRISTOL AVE. AND LAKEVIEW RD. SHALL BE REMOVED.
3. EXISTING 12" R.C.P. SHALL BE REMOVED WITHIN THE AREA AFFECTED BY THE CONSTRUCTION THE REMAINING PORTION OF THE PIPE SHALL BE CLEANED AND GROUTED AND SHALL BE PLUGGED AT BOTH ENDS.
4. VERIFY EXACT ELEVATION OF ⌀" H.C. PRIOR TO CONSTRUCTION OF CONFLICT M.H.



CONFLICT M.H. DETAIL
NOT TO SCALE



AS-BUILT
REVIEWED BY [signature] DATE 10-21-93

APPROVED BY [signature]
RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

APPROVED BY [signature]
HENRY DORZBACK, PE # 39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

No.	Date	REVISION	By

DEPT. OF SANITARY SEWERS
CITY OF TAMPA, FLORIDA

LAKEVIEW ROAD DRAINAGE

Parkland Blvd. to Bristol Ave.

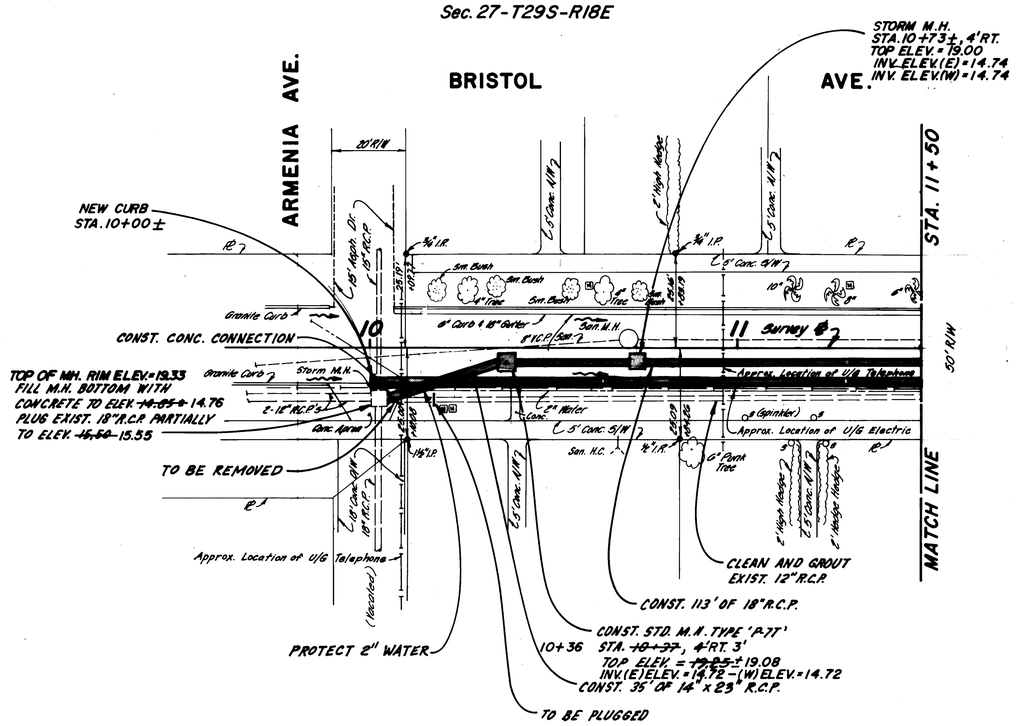
Designed: JHS	Date: 3/92	Drawn: MW	Date: 4-27-93	Checked:	Date:
Reviewed:	Date:	Approved: [signature]	Date: 3-92	Scale: 1"=20' Hor., 1"=5' Ver.	
FIELD BOOK: 1908-1, 1987-10					
FILE No. PW87-75	JOB No. 5445	SHEET 4 of 5			66/25

AF 12087

TBM #1 Elev. 20.14
T-cut BA Conc. S/W @ Radius @ S.W. Cor. Lakeview Rd. & Simms Blvd.

Scale: 1" = 20'

Sec. 27-T29S-R18E



10+00 | 11+00 | 12+00 | 13+00

INV. EXIST. D-12" R.C.P. S = 15.99
INV. EXIST. 15" R.C.P. = 14.89
INV. EXIST. 18" R.C.P. = 14.53
INV. PROP. 18" R.C.P. (W) = 14.87
+22.5
+37
INV. 18" R.C.P. (E) = 14.81
INV. 18" R.C.P. (W) = 14.80
+20.2
±73±
INV. 18" R.C.P. (E) = 14.74
INV. 18" R.C.P. (W) = 14.74
+21.0
+19.39
+17.71
INV. 18" R.C.P. (E) = 14.60
+18.0
+18.5
+15.6

APPROVED BY
RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

APPROVED BY
HENRY DORZBACK, PE # 39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

AS-BUILT
REVIEWED BY _____ DATE 10. 21. 93

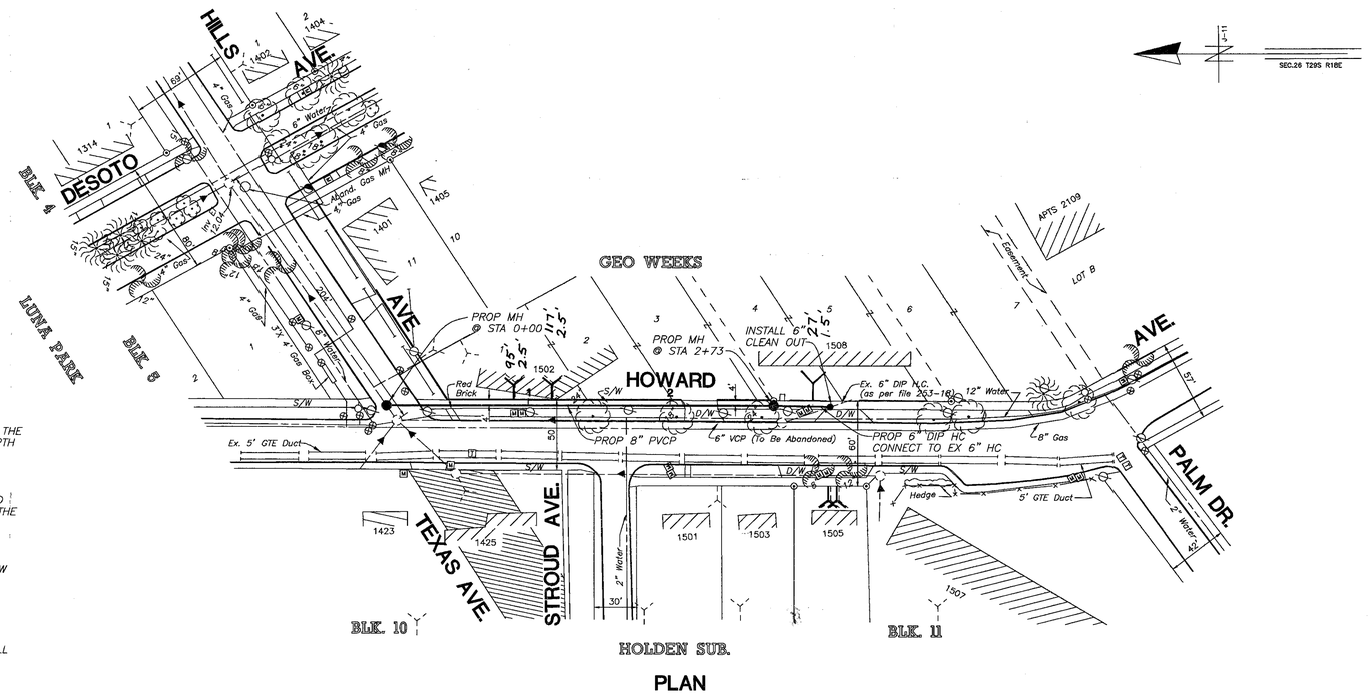
No.	Date	REVISION	By

DEPT. OF SANITARY SEWERS
CITY OF TAMPA, FLORIDA

LAKEVIEW ROAD DRAINAGE
Parkland Blvd. to Bristol Ave.

Designed: JWS Date: 3/92 | Drawn: MW Date: 8-8-92 | Checked: Date:
Reviewed: Date: | Approved: WLH Date: 8-92 | Scale: H. 1"=20', V. 1"=5'
FIELD BOOK: 1987-10
FILE No. PW87-75 | JOB No. 5445 | SHEET 5 of 5

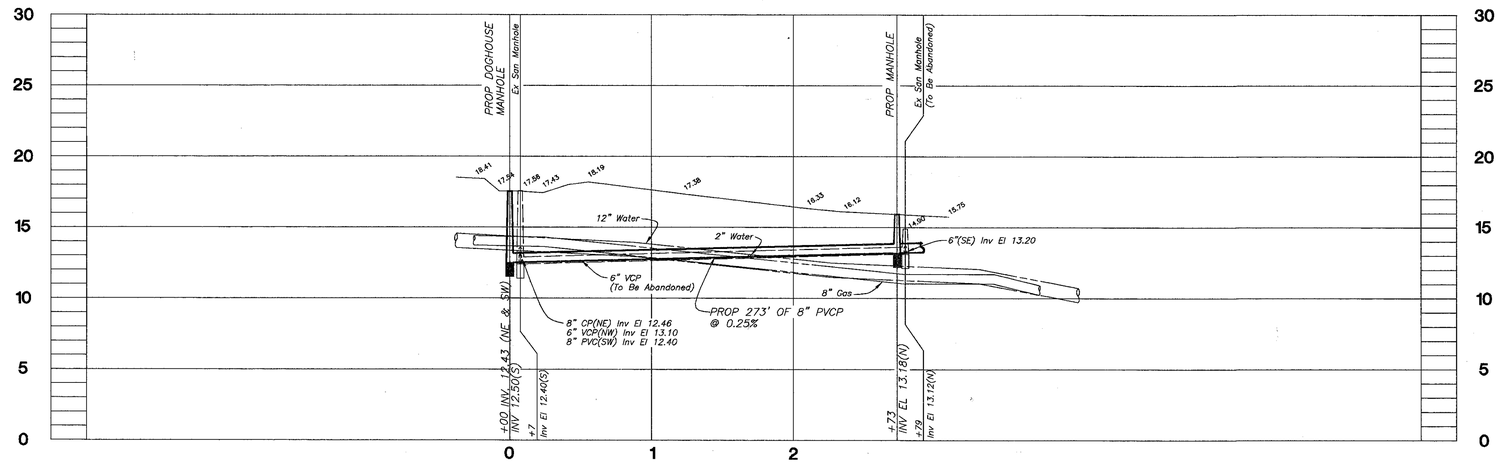
Q.16 Renewal and Replacement, Sewage Disposal System – Howard Ave: Hills Ave to Palm Dr



PLAN

NOTES

1. ALL ELEVATIONS ARE BASED ON NOS DATUM UNLESS OTHERWISE NOTED.
2. LOCATIONS OF EXISTING UNDERGROUND UTILITIES WERE PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE. VERIFY THE LOCATION AND DEPTH OF ALL PERTINENT UTILITIES PRIOR TO CONSTRUCTION. NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE BEGINNING CONSTRUCTION, BY CALLING 1-800-432-4770.
3. NEW HOUSE CONNECTION LOCATIONS ARE APPROXIMATE ONLY. REQUIRED LOCATION AND DEPTH WILL BE COORDINATED WITH THE HOMEOWNER AT THE TIME OF CONSTRUCTION BY THE D.S.S. CONSTRUCTION CREWS.
4. WHERE AN EXISTING SEWER IS TO BE REMOVED OR ABANDONED AND REPLACED WITH A NEW SEWER, CONTINUOUS SEWER SERVICE MUST BE MAINTAINED AT ALL TIMES, WHILE CONNECTING THE LATERALS TO THE NEW SEWER IN PLACE.
5. THE MINIMUM CLEARANCE BETWEEN SEWERS AND WATER LINES SHALL BE 6" UNDER ALL CIRCUMSTANCES. IF THE SEWER IS BELOW A WATER LINE AND HAS BETWEEN 6" AND 18" OF CLEARANCE, OR IF THE SEWER IS ABOVE THE WATER LINE REGARDLESS OF CLEARANCE, THEN A NOMINAL 20' LENGTH OF GREEN AWWA CLASS 150 C900 PVC PIPE SHALL BE CENTERED OVER/UNDER THE WATER LINE.
6. 1505 S. HOWARD TO BE CONNECTED TO THE EXISTING 8" LINE ON THE WEST PARKWAY OF HOWARD AVENUE.
7. 6" VCP LINE TO BE ABANDONED WILL BE GROUTED BY CITY FORCES.



AS-BUILT

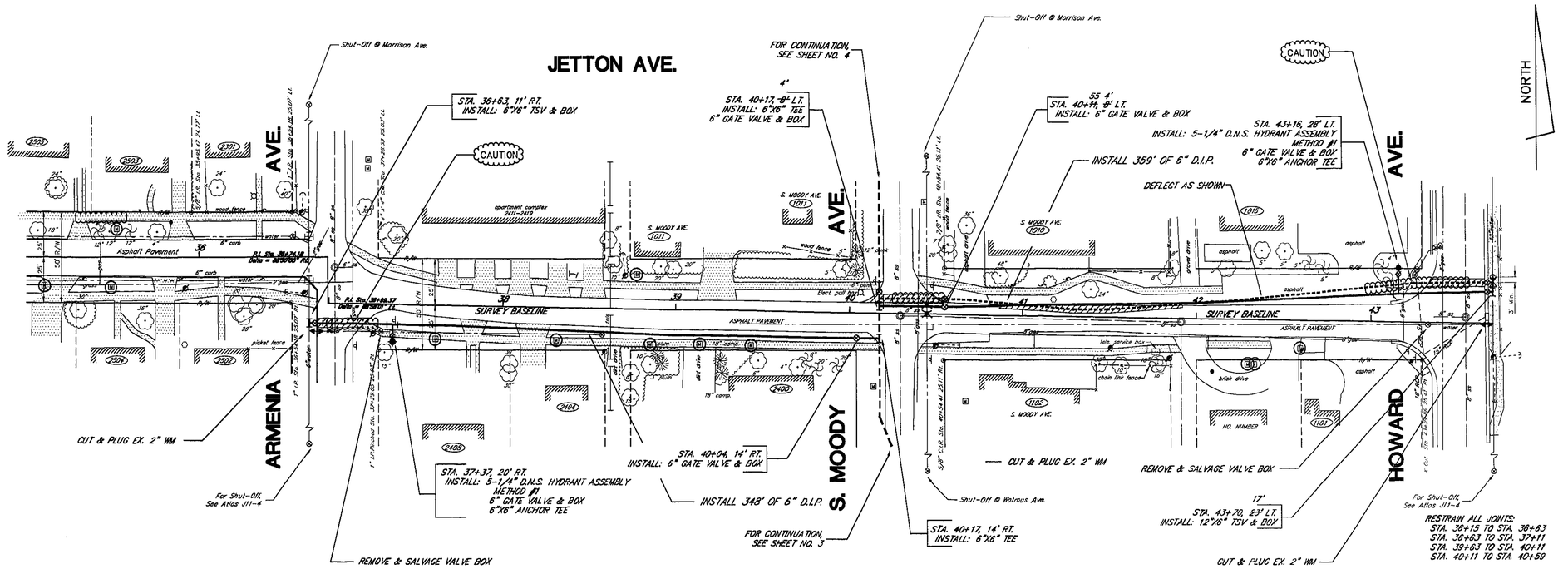
	HENRY DORZBACK, P.E. #39449 CHIEF ENGINEER DEPARTMENT OF SANITARY SEWERS	RALPH L. METCALF II, P.E. DIRECTOR DEPARTMENT OF SANITARY SEWERS	DES: JPW/RD DRN: BK CKD: DATE: 5/30/07	No. / DATE / REVISIONS: 1 2 3 4 5	SCALE 50 0 50 100, 1" = 50'	CITY OF TAMPA FLORIDA DEPARTMENT OF SANITARY SEWERS RENEWAL & REPLACEMENT SEWAGE DISPOSAL SYSTEM	HOWARD AVE: HILLS AVE. TO PALM DR. DESIGN W.O. CONSTRUCTION W.O. 5643	SHEET 1 OF 1

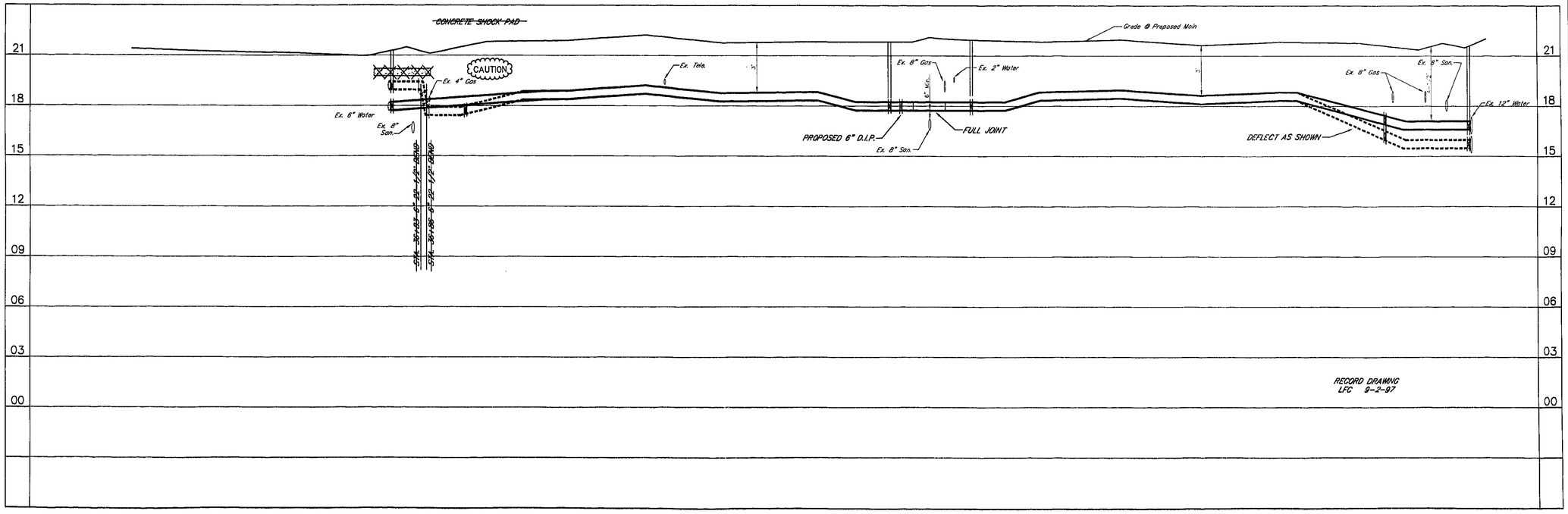
300-49

300-49

e:\v13\dwg\pe\14329 50 STA #6

Q.17 City of Tampa Water Department – Galvanized Main Replacement – Jetton Ave





CITY OF TAMPA
WATER DEPARTMENT
ENGINEERING DIVISION

GALVANIZED MAIN REPLACEMENT

JETTON AVE. FROM: STA. 35+00
TO: HOWARD AVE.

1" = 30' HORIZ.
1" = 3' VERT.

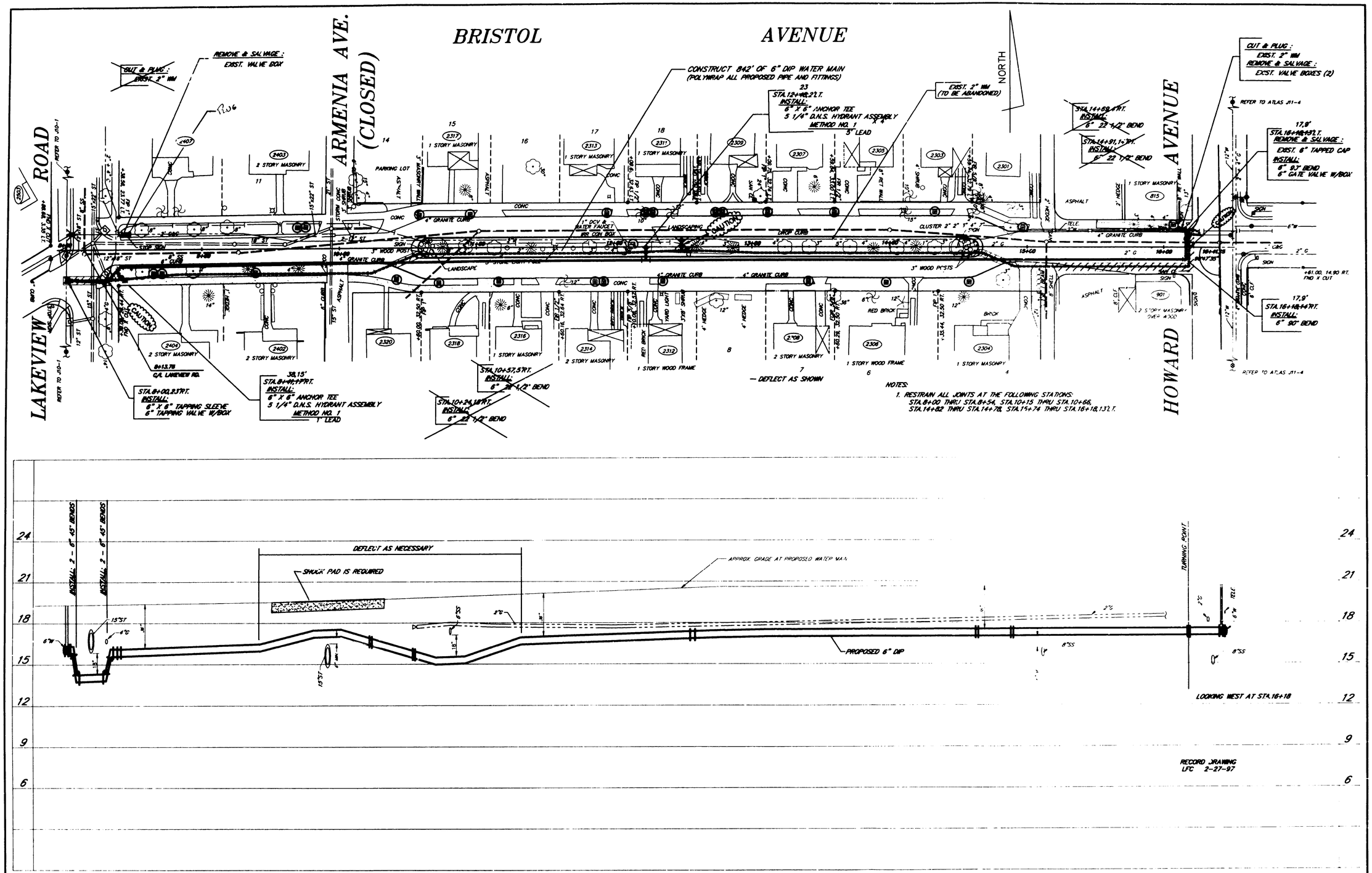
Atlas Page J11-4

No.	Date	REVISION	By
	Approved	Date	

Des: JRR
Dwn: LFC
Ckd: DEW

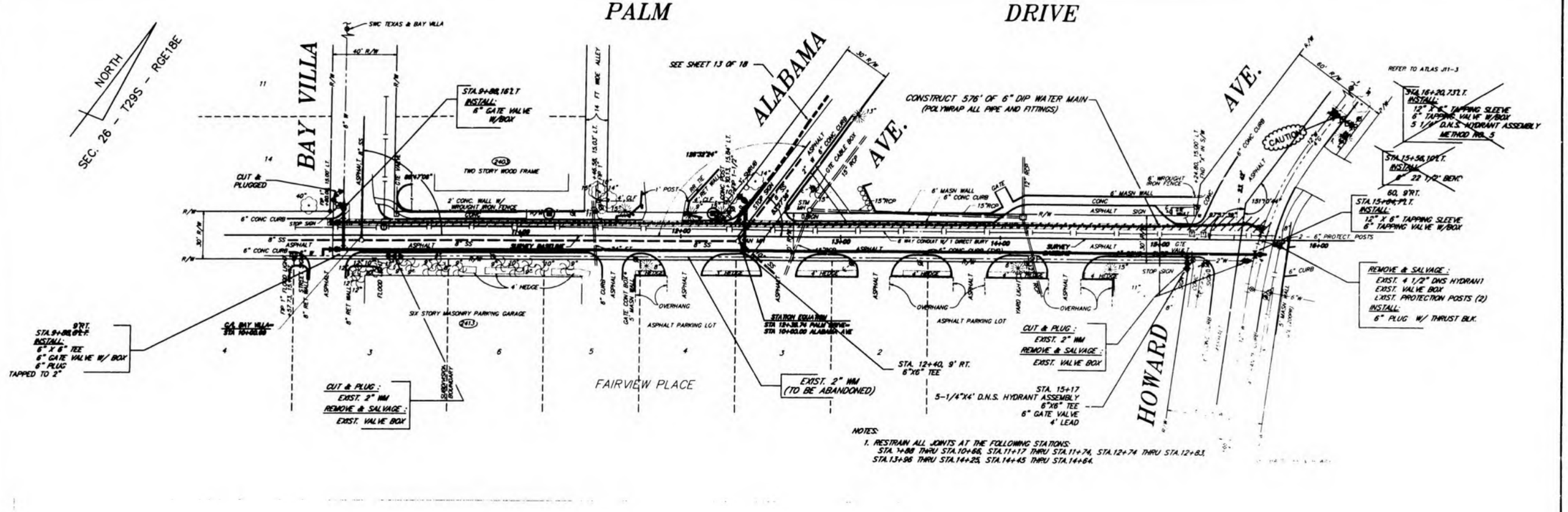
W.O. 8715
DRAWING NUMBER 97-007
FILE NUMBER E9-1-15
SHEET 2 OF 4 SHEETS

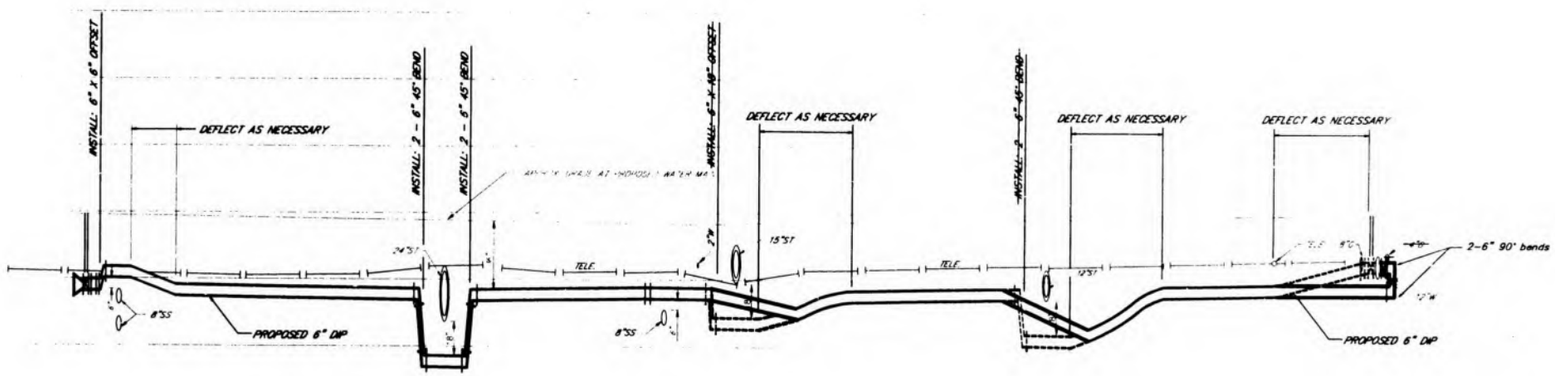
Q.18 6” Water Main Extension – Bristol Ave from Armenia Ave to Howard Ave


BRISTOL AVENUE
LAKEVIEW ROAD
ARMENIA AVE. (CLOSED)
HOWARD AVENUE
NORTH
CUT & PLUG : EXIST. 2" WM
REMOVE & SALVAGE : EXIST. VALVE BOX
CONSTRUCT 842' OF 6" DIP WATER MAIN (POLYWRAP ALL PROPOSED PIPE AND FITTINGS)
EXIST. 2" WM (TO BE ABANDONED)
CUT & PLUG : EXIST. 2" WM
REMOVE & SALVAGE : EXIST. VALVE BOXES (2)
STA.12+48.27 T. INSTALL: 6" X 6" ANCHOR TEE 5 1/4" D.M.S. HYDRANT ASSEMBLY METHOD NO. 1 5' LEAD
STA.14+68.4 RT. INSTALL: 6" 22 1/2° BEND
STA.14+91.1+ RT. INSTALL: 6" 22 1/2° BEND
STA.18+88+93 T. REMOVE & SALVAGE : EXIST. 6" TAPPED CAP INSTALL: 6" 11.3° BEND 6" GATE VALVE W/BOX
17.9'
STA.16+18+47 RT. INSTALL: 6" 90° BEND
STA.8+00.23 RT. INSTALL: 6" X 6" TAPPING SLEEVE 6" TAPPING VALVE W/BOX
38.15'
STA.8+44+7 RT. INSTALL: 6" X 6" ANCHOR TEE 5 1/4" D.M.S. HYDRANT ASSEMBLY METHOD NO. 1 1' LEAD
STA.10+57.5 RT. INSTALL: 6" 22 1/2° BEND
STA.10+24.1 RT. INSTALL: 6" 22 1/2° BEND
DEFLECT AS SHOWN
NOTES:
1. RESTRAIN ALL JOINTS AT THE FOLLOWING STATIONS: STA.8+00 THRU STA.8+54, STA.10+15 THRU STA.10+66, STA.14+82 THRU STA.14+78, STA.15+74 THRU STA.16+18.13 T.
REFER TO ATLAS J11-4
REFER TO J10-1
C.A. LAKEVIEW RD.
1 STORY MASONRY
2 STORY MASONRY
1 STORY WOOD FRAME
RED BRICK
ASPHALT
CONC
4" GRANITE CURB
DROP CURB
3" WOOD POSTS
LANDSCAPE
PARKING LOT
CAUTION
SIGN
TELE.
BRICK
2" HEDGE
4" HEDGE
1" DCV & WATER FAUCET IRR. CON. BOX
CLUSTER 2" 2" 1" 4" 1"
STORM CONC. S. SEWER
TWIN LANDSCAPE
2" G
6" W
12" W
8" SHELL
8" C.I.P.
8" C.L.F.
8" D.I.P.
8" C.I.
8" C.L.
8" PVC
8" ASB
8" ACP
6" C.I.
6" C.L.
6" D.I.P.
6" PVC
6" ASB
6" ACP
4" C.I.
4" C.L.
4" D.I.P.
4" PVC
4" ASB
4" ACP
2" C.I.
2" C.L.
2" D.I.P.
2" PVC
2" ASB
2" ACP
2" W
2" G
2" TELE
2" C.L.
2" C.I

Q.19 6” Water Main Extension – Stroud Avenue from Moody Ave to Howard Ave

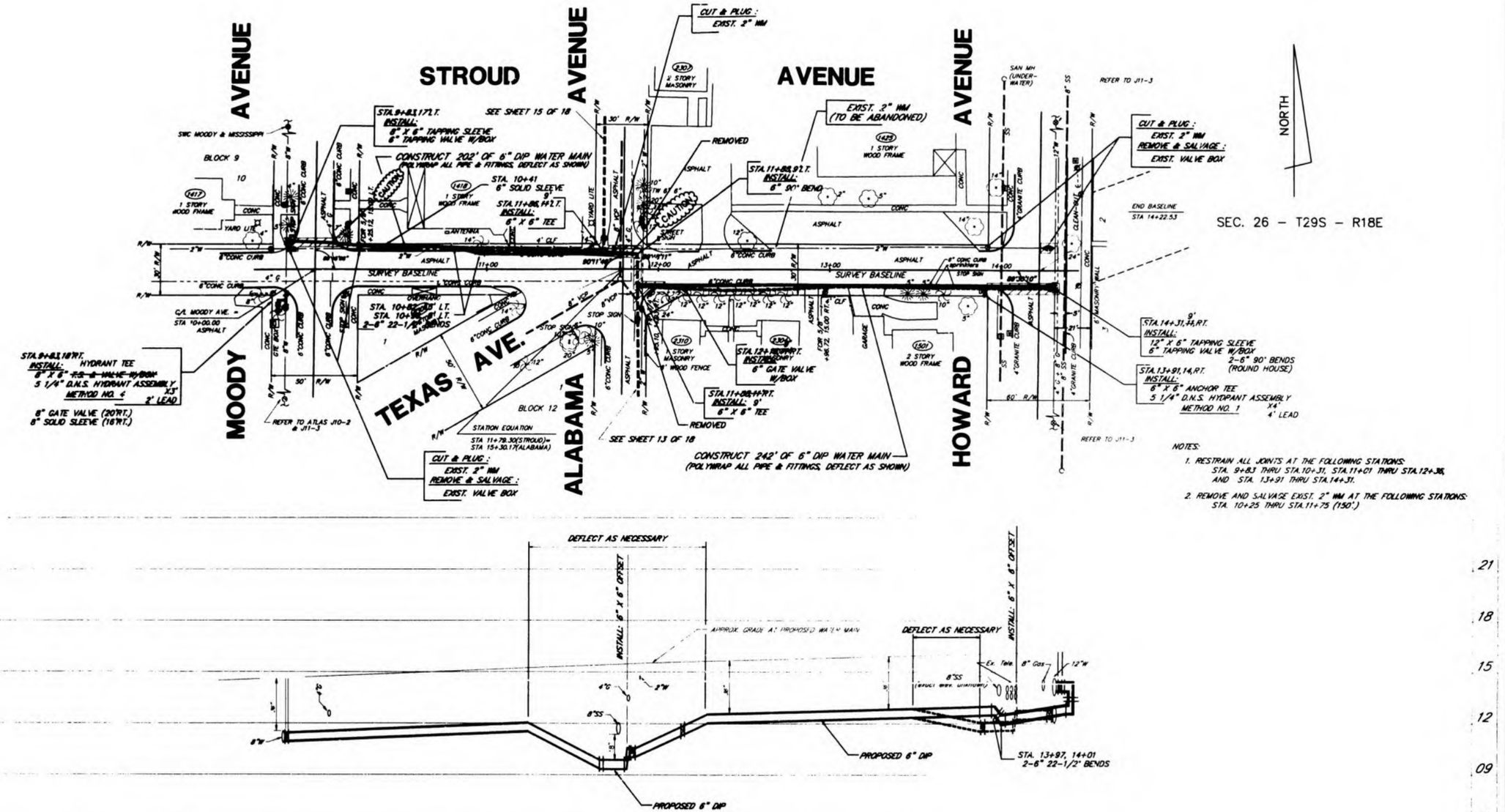
PALM DRIVE





RECORD DRAWING
LFC 2-28-97

CITY OF TAMPA WATER DEPARTMENT ENGINEERING DIVISION	6" WATER MAIN EXTENSION	PALM DRIVE – from Bay Villa	30 0 30 60 (1" = 30' HORIZ.) 3 0 3 6 (1" = 3' VERT.)	Atlas Page J-11	No. Date REVISION By; Approved Date	Des: MGL Dwn: MGL Ckd: DEW/KP	W.O. 8266 DRAWING NUMBER 95123	File: UM FIRM/J11-13,14 FILE NUMBER EB-2-42	SHEET 12 OF 18 SHEETS



RECORD DRAWING
LFC 2-28-97

CITY OF TAMPA WATER DEPARTMENT ENGINEERING DIVISION	6" WATER MAIN EXTENSION	STROUD AVENUE – from Moody Ave. To Howard Ave.	30 0 30 60 (1" = 30' HORIZ.); 3 0 3 6 (1" = 3' VERT.)	Atlas Page J-11 1,3,4	No. Date Approved / REVISION / By	Des: MGL Dwn: MGL Ckd: DEW/KP	W.O. 8266 DRAWING NUMBER 95-123	File: UMR FY95/#11-1,3,4 FILE NUMBER E8-2-44	SHEET 14 OF 18 SHEETS

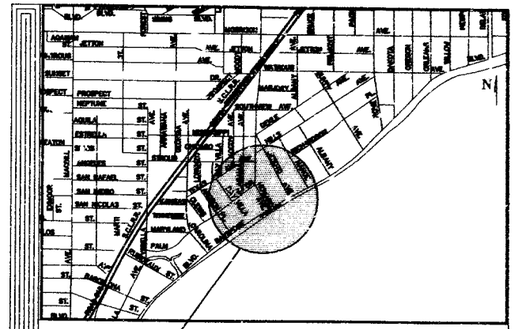
Q.20 Howard Ave and Bayshore Blvd Intersection Improvements (PW95-73)

CITY OF TAMPA

HOWARD AVE. & BAYSHORE BLVD.
INTERSECTION IMPROVEMENTS

FILE NO. PW95-73 JOB NO. 4839

TRANSPORTATION DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF TAMPA, FLORIDA



PROJECT LOCATION

VICINITY MAP
SCALE: 1"=1000'

INDEX OF DRAWINGS

SHEET NO	DESCRIPTION
1	Index & Vicinity Map
2	General Information
3	Plan & Profile
4	Typical Sections
5-7	Cross Sections
8	Pavement Marking Plan
9	Signalization Plan

STANDARD DRAWINGS & INDICES

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND GOVERNED BY THE CITY OF TAMPA STANDARD DRAWINGS AND WHERE APPLICABLE, FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS (BOOKLET DATED JANUARY, 1994).

APPROVED BY:

JAMES BURNSIDE, P.E.
STREETS ENGINEER
DEPARTMENT OF PUBLIC WORKS

CERTIFICATION

Sheet 1 to 9 Inclusive, Certified By:

LEGEND

EXISTING Up to 12"Dia.	EXISTING Over 12"Dia.	PROPOSED Up to 12"Dia.	PROPOSED Over 12"Dia.	TYPE
12" R.C.P.	24" R.C.P.			STORM SEWER
8" V.C.P.	24" V.C.P.			SANITARY SEWER
8" Water	24" Water			WATER
3" Gas	10" Gas			GAS
				POWER (Electric)
				TELEPHONE
SS (Guide bars on 6" pipes at 6')	SS	SS	SS	HOUSE CONNECTION (Sanitary Sewer)
				STORM SEWER MH
				SANITARY SEWER MH
				OTHER MH
V		V		VALVE BOX
M		M		METER
				VALVE
San. C.O.		San. C.O.		SAN. SEWER CLEAN OUT
				FIRE HYDRANT
				POWER POLE (Electric)
				TELEPHONE POLE
				COMBINATION POLE (Power & Telephone)
				STREET LIGHT ON POST
				TRAFFIC LIGHT ON POST
				POLICE CALL BOX
				GUY POLE & WIRES
				GUY WIRE
				SHRUBS
10"				CONIFER TREES
6"				PALM TREES
8" Oak				MISC. TREES (Identify)

GENERAL NOTES

1. CITY OF TAMPA STANDARD DRAWINGS ARE AVAILABLE AT THE CITY HALL ANNEX, 306 E. JACKSON STREET, 5TH FLOOR, NORTH WING.
2. ALL ELEVATIONS REFER TO THE MEAN SEA LEVEL DATUM OF THE U.S.C. AND G.S. (M.S.L.).
3. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF THE EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
5. WHEN IN CONFLICT, UTILITY POLES, GAS LINES, UNDERGROUND ELECTRIC AND TELEPHONE CABLES WILL BE RELOCATED BY THE RESPECTIVE UTILITY OWNERS AT THEIR OWN EXPENSE AS DIRECTED BY THE ENGINEER.
6. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:

TAMPA ELECTRIC CO.	AT 228-4111
CITY SANITATION DEPT.	AT 237-7288
GTE	AT 985-8435
PEOPLES GAS	AT 272-1551
TAMPA WATER DEPT.	AT 259-1633

7. SPECIAL CARE MUST BE TAKEN TO PROTECT WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE SUPPORTS AS NECESSARY AT NO EXPENSE TO THE CITY.
8. STATIONS AND OFFSETS REFER TO THE SURVEY BASELINE OR TO THE CONSTRUCTION CENTERLINE AS NOTED.
9. STATIONS AND OFFSETS FOR INLETS AND MANHOLES REFER TO THE CENTERPOINT OF THE STRUCTURE. CURB INLETS SHALL BE POSITIONED LONGITUDINALLY ACCORDING TO STATIONING GIVEN AND LATERALLY ACCORDING TO THE APPROPRIATE STANDARD, UNLESS NOTED OTHERWISE. CURB INLET TOP AND THROAT ELEVATIONS SHALL BE BASED ON THE EDGE-OF-PAVEMENT ELEVATION (GIVEN OR CALCULATED) AND THE APPROPRIATE STANDARD. INLET THROAT ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR FROM THE EDGE-OF-PAVEMENT ELEVATION.
10. MANHOLE TOP ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR AS PER PROPOSED STREET GRADES PROVIDED. IF DISTANCE BETWEEN TOP SLAB AND GRADE IS LESS THAN 7", THE CONTRACTOR SHALL PROVIDE INVERTED MANHOLE FRAME AND COVER AT NO ADDITIONAL COST TO THE CITY.
11. ALL CURB RADII, P.I., P.C., AND P.T. REFER TO THE EDGE-OF PAVEMENT UNLESS NOTED OTHERWISE.
12. NO TREES NOR TREE ROOTS SHALL BE REMOVED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
13. ALL DISTURBED AREAS SHALL BE SODDED AS DIRECTED BY THE ENGINEER.
14. WHERE CONNECTIONS TO EXISTING WALKS AND DRIVES ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.
15. STREET SIGNS, STREET MARKERS, AND R-O-W MARKERS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THESE ACTIVITIES. ANY LOST OR DAMAGED SIGNS OR MARKERS SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
16. THE CONTRACTOR SHALL REPLACE EXISTING DRIVEWAYS FROM THE EDGE OF PAVEMENT TO THE R-O-W LINE, WHEREVER AFFECTED BY CONSTRUCTION. MATERIALS SIMILAR TO THE EXISTING SHALL BE USED UNLESS NOTED OTHERWISE OR IN THE CASE OF UNPAVED DRIVEWAYS, A 6" THICK LAYER OF COMPACED SHELL SHALL BE INSTALLED OR AS SHOWN ON THE PLANS.
17. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL ENVIRONMENTAL RULES AND REGULATIONS OF THE CITY, COUNTY, STATE, TAMPA PORT AUTHORITY, ARMY CORPS OF ENGINEERS, AND ANY OTHER JURISDICTIONAL AGENCIES, AND ALL CONDITIONS SET FORTH IN ENVIRONMENTAL PERMITS.
18. ALL ROP'S AND EROP'S SHALL BE CONSTRUCTED WITHOUT LIFT-HOLES AND SHALL BE CLASS III UNLESS NOTED OTHERWISE IN THE PLANS.
19. EXISTING SANITARY SEWER LATERALS WHICH ARE TO BE EXTENDED SHALL BE CONSTRUCTED TO AND CONNECTED AT THE PROPERTY LINE, WHILE MAINTAINING CONTINOUS SEWER SERVICE. CLEANOUTS (PLASTIC OR CAST IRON) SHALL BE INCLUDED IN THE PRICE OF THE LATERAL EXTENSIONS AND NO SEPARATE PAYMENT SHALL BE MADE.
20. ALL PIPES UP TO 24" DIA. OR EQUAL SHALL HAVE CLASS "C" BEDDING. MAXIMUM TRENCH WIDTH OF THE PIPE BEDDING SHALL BE EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE BARREL PLUS 2 FEET. PIPES OVER 24" DIA. SHALL HAVE CLASS B BEDDING. REFER TO THE DEPARTMENT OF SANITARY SEWERS STANDARD DETAIL. COST OF STANDARD BEDDING SHALL BE INCLUDED IN THE COST FOR PIPES.
21. THE CONTRACTOR SHALL USE ALL SURPLUS FILL APPROVED AS SUITABLE FROM EXCAVATION PRIOR TO SUPPLYING FILL FROM OTHER SOURCES. PAYMENT FOR ADDITIONAL FILL WILL BE MADE ONLY FOR FILL SUPPLIED FROM SOURCES OTHER THAN EXCAVATIONS IN THIS CONTRACT. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS.
22. EXISTING PAVEMENT SHALL BE SAWCUT AT THE LIMITS OF PAVEMENT RECONSTRUCTION. SAWCUTTING SHALL BE INCLUDED IN THE COST OF THE OTHER VARIOUS CONTRACT ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.
23. DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS MAY ONLY OCCUR AT OFFSITE DISPOSAL FACILITIES APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
24. BALED HAY OR STRAW BARRIERS AND/OR SILT FENCES MEETING FDOT INDEX #102 SHALL BE USED AS DIRECTED BY THE ENGINEER AS NECESSARY FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION. COST OF EROSION CONTROL SHALL BE INCLUDED IN THE COST OF THE OTHER VARIOUS CONTRACT ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.
25. CURB-AND-GUTTER ENDINGS SHALL CONFORM TO CITY OF TAMPA DPW STANDARD DRAWING P-3.
26. WHERE SANITARY SEWER HOUSE LATERALS ARE NOT SHOWN ON THE PLANS, NO INFORMATION IS AVAILABLE. CONTRACTOR SHALL VERIFY LOCATIONS OF LATERALS PRIOR TO CONSTRUCTION.
27. MAIL BOXES SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ACTIVITY. LOST OR DAMAGED MAIL BOXES SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
28. ALL DRAINAGE STRUCTURES SHALL HAVE SELECT BEDDING MATERIAL (12" THICK CRUSHED ROCK) UNDER THE STRUCTURE, UNLESS OTHERWISE NOTED ON THE PLAN OR IN THE SPECIFICATION OR INSTRUCTED BY THE ENGINEER.
29. ALL REINFORCED CONCRETE PIPE (ROUND OR ELLIPTICAL) SHALL BE INSTALLED WITH A NUN-WOVEN FILTER FABRIC JACKET AS PER THE DETAIL ON THE CITY OF TAMPA STANDARD DRAWING NUMBER D-13.
30. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COMPLETE CONSTRUCTION DOCUMENTS CONSIST OF PLANS PLUS COMPLETE SPECIFICATIONS (GENERAL PROVISIONS, TECHNICAL SPECIFICATIONS, SPECIFIC PROVISIONS AND ANY ADDENDA), AND CITY AND FDOT STANDARDS, AS APPLICABLE.
31. EXISTING STORMWATER FACILITIES WHICH WILL BE REMOVED FROM SERVICE, INCLUDING PIPES, MANHOLES, MITERED END SECTIONS, ETC., SHALL BE REMOVED AND NOT ABANDONED IN PLACE.
32. INLET TOPS CONSTRUCTED AT CURB RETURNS SHALL BE CAST-IN-PLACE TO MATCH PROPOSED RADII.

GENERAL INFORMATION

Drawn:	Date:					CITY OF TAMPA DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION	HOWARD AVE. & BAYSHORE BLVD. INTERSECTION IMPROVEMENTS	Field book: 95-983-25 Atlas Sheet: J-11 File No. PW95-73 Index No. Job No. 4839 Scale: N/A SHEET 2 OF 9
Designed:	Date: 1-98							
Checked:	Date: 1-98							
Reviewed:	Date: 1/98							
Approved:	Date: 1/98							
Approved:	Date:	No:	Date:	Revision:	By:			

SURVEYOR'S REPORT

MAP OF RECORD SURVEY:

SEE SHEET 2 FOR MAP OF SURVEY.
THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.

LEGAL DESCRIPTION:

SEE APPLICABLE
(FIELD DATA SOURCE 3)

ACCURACY:

1. THE ACCURACY STANDARD USED FOR THE HORIZONTAL CONTROL FOR THIS SURVEY, AS CLASSIFIED IN THE MINIMUM TECHNICAL STANDARDS (61G17-6 F.A.C.) FOR "COMMERCIAL/HIGH RISK". THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF SURVEY IS 1 FOOT IN 10,000 FEET. THE ACCURACY OBTAINED BY MEASUREMENT AND CALCULATION OF A CLOSED GEOMETRIC FIGURE WAS FOUND TO EXCEED THIS REQUIREMENT.

2. METHODS FOR ALL HORIZONTAL CONTROL MEASUREMENTS WERE MADE WITH A TRANSIT AND STEEL TAPE, OR DEVICES WITH EQUIVALENT OR HIGHER DEGREES OF ACCURACY.

3. THE FIELD MEASURED VERTICAL CONTROL FOR ELEVATION INFORMATION SHOWN UPON THIS MAP OF SURVEY IS BASED ON A LEVEL LOOP, AND THE ACCURACY OF THE CLOSURE (IN FEET) EXCEEDS STANDARD OF PLUS OR MINUS 0.05 FEET TIMES THE SQUARE ROOT OF THE DISTANCE IN MILES. (SEE DATA SOURCE: MARKER 3)

DATA SOURCES:

1. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A COMMITMENT FOR TITLE INSURANCE.

2. NO INFORMATION FOR THE ADJOINING PROPERTY OWNERS WAS SUPPLIED TO THE SURVEYOR.

3. ELEVATIONS ARE BASED UPON THE CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS SURVEY SECTION CONTROL BENCH MARK USED, DESIGNATED AS 2005 - CIRCUIT NO. 648, PUBLISHED ELEVATION = 13.099 FEET, NATIONAL GEODETIC VERTICAL DATUM (NGVD) SEA LEVEL DATUM OF 1929.

4. THIS SURVEY WAS PREPARED WITH THE BENEFIT OF AN ELECTRONIC DRAWING FILE PROVIDED BY CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION DIVISION, ELECTRONIC DRAWING FILE NUMBER 95-73P.dwg AND THAT CERTAIN SET OF PLANS TITLED CITY OF TAMPA, HOWARD AVE. & BAYSHORE BLVD. INTERSECTION IMPROVEMENTS, SHEETS 1-9, FILE NO. 95-73-CS, JOB NO. 4838, CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS, CITY OF TAMPA, FLORIDA, AND ALSO PROVIDED BY CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION DIVISION.

5. PLAN STATION AND OFFSETS SHOWN FOR ALL STRUCTURES ARE BASED UPON THAT CERTAIN SET OF PLANS TITLED CITY OF TAMPA, HOWARD AVE. & BAYSHORE BLVD. INTERSECTION IMPROVEMENTS, SHEETS 1-9, FILE NO. 95-73-CS, JOB NO. 4838, CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS, CITY OF TAMPA, FLORIDA, PROVIDED BY CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION DIVISION. FIELD STATION AND OFFSETS SHOWN FOR ALL STRUCTURES AND/OR FITTING ARE FROM THE CENTER OF STRUCTURE AND/OR FITTING AND ARE CALCULATED USING FIELD LOCATED POINTS.

LIMITATIONS:

1. USE OF THIS SURVEY BY ANYONE OTHER THAN THOSE PREPARED FOR/CERTIFIED TO, WILL BE THE RE-USERS SOLE RISK WITHOUT LIABILITY TO THE SURVEYOR.

2. THERE MAY BE ADDITIONAL EASEMENTS AND/OR RESTRICTIONS AFFECTING THIS PROPERTY THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY.

3. THE LOCATIONS OF THE UNDERGROUND UTILITIES AND / OR THEIR APPURTENANCES WERE PERFORMED BY A FIELD SURVEY AND ONLY LOCATED AS SHOWN ON THE FACE OF THE SURVEY. ONLY THE UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES WHICH WERE VISIBLE FROM GROUND LEVEL TO THE SURVEYOR ON THE ACTUAL DAY OF THE FIELD SURVEY WERE LOCATED. NO EXCAVATIONS OR SUBSURFACE WORK EFFORTS OF ANY KIND WERE PERFORMED BY THE SURVEYOR TO VERIFY THE EXISTENCE OF ANY UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES AND/OR THEIR APPURTENANCES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.

4. PRINTED DIMENSIONS SHOWN ON THE SURVEY SUPERSEDE SCALED DIMENSIONS. THERE MAY BE ITEMS DRAWN OUT OF SCALE TO GRAPHICALLY SHOW THEIR LOCATION.

5. UNDERGROUND FOUNDATIONS AND THEIR LOCATIONS HAVE NOT BEEN DETERMINED.

6. IRRIGATION EQUIPMENT AND / OR THEIR APPURTENANCES HAVE NOT BEEN LOCATED UNLESS OTHERWISE SHOWN HEREON.

7. LAST DATE OF FIELD WORK 7/06/1998.

BOUNDARY INCONSISTENCIES:

NOT APPLICABLE.

APPARENT PHYSICAL USE:

1. THE SUBJECT PROPERTY IS UNDER CONSTRUCTION.

EASEMENTS/RIGHT-OF-WAYS

1. NO EASEMENT INFORMATION AFFECTING THE PROPERTY WAS SUPPLIED TO THE SURVEYOR.

PREPARED FOR:

AJAX PAVING INDUSTRIES
12165 U.S. 41 NORTH
PALMETTO, FL 34221

CERTIFIED TO:

CITY OF TAMPA, DEPARTMENT OF PUBLIC WORKS, TRANSPORTATION DIVISION

SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE:

ROBERT C. WRIGHT JR.
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS 4965
STATE OF FLORIDA

SYMBOLS LEGEND

- + = Vertical Target
- ⊕ = Bench Mark
- CPE = Cable TV Paint Stripe
- CB = Cable TV Box
- C = Communications Manhole
- ☀ = Concrete Light Pole
- ● = Downlight Post
- CP = Concrete Utility Pole
- D = Drainage Manhole
- E = Electric Manhole
- FCPS = F.P.C. Paint Stripe
- F.P.C. Pedestal
- Fire Hydrant
- Flag Pole
- Gas Line Marker
- Gas Firm Cap
- Gas Valve
- GM = Gas Meter Box
- GPS = Gas Line Paint Stripe
- Grate Inlet
- GTE Manhole
- GTE Pedestal
- GTE Marker
- Guy Wire
- Light Pole
- MB = Mail Box
- Metal Post
- M = Monitoring Well
- Parking Meter
- RPS = Reclaimed Water Paint Stripe
- RB = Reclaimed Water Box
- Reclaimed Water Valve
- Sanitary Sewer Manhole
- Sanitary Cleanout
- Section Corner
- Sign
- Sprinkler Head
- SWPS = Storm Water Paint Stripe
- SB = Traffic Signal Box
- Traffic Signal Pole
- WPS = Water Line Paint Stripe
- Water Meter
- Water Valve
- WP = Wood Utility Pole
- Wood Light Pole
- Wood Post

ABBREVIATIONS LEGEND

A/C = Air Conditioner
AE# = Asphalt Driveway, #
ASPH = Asphalt
B/C = Back of Curb
BFPD = Back Flow Prevention Device
BLDG = Building
BNDY = Boundary
(C) = Calculated Data
C/C = Covered Concrete
CFR = Certified Corner Record
CDW = Concrete Driveway
CI = Curb Inlet
℄ = Center Line
CLF = Chain Link Fence
CMP = Corrugated Metal Pipe
CONC = Concrete
COR = Corner
CPB = Condo Plat Book
C/S = Concrete Slab
C/T = Curb Tie
DB = Deed Book
DCVA = Double Check Valve Assembly
DNR = Department Natural Resources
DEPT = Department
DIA = Diameter
DIP = Ductile Iron Pipe
DMH = Drainage Manhole
E = East
EL = Elevation
E/P = Edge of Pavement
(F) = Field Data
FCM = Found Concrete Monument
FH = Fire Hydrant
FIR = Found Iron Rod & Cap
FND = Found
FN&D = Found Nail and Disk
FFE = Finished Floor Elevation
FN&TT = Found Nail and Tin Tag
FOP = Found Open Pipe
FIB = Found Iron Bar
FIR = Found Iron Rod
FPLED = Found Pinellas County Engineering Dept.
FPRC = Found Parker Kalon
FP&D = Found Parker Kalon Nail and Disk
F/T = Fence Tie
FXC = Found X-cut
G/A = Guy Wire Anchor
GE = Grate Elevation
GI = Grate Inlet
GV = Gas Valve
IE = Invert Elevation
LB = Corporate Certification Number
LS = License Surveyor
MAS = Masonry
MES = Mitered End Section
MOL = More or Less
N = North
N/C = No Cap
N/F = Not Found
O/A = Over all
OHW = Overhead Wire
(P) = Data by Construction Plans (see data source 4)
PB = Plat Book
PC = Point of Curvature
PCED = Pinellas County Engineering Dept. Brass Disk
PCP = Permanent Control Point
PG(S) = Pages
PK = Parker Kalon Nail
℄ = Property Line
PLS = Professional Land Surveyor
POB = Point of Beginning
POC = Point of Commencement
PRC = Point of Reverse Curvature
PT = Point of Tangency
R = Radius
RCP = Reinforced Concrete Pipe
RGE = Range
R/W = Right of Way
S = South
SCM = Set Concrete Monument
SEC = Section
SIR = Set 5/8" Iron Rod and Cap (LB #4965)
SMH = Sanitary Manhole
SNAIL = Set Nail and Disk
SPK&D = Set Parker Kalon Nail and Disk (LB #4965)
SQ = Square
SR = State Road
STY = Story
S/W = Sidewalk
TBM = Temporary Benchmark
(TYP) = Typical
TWP = Township
U/P = Utility Pole
VCP = Vitrified Clay Pipe
W = West
W/ = With
W/C = Wood Fence
WFP = Wood Fence Post
W/T = Wall Tie
WV = Water Valve
° = Degrees
' = Minutes (Bearing)
" = Seconds
' = Feet (Distances)

LAST DATE OF FIELD WORK: 7/06/1998
SEE SHEET 1 FOR SURVEYOR'S REPORT AND LEGENDS
SEE SHEET 2 FOR MAP OF SURVEY

FLORIDA DESIGN CONSULTANTS, INC.

Drawn: tg	Date: 6/95				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	No.	Date:	Revision:	By

RECORD SURVEY
CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

HOWARD AVE. & BAYSHORE BLVD.
INTERSECTION IMPROVEMENTS

Field Book: 95-73, 89-27, FIX 560, 54-01
Atlas Sheet: J-11
File No.: P95-73
Index No.:
Job No.: 4838 & 158.10
Scale: N.A.
SHEET 1 OF 2

45
15

HOWARD

SEC 33, T29S R18E

AVE.

PALM DRIVE

BLVD.

BAYSHORE

CONSTUCT TYPE "D" CURB

RECORD ELEVATION (TYP)

6+16.87, 96.30' L.T.

CONST. 6" DEEP SWALE FROM CURB CUT TO INLET

CONST. 1' WIDE CURB CUT AT THE LOW POINT

6+19.65, 74.32' L.T.

SAWCUT

REMOVE EXIST. ASPHALT DRIVEWAY & CURB - REPLACE WITH CLEAN FILL AND SOD TO MATCH SURROUNDING AREA

POLE TO BE RELOCATED BY OTHERS

MATCH EXISTING ELEVATION

EDGE OLD ASPHALT

NEW CONC WALK

P.C. +88.33 39.23' L.T.

P.T. +88.71 39.23' L.T.

P.C. +88.33 39.23' L.T.

P.T. +88.71 39.23' L.T.

CONST. TYPE "D" CURB

NEW ASPHALT

CONST. 64 L.F. DROP CURB

CONST. LINEAR PEDESTRIAN RAMP

CONST. 73 L.F. DROP CURB

CONST. LINEAR PEDESTRIAN RAMP

TYPE F CONC CURB

CONSTRUCT TYPE "F" CURB & GUTTER

SAWCUT EXIST. PAVEMENT

RECORD ELEVATION (TYP)

FOUND NAIL & CAP

BASELINE OF SURVEY

P.C. +79.81 4.10' L.T.

P.T. +83.91 4.10' L.T.

P.C. +86.50 23.12' L.T.

P.T. +109.62 23.12' L.T.

"NOTE: TOP OF THE PROPOSED TYPE "D" CURB SHALL BE 6" ABOVE THE EXISTING EDGE OF PAVEMENT"

CONSTRUCT TYPE "D" CURB

"SEE PROFILE FOR RECORD ELEVATIONS"

CONST. 70 L.F. 18" R.C.P. INV. (SOUTH END) = 4.14

STD. PEDESTRIAN RAMP TO BE CONSTRUCTED

OVERLAY LIMIT +88.36 2" BUTT JOINT

END TRANSITION GUTTER

TRAFFIC BOXES TO BE RELOCATED BY CITY FORCES

FOUND NAIL

FOUND NAIL

PAVEMENT WIDENING

(S-1) REMOVE EXISTING INLET
REMOVE EXISTING 18" R.C.P. AND CONSTRUCT MASONRY PLUG AT OPENING OF MANHOLE (P)

(S-2) CONSTRUCT TYPE I INLET
STA. 6+03.96
E.O.P. EL. = 8.00
INV. 18" R.C.P. = 4.24 (P)

NOTES: (P)

1. 12" WATER LINE PROFILE SHOWN USING STANDARD COVER DEPTH. (NO 12" WATER ELEVATIONS TAKEN)
2. GAS LINES SHOWN ON THIS SHEET WERE NOT SURVEYED GAS LINE INFO IS FROM SAN. SEWERS SHEET 172-17 AND PEOPLES GAS DWG. # 115-114.
3. CONTRACTOR SHALL VERIFY UTILITY DEPTHS PRIOR TO CONSTRUCTION.
4. 3 ABANDONED UNDERGROUND CABLES NOT SHOWN IN THE VICINITY OF (S-1) AND (S-2) ARE TO BE REMOVED BY CITE.

S-1
STORM M.H.
STA: +92.4
OFFSET 28.2(L)
RIM = 8.79
INV (NE) = 4.98

PROP. STORM INLET

S-2
STORM M.H.
STA: +03.3
OFFSET 23.5(L)
RIM = 8.49
INV (NE) = 5.02

PROP. STORM INLET

Survey Line Profile (P)

PROPOSED WEST EDGE OF PAVEMENT (P)

EL. 8.22 8.31

EL. 8.75 EL. 8.61

EL. 8.71

EL. 9.28 9.24

EL. 9.47

EL. 10.28 10.36

EL. 11.46 11.48

+.50 +87.7 +.50 +87.7 +.50

+18.56 +03.96

5+00 6+00 7+00 8+00 9+00 10+00

LAST DATE OF FIELD WORK 7/06/1998
SEE SHEET 1 FOR SURVEYOR'S REPORT AND LEGENDS
SEE SHEET 2 FOR MAP OF SURVEY

FLORIDA DESIGN CONSULTANTS, INC.

Drawn:	IG	Date:	6/95
Designed:		Date:	
Checked:		Date:	
Reviewed:		Date:	
Approved:		Date:	
Approved:		Date:	

No. Date: Revision: By:

RECORD SURVEY
CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

HOWARD AVE. & BAYSHORE BLVD
INTERSECTION IMPROVEMENTS

Field Book	95-9, 10-25 TDC 508/54-61
Atlas Sheet	J-11
File No.	FW95-73
Index No.	
Job No.	48.10 1.58 10
Scale	1"=20' H'ntal 1"=2' V'ert
SHEET	2 OF 2

95 19

Scale: 1" = 20'

SEC 26 T29S R18E

HOWARD AVE.

PALM DRIVE BLVD.

BAYSHORE

5' High, 0.7' Wide Conc. Wall

CONSTUCT TYPE "D" CURB

6+18.87, 96.30' L.T.

CONST. 6' DEEP SWALE FROM CURB CUT TO INLET

CONST. 1' WIDE CURB CUT AT THE LOW POINT

6+18.65, 74.32' L.T.

SAWCUT

REMOVE EXIST. ASPHALT DRIVEWAY & CURB - DISPOSE WITH DEBRIS, FILL AND SOD TO MATCH SURROUNDING AREA

POLE TO BE RELOCATED BY OTHERS

*NOTE: TOP OF THE PROPOSED TYPE "D" CURB SHALL BE 9" ABOVE THE EXISTING EDGE OF PAVEMENT

CONSTRUCT TYPE "D" CURB

Driveway F.H. Dept. Access

Pull Box

Traffic Controller

Traffic Box

Alarm Pedestal

Sprinkler Valve

Sprinkler Control

9" Wide Flower Bed

Concrete Curb

Granite Curb

*SEE NOTE NO. 4

S-1

Asphalt Pavement

CONST. 10 L.F. 18" R.C.P. INV. (SOUTH END) = 5.14

STD. PEDESTRIAN RAMP TO BE CONSTRUCTED

OVERLAY LIMIT +86.36

2" BUTT JOINT

Pull Box

6" Granite Curb

40" San. R.C.P.

36" R.C.P.

6" Granite & Conc. Curb

6" Conc. Curb

6" Conc. Fill

5'-6" Conc. S/W

Base & Subgrade

Face of Basecurb

+81.95, 30.0 L.T. CROSS

P.C. 6+18.87 +81.41 30.00 L.T.

P.T. 6+38.80 +82.80 32.5' L.T.

Traffic Box

8" Granite Curb

*2ND TRANSITION GUTTER

TRAFFIC BOXES TO BE RELOCATED BY CITY FORCES

6

7

8

9

10

CONST. 63 L.F. DROP CURB

CONST. LINEAR PEDESTRIAN RAMP

CONSTRUCT TYPE "F" CURB & GUTTER

SAWCUT EXIST. PAVEMENT

MATCH EXISTING ELEVATION

3.3' High Pedestal Pole

Traffic Box

Conc. S/W

24" C.P.

P.C. +85.42 8" Tree

P.T. +88.11 38.23' L.T.

P.C. +87.71 38.23' L.T.

P.T. +89.64 30.79' L.T.

37.2' R

Sprinklers in Area

Conc. S/W

Storm M.H.

Grass

Water Vault

18" Holly

15" R.C.P. with 12" Plastic Liner

1/2" I.R. (Control) 9+80.73, 30 LT

P.C. +94.78 25.72' L.T.

P.T. +96.41 +94.42 L.T.

OVERLAY LIMIT STA. 10+02

2" BUTT JOINT

3" Metal Posts

Grass

10" Dia. Planted Area

Sprinklers

Conc. Curb

Granite Curb

Drop Curb

Conc. Apron

Asphalt Pavement

12" Water

4" Abandoned Gas (172-17)

6" Granite Curb

Conc. S/W

2' Ht. x 6" Wide Conc. Wall

Grass

Sprinklers in Area

18" Oak

Planted Area

Asphalt Pavmt.

10 Story Conc. Block

Pool & Patio

8'±5'Ht. Conc. Block Wall

Metal Ornamental Fence

4" Gas (F15-H4)

PAVEMENT WIDENING

S-1 REMOVE EXISTING INLET
REMOVE EXISTING 18" R.C.P. AND CONSTRUCT MASONRY PLUG AT OPENING OF MANHOLE

S-2 CONSTRUCT TYPE I INLET
STA. 6+03.98
E.O.P. EL. = 8.01
INV. 18" R.C.P. = 4.24

NOTES:

1. 12" WATER LINE PROFILE SHOWN USING STANDARD COVER DEPTH. (NO 12" WATER ELEVATIONS TAKEN.)
2. GAS LINES SHOWN ON THIS SHEET WERE NOT SURVEYED. GAS LINE INFO IS FROM SAN. SEWERS SHEET 172-17 AND PEOPLES GAS DWG. # F15-H4.
3. CONTRACTOR SHALL VERIFY UTILITY DEPTHS PRIOR TO CONSTRUCTION.
4. 3 ABANDONED UNDERGROUND CABLES NOT SHOWN IN THE VICINITY OF (S-1) AND (S-2) ARE TO BE REMOVED BY GTE.

S-1
STORM M.H.
STA: +92.1
OFFSET 28.2 (L)
RIM = 8.76
INV. (NE) = 4.98

S-2
STORM M.H.
STA: +03.3
OFFSET 23.5 (L)
RIM = 8.49
INV. (NE) = 5.02

PROP. STORM INLET

Storm Inlet

Storm M.H.

EL. 8.01 (8.51)

EL. 8.75 (8.25)

EL. 6.71

EL. 8.46 (8.22)

EL. 8.47

Ft. 10.68 (10.23)

Ft. 11.48

Survey Line Profile

PROPOSED WEST EDGE OF PAVEMENT

F.H. 396-75 F.H. 396-9

48" San.

48" San. F.M.

4" Abandoned Gas

12" Water

6" Water

4" Gas (Unsurveyed)

6" (E)

1" (W)

+71.44

+03.98

+80

+87.7

+57.3

4+00

5+00

6+00

7+00

8+00

9+00

10+00

12

10

8

6

4

2

0

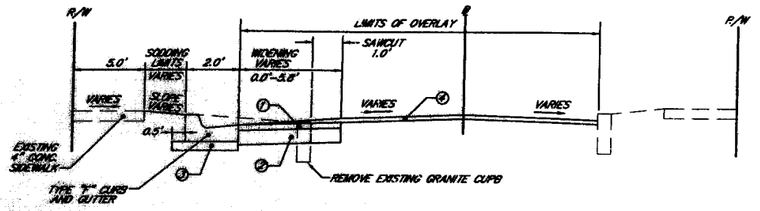
-2

-4

-6

NAME: G:\AGIS\DGN\TRANS\95-73\95-73P.DWG DATE: JAN 08, 1998 TIME: 3:52 PM

Drawn: tg.	Date: 6/95	0/98	As-Built Information	F.J.	CITY OF TAMPA DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION	HOWARD AVE. & BAYSHORE BLVD. INTERSECTION IMPROVEMENTS	Field Book: 95-9, 89-25
Designed:	Date: 1-96						Atlas Sheet: J-11
Checked:	Date: 1-96						File No. PW95-73 Index No.
Reviewed:	Date: 1-96						Job No. 4839
Approved:	Date: 1-98						Scale: 1"=20'-0" Hor. 1"=5' Ver.
Approved:	Date:	No:	Date:	Revision:	By:		SHEET 3 OF 3



PAVEMENT WIDENING

① 2.5" TYPE S-I ASPHALT (STRUCTURAL COURSE)
② 6.5" ABC-III ASPHALT (BASE COURSE)
③ 4" ABC-III ASPHALT (CURB PAD)

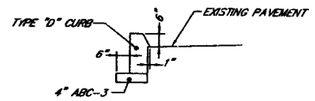
OVERLAY OF EXISTING ROADWAY

④ RESURFACE WITH 3/4" TYPE S-3 ASPHALT

NOTE:
AREAS OF THE EXISTING ROADWAY THAT EXHIBIT DELAMINATION SHALL BE LEVELED WITH S-3 ASPHALT TO MATCH SURROUNDING ROADWAY ELEVATION BEFORE OVERLAY.

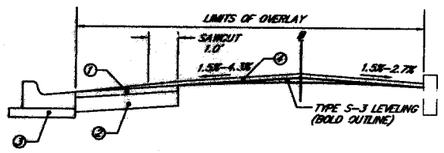
PAVEMENT WIDENING TYPICAL SECTION
HOWARD AVENUE
STA. 5+89.5 TO STA. 9+26.0

N.T.S.



TYPICAL SECTION
BAYSHORE BLVD.

N.T.S.



PAVEMENT WIDENING

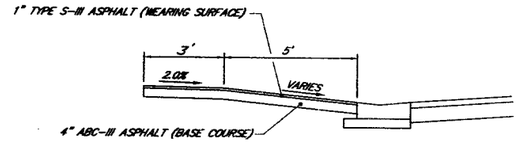
① 2.5" TYPE S-I ASPHALT (STRUCTURAL COURSE)
② 6.5" ABC-III ASPHALT (BASE COURSE)
③ 4" ABC-III ASPHALT (CURB PAD)

OVERLAY OF EXISTING ROADWAY

④ RESURFACE WITH 3/4" TYPE S-3 ASPHALT

OVERBUILD TYPICAL SECTION
HOWARD AVENUE
STA. 6+01.9 TO STA. 7+50

N.T.S.



TYPICAL DRIVEWAY SECTION

N.T.S.

TYPICAL CROSS-SECTIONS

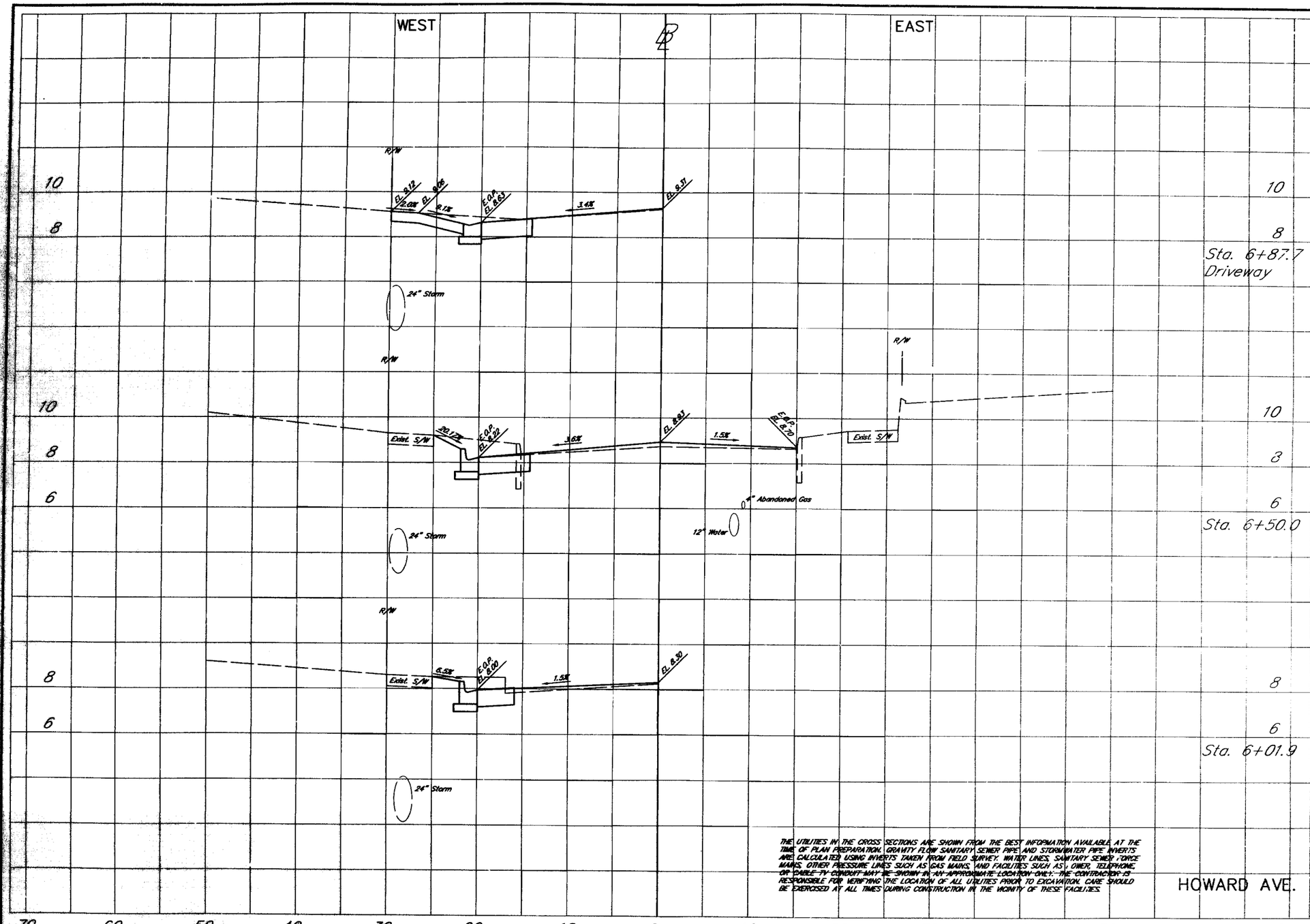
Drawn:	Date:				
Designed:	Date: 1-98				
Checked:	Date: 1-98				
Reviewed:	Date: 1-98				
Approved:	Date: 1-98				
Approved:	Date:	No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

HOWARD AVE. & BAYSHORE AVE.
INTERSECTION IMPROVEMENTS

Field Book:
Atlas Sheet:
File No. PW96-54 Index No.
Job No. 4819
Sca.: N/A
SHEET 4 OF 9

...\DGN\PW96-54-TYP.DGN DATE: JAN 06, 1998 TIME: 11:05 AM



END AREAS		VOLUME	
Sq. Ft		Cu. Yds.	
Cut	Fill	Cut	Fill

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS: OTHER TELEPHONE OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

Drawn:	L.Z.H.	Date: 11/96	
Designed:	A.L.C.	Date: 11/96	
Checked:		Date: 1-98	
Reviewed:		Date: 1-98	
Approved:		Date: 1-98	
Approved:		Date:	

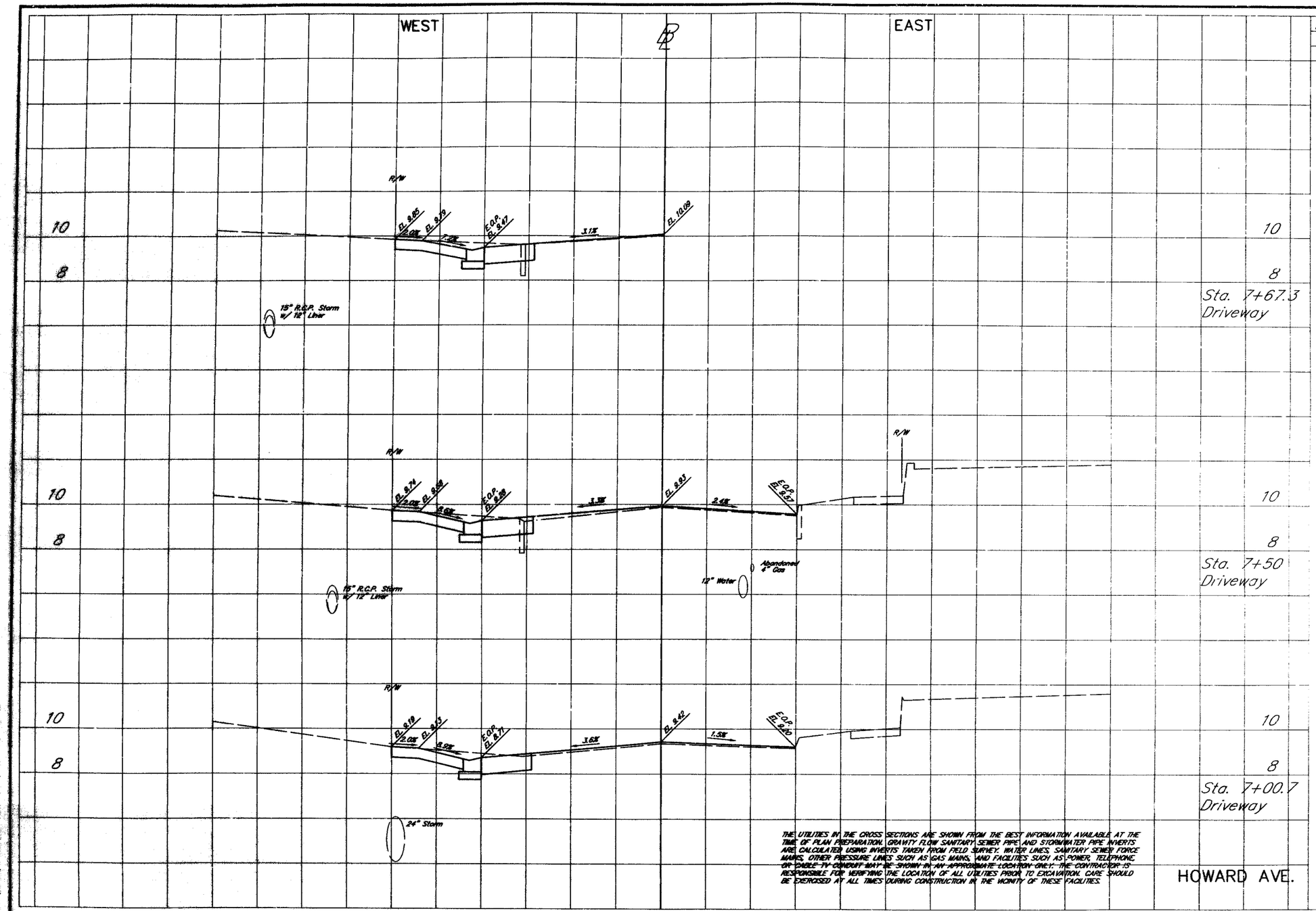
No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

HOWARD AVE. & BAYSHORE BLVD.
INTERSECTION IMPROVEMENTS

Field Book: 95-9, 89-25
Atlas Sheet: J-17
File No. PW95-73 Index No.
Job No. 4839
Scale: 1"= 5' Hor., 2' Ver.
SHEET 5 OF 9

NAME: C:\ACAD\DWGS\PW95-73\05-73XA.DWG DATE: JAN 08, 1998 TIME: 3:35 PM



END AREAS Sq. Ft		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill

Sta. 7+67.3
Driveway

Sta. 7+50
Driveway

Sta. 7+00.7
Driveway

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

HOWARD AVE.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

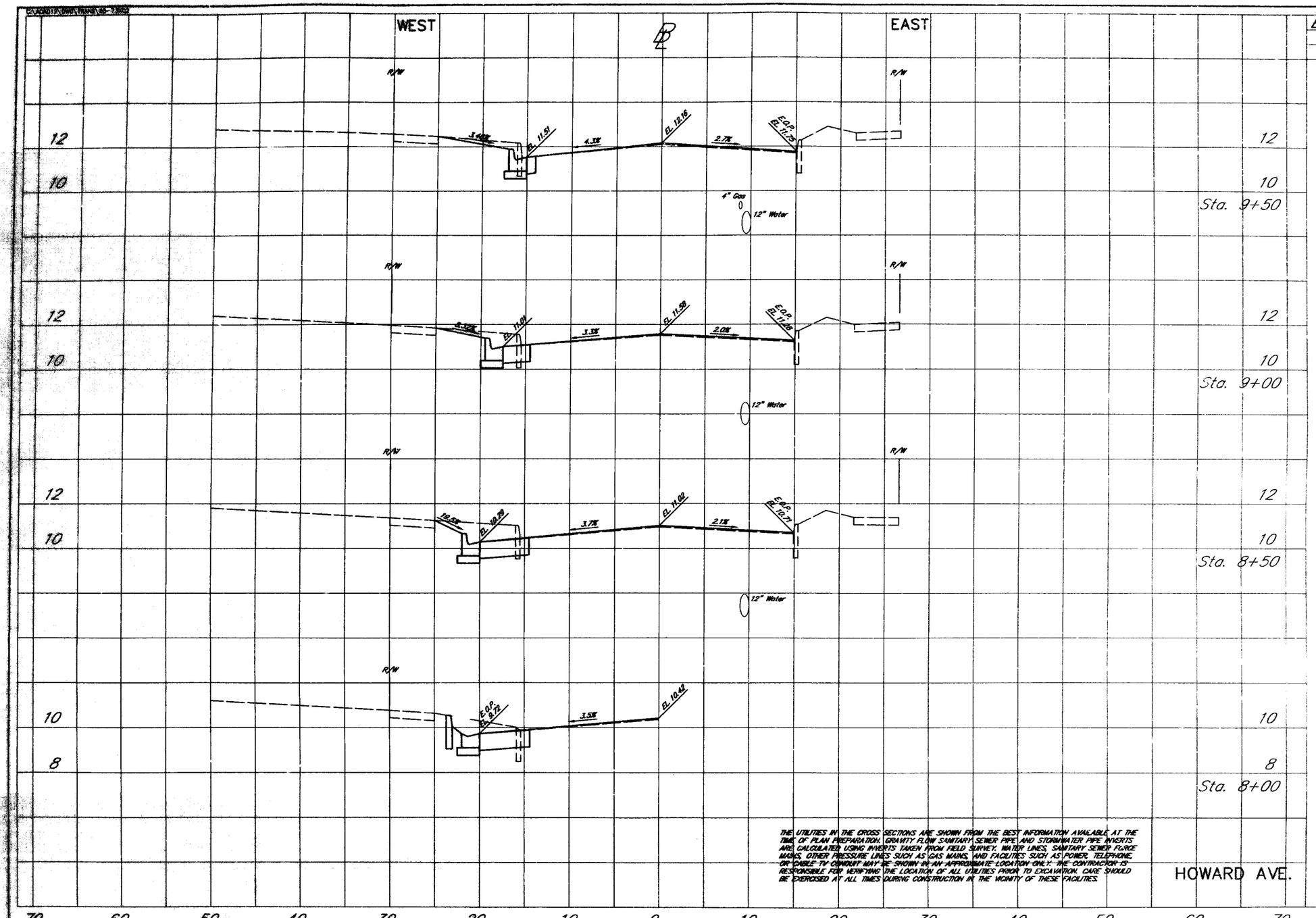
NAME: C:\ACADD12\USERS\TRANS\95-73\95-73SHEETS.DWG DATE: JAN 08, 1998 TIME: 3:35 PM

Drawn: L.Z.H. Date: 11/96			
Designed: [illegible] Date: 11/96			
Checked: [illegible] Date: /-98			
Reviewed: [illegible] Date: /-98			
Approved: [illegible] Date: /-98			
Approved: Date:	No:	Date:	Revision: By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

HOWARD AVE. & BAYSHORE BLVD.
INTERSECTION IMPROVEMENTS

Field Book:	95-9, 89-25
Atlas Sheet:	J-11
File No.	PW95-73 Index No
Job No.	4839
Scale:	1"= 5' Hor., 2' Ver.
SHEET	6 OF 9



END AREAS Sq. Ft.		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

HOWARD AVE.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

Drawn:	L.Z.H.	Date: 11/95	
Designed:	J.L.C.	Date: 11/95	
Checked:		Date: 1-98	
Reviewed:		Date: 1-98	
Approved:		Date: 1-98	
Approved:		Date:	

No:	Date:	Revision:	By:

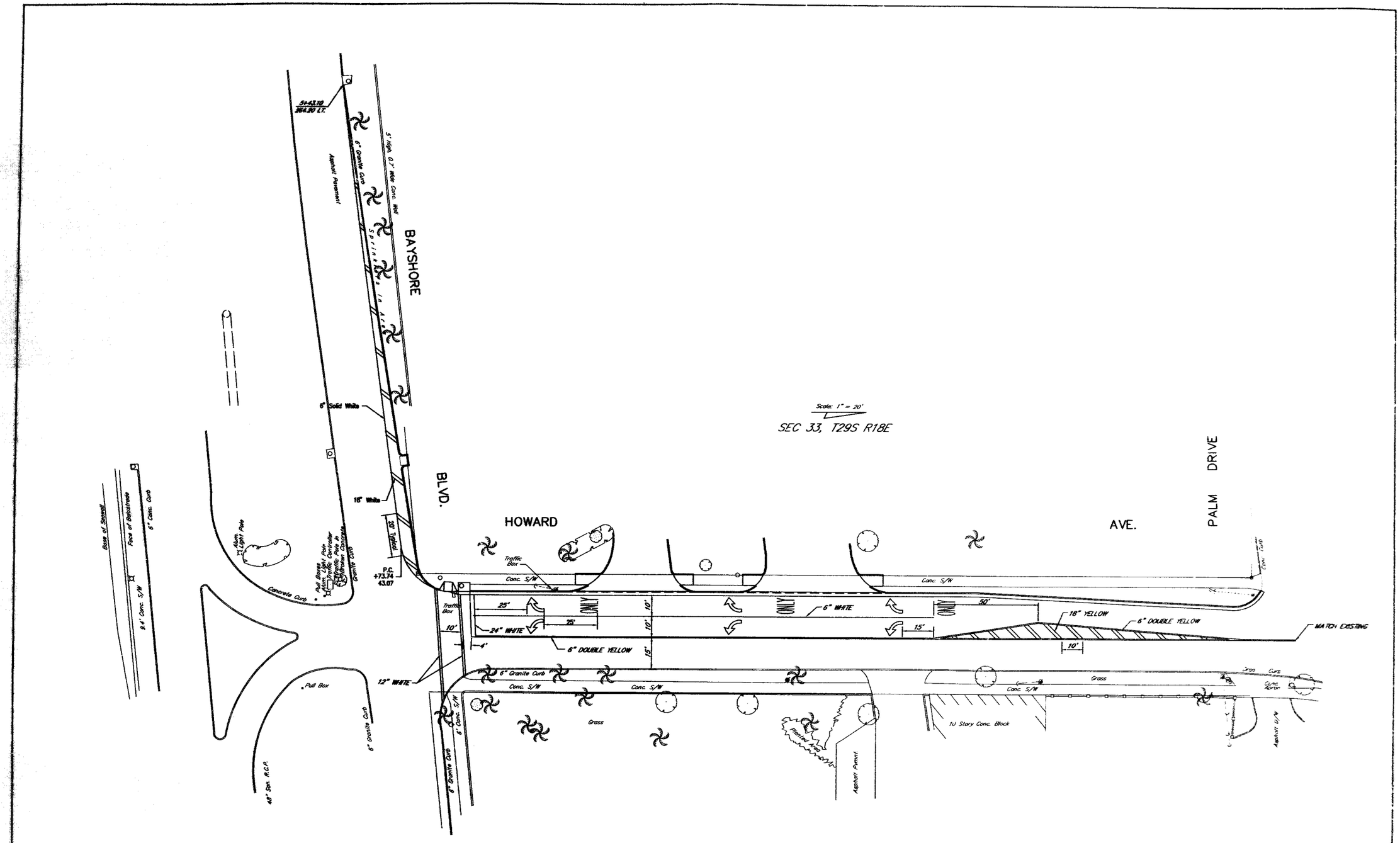
CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

HOWARD AVE. & BAYSHORE BLVD.
INTERSECTION IMPROVEMENTS

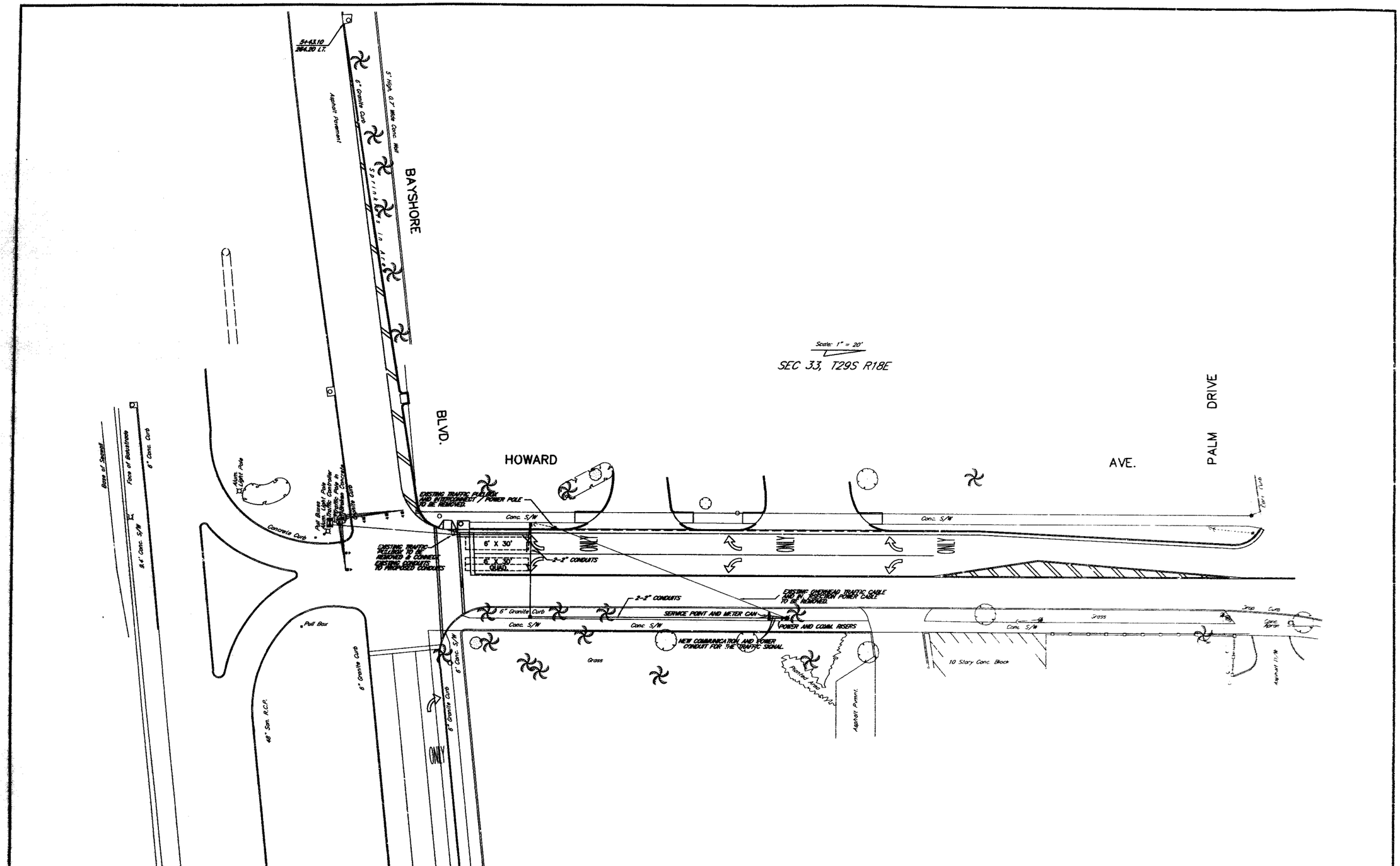
Field Book:	95-9, 89-25
Atlas Sheet:	J-11
File No.	PW95-73
Job No.	4839
Scale: 1"= 5' Hor., 2' Ver.	
SHEET 7 OF 9	

Index No

12
14



Drawn: tg.	Date: 6/95							CITY OF TAMPA DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION	HOWARD AVE. & BAYSHORE BLVD. INTERSECTION IMPROVEMENTS	Field Book 95-9, 89-25 Atlas Sheet File No. PW95-73 Index No. Job No. 4839 Scale 1" = 20' H, 1" = 2' V SHEET 8 OF 9
Designed:	Date: 1-98										
Checked:	Date: 1-98										
Reviewed:	Date: 1/27										
Approved:	Date: 1/30										
Approved:	Date:	No:	Date:	Revision:	By:						



Drawn: tg.	Date: 5/95	△	2/98	Revise power & comm. conduit runs.	GRS	CITY OF TAMPA DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION	HOWARD AVE. & BAYSHORE BLVD. INTERSECTION IMPROVEMENTS	Field Book: 95-9 PG-25
Designed: GRS	Date: 9/96	△		Revise traffic loop pullbox location.				Atlas Sheet: --"
Checked:	Date:	△						File No. 7495-73 Index No.
Reviewed:	Date: 3/97	△						Job No. 4839
Approved:	Date: 3/97	△						Scale: 1"=20'
Approved:	Date:	No:	Date:	Revision:	By:			SHEET 9 OF 9

Q.21 Palma Ceia Drainage Improvements (Parkland Blvd)

NAME: C:\ACAD\DWG\STORM\96-25A02.DWG DATE: JUN 18, 1997 TIME: 9:34 AM

NOTE: FOR SAN. SEWER HOUSE LATERAL, LEFT STA. 13+40± TO STA. 17+00, CONNECT TO NEW SAN. SEWER MAIN N. SIDE OF PARKLAND.

Sec.27-T29S-R18E

STA. 11+00

MATCH LINE

PARKLAND

BLVD.

STA. 17+00

MATCH LINE

STA. 12+04.92
L.T. 48.79
CONST. 600 L.F. OF TYPE "F" CURB & GUTTER

STA. 12+04.92

CONST. 230' OF 48"x76" E.R.C.P.

SAN.C.O. # 2615 (+162')

CONST. 7' OF 15" P.V.C.P.

STA. 13+40.36
L.T. 48.28

SAN. C.O. # 2613 (+200)

CONST. 184' OF 48"x76" E.R.C.P.

STA. 14+12.79
L.T. 41.99

SAN. C.O. # 2611 (+127')

CONST. 200' OF 8" P.V.C.P.

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900 P.V.C.P. UNDER CROSSING

STA. 15+51.80
L.T. 48.27

STA. 15+29.20
L.T. 42.47

SAN.C.O. #2609 (+10')

SAN. C.O. #2607 (+29')

CONST. 7' OF 12" P.V.C.P. AWWA CL.150, C900 @ 3%

CONST. 178' OF 48"x76" E.R.C.P.

CONST. 140' OF 8" P.V.C.P.

STA. 16+84.83
L.T. 42.39

SAN. C.O. #2603 (+163')

ROOT PRUNE (TYPICAL)

REMOVE EXIST. INLET

REMOVE EXIST. M.H. AND PIPE TO STA. 16+60

CONST. TYPE "A" CURB & GUTTER (MEDIAN)

CONST. 600 L.F. OF TYPE "F" CURB & GUTTER

CONST. 136 L.F. OF 8" P.V.C.P. @ 0.30%

CONST. SPEED HUMP PER DETAIL

SAN. C.O. # 2614 (+191')
STA. 12+24.04
RT. 22.26

SAN. C.O. # 2612 (+50')
STA. 12+83.34
RT. 22.38

SAN. C.O. # 2612 (+96')
STA. 13+43.10
RT. 22.42

CONST. 179 L.F. OF 8" P.V.C.P. @ 0.30%

CONST. TYPE "A" CURB & GUTTER (MEDIAN)

CONST. 40' OF 15" P.V.C.P.

SAN. C.O. # 2610 (+165')
STA. 14+01.09
RT. 15.68

CONST. 32' OF 15" P.V.C.P. (SDR26)

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900 P.V.C.P. UNDER CROSSING

SAN. C.O. # 2522 (+258')
STA. 16+68.43
RT. 16.50

CONST. 40 L.F. OF 8" P.V.C.P. @ 0.40%

(SS-111) CONST. SAN. M.H. STA. 12+36, ℄ TOP EL.= 18.50± N. RIM EL. = 18.63 E. INV. EL. = 13.52 W. INV. EL. = 13.50

(ST-24) CONST. M.H. TYPE "J-7" (9'x4') STA. 13+32, 23' LT. TOP EL.= 18.05± N. RIM EL. = 18.13 N. INV. EL. = 13.83 N.E. INV. EL.= 10.81 S.W. INV. EL. = 10.81 S.E. INV. EL. = 14.68

(ST-25) CONST. INLET F.D.O.T. TYPE "9" STA. 13+32, 33.0' LT. FL. EL. = 17.81✓ INVERT = 14.43✓

(ST-26) CONST. INLET F.D.O.T. TYPE "9" STA. 13+60, 7.6' RT. FL. EL. = 17.87✓ INVERT = 15.21

(ST-27) CONST. M.H. TYPE "J-7" (9'x4') STA. 15+20, 23' LT. TOP EL.= +18.22± N. RIM EL. = 18.12 N. INV. EL. = 14.23 N.E. & S.W. INV. EL. = 10.99 S. INV. EL. = 13.84

(ST-28) CONST. INLET F.D.O.T. TYPE "9" STA. 15+20, 33.5' LT. FL. EL. = (17.77) 17.81 INVERT = (14.40) 14.12

(ST-29) CONST. INLET F.D.O.T. TYPE "9" STA. 15+30, 7.6' RT. FL. EL. = 17.74✓ INVERT = 14.32

(SS-115) CONST. SAN M.H. STA. 15+40, 30.4' LT. TOP EL. = 17.92±✓ E. INV. EL. = 12.90 W. INV. EL. = 12.32

(SS-114) CONST. SAN M.H. STA. 13+40, 30.4' LT. TOP EL. = 18.00± E. INV. EL. = 13.73

(SS-112) CONST. SAN. M.H. STA. 14+15, ℄ TOP EL.= 18.28±✓ W. INV. EL. = 14.06

(SS-113) CONST. SAN. M.H. STA. 16+60, ℄ TOP EL.= 17.55±✓ E. INV. EL. = 12.99

AS-BUILT
REVIEWED BY _____ DATE _____

| | | |

NAME: C:\ACAD\DWG\STORM\96-25A03.DWG DATE: DEC 05, 1997 TIME: 8:35 AM

STA. 17+00

STA. 23+00

MATCH LINE

MATCH LINE

ALLEN PL.(EAST)

PL.(WEST)

FOUNTAIN BLVD.

AVE

PARKLAND

Sec.27-T29S-R18E

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900, UNDER CROSSING

17+79.41, 34.7' LT.

CONST. 85' OF 48"x76" E.R.C.P. CL.IV

CONST. 110' OF TYPE "F" CURB & GUTTER

ROOT PRUNE (TYPICAL)

STA. 17+02.96 L.T. 40.43

SAN. C.O. #2603 (+145')

P.T. +92.09 47.72' LT.

CONST. 36' OF 12" P.V.C.P. C900 @ 1%

4" Tree

REPLACE 13' OF EXIST. SAN. WITH 8" PVCP, SAME GRADE

CONST. LIMIT

MATCH EXIST. CURB GRADE AT STA. 19+30, 55' LT.

MATCH POINT FL. EL. 16.84± STA. 19+75, 52' LT.

Grate Inlet

CONST. 65' OF 3' WIDE F.D.O.T. VALLEY GUTTER

CONST. 150' OF TYPE "F" CURB & GUTTER

CONST. 150' OF 48"x76" E.R.C.P. CL.IV

2" Tree

CONST. 110' OF 18" P.V.C.P.

P.C. +19.25 47.49' LT.

P.T. +50.98 42.30' LT.

REMOVE EXIST. INLET P.C. +48.94, 34.86' LT.

P.T. +12.76, 34.32' LT.

CONST. 275' OF TYPE "F" CURB & GUTTER

CONST. 140' OF 48"x76" E.R.C.P. CL.IV

P.C. +02.74 37.01' LT.

CONST. 8' OF 43"x68" E.R.C.P. CL.IV

MATCH EXIST. PAVEMENT

MATCH EXIST. GUTTERLINE AT STA. 21+90, 10' RT. P.T.+16.79, 44.20' LT.

CONST. 180' OF 36" R.C.P.

FL. 17.08

CONST. 28' OF 36" R.C.P.

FL. 17.25

P.C.=109.42 Δ=30°13'46" T=94.50 L=192.71

CONST. 75' OF TYPE "F" CURB & GUTTER

CONST. 5' OF 12" P.V.C.P. CONC. COLLAR INV. 14.00

REMOVE EXIST. INLET

CONST. 146' OF 8" P.V.C.P. @ 2%

CONST. 10' OF 15" P.V.C.P. @ 2%

42" R.C.P.

Storm M.H.

P.T. +23.78, 34.24' LT.

4.65%R

+20.44, 12.86' LT.

CONST. TYPE "A" CURB & GUTTER (MEDIAN) TYPICAL

CONST. 33' OF 15" P.V.C.P.

12" R.C.P. (REMOVE)

8" San.

San. M.H.

CONST. 20' OF 8" P.V.C.P.

+64.12, 12.86' LT.

CONST. 20' OF 8" P.V.C.P. C900

CONST. CONC. COLLAR

+05.86, 12.81' LT.

42" R.C.P. (REMOVE)

15" R.C.P.

36" R.C.P. (REMOVE)

6" Tree

24" Palm

18" Tree

15" Palm

15" Tree

6" Water

SAN. C.O. #2520 +00

SAN. C.O. #2514 (+95')

SAN. C.O. #2512 (+216')

SAN. C.O. #2506 (+39')

STA. 18+03.12 RT. 22.77

STA. 20+20.67 RT. 22.61

STA. 21+41 RT. 22.71

STA. 22+92.69 RT. 22.59

CONST. 226' OF 8" P.V.C.P. @ 0.40%

CONST. 239' OF 8" P.V.C.P. @ 0.25%

CONST. 135' OF 8" P.V.C.P. @ 0.25%

CONST. TYPE "A" CURB & GUTTER (MEDIAN) TYPICAL

CONST. 600' OF TYPE "F" CURB & GUTTER

CONST. SPEED HUMP AS PER DETAIL SPEED HUMPS (SEE TYPICAL)

REMOVE EXIST. SAN. MANHOLE

REMOVE & REPLACE 14'(L.)x12.5'(W.)x3"(H.) SPEED HUMPS (SEE TYPICAL)

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900, UNDER CROSSING

REMOVE EXIST. INLET AND D/W, CONST. NEW D/W APRON

CONST. 36' OF 15" P.V.C.P. @ 1%

CONST. 32' OF 15" P.V.C.P. @ 0.6%

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900, UNDER CROSSING

(ST-30) CONST. M.H. TYPE "J-7" (3'x4') STA. 17+87, 23' LT. TOP EL.=16.95±/ N. RIM EL. = 17.25 N. INV. EL. = 13.69 N.E. & S.W. INV. EL. = 11.13 S. INV. EL. = 13.44

(ST-31) CONST. INLET F.D.O.T. TYPE "9" WITH TYPE "J"(4'x4') BOTTOM & TOP SLAB F.D.O.T. INDEX 214 STA. 17+86.4, 35' LT. FL. EL.= 16.71/ INVERT = 13.90 13.86

(SS-116) CONST. SAN. M.H. STA. 18+48, 30.4' LT. TOP EL.= 17.08± 17.19± E. INV. EL. = 11.92 W. INV. EL. = 11.99

(SS-117) CONST. SAN. M.H. (DOGHOUSE) STA. 19+55.5, 32' LT. TOP EL.= 17.18± 17.30± N. INV. EL. = 11.50 S. INV. EL. = 11.64 W. INV. EL. = 11.62

(ST-32) CONST. INLET TYPE "7" STA. 18+26.5, 35.9' LT. THROAT EL.= 16.49 FL. EL.= 16.82 16.75

(ST-33) CONST. INLET F.D.O.T. TYPE "9" STA. 18+08, 7.6' RT. FL. EL.= 16.83 16.94

(ST-34) CONST. CONFLICT M.H. TYPE "J-77" (9'x6') WITH 2' SUMP STA. 19+39, 23' LT. TOP EL.= 17.18± N. INV. EL. = 13.89 N.E. & S.W. INV. EL. = 10.87 S.E. INV. EL. = 14.73

(SS-118) CONST. SAN. M.H. STA. 19+26, ℄ TOP EL.= 17.25± 17.38± E. INV. EL. = 11.89 W. INV. EL. = 11.83

(ST-35) CONST. INLET TYPE "7" STA. 20+25, 36' LT. THROAT EL.= 16.29 16.14± FL. EL.= 15.97 16.50± INVERT = 14.30 14.38±

(ST-36) CONST. INLET TYPE "9" (FDOT) STA. 20+26, 7.8' RT. FL. EL.= 16.72 INVERT = 13.68

(SS-119) CONST. SAN. M.H. STA. 21+65, ℄ TOP EL.= 17.55± 17.55± W. INV. EL. = 12.47 E. INV. EL. = 12.50

(ST-37) CONST. M.H. TYPE "J-77" (9'x4') STA. 20+81, 40' LT. TOP EL.= 17.60 N. RIM EL. = 17.53 N. & S. INV. EL. = 11.41

(ST-38) CONST. M.H. TYPE "J-77" (9'x7') STA. 20+87.5, 26' LT. TOP EL.= 17.20 N. RIM EL. = 17.26 N.E. & S.W. INV. EL. = 11.27

(ST-39) CONST. M.H. TYPE "J-77" (4'x4') STA. 22+70, 26' LT. TOP EL.= 17.30± N. RIM EL. = 17.39 S. INV. EL. = 13.21 W. INV. EL. = 11.65 E. INV. EL. = 11.62

(ST-40) CONST. INLET TYPE "9" (FDOT) STA. 22+70, 7.8' LT. FL. EL.= 16.96 17.00 INVERT = 13.90

P.G. ℄ (W.B.L.) @-0.45%

P.G. ℄ (E.B.L.) @-0.30%

P.G. ℄ (W.B.L.) @ 0.43%

P.G. ℄ (E.B.L.) @ 0.34%

P.G. ℄ (W.B.L.) @-0.43%

P.G. ℄ (E.B.L.) @-0.34%

P.G. ℄ (W.B.L.) @ 0.56%

P.G. ℄ (E.B.L.) @ 0.53%

Exist. ℄ Pavement West Bound Lane

P.G. ℄ @ 0.25%

P.G. ℄ @ 0.57%

V.P.I. ELEV. 17.80 BOTH LANES ℄ STORM M.H.

V.P.I. ELEV. 17.30 BOTH LANES ℄ STORM M.H.

℄ Storm Inlet

℄ San. M.H.

℄ Storm M.H.

℄ COLLAR

CONFLICT ℄ STORM M.H.

℄ INLET (E.B.L.)

℄ INLET (W.B.L.)

V.P.I. EL. 17.85 (W.B.L.) ℄ STORM M.H.

V.P.I. EL. 17.01 (E.B.L.) ℄ STORM INLET

V.P.I. EL. 17.38 (E.B.L.) ℄ SAN. M.H.

V.P.I. EL. 17.42 (W.B.L.) ℄ SAN. M.H.

V.P.I. EL. 17.85 (W.B.L.) ℄ COLLAR

V.P.I. EL. 17.85 (E.B.L.) ℄ INLET

+50 V.P.I. ELEV. 17.80 BOTH LANES ℄ SAN. M.H.

San. H.C.

6" Water

12" R.C.P.

15" R.C.P.

42" R.C.P.

36" R.C.P.

15" P.V.C.P.

36" R.C.P. @ 0.23%

INV.= 12.86

8" P.V.C.P. @ 0.30% (N)

48"x76" E.R.C.P. CL.IV @ 0.056%

CONST. 226' OF 8" P.V.C.P. @ 0.40%

CONST. 60' OF 8" P.V.C.P. @ 0.30%

REPLACE 13' OF EXIST. SAN. WITH 8" PVCP, SAME GRADE

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900, UNDER CROSSING

CONST. 239' OF 8" P.V.C.P. @ 0.25%

CONST. 135' OF 8" P.V.C.P. @ 0.25%

CENTER 20' OF 8" AWWA (GREEN) CL. 150, C900, UNDER CROSSING

+30 INV. 8" P.V.C.P. (N.SIDE) =12.54

+26.5 INV. 8" P.V.C.P. (S. SIDE) =12.73 INV. 8" P.V.C.P. (N. SIDE) =12.43

+87.0 INV. 48"x76" E.R.C.P. =11.10 INV. 15" P.V.C.P. (S.) =13.44 INV. 15" P.V.C.P. (N.) =13.70

+02.4 +08.0 INV. 15" P.V.C.P. =13.80

+26.5 INV. 15" P.V.C.P. =14.25

+48 INV. 8" P.V.C.P. (W.) =11.92 INV. 8" P.V.C.P. (E.) =11.88

+28.7 INV. 8" P.V.C.P. (W.) =11.85 INV. 8" P.V.C.P. (E.) =11.81 INV. 8" P.V.C.P. (N.) =11.89

+39 INV. 48"x76" E.R.C.P. =9.19 (N.E. & S.W. SUMP INV. = 14.39)

+40.8 +58.5 INV. 8" P.V.C.P. (S.) =11.63 INV. 8" P.V.C.P. (N.) =11.63 INV. 8" P.V.C.P. (E.) =11.63

+03.5 +12.0 INV. 15" COLLAR =13.30 INV. 14.38

+42.5 +46.0 INV. 15" P.V.C.P. =13.65 INV. 15" P.V.C.P. (CEILING) =13.50

+86.0 (ST-37) N. & S. INV. = 11.41

+86.5 INV. 48"x76" E.R.C.P. =11.27 INV. 36" R.C.P. =11.37

+93.0

+65 INV. 8" P.V.C.P. (E.) =12.50 INV. 8" P.V.C.P. (W.) =12.52

+70 (ST-40) INV. = 13.90

+70 INV. 36" R.C.P. (CAN) =11.62 INV. 15" P.V.C.P. (S.) =13.21 W. INV. = 11.65

+68.0

INV. 8" P.V.C.P. = 12.86

17+00 18+00 19+00 20+00 21+00 22+00 23+00

Revised from Contractor's AS-BUILT 3-9-00 L.Z.H.

316-49

APPROVED BY

RALPH L. METCALF II, P.E.
DIRECTOR
DEPARTMENT OF SANITARY SEWERS

APPROVED BY

HENRY DORZBACK, PE # 39449
CHIEF ENGINEER
DEPARTMENT OF SANITARY SEWERS

Drawn: C. Rohde	Date: 4-96	
Designed:	Date:	
Checked:	Date:	
Reviewed:	Date:	
Approved:	Date:	
Approved:	Date:	

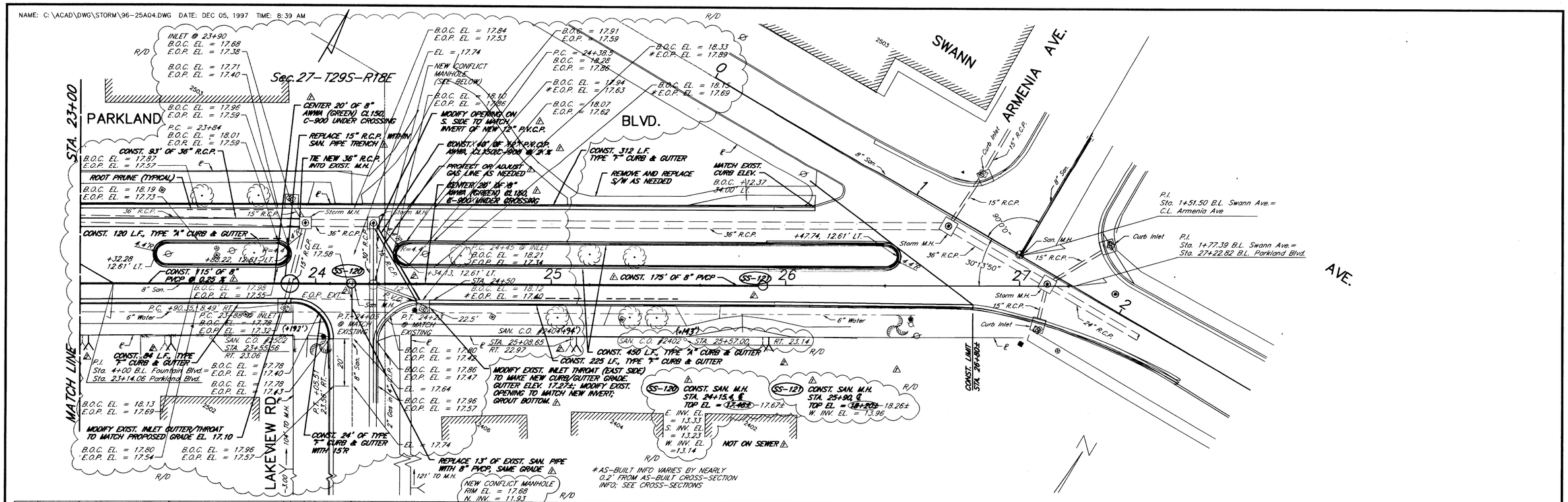
No:	Date:	Revision:	By:
1	1/9/01	As-built - H.C. only. RS	
2			
3			
4			
5	6/18/97	Added Storm Note	J.S.W.
6	6/18/97	Added and revised San. Notes	J.S.W.

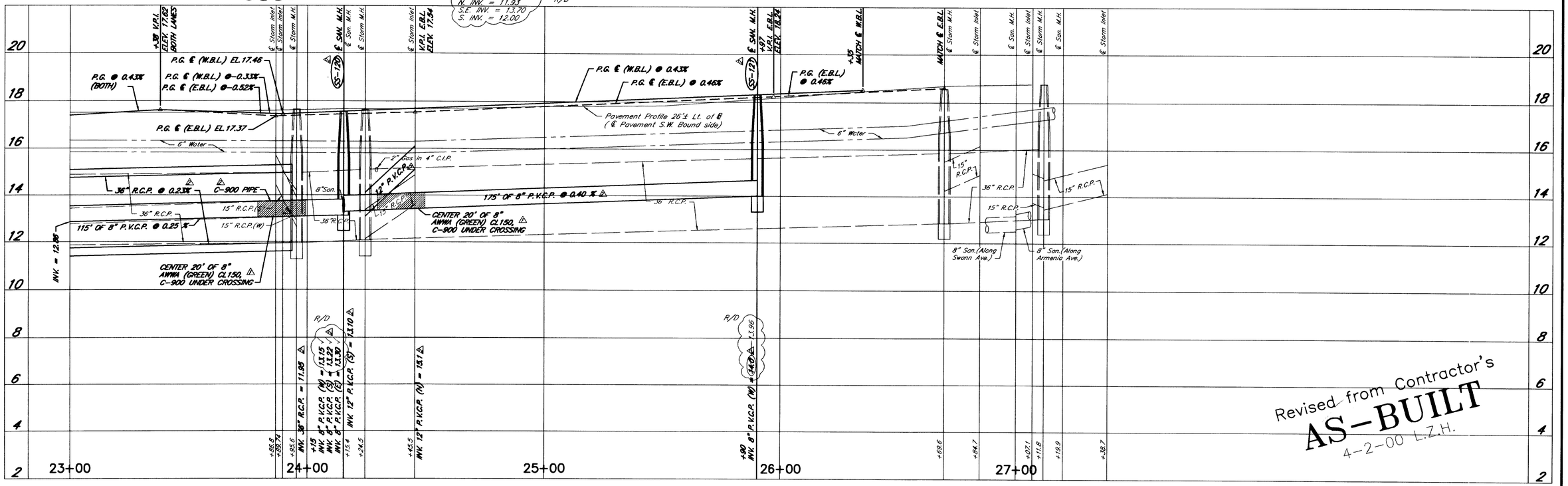
CITY OF TAMPA
DEPARTMENT OF SANITARY SEWERS
STORMWATER DIVISION

PALMA CEIA DRAINAGE IMPROVEMENTS
(PARKLAND BOULEVARD)

Field Book:	1980-19
Atlas Sheet:	J-10
File No.	PW96-25
Job No.	5617
Scale:	1"=20 Hor., 2 Ver.
SHEET	13 OF 17
Index No.	/

NAME: C:\ACAD\DWG\STORM\96-25A04.DWG DATE: DEC 05, 1997 TIME: 8:39 AM





Revised from Contractor's AS-BUILT 4-2-00 L.Z.H.

APPROVED BY RALPH L. METCALF II, P.E. DIRECTOR DEPARTMENT OF SANITARY SEWERS	APPROVED BY HENRY DORZBACK, PE # 39449 CHIEF ENGINEER DEPARTMENT OF SANITARY SEWERS	CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS STORMWATER DIVISION

Drawn: C. Rohde Date: 5-96	4/4/01	As-built - H.C. only. R.S.	
Designed: Date:			
Checked: Date:			
Reviewed: Date:			
Approved: Date:	6/17/97	ADDED PROPOSED SAN.	L.Z.H.
Approved: Date:	6/17/97	REVISED/ADDED NOTE	L.Z.H.
No:	Date:	Revision:	By:

PALMA CEIA DRAINAGE IMPROVEMENTS
(PARKLAND BOULEVARD)

Field Book:	1980-19
Atlas Sheet:	J-10
File No.	PW96-25
Job No.	5617
Scale:	1"=20'Hor., 2'Ver.
SHEET 14 OF 17	
Index No.	/

316-50

Q.22 Swann Avenue, Parkland Blvd and Armenia Ave Intersection Improvements

CITY OF TAMPA

PAVEMENT IMPROVEMENTS

SWANN AVENUE, PARKLAND BLVD. AND ARMENIA AVE. INTERSECTION IMPROVEMENTS

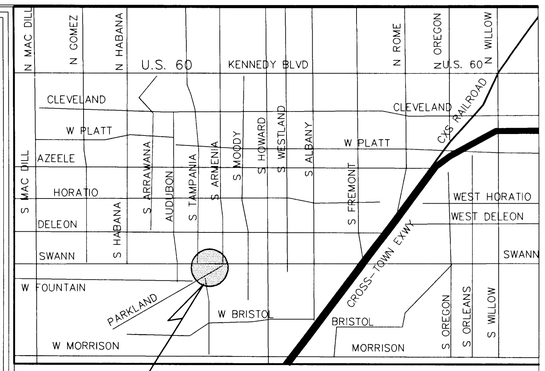
FILE NO. PW6962 JOB NO. 638B

CONTRACT NO. 2000-0489

TRANSPORTATION DIVISION

DEPARTMENT OF PUBLIC WORKS

CITY OF TAMPA, FLORIDA



VICINITY MAP
SCALE; 1"=1000'

INDEX OF DRAWINGS

SHEET NO	DESCRIPTION
1	Index & Vicinity Map
2	General Information
3	Typical Section
4-6	Plan & Profile
7-14	Cross Sections
15	Signing and Pavement Marking Plan
16	Details
S1-S6	Signalization
L1-L3	Landscape & Irrigation

APPLICABLE CITY STANDARD DRAWINGS

XPBV1 Curbs-Gutters , Joint Details
DPW D-13 Miscellaneous Details

APPLICABLE D.O.T. STANDARD INDEX

102 Temporary Erosion Control
280 Miscellaneous Drainage Details
300 Curb & Curb & Gutter
301 Turn Lanes
304 Curb Cut Ramps
305 Transverse Expansion Joint and Contraction Joint
310 Concrete Sidewalk
515 Turnouts
526 Roadway Transitions
621 Two Lane Two Way • Urban Day or Night Operations
17346 Special Marking Areas
17352 Typical Placement of Reflective Pavement Markers

CUMBEY & FAIR, INC.
CONSULTING CIVIL ENGINEERS
ENGINEERING PLANNING LAND SURVEYS
2463 ENTERPRISE ROAD CLEARWATER 797-8982
CLEARWATER, FLORIDA 33763-1790 TAMPA 223-4333
ENGINEER: BRADLEY S. FORAN, P.E. #52634

APPROVED BY:

JAMES BURNSIDE, P.E.
STREETS ENGINEER
DEPARTMENT OF PUBLIC WORKS

CERTIFICATION

Sheet 1 to 16 Inclusive, Certified By:

NAME: J:\JN\638b\dwg\COVER.DWG

LEGEND

EXISTING Up to 12"Dia.	EXISTING Over 12"Dia.	PROPOSED Up to 12"Dia.	PROPOSED Over 12"Dia.	TYPE
12" R.C.P.	24" R.C.P.			STORM SEWER
8" V.C.P.	24" V.C.P.			SANITARY SEWER
8" Water	24" Water			WATER
6" Gas	18" Gas			GAS
				POWER (Electric)
				TELEPHONE
3.5 (Depth below grade at ℄) 3.5		3.5	3.5	HOUSE CONNECTION (Sanitary Sewer)
				STORM SEWER MH
				SANITARY SEWER MH
				OTHER MH
V		V		VALVE BOX
M		M		METER
⊗		⊗		VALVE
San. C.O.		San. C.O.		SAN. SEWER CLEAN OUT
				FIRE HYDRANT
				POWER POLE (Electric)
Ø		Ø		TELEPHONE POLE
				COMBINATION POLE (Power & Telephone)
				STREET LIGHT ON POST
				TRAFFIC LIGHT ON POST
P		P		POLICE CALL BOX
				GUY POLE & WIRES
				GUY WIRE
				SHRUBS
10"				CONIFER TREES
6"				PALM TREES
8" Oak				MISC. TREES (Identify)

GENERAL NOTES

1. ALL ELEVATIONS REFER TO THE MEAN SEA LEVEL DATUM OF THE U.S.C. AND G.S. (N.O.S.) YEAR 1929
2. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF THE EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF THE PREPARATION OF THESE PLANS BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE CONTRACTOR SHALL VERIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS PRIOR TO CONSTRUCTION.
3. THE CONTRACTOR SHALL CALL SUNSHINE (1-800-432-4770) AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY.
4. WHEN IN CONFLICT, UTILITY POLES, GAS LINES, UNDERGROUND ELECTRIC AND TELEPHONE CABLES WILL BE RELOCATED BY THE RESPECTIVE UTILITY OWNERS AT THEIR OWN EXPENSE AS DIRECTED BY THE ENGINEER.
5. PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:

TAMPA ELECTRIC CO. (TECO)	MS. HEATHER VITRANO	AT 228-4393
CITY SANITATION DEPT.	MR. MIKE DAVIS	AT 274-8936
CITY WATER DEPT.	MR. CHRIS BRDIN	AT 274-8678
GTE (VERIZON)	ARMANDO HERNANDEZ	AT 664-6047
PEOPLES GAS (TECO)	JACK REEVES	AT 275-9762
ATT (TELEPHONE)	BILL MERCER	AT 230-3995
FIRE DEPT DEPUTY CHIEF - HART (HILLS AREA REG. TRANSIT)	TERRY JONES LES WEAKLAND	AT 274-7011 AT 223-6831

6. SPECIAL CARE MUST BE TAKEN TO PROTECT WATER LINES DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE SUPPORTS AS NECESSARY AT NO EXPENSE TO THE CITY.
7. STATIONS AND OFFSETS REFER TO THE SURVEY BASELINE OR TO THE CONSTRUCTION CENTERLINE AS NOTED.
8. STATIONS AND OFFSETS FOR INLETS AND MANHOLES REFER TO THE CENTERPOINT OF THE STRUCTURE. CURB INLETS SHALL BE POSITIONED LONGITUDINALLY ACCORDING TO STATIONING GIVEN AND LATERALLY ACCORDING TO THE APPROPRIATE STANDARD, UNLESS NOTED OTHERWISE. CURB INLET TOP AND THROAT ELEVATIONS SHALL BE BASED ON THE EDGE-OF-PAVEMENT ELEVATION (GIVEN OR CALCULATED) AND THE APPROPRIATE STANDARD. INLET THROAT ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR FROM THE EDGE-OF-PAVEMENT ELEVATION.
9. MANHOLE TOP ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR AS PER PROPOSED STREET GRADES PROVIDED. IF DISTANCE BETWEEN TOP SLAB AND GRADE IS LESS THAN 7", THE CONTRACTOR SHALL PROVIDE INVERTED MANHOLE FRAME AND COVER AT NO ADDITIONAL COST TO THE CITY.
10. ALL CURB RADII, P.I., P.C., AND P.T. REFER TO THE EDGE-OF PAVEMENT UNLESS NOTED OTHERWISE.
11. NO TREES NOR TREE ROOTS SHALL BE REMOVED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
12. ALL DISTURBED AREAS SHALL BE SODDED AS DIRECTED BY THE ENGINEER.
13. WHERE CONNECTIONS TO EXISTING WALKS AND DRIVES ARE NOT INDICATED ON THE PLANS, PROPER CONNECTIONS SHALL BE MADE AT THE DIRECTION OF THE ENGINEER.
14. STREET SIGNS, STREET MARKERS, AND R-O-W MARKERS SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THESE ACTIVITIES. ANY LOST OR DAMAGED SIGNS OR MARKERS SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
15. THE CONTRACTOR SHALL REPLACE EXISTING DRIVEWAYS FROM THE EDGE OF PAVEMENT TO THE R-O-W LINE, WHEREVER AFFECTED BY CONSTRUCTION. MATERIALS SIMILAR TO THE EXISTING SHALL BE USED UNLESS NOTED OTHERWISE OR IN THE CASE OF UNPAVED DRIVEWAYS, A 6" THICK LAYER OF COMPACTED SHELL SHALL BE INSTALLED OR AS SHOWN ON THE PLANS.
16. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL ENVIRONMENTAL RULES AND REGULATIONS OF THE CITY, COUNTY, STATE, TAMPA PORT AUTHORITY, ARMY CORPS OF ENGINEERS, AND ANY OTHER JURISDICTIONAL AGENCIES, AND ALL CONDITIONS SET FORTH IN ENVIRONMENTAL PERMITS.
17. ALL RCP'S AND ERCP'S SHALL BE CONSTRUCTED WITHOUT LIFT-HOLES AND SHALL BE CLASS III UNLESS NOTED OTHERWISE IN THE PLANS.
18. EXISTING SANITARY SEWER LATERALS WHICH ARE TO BE EXTENDED SHALL BE CONSTRUCTED TO AND CONNECTED AT THE PROPERTY LINE, WHILE MAINTAINING CONTINOUS SEWER SERVICE. CLEANOUTS (PLASTIC OR CAST IRON) SHALL BE INCLUDED IN THE PRICE OF THE LATERAL EXTENSIONS AND NO SEPARATE PAYMENT SHALL BE MADE.
19. ALL PIPES UP TO 24" DIA. OR EQUAL SHALL HAVE CLASS "C" BEDDING. MAXIMUM TRENCH WIDTH OF THE PIPE BEDDING SHALL BE EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE BARREL PLUS 2 FEET. PIPES OVER 24" DIA. SHALL HAVE CLASS B BEDDING. REFER TO THE DEPARTMENT OF SANITARY SEWERS STANDARD DETAIL. COST OF STANDARD BEDDING SHALL BE INCLUDED IN THE COST FOR PIPES.
20. REMOVAL OF EXISTING PAVEMENT AND BASE MATERIAL, SIDEWALK, CURB, POLES, UNDERGROUND PIPES, STRUCTURES, FOUNDATIONS, AND OTHER MISCELLANEOUS ITEMS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR CLEARING AND GRUBBING, AND NO SEPARATE PAYMENT SHALL BE MADE UNLESS SEPARATE BID ITEM IS PROVIDED.
21. THE CONTRACTOR SHALL USE ALL SURPLUS FILL APPROVED AS SUITABLE FROM EXCAVATION PRIOR TO SURPLYING FILL FROM OTHER SOURCES. PAYMENT FOR ADDITIONAL FILL WILL BE MADE ONLY FOR FILL SUPPLIED FROM SOURCES OTHER THAN EXCAVATIONS IN THIS CONTRACT. SEE SPECIFICATIONS FOR MATERIALS REQUIREMENTS.
22. EXISTING PAVEMENT SHALL BE SAWCUT AT THE LIMITS OF PAVEMENT RECONSTRUCTION. SAWCUTTING SHALL BE INCLUDED IN THE COST OF THE OTHER VARIOUS CONTRACT ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.
23. DISPOSAL OF CONSTRUCTION AND DEMOLITION DEBRIS MAY ONLY OCCUR AT OFFSITE DISPOSAL FACILITIES APPROVED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION.
24. BALED HAY OR STRAW BARRIERS AND/OR SILT FENCES MEETING FDOT INDEX #102 SHALL BE USED AS DIRECTED BY THE ENGINEER AS NECESSARY FOR SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION. COST OF EROSION CONTROL SHALL BE INCLUDED IN THE COST OF THE OTHER VARIOUS CONTRACT ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.
25. CURB-AND-GUTTER ENDINGS SHALL CONFORM TO CITY OF TAMPA DPW STANDARD DRAWING P-3.
26. WHERE SANITARY SEWER HOUSE LATERALS ARE NOT SHOWN ON THE PLANS, NO INFORMATION IS AVAILABLE. CONTRACTOR SHALL VERIFY LOCATIONS OF LATERALS PRIOR TO CONSTRUCTION.
27. MAIL BOXES SHALL BE REMOVED AND RELOCATED AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS ACTIVITY. LOST OR DAMAGED MAIL BOXES SHALL BE REPLACED BY THE CONTRACTOR AT NO COST TO THE CITY.
28. ALL DRAINAGE STRUCTURES SHALL HAVE SELECT BEDDING MATERIAL (12" THICK CRUSHED ROCK) UNDER THE STRUCTURE, UNLESS OTHERWISE NOTED ON THE PLAN OR IN THE SPECIFICATION OR INSTRUCTED BY THE ENGINEER.
29. ALL REINFORCED CONCRETE PIPE (ROUND OR ELLIPTICAL) SHALL BE INSTALLED WITH A NON-WOVEN FILTER FABRIC JACKET AS PER THE DETAIL ON THE CITY OF TAMPA STANDARD DRAWING NUMBER D-13.
30. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS. COMPLETE CONSTRUCTION DOCUMENTS CONSIST OF PLANS PLUS COMPLETE SPECIFICATIONS (GENERAL PROVISIONS, TECHNICAL SPECIFICATIONS, SPECIFIC PROVISIONS AND ANY ADDENDA), AND CITY AND FDOT STANDARDS, AS APPLICABLE.
31. EXISTING STORMWATER FACILITIES WHICH WILL BE REMOVED FROM SERVICE; INCLUDING PIPES, MANHOLES, MITERED END SECTIONS, ETC.; SHALL BE REMOVED AND NOT ABANDONED IN PLACE.

TRAFFIC CONTROL PLAN GENERAL NOTES

1. LANE CLOSURE RESTRICTIONS FOR SWANN AVENUE HAS BEEN ESTABLISHED AS FOLLOWS: NO LANE(S) MAY BE CLOSED DURING THE HOURS OF 5:30 AM TO 10:30 PM.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 24 HRS IN ADVANCE OF A LANE CLOSURE.
3. THE CONTRACTOR SHALL, AT THE DISCRETION OF THE ENGINEER, OPEN ANY TEMPORARY LANE CLOSURES CAUSING EXTENDED TRAFFIC CONGESTION (5 MINUTES) UNTIL TRAFFIC HAS RETURNED TO AN ACCEPTABLE FLOW AS JUDGED BY THE ENGINEER.
4. THE EXISTING POSTED SPEED SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. THE EXISTING POSTED SPEED IS 25 MPH ON SWANN AVENUE.
5. ACCESS TO ADJACENT PROPERTIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING ALL PHASES OF CONSTRUCTION.
6. TEMPORARY TRAVEL LANES SHALL BE A MINIMUM WIDTH OF 10 FT.
7. ALL TEMPORARY SIGNS, PAVEMENT MARKINGS, BARRICADES, WARNING LIGHTS, ETC. NECESSARY FOR THE MAINTENANCE OF TRAFFIC SHALL CONFORM TO THE LATEST EDITIONS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.
8. THE CONTRACTOR SHALL PROVIDE UNIFORMED, OFF-DUTY LAW ENFORCEMENT OFFICER(S) WITH A MARKED LAW ENFORCEMENT VEHICLE TO BE USED 2 HOURS IN THE A.M. AND 2 HOURS IN THE P.M. DURING LANE CLOSURE AND SINGLE LANE OPERATION SET-UP AND BREAKDOWN.
9. CONFLICTING OR EXISTING PAVEMENT MARKINGS SHALL BE REMOVED BY GRINDING. ALL EXISTING PAVEMENT MARKINGS WHICH ARE ALTERED SHALL BE REPLACED UPON COMPLETION OF THE PROJECT. COST FOR REMOVAL INCLUDED IN MAINTENANCE OF TRAFFIC. THE REPLACEMENT OF MARKINGS SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM.
10. ALL EXISTING STREET SIGNS THAT ARE AFFECTED BY THE PROJECT SHALL BE RELOCATED AND MAINTAINED BY THE CONTRACTOR AT ALL TIMES FOR THE DURATION OF THE PROJECT.
11. VARIABLE MESSAGE BOARDS WILL BE REQUIRED FOR ALL NIGHT WORK. TO BE PAID FOR UNDER A SEPARATE PAY ITEM.
12. THE CONTRACTOR SHALL PROVIDE ANY AND ALL MATERIALS AND EQUIPMENT NEEDED TO MEET THE DROPOFF REQUIREMENTS OF FDOT STANDARD INDEX NO. 600.
13. PEDESTRIAN TRAFFIC IS TO BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PROCESS. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT A SAFE, UNOBSTRUCTED ROUTE EXISTS FOR PEDESTRIANS, PER FDOT STANDARD INDEX NO. 660.
14. ALL SIDESTREETS INTERSECTING WITHIN THE PROJECT LIMITS WILL REQUIRE NO LESS THAN A ROAD CONSTRUCTION AHEAD SIGN, INCLUDING LIGHT AND FLAG.
15. AFTER FINAL ASPHALTIC CONCRETE COURSE IS PLACED, APPLY FINAL PAVEMENT MARKINGS AND PLACE PERMANENT RPM'S ON LANE LINES 30 DAYS LATER.
16. TEMPORARY RPM'S SHALL BE INSTALLED WITH ALL TEMPORARY LANE LINES. COST OF REMOVAL SHALL BE INCLUDED IN THE COST OF THE RPM.
17. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A WRITTEN PLAN WHICH DETAILS EACH ACTIVITY INVOLVED IN THE LANE CLOSURE. THE PLAN SHALL INCLUDE BACK-UP PLANS FOR ACTIVITIES CRITICAL TO RE-OPENING THE LANES TO TRAFFIC. THE BACK-UP PLAN SHALL INCLUDE BACK-UP FOR ALL SUBCONTRACTOR OPERATIONS AS WELL AS THE PRIME CONTRACTOR'S. APPROVAL SHALL BE OBTAINED BY THE ENGINEER PRIOR TO STARTING.
18. NO LANE CLOSURE WILL BE ALLOWED WITHOUT ABSOLUTE ASSURANCE THAT THE PRIME AND SUBCONTRACTORS HAVE PLANNED THE OPERATIONS TO ACHIEVE RE-OPENING ACCORDING TO THE CONTRACT. AN EXAMPLE OF AN ACCEPTABLE BACK-UP PLAN WOULD INCLUDE THE CONTRACTOR CHOOSING TO HAVE TEMPORARY TAPE ON HAND.
19. DURING PERIODS OF LANE CLOSURES, THE CONTRACTOR SHALL PROVIDE A DEDICATED CREW FOR THE INSTALLATION, MAINTENANCE AND REMOVAL OF THE TRAFFIC CONTROL DEVICES (I.E., BARRICADES, SIGNS, ARROW BOARDS, ETC.). THIS CREW SHALL CONSIST OF AT LEAST THREE MEMBERS OF THE CONTRACTOR'S WORK FORCE. WHOSE SOLE RESPONSIBILITY WILL BE THE MAINTENANCE OF TRAFFIC CONTROL. THE CONTRACTOR SHALL FURNISH A WORK VEHICLE TO AID IN MAINTAINING THE CONTROL DEVICE.
20. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING:

HART LINE BUS SERVICE	MR. RALPH LAVARDO	813/623-5835
FIRE DEPARTMENT	TERRY JONES	813/274-7011

WITHIN 48 HOURS OF ANTICIPATED DISRUPTION TO THE NORMAL FLOW OF TRAFFIC, INCLUDING LANE CLOSURES, DETOURS AND SIGNAL WORK.

21. A LANE CLOSURE WILL BE REQUIRED FOR ALL OVERHEAD WORK. A LANE CLOSURE SHALL BE REQUIRED WHENEVER A BOOM ARM OR BUCKET CROSSES A TRAVEL LANE.
22. AT NO TIME SHALL THE CONTRACTOR CLOSE THE ENTIRE ROADWAY OR SIDE STREET.
23. THE CONTRACTOR SHALL NOT CLOSE ANY TWO CONSECUTIVE SIDE STREETS AT A GIVEN TIME.

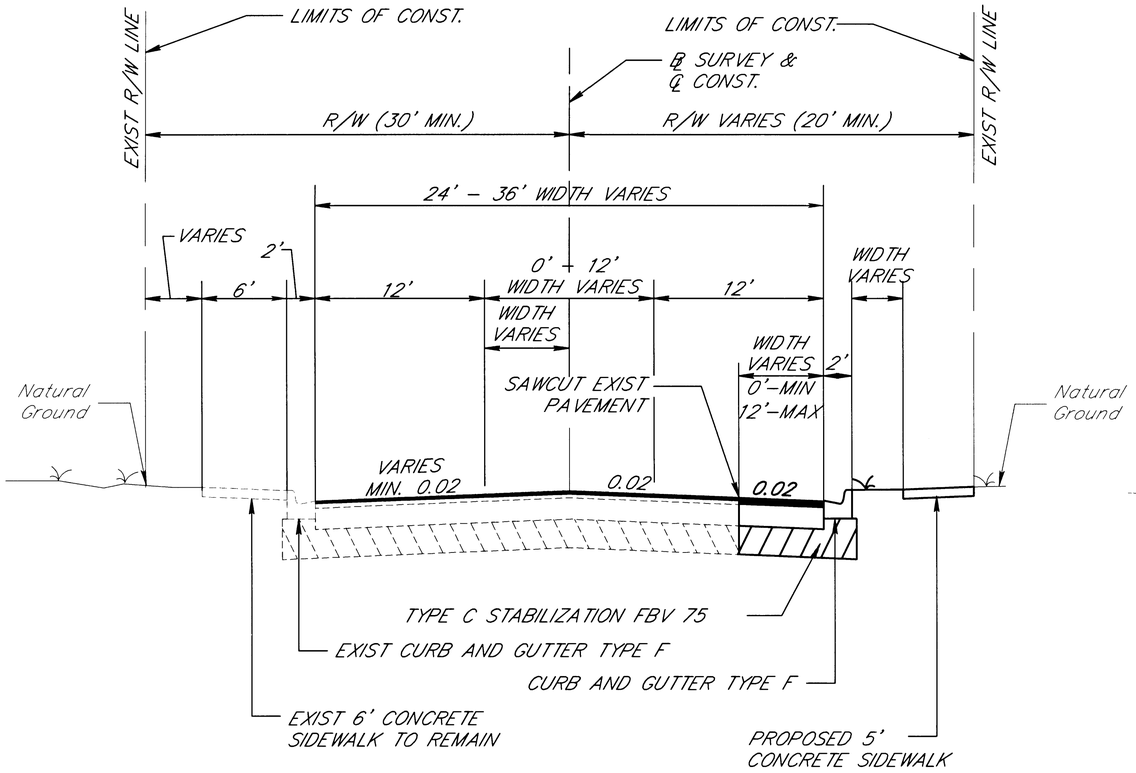
NAME: J:\JN\638b\dwg\gen-info.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE
INTERSECTION IMPROVEMENTS
GENERAL INFORMATION

Field Book:
Atlas Sheet:
File No. PW95-45 | Index No.
Job No. 638B | 226/607
Scale: N/A
SHEET 2 OF 16



TYPICAL SECTION

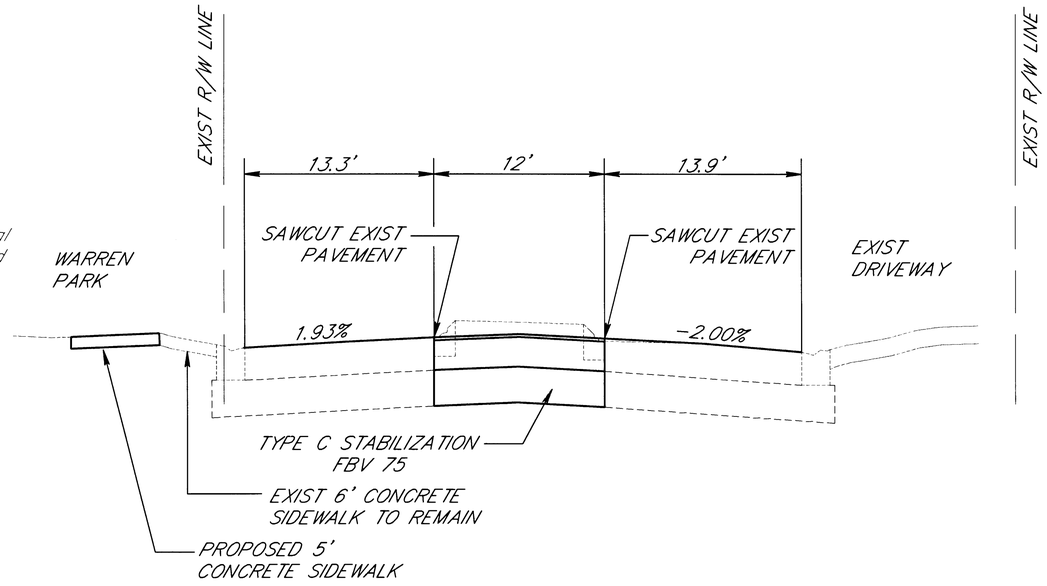
STA. 47+90.00 TO STA. 3+95.00

MILLING & RESURFACING

MILL 2" ASPHALTIC CONCRETE AND RESURFACE WITH S-III ASPHALTIC CONCRETE (160 LBS/SY) 2" THICK

WIDENING

7" THICK ⚠(OPTIONAL BASE GROUP 11 = ABC-3) WITH TYPE S-I STRUCTURAL COURSE (TRAFFIC C) (300 LB/SY AVG.) 3" THICK AND S-III ASPHALTIC CONCRETE (160 LB/SY) 2" THICK



TYPICAL SECTION (PARKLAND BLVD)

STA. 28+35 TO STA. 28+65

MILLING & RESURFACING

MILL 2" ASPHALTIC CONCRETE AND RESURFACE WITH S-III ASPHALTIC CONCRETE (160 LBS/SY) 2" THICK

WIDENING

7" THICK ⚠(OPTIONAL BASE GROUP 11 = ABC-3) WITH TYPE S-I STRUCTURAL COURSE (TRAFFIC C) (300 LB/SY AVG.) 3" THICK AND S-III ASPHALTIC CONCRETE (160 LB/SY) 2" THICK

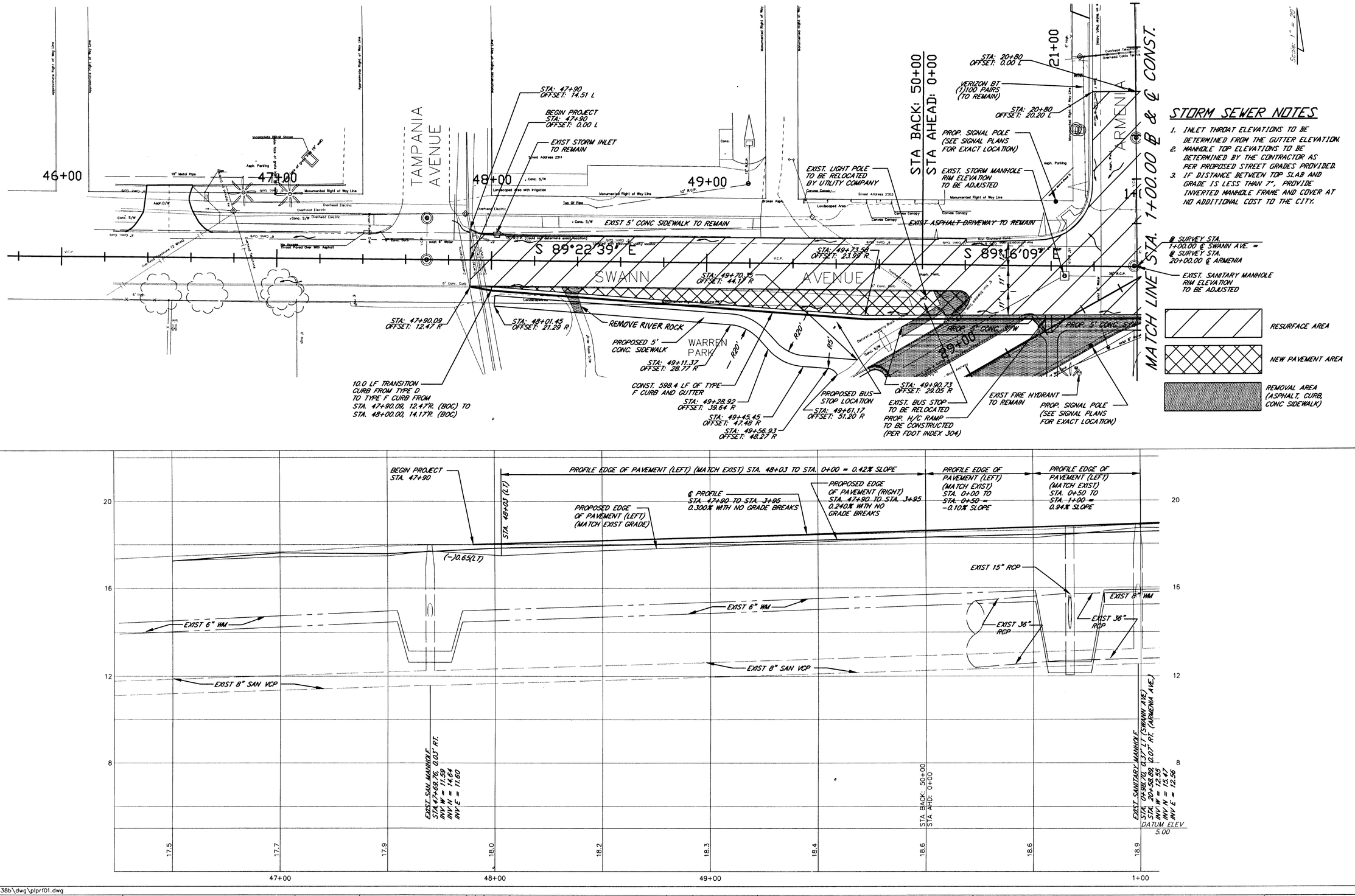
NAME: J:\JN\638b\dwg\typ-sec.dwg

Drawn: JMK	Date: 4/02						
Designed:	Date:						
Checked:	Date:						
Reviewed:	Date:						
Approved:	Date:						
Approved:	Date:	⚠	12/12/02	REV PER COMMENTS			
		No:	Date:	Revision:		By:	

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE
INTERSECTION IMPROVEMENTS
TYPICAL SECTION

Field Book:	
Atlas Sheet:	
File No. PW95-45	Index No. 226/007
Job No. 638B	
Scale: N/A	
SHEET 3 OF 16	



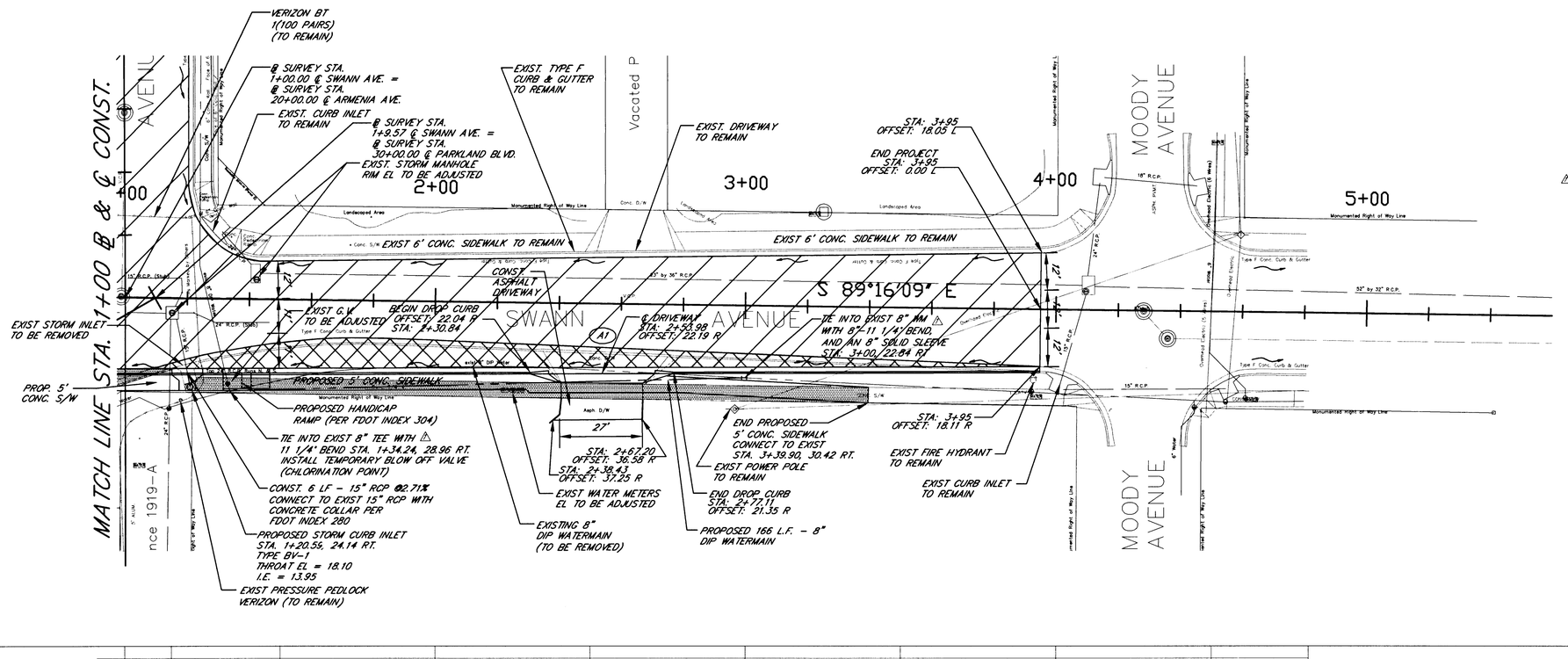
NAME: J:\JN\638b\dwg\plprf01.dwg

Drawn: JMK	Date: 4/02	No:	Date:	Revision:	By:
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:				

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS PLAN & PROFILE

Field Book:	
Atlas Sheet:	
File No. PW95-45	Index No
Job No. 638B	226/007
Scale: 1"=20'H, 1"=2' V	
SHEET 4 OF 16	



WATER NOTES

1. ALL NEW WATER MAINS MUST BE CHLORINE INJECTED AND TESTED PRIOR TO THE ⚠ INSTALLATION OF THE NEW WATER MAIN.
2. ALL WATER VALVES WILL BE OPERATED BY CITY OF TAMPA WATER DEPARTMENT PERSONEL ONLY.

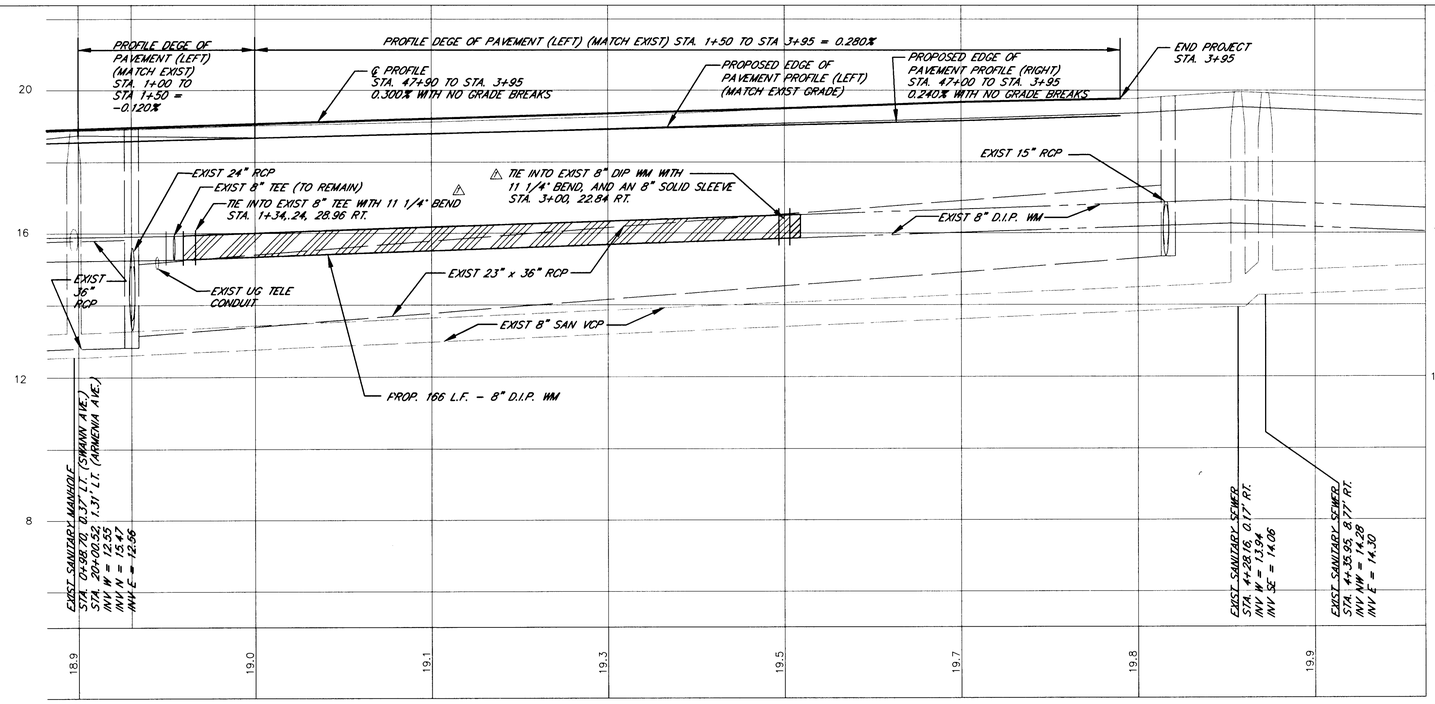
STORM SEWER NOTES

1. INLET THROAT ELEVATIONS TO BE DETERMINED FROM THE GUTTER ELEVATION.
2. MANHOLE TOP ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR AS PER PROPOSED STREET GRADES PROVIDED.
3. IF DISTANCE BETWEEN TOP SLAB AND GRADE IS LESS THAN 7', PROVIDE INVERTED MANHOLE FRAME AND COVER AT NO ADDITIONAL COST TO THE CITY.

RESURFACE AREA

NEW PAVEMENT AREA

REMOVAL AREA (ASPHALT, CURB, CONC SIDEWALK)



⚠ WATER NOTES

1. RESTRAIN ALL JOINTS FROM (STA. 1+28 TO STA. 3+06).

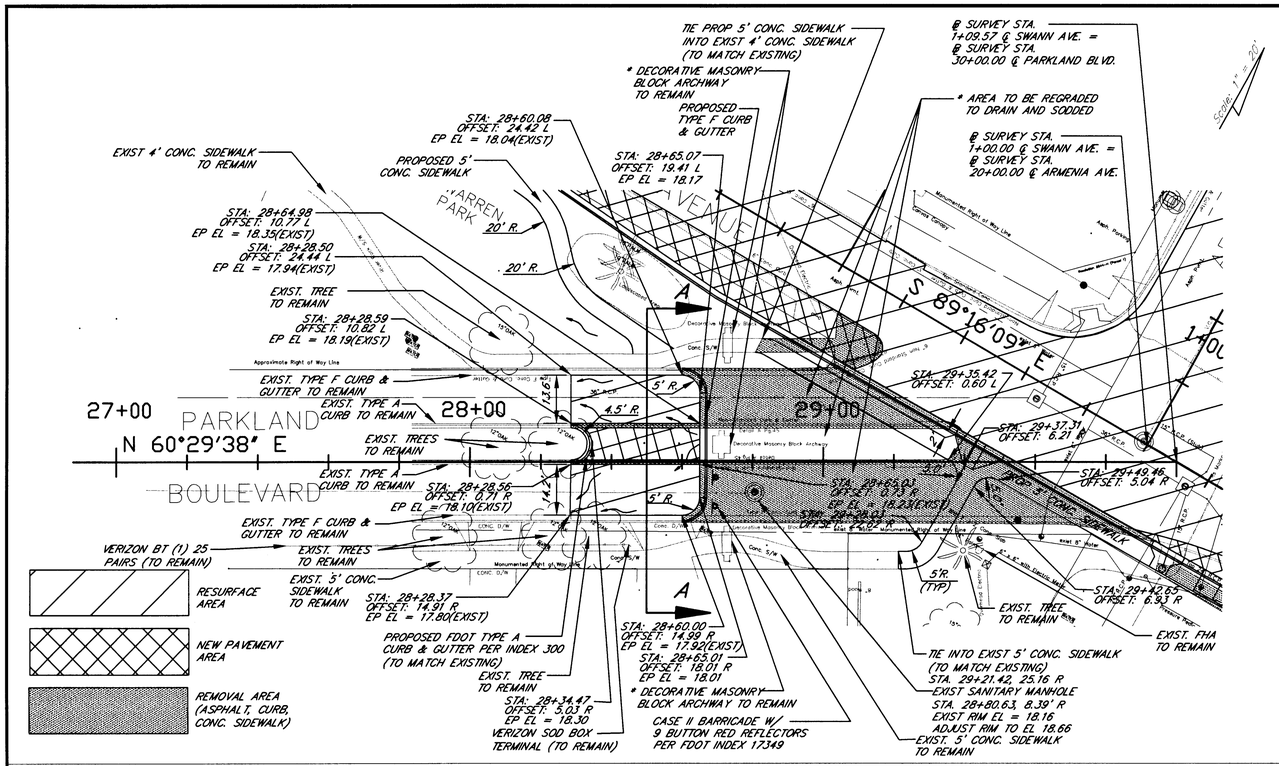
NAME: J:\JN\638b\dwg\plprf02.dwg

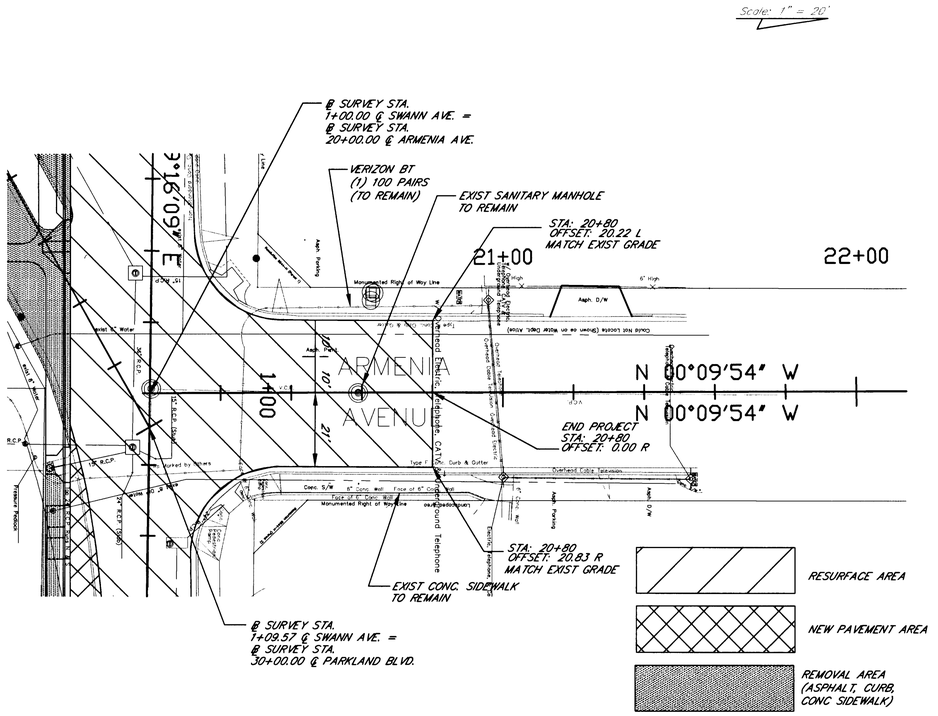
Drawn: JMK	Date: 4/02	⚠			
Designed:	Date:	⚠			
Checked:	Date:	⚠			
Reviewed:	Date:	⚠			
Approved:	Date:	⚠	12/12/02	REV PER COT WATER DEPT COMMENTS.	
Approved:	Date:	No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS PLAN & PROFILE

Field Book:	
Atlas Sheet:	
File No. PW95-45	Index No. 226/007
Job No. 638B	
Scale: 1"=20'H, 1"=2' V	
SHEET 5 OF 16	





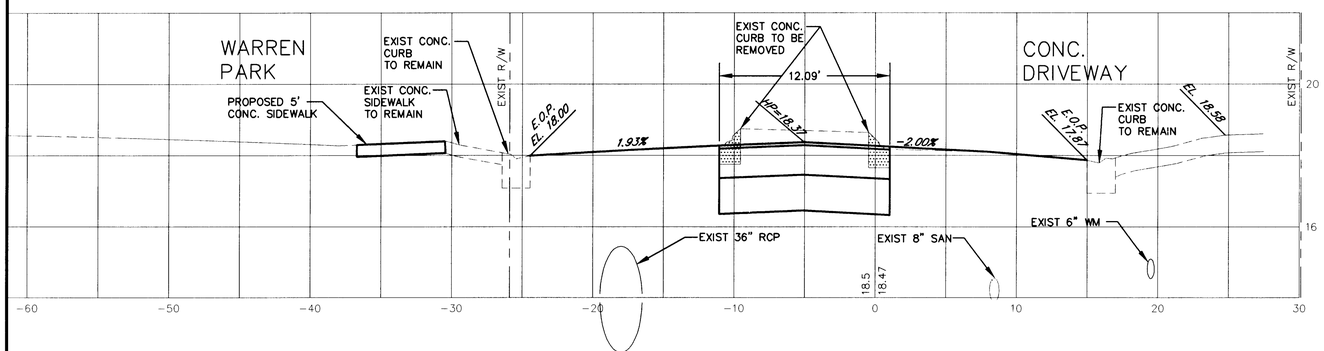
STORM SEWER NOTES

1. INLET THROAT ELEVATIONS TO BE DETERMINED FROM THE GUTTER ELEVATION.
2. MANHOLE TOP ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR AS PER PROPOSED STREET GRADES PROVIDED.
3. IF DISTANCE BETWEEN TOP SLAB AND GRADE IS LESS THAN 7", PROVIDE INVERTED MANHOLE FRAME AND COVER AT NO ADDITIONAL COST TO THE CITY.

* GENERAL NOTES

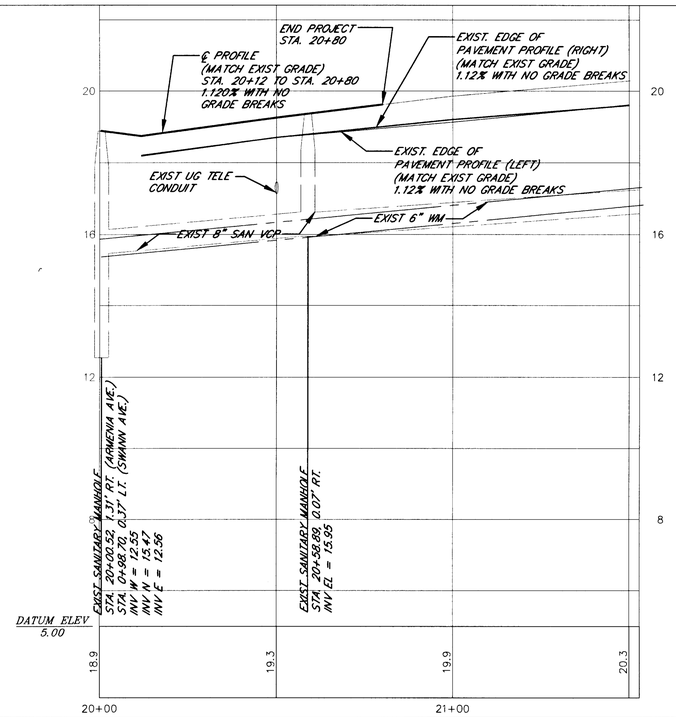
1. AT THE EXISTING DECORATIVE MASONRY BLOCK ARCHWAY WHICH IS TO REMAIN THE CONTRACTOR IS TO PROTECT THE EXISTING POWER SUPPLY DURING THE GRADING AND CONSTRUCTION OF THE PROJECT.

28+50



SECTION A-A
STATION 28+50

SCALE: 1" = 5' Hor.
1" = 2' Ver.



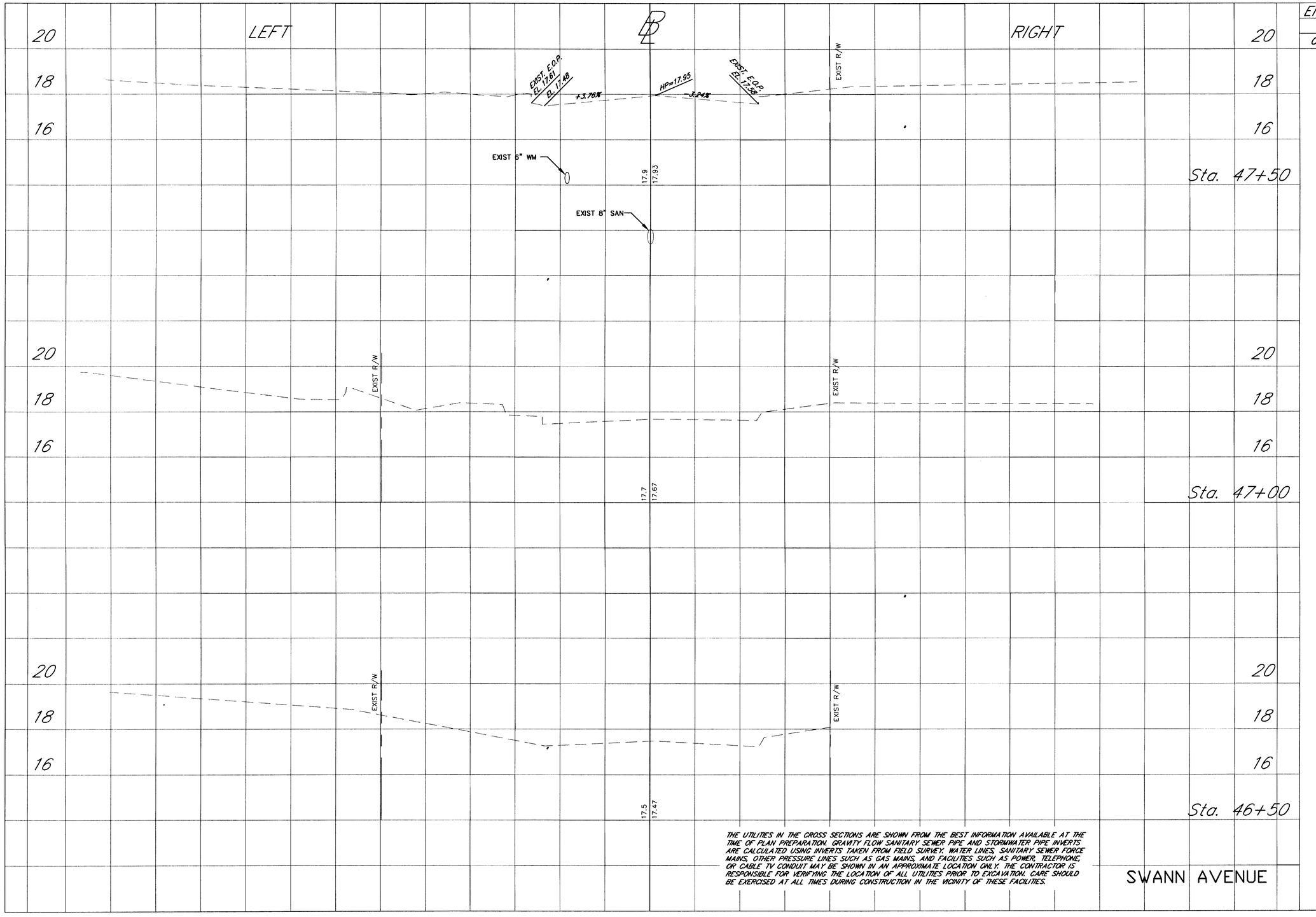
NAME: J:\JN\638b\dwg\plprf03.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS PLAN & PROFILE

Field Book:	
Atlas Sheet:	
File No. PW95-45	Index No. 226/007
Job No. 6388	
Scale: 1"=20'H, 1"=2'V	
SHEET 6 OF 16	



END AREAS		VOLUME	
Sq. Ft		Cu. Yds.	
Cut	Fill	Cut	Fill
0	0		

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

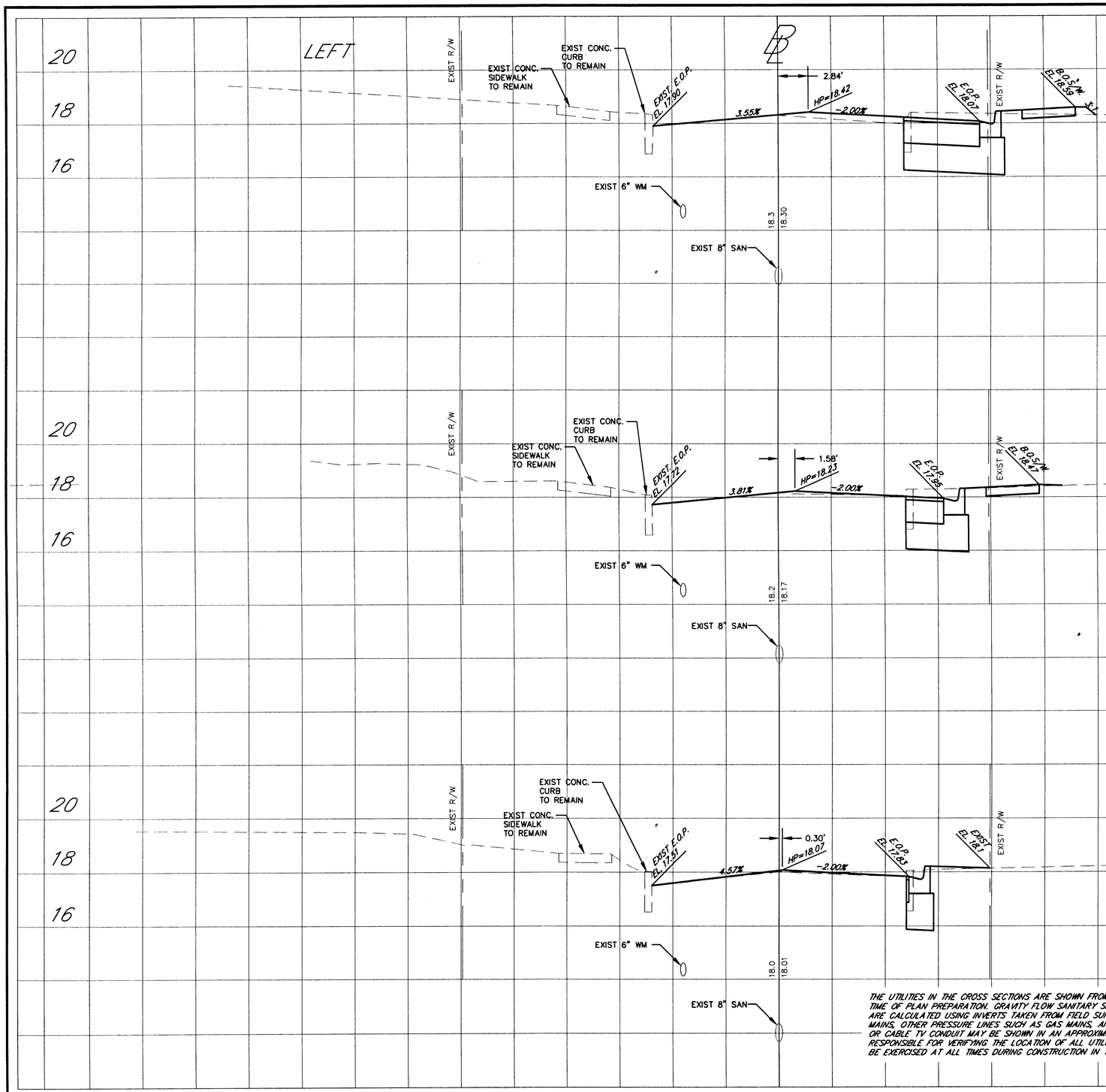
NAME: J:\JN\638b\dwg\XSection01.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	1	2/20/03	REV PER COMMENTS	
		No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE
INTERSECTION IMPROVEMENTS
CROSS-SECTIONS

Field Book:	
Atlas Sheet:	
File No. PW95-45	Index No. 226/007
Job No. 638B	
Scale: 1"=5'H, 1"=2'V	
SHEET 7 OF 16	



END AREAS Sq. Ft		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill
Sta. 49+00 20.4	0.6		
		31.6	0.6
Sta. 48+50 13.7	0.7		
		16.7	0.5
Sta. 48+00 4.4	0.4		
		0.8	0.1

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

BEGIN PROJECT
STA. 47+90
SWANN AVENUE

SCALE: 1" = 5' Hor.
1" = 2' Ver.

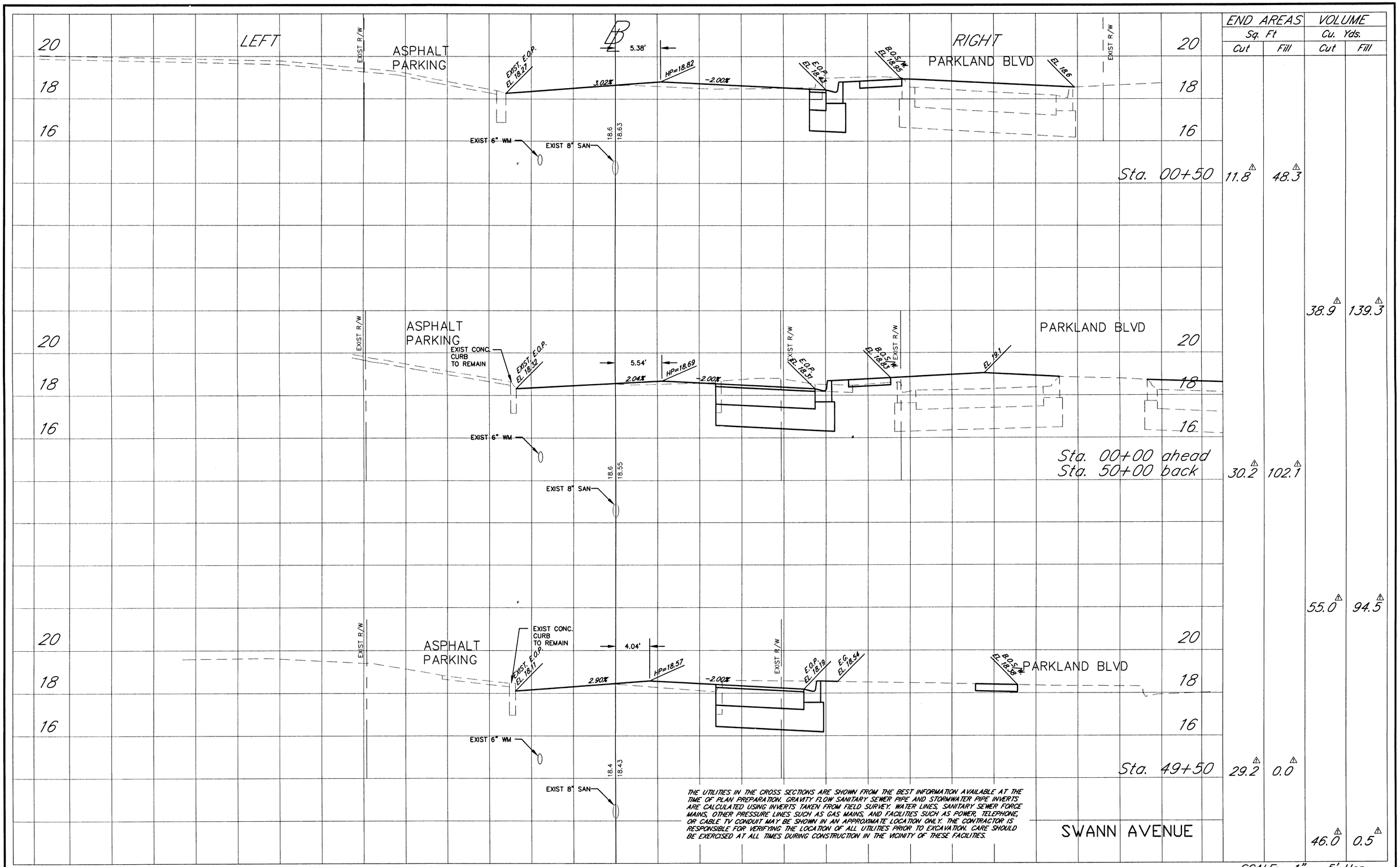
NAME: J:\JN\638b\dwg\XSection01.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	No:	Date:	Revision:	By:
		2	8/20/03	REV PER COMMENTS	

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE
INTERSECTION IMPROVEMENTS
CROSS-SECTIONS

Field Book:
Atlas Sheet:
File No. PW95-45
Job No. 638B
Scale: 1"=5'H,1"=2'V
SHEET 8 OF 16
Index No. 226/007



	END AREAS Sq. Ft		VOLUME Cu. Yds.	
	Cut	Fill	Cut	Fill
Sta. 00+50	11.8	48.3		
			38.9	139.3
Sta. 00+00 ahead Sta. 50+00 back	30.2	102.1		
			55.0	94.5
Sta. 49+50	29.2	0.0		
			46.0	0.5

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

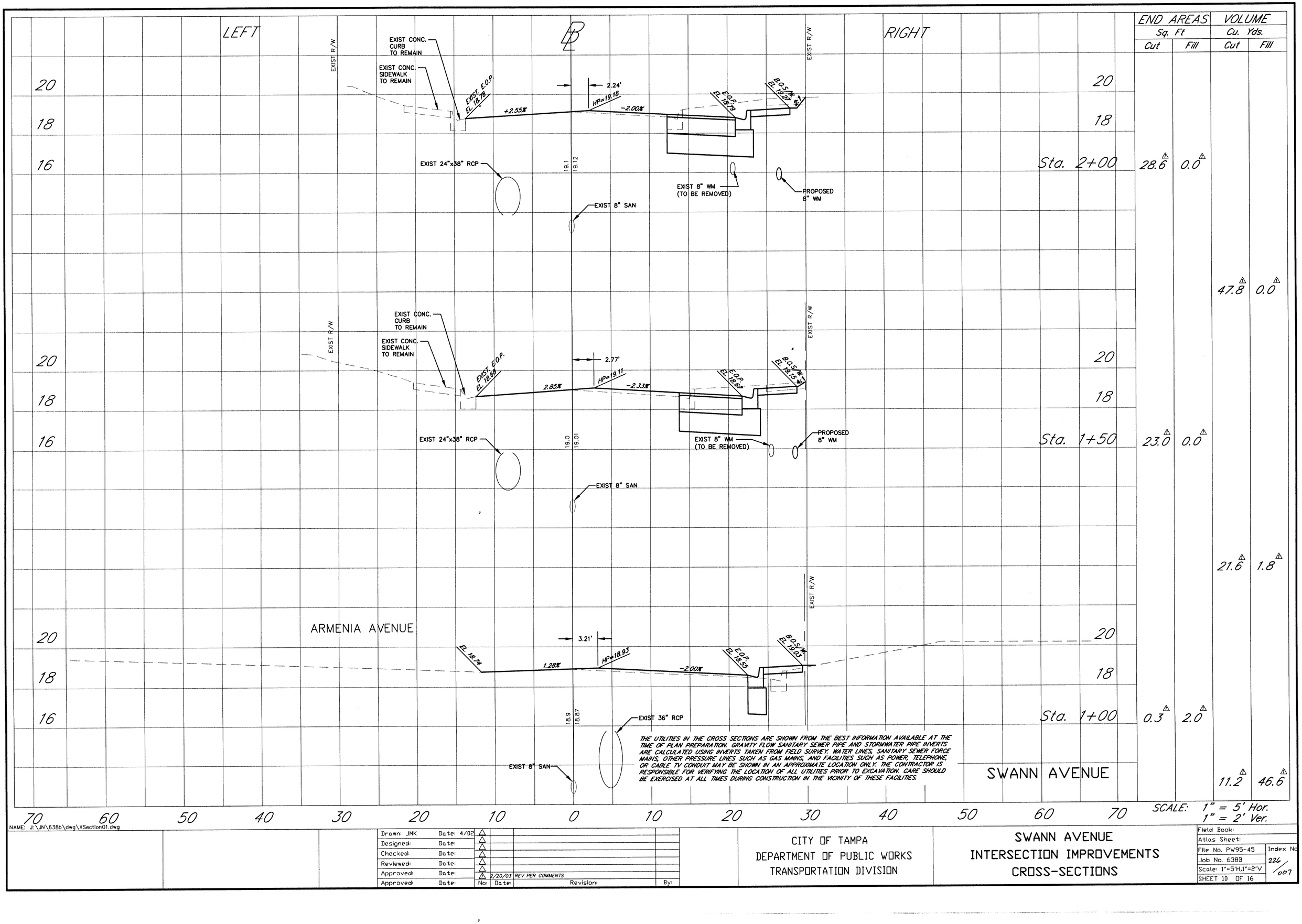
NAME: J:\JN\638b\dwg\XSection01.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	2	2/20/03	REV PER COMMENTS	
		No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS CROSS-SECTIONS

Field Book:
Atlas Sheet:
File No. PW95-45
Index No. 226/007
Job No. 638B
Scale: 1"=5'H,1"=2'V
SHEET 9 OF 16



END AREAS Sq. Ft		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill
Sta. 2+00	28.6	0.0	
		47.8	0.0
Sta. 1+50	23.0	0.0	
		21.6	1.8
Sta. 1+00	0.3	2.0	
		11.2	46.6

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

NAME: J:\JN\638b\dwg\XSection01.dwg

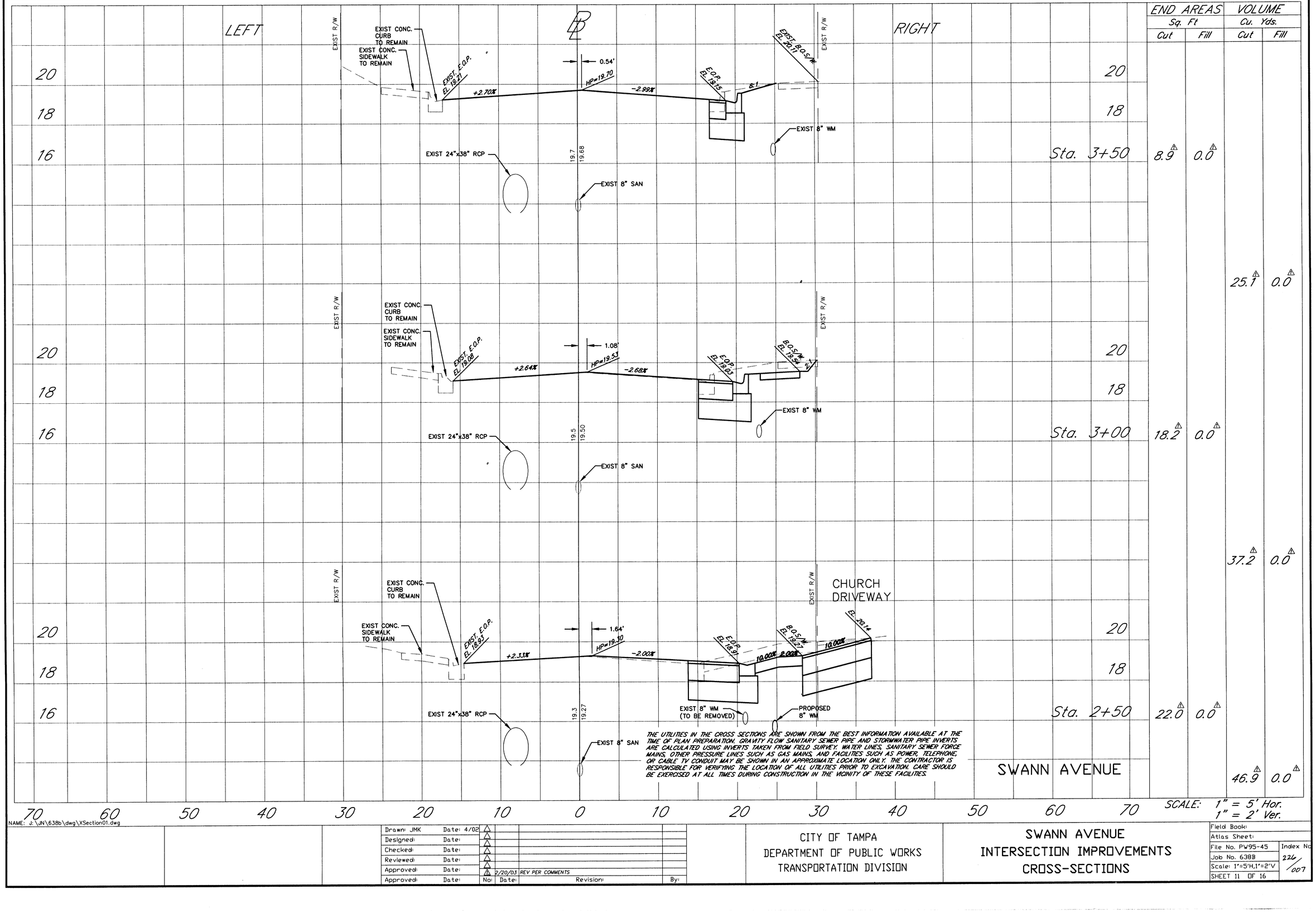
Drawn: JMK	Date: 4/02
Designed:	Date:
Checked:	Date:
Reviewed:	Date:
Approved:	Date:
Approved:	Date:

No:	Date:	Revision:	By:
1	2/20/03	REV PER COMMENTS	

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS CROSS-SECTIONS

Field Book:
Atlas Sheet:
File No. PW95-45
Job No. 638B
Scale: 1"=5'H,1"=2'V
SHEET 10 OF 16
Index No 226/007



END AREAS Sq. Ft		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill
8.9	0.0		
		25.1	0.0
18.2	0.0		
		37.2	0.0
22.0	0.0		
		46.9	0.0

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

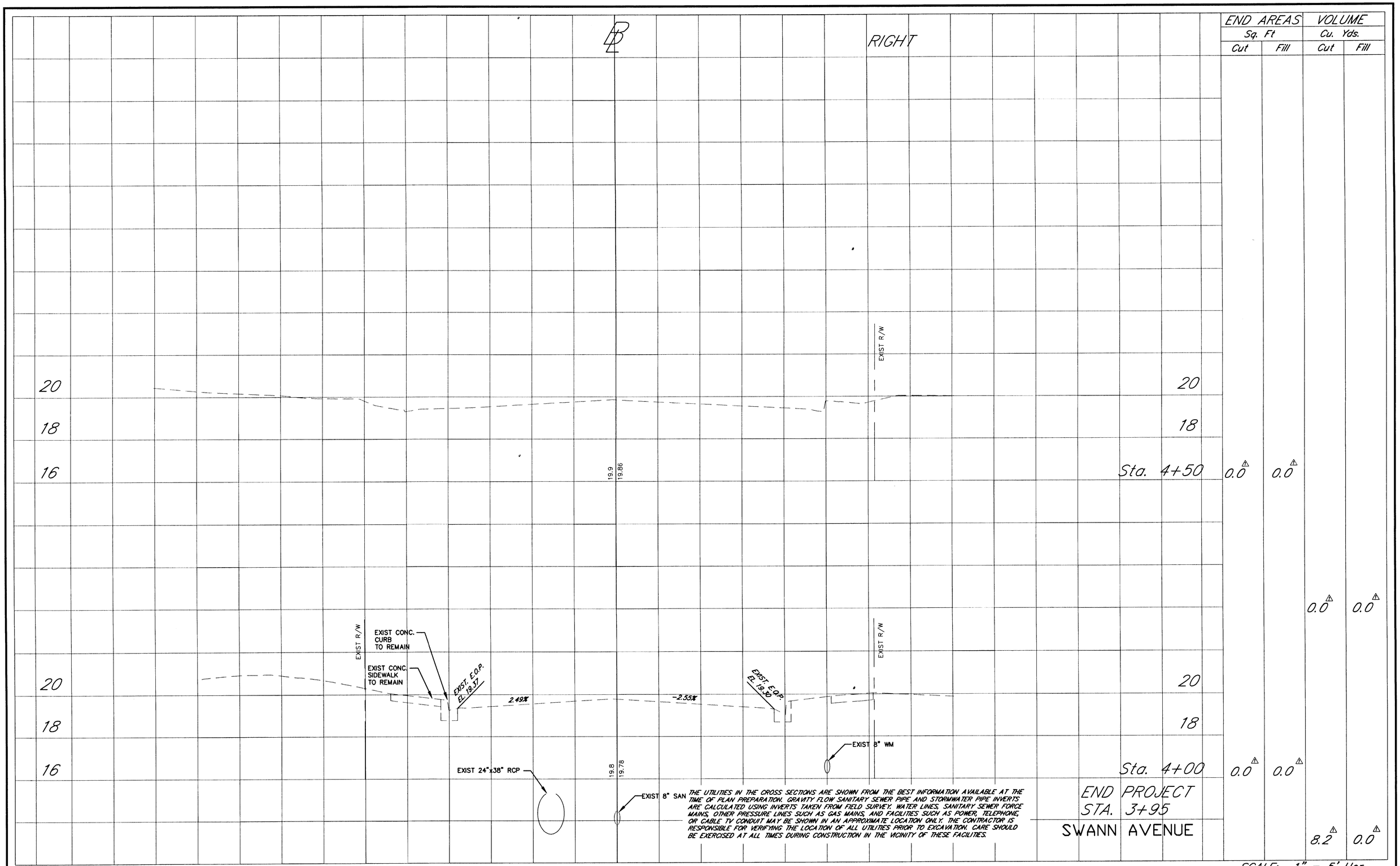
NAME: J:\JN\638b\dwg\XSection01.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	No:	Date:	Revision:	By:
		2	2/20/03	REV PER COMMENTS	

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS CROSS-SECTIONS

Field Book:
Atlas Sheet:
File No. PW95-45
Index No 226/007
Job No. 638B
Scale: 1"=5'H,1"=2'V
SHEET 11 OF 16



END AREAS Sq. Ft		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill
0.0 △	0.0 △		
		0.0 △	0.0 △
0.0 △	0.0 △		
		8.2 △	0.0 △

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

SCALE: 1" = 5' Hor.
1" = 2' Ver.

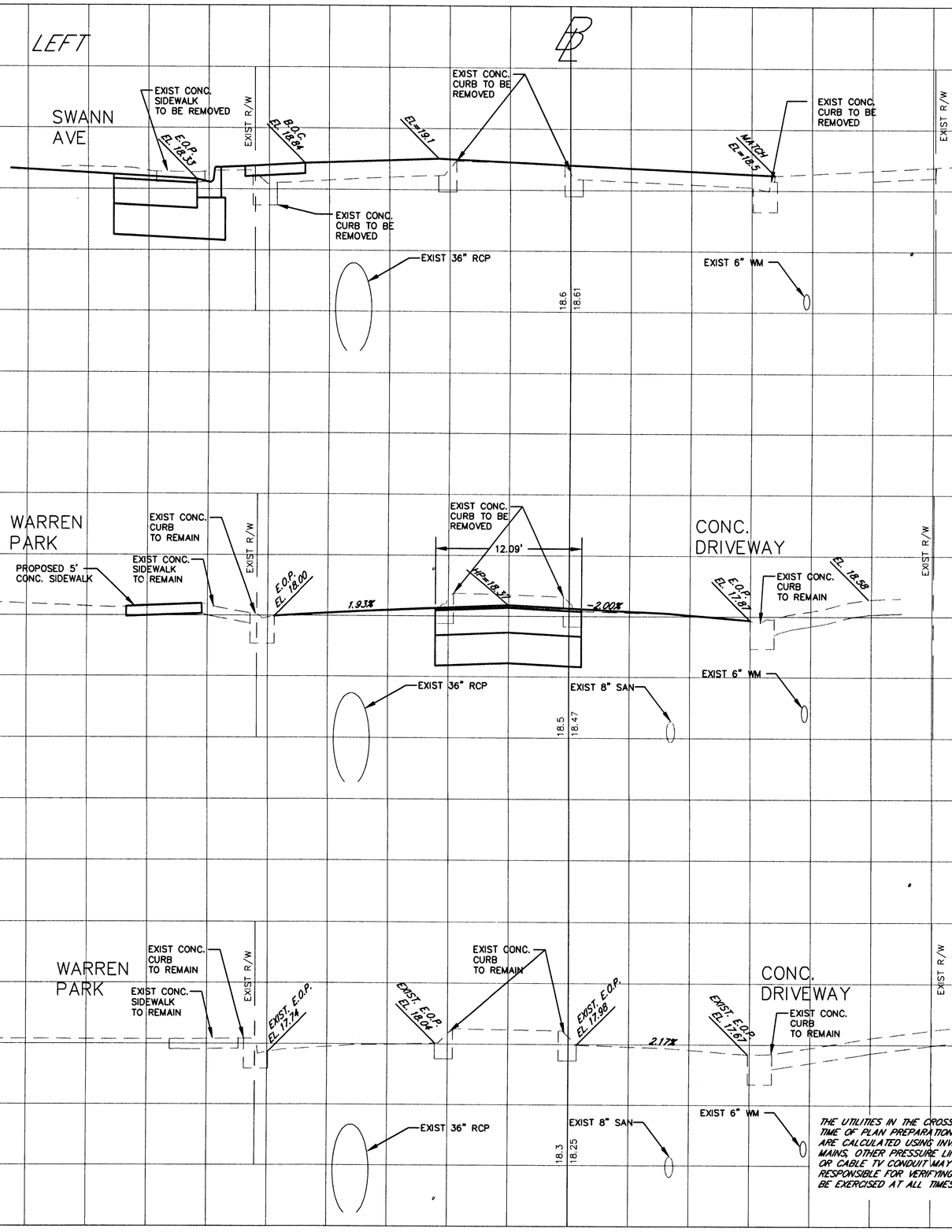
NAME: J:\JN\638b\dwg\XSection01.dwg

Drawn: JMK	Date: 4/02	△			
Designed:	Date:	△			
Checked:	Date:	△			
Reviewed:	Date:	△			
Approved:	Date:	△			
Approved:	Date:	△	2/20/03	REV PER COMMENTS	
		No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS CROSS-SECTIONS

Field Book:
Atlas Sheet:
File No. PW95-45
Job No. 638B
Scale: 1"=5'H,1"=2'V
SHEET 12 OF 16
Index No 226/067



END AREAS Sq. Ft Cut	END AREAS Sq. Ft Fill	VOLUME Cu. Yds. Cut	VOLUME Cu. Yds. Fill	
				Sta. 29+00
				(SEE MAINLINE FOR EARTHWORK)
25.5	0.0			Sta. 28+65.01 END EXIST. MEDIAN REMOVAL
		14.2	0.0	
25.5	0.0			Sta. 28+50
		20.2	0.0	
25.5	0.0			Sta. 28+28.59 BEGIN EXIST. MEDIAN REMOVAL
		0.0	0.0	
0.0	0.0			Sta. 28+00

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

PARKLAND BLVD

SCALE: 1" = 5' Hor.
1" = 2' Ver.

NAME: J:\JN\638b\dwg\XSection01.dwg

Drawn: JMK	Date: 4/02				
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	2	2/20/03	REV PER COMMENTS	
		No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS CROSS-SECTIONS

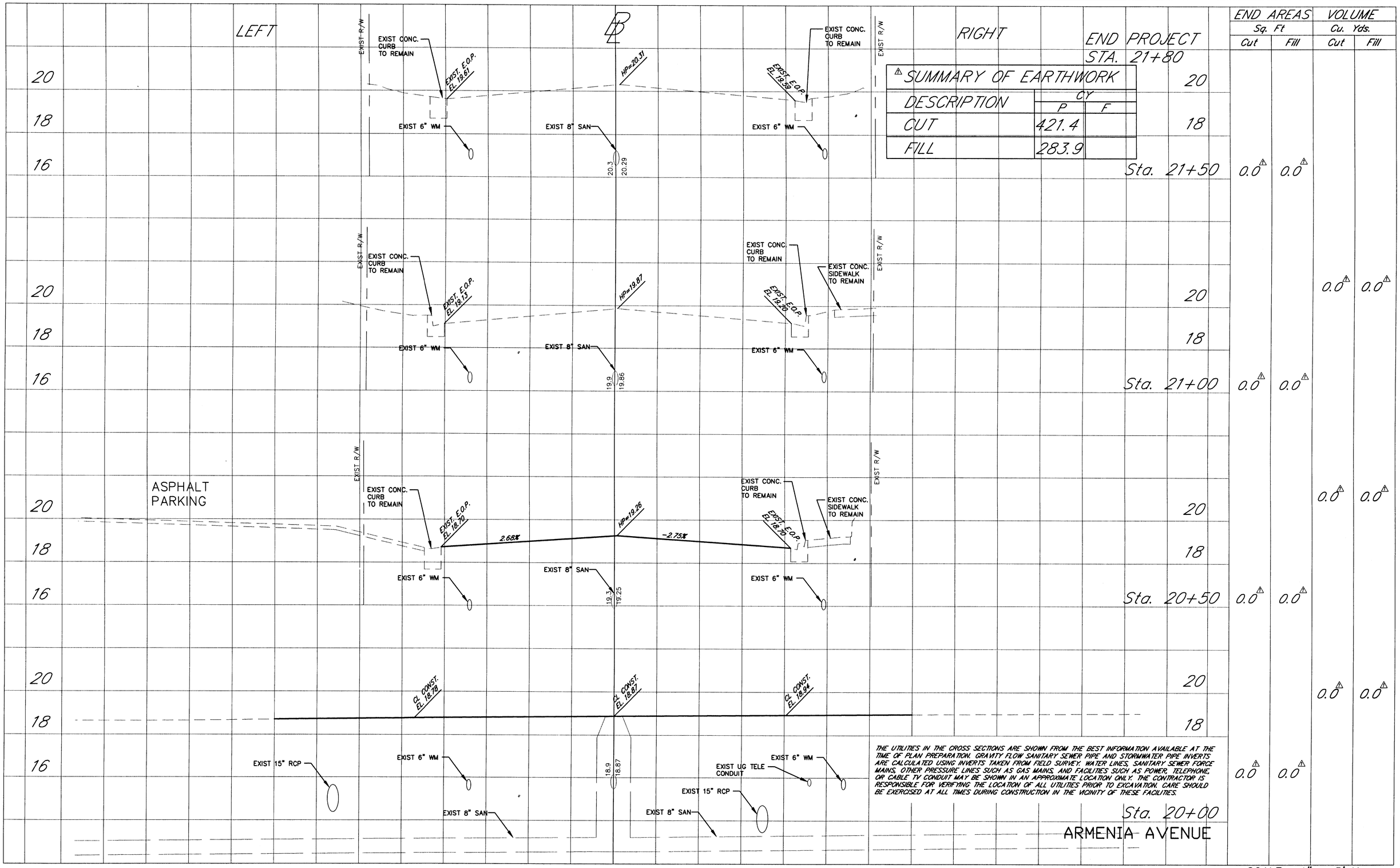
Field Book:	
Atlas Sheet:	
File No. PW95-45	Index No. 224/007
Job No. 638B	
Scale: 1"=5'H,1"=2'V	
SHEET 13 OF 16	

LEFT

RIGHT

END PROJECT STA. 21+80

SUMMARY OF EARTHWORK	CY	
DESCRIPTION	P	F
CUT	421.4	
FILL	283.9	



END AREAS Sq. Ft		VOLUME Cu. Yds.	
Cut	Fill	Cut	Fill
Sta. 21+50	0.0	0.0		
		0.0	0.0
Sta. 21+00	0.0	0.0		
		0.0	0.0
Sta. 20+50	0.0	0.0		
		0.0	0.0
Sta. 20+00	0.0	0.0		

THE UTILITIES IN THE CROSS SECTIONS ARE SHOWN FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION. GRAVITY FLOW SANITARY SEWER PIPE AND STORMWATER PIPE INVERTS ARE CALCULATED USING INVERTS TAKEN FROM FIELD SURVEY. WATER LINES, SANITARY SEWER FORCE MAINS, OTHER PRESSURE LINES SUCH AS GAS MAINS, AND FACILITIES SUCH AS POWER, TELEPHONE, OR CABLE TV CONDUIT MAY BE SHOWN IN AN APPROXIMATE LOCATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO EXCAVATION. CARE SHOULD BE EXERCISED AT ALL TIMES DURING CONSTRUCTION IN THE VICINITY OF THESE FACILITIES.

ARMENIA AVENUE

SCALE: 1" = 5' Hor.
1" = 2' Ver.

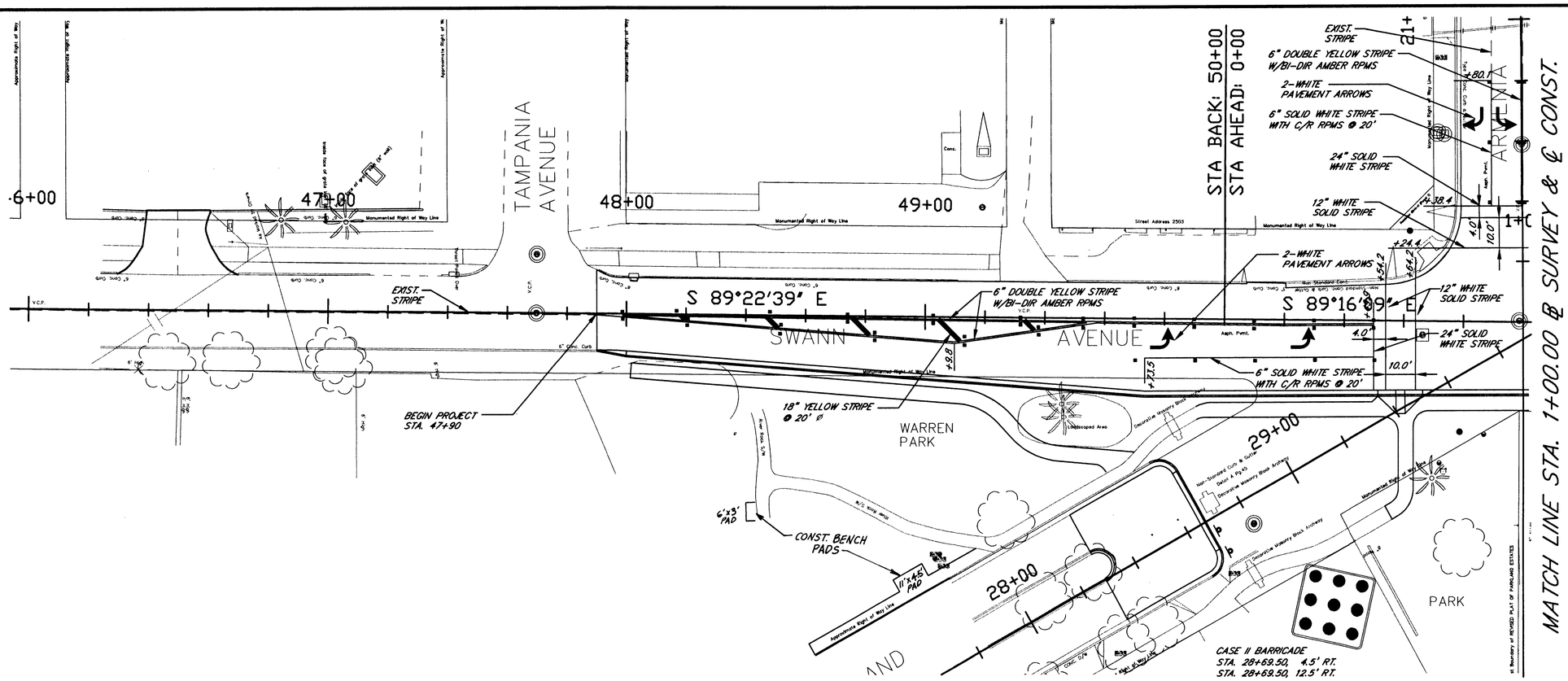
NAME: J:\JN\638b\dwg\XSection01.dwg

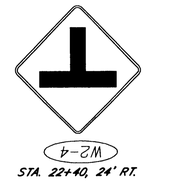
Drawn: JMK	Date: 4/02	2	2/20/03	REV PER COMMENTS	
Designed:	Date:				
Checked:	Date:				
Reviewed:	Date:				
Approved:	Date:				
Approved:	Date:	No:	Date:	Revision:	By:

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

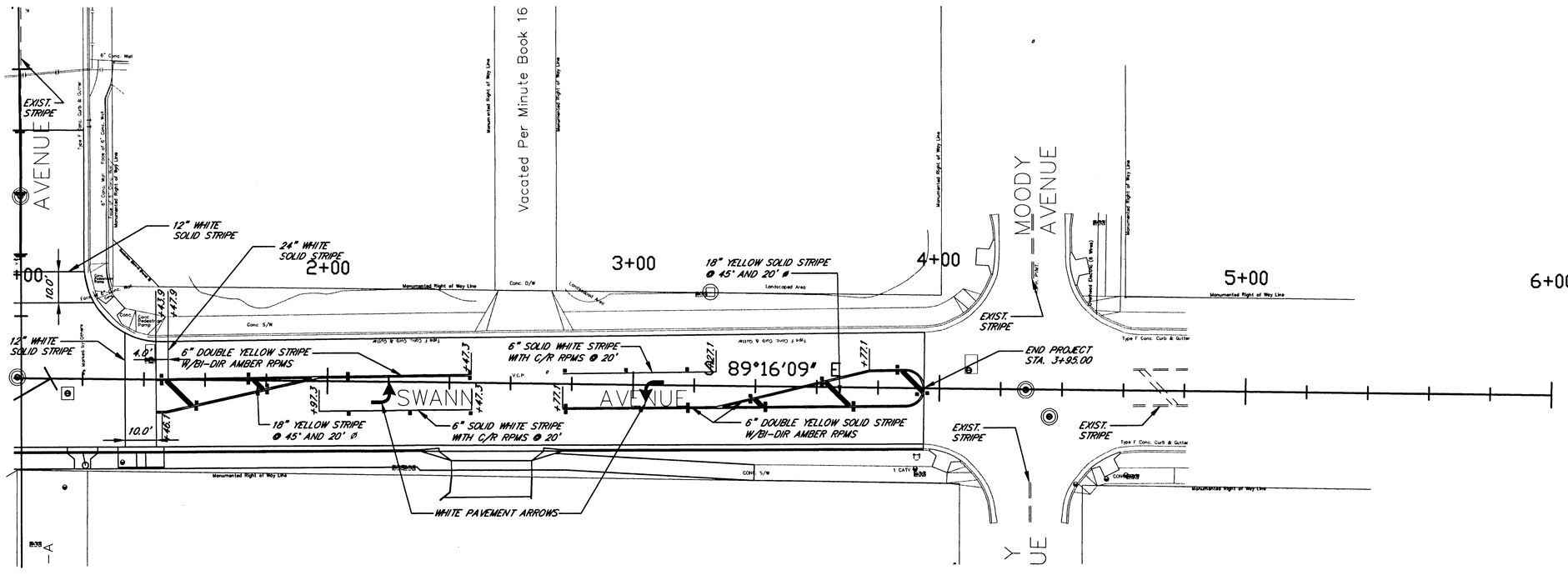
SWANN AVENUE INTERSECTION IMPROVEMENTS CROSS-SECTIONS

Field Book:
Atlas Sheet:
File No. PW95-45
Job No. 638B
Scale: 1"=5'H,1"=2'V
SHEET 14 OF 16
Index No 226/007





Scale: 1" = 20'



Scale: 1" = 20'

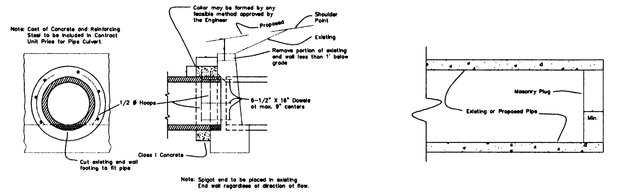
NAME: J:\JN\638b\dwg\spmrd01.dwg

Drawn: JMK	Date: 4/02					
Designed:	Date:					
Checked:	Date:					
Reviewed:	Date:					
Approved:	Date:					
Approved:	Date:	No:	Date:	Revision:	By:	

CITY OF TAMPA
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION

SWANN AVENUE INTERSECTION IMPROVEMENTS SIGNING & PAVEMENT MARKING PLAN

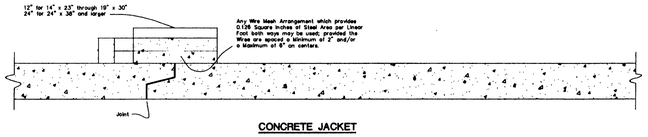
Field Book:
Atlas Sheet:
File No. PW95-45
Job No. 638B
Scale: 1"=20'
SHEET 15 OF 16
Index No: 226/007



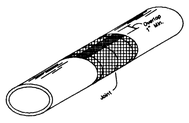
CONCRETE COLLAR FOR EXTENSION OF EXISTING PIPE CULVERTS

PIPE PLUG

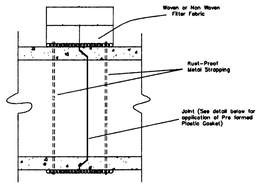
Note: Cost of Masonry Plug Construction and or Removal to be Included in Contract Unit Price for New Pipe.



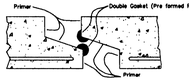
CONCRETE JACKET



ISOMETRIC VIEW



PIPE SECTION

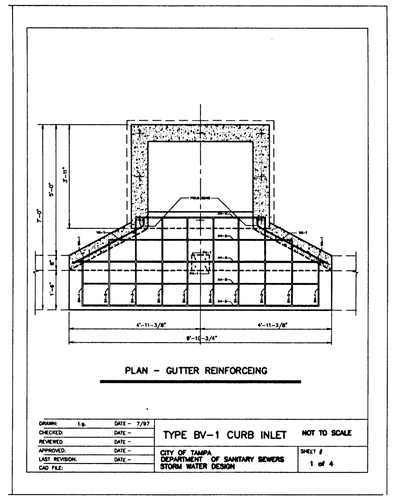


JOINT SECTION (BEFORE PULL-UP)

FILTER FABRIC JACKET

Notes:
1. Only one, either filter fabric or concrete jacket shall be provided at any single joint.
2. Concrete jacket shall be provided at joints where the pipe is not sealed at tail and the pipe is not secured by an end wall. Engineer may specify concrete jacket at other joints if so necessary.
3. Cost of concrete jacket and filter fabric jacket to be included in cost of elliptical pipe culverts.

ELLIPTICAL CONCRETE PIPE JOINTS



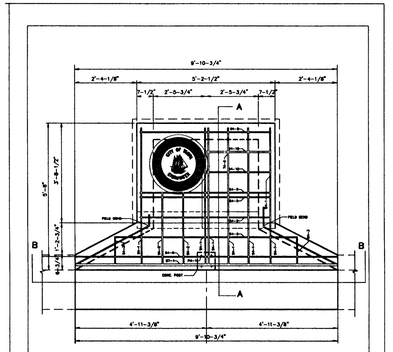
PLAN – GUTTER REINFORCEING

DRAWN: tg	DATE – 7/97	TYPE BV-1 CURB INLET	NOT TO SCALE
CHECKED:	DATE –		
REVIEWED:	DATE –		
APPROVED:	DATE –	CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS STORM WATER DESIGN	SHEET # 1 of 4
LAST REVISION:	DATE –		
CAD FILE:			

MARK	SIZE	NOOF BARS	LENGTH EACH	WT. EA.	TOTAL WEIGHT
A4–4	#4	1	4'–11 1/2"	3.312	3.312
A4–5	#4	1	6'–7"	4.398	4.398
A4–6	#4	3	9'–7 3/4"	6.443	9.329
B4–1	#4	2	2'–9"	1.837	3.674
B4–2	#4	2	3'–7 3/4"	2.435	4.870
B4–3	#4	2	5'–0 3/4"	3.382	6.764
B4–4	#4	3	3'–6 3/4"	2.380	7.140
P4–1	#4	4	1'–3"	0.835	3.340
S4–1	#4	6	5'–3"	3.507	17.535
S4–2	#4	2	2'–11"	1.948	3.896
S4–3	#4	2	1'–2 1/2"	0.807	1.614
S4–6	#4	1	6'–8"	4.453	4.453
S4–7	#4	1	9'–7 3/4"	6.443	6.443
S4–8	#4	2	1'–7 1/2"	1.086	2.172
S4–9	#4	4	4'–11 1/2"	3.312	13.248
S4–10	#4	2	2'–6"	1.670	3.340
S7–2	#7	1	9'–7 3/4"	19.716	19.716
V4–1	#4	2	1'–8 1/2"	1.141	2.282
W4–1	#4	4	3'–6"	2.336	9.352

REINFORCING STEEL

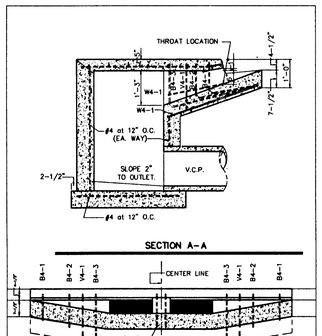
DRAWN: tg	DATE – 7/97	TYPE BV-1 CURB INLET	
CHECKED:	DATE –		
REVIEWED:	DATE –		
APPROVED:	DATE –	CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS STORM WATER DESIGN	SHEET # 4 of 4
LAST REVISION:	DATE –		
CAD FILE:			



PLAN – TOP SLAB REINFORCEING

NOT TO SCALE

DRAWN: tg	DATE – 7/97	TYPE BV-1 CURB INLET	
CHECKED:	DATE –		
REVIEWED:	DATE –		
APPROVED:	DATE –	CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS STORM WATER DESIGN	SHEET # 2 of 4
LAST REVISION:	DATE –		
CAD FILE:			



SECTION A–A

SECTION B–B

NOT TO SCALE

DRAWN: tg	DATE – 7/97	TYPE BV-1 CURB INLET	
CHECKED:	DATE –		
REVIEWED:	DATE –		
APPROVED:	DATE –	CITY OF TAMPA DEPARTMENT OF SANITARY SEWERS STORM WATER DESIGN	SHEET # 3 of 4
LAST REVISION:	DATE –		
CAD FILE:			

NAME: J:\JN\638b\dwg\DETAILS.dwg

Drawn: JMK	Date: 4/02	No:	Date:	Revision:	By:	CITY OF TAMPA DEPARTMENT OF PUBLIC WORKS TRANSPORTATION DIVISION	SWANN AVENUE INTERSECTION IMPROVEMENTS DETAILS
Designed:	Date:						
Checked:	Date:						
Reviewed:	Date:						
Approved:	Date:						
Approved:	Date:						

Field Book:	
Atlas Sheet:	
File No. PW95–45	Index No. 226/007
Job No. 638B	
Scale: n/a	
SHEET 16 OF 16	

Q.23 South Tampa Area Reclaimed Project Contract D4 – Hyde Park/Palma Ceia

FOR CONTINUATION SEE SHEET 25 (D6)

FOR CONTINUATION SEE SHEET 36 (E5)

FOR CONTINUATION SEE SHEET 38 (E7)

FOR CONTINUATION SEE SHEET 48 (F6)

PROPOSED 12" RECLAIMED WATER MAIN

PROPOSED 4" RECLAIMED WATER MAIN

PROPOSED 12" RECLAIMED WATER MAIN

INSTALL:
2 -12" 45° BENDS

DEPTH= 3.1'
E/P TIE= N/A

DEPTH= 3'
E/P TIE= N/A

220 LF
12" RECLAIMED WM

INSTALL:
1 - 12" x 4" TEE
1 - 4" GATE VALVE

2418 W SWANN AVE
SERVICE

PROPOSED 2" RECLAIMED WATER MAIN

250 LF
2" RECLAIMED WM

INSTALL:
1 - 2" BLOW-OFF ASSEMBLY

706 S MOODY AVE
¾" SERVICE

DEPTH= 3'
E/P TIE= 11'

DEPTH= 3.9'
E/P TIE= 11'

DEPTH= 4.1'
E/P TIE= 11'

DEPTH= 3.8'
E/P TIE= 11'

DEPTH= 3.7'
E/P TIE= 11'

DEPTH= 3'
E/P TIE= 11'

MOODY AVE.

NORTH

GRAPHIC SCALE
SCALE: 1" = 40'

#93119655
PARKS DEPT.
2405 W. PARKLAND BLVD.
¾" SERVICE

#3155945
PARKS DEPT
2402 W PARKLAND BLVD
¾" SERVICE

2404 W PARKLAND BLVD
¾" SERVICE

2406 W PARKLAND BLVD
¾" SERVICE

2501 W FOUNTAIN BLVD.
¾" SERVICE

2503 W. FOUNTAIN BLVD.
¾" SERVICE

610 LF
8" RECLAIMED WM

PROPOSED 8" RECLAIMED WATER MAIN

PROPOSED 8" RECLAIMED WATER MAIN

264 LF
12" RECLAIMED WM

DEPTH= 5'
E/P TIE= 4'

DEPTH= 6'
E/P TIE= 4'

DEPTH= 8'
E/P TIE=

DEPTH=
E/P TIE= 4'

DEPTH= 8.6'
E/P TIE=

FOUNTAIN BLVD.

INSTALL:
1 - 8" 45° BEND
1 - 8" 11 1/4° BEND
8" TEE
8" GATE VALVES

INSTALL:
1 - 12" TEE
1 - 12" x 8" REDUCER

INSTALL:
1 - 12" 22 1/2° BEND
1 - 12" 11 1/4° BEND

38864289
PARK'S DEPT
2512 PARKLAND BLVD.
1" SERVICE

DEPTH= 5.1'
E/P TIE= 8'

510 LF
8" RECLAIMED WM

PARKLAND BLVD.

DEPTH= 5.3'
E/P TIE= 8'

DEPTH= 6'
E/P TIE= 8'

2512 W PARKLAND BLVD
3/4" SERVICE

PROPOSED 8" RECLAIMED WATER MAIN

DEPTH= 6'
E/P TIE= 9'

DEPTH= 6'
E/P TIE= 10'

PROPOSED 12" RECLAIMED WATER MAIN

632 LF
12" RECLAIMED WM

805 S LAKEVIEW RD
¾" SERVICE

807 S LAKEVIEW RD
¾" SERVICE

LAKEVIEW RD.

2507 EDGEWOOD RD
¾" SERVICE

INSTALL:
1 - 12" x 4" TEE
4" GATE VALVE
4" 11 1/4° BEND
4" 22 1/2° BEND

2513 EDGEWOOD RD
¾" SERVICE

510 LF
4" RECLAIMED WM

EDGEWOOD RD.

DEPTH= 5.3'
E/P TIE= N/A

DEPTH= 5'
E/P TIE= 6'

810 S LAKEVIEW RD
¾" SERVICE

812 S LAKEVIEW RD
3/4" SERVICE

PROPOSED 12" RECLAIMED WATER MAIN

2519 EDGEWOOD RD
1" SERVICE

DEPTH= 4.7'
E/P TIE= 6'

DEPTH= 4.7'
E/P TIE= 7'

2506 EDGEWOOD RD
1" SERVICE

DEPTH= 4.6'
E/P TIE= 7'

PROPOSED 4" RECLAIMED WATER MAIN

DEPTH= 3'
E/P TIE= 5'

DEPTH= 4.1'
E/P TIE= 6'

FORESIGHT SURVEYORS, INC.
HYDROGRAPHIC, LAND & CONSTRUCTION SURVEYING
14961-B 58th STREET NORTH, CLEARWATER, FLORIDA 33760
PH. (727) 539-7196 FAX (727) 539-0888 LB No.: 5776

SHEET 35 OF 87	PROJ MAN: TDF	DRAWN BY: FTM	CHECKED BY: BRW
FSI PROJ. NO.: 11166	FB 664, PGs 1- FB 667, PGs 1-		

NOTES, "CERTIFIED TO" NAME, AND SIGNA

REVISED PER (

DD\$MON$YEAR$HRMIN $$$$

FOR CONTINUATION SEE SHEET 26 (D7)

SWANN AVE.

SWANN AVE.

HOWARD AVE.

ALBANY AVE.

ALBANY AVE.

2302 W SWANN AVE
3/4" SERVICE

ASPH

ASPH

DEPTH= 9'
E/P TIE= 3'

DEPTH= 10'
E/P TIE= 7'

DEPTH= 7'
E/P TIE= 5'

PROPOSED 4"
RECLAIMED WATER MAIN

DEPTH= 5.4'
E/P TIE= 6'

1030 LF
4" RECLAIMED WM

DEPTH= 4.3'
E/P TIE= 5'

DEPTH= 3'
E/P TIE= 4'

DEPTH= 3'
E/P TIE= 3'

DEPTH=
E/P TIE= 3'

DEPTH= 4.1'
E/P TIE= 3'

DEPTH= 5'
E/P TIE= 4'

* 807
HOWARD AVE
3/4" SERVICE

PROPOSED 4"
RECLAIMED WATER MAIN

DEPTH= 5'
E/P TIE= 4'

FOR CONTINUATION SEE SHEET 37 (E6)

FOR CONTINUATION SEE SHEET 39 (E8)

FOR CONTINUATION SEE SHEET 49 (F7)

SOUTH CROSSTOWN EXPRESSWAY (S.R. 618)

NORTH

0 20 40 80
GRAPHIC SCALE
SCALE: 1" = 40'

FORESIGHT SURVEYORS, INC.
HYDROGRAPHIC, LAND & CONSTRUCTION SURVEYING
14561-B 58th STREET NORTH, CLEARWATER, FLORIDA 33760
PH. (727) 539-7196 FAX (727) 539-0888 LB No.: 5776

SHEET 36 OF 87	PROJ MAN: TDF	DRAWN BY: FTM	CHECKED BY: BRW
FSI PROJ. NO.: 11166	FB 664, PGs 1-76 FB 667, PGs 1-22	FIELD DATE: 10/13/04	SCALE: AS NOTED

NOTES, "CERTIFIED TO" NAME, AND SIGNATURE FROM FORESIGHT SURVEYORS, INC. ARE ON SHEET 1 OF 87.

PBS&J
POST, BUCKLEY, SCHUH & JERNIGAN, INC.

5300 WEST CYPRESS STREET
SUITE 300
TAMPA, FLORIDA 33607
PH. (813) 282-7275

POST BUCKLEY SCHUH & JERNIGAN, INC. (DBA PBSJ)
2001 N.W. 107TH AVENUE, DORAL, FL. 33172-2507
FIRM CERTIFICATE OF AUTHORIZATION NO.: 28

DESIGNED BY: ABR / EFP DATE: 03-21-02
DRAWN BY: ABR DATE: 03-21-02
CHECKED BY: EFP DATE: 03-21-02
Q.C.: KEW DATE: 03-21-02

ORIGINAL: MARCH, 2002
REVISIONS:
1
2
3
4
5

CITY OF TAMPA FLORIDA
DEPARTMENT OF SANITARY SEWERS

DDMONYEAR$HRMIN $$$$$$$$$$$$$$$$$$$$$$FILE$SPECIFICATION$$$$$$$$$$$$$$$$$$$$$$

SOUTH TAMPA AREA RECLAIMED PROJECT
CONTRACT D4 - HYDE PARK / PALMA CEIA

PLAN SHEET

PROJECT No.

DRAWING No. E7

SHEET No. 38

RC0088

FOR CONTINUATION SEE SHEET 37 (E6)

FOR CONTINUATION SEE SHEET 47 (F5)

FOR CONTINUATION SEE SHEET 49 (F7)

FOR CONTINUATION SEE SHEET 59 (G6)

PROPOSED 12" RECLAIMED WATER MAIN

PROPOSED 8" RECLAIMED WATER MAIN

*70 LF 12" RECLAIMED WM

INSTALL:
1 - 12" x 8" TEE
1 - 12" GATE VALVE
1 - 8" GATE VALVE

INSTALL:
1 - 12" x 8" TEE
1 - 8" 11 1/4" BEND
1 - 8" 22 1/2" BEND
1 - 8" GATE VALVE

*526 LF 8" RECLAIMED WM

*410 LF 8" RECLAIMED WM

*449 LF 12" RECLAIMED WM

*390 LF 8" RECLAIMED WM

INSTALL:
2 - 8" 22 1/2" BENDS

INSTALL:
1 - 8" GATE VALVE

INSTALL:
1 - 4" GATE VALVE

INSTALL:
1 - 12" 90° BEND
1 - 12" GATE VALVE
1 - 2" TAP
1 - 2" GATE VALVE

INSTALL:
1 - 2" TEE
1 - 2" GATE VALVE

INSTALL:
1 - 12" x 4" TEE
1 - 4" GATE VALVE
1 - 12" 90° BEND

*710 LF 4" RECLAIMED WM

*90 LF 2" RECLAIMED WM

*68 LF 12" RECLAIMED WM

*306 LF 2" RECLAIMED WM

*247 LF 2" RECLAIMED WM

PROPOSED 4" RECLAIMED WATER MAIN

PROPOSED 12" RECLAIMED WATER MAIN

PROPOSED 2" RECLAIMED WATER MAIN

PROPOSED 12" RECLAIMED WATER MAIN

PROPOSED 2" RECLAIMED WATER MAIN

PROPOSED 2" RECLAIMED WATER MAIN

2514 EDGEWOOD RD ¾" SERVICE

2518 EDGEWOOD RD ¾" SERVICE

2507 W SIMMS BLVD 1" SERVICE

2511 W SIMMS BLVD ¾" SERVICE

#3980[illegible]
PARKS DEPT
2501 W. SIMMS BLVD.
1" SERVICE

*2504
SIMMS BLVD.
3/4" SERVICE

906
LAKEVIEW RD.
3/4" SERVICE

2401
W. MORRISON
3/4" SERVICE

#9410[illegible]
PARKS DEPT
2410 W. MORRISON AVE.
¾" SERVICE

*2305
BRISTOL AVE.
3/4" SERVICE

#9391[illegible]
PARKS DEPT
2311 W. BRISTOL AVE.
¾" SERVICE

2317 W BRISTOL AVE ¾" SERVICE

2311 W BRISTOL AVE ¾" SERVICE

2309 W BRISTOL AVE ¾" SERVICE

2307 W BRISTOL AVE ¾" SERVICE

2303 W BRISTOL AVE ¾" SERVICE

2301 W BRISTOL AVE ¾" SERVICE

2404 W BRISTOL AVE ¾" SERVICE

2318 W BRISTOL AVE ¾" SERVICE

2316 W BRISTOL AVE ¾" SERVICE

2314 W BRISTOL AVE ¾" SERVICE

2312 W BRISTOL AVE ¾" SERVICE

2306 W BRISTOL AVE ¾" SERVICE

2304 W BRISTOL AVE ¾" SERVICE

904 S LAKEVIEW RD ¾" SERVICE

2514 W SIMMS BLVD ¾" SERVICE

2512 W SIMMS BLVD ¾" SERVICE

2508 W SIMMS BLVD ¾" SERVICE

2502 W SIMMS BLVD ¾" SERVICE

2505 W MORRISON AVE ¾" SERVICE

2501 W MORRISON AVE ¾" SERVICE

2514 W MORRISON AVE ¾" SERVICE

2512 W MORRISON AVE ¾" SERVICE

2510 W MORRISON AVE ¾" SERVICE

2508 W MORRISON AVE ¾" SERVICE

2414 W MORRISON AVE ¾" SERVICE

2412 W MORRISON AVE ¾" SERVICE

2410 W MORRISON AVE ¾" SERVICE

2406 W MORRISON AVE ¾" SERVICE

2311 W MORRISON AVE 1" SERVICE

BRISTOL AVENUE

MORRISON AVE.

MORRISON AVENUE

SIMMS BLVD.

LAKEVIEW ROAD

ARMENIA AVE.

MOODY

NORTH

GRAPHIC SCALE
SCALE: 1" = 40'
0 20 40 80

DEPTH= 3' E/P TIE= 2'
DEPTH= 4' E/P TIE= 9'
DEPTH= 5' E/P TIE= 10'
DEPTH= 3' E/P TIE= 12'
DEPTH= 4.8' E/P TIE= 13'
DEPTH= 4.1' E/P TIE= 13'
DEPTH= 4.7' E/P TIE= 4'
DEPTH= 5' E/P TIE= 2'
DEPTH= 3' E/P TIE= 4'
DEPTH= 3' E/P TIE= 3'
DEPTH= 7' E/P TIE= 4'
DEPTH= 5' E/P TIE= 3'
DEPTH= 4.1' E/P TIE= 4'
DEPTH= 5.2' E/P TIE= 6'
DEPTH= 4' E/P TIE= 6'
DEPTH= 3' E/P TIE= 6'
DEPTH= 6' E/P TIE= 11'
DEPTH= 7.8' E/P TIE= 6'
DEPTH= 4.7' E/P TIE= 11'
DEPTH= 5.5' E/P TIE= 11'
DEPTH= 3' E/P TIE= 10'
DEPTH= 3.9' E/P TIE= 10'
DEPTH= 4.5' E/P TIE= 5'
DEPTH= 3' E/P TIE= 4'
DEPTH= 4.4' E/P TIE= 7'
DEPTH= 2.5' E/P TIE= 10'

FORESIGHT SURVEYORS, INC.
HYDROGRAPHIC, LAND & CONSTRUCTION SURVEYING
14561-B 58th STREET NORTH, CLEARWATER, FLORIDA 33760
PH. (727) 539-7196 FAX (727) 539-0888 LB No.: 5776

SHEET 46 OF 87	PROJ MAN: TDF	DRAWN BY: FTM	CHECKED BY: BRW
FSI PROJ. NO.: 11166	FB 664, PGs 1-76 FB 667, PGs 1-22	FIELD DATE: 10/13/04	SCALE: AS NOTED

NOTES, "CERTIFIED TO" NAME, AND SIGNATURE FROM FORESIGHT SURVEYORS, INC. ARE ON SHEET 1 OF 87.
REVISED PER CLIENTS COMMENTS ON 11/9/04

DDMONYEAR$NRMIN $$$$$$$$$$$$$$$$$$$$$$FILES$SPECIFICATION$$$$$$$$$$$$$$$$$$$$$$$$

PBS&J
POST, BUCKLEY, SCHUH & JERNIGAN, INC.

5300 WEST CYPRESS STREET
SUITE 300
TAMPA, FLORIDA 33607
PH. (813) 282-7275

POST BUCKLEY SCHUH & JERNIGAN, INC. D/B/A PBS&J
3201 W.E. SOUTH AVENUE, ORLANDO, FL. 32173-2987
FBPE CERTIFICATE OF AUTHORIZATION NO. 24

DESIGNED BY: ABR / EFP DATE: 03-21-02
DRAWN BY: AER DATE: 03-21-02
CHECKED BY: EFP DATE: 03-21-02
Q.C.: KEW DATE: 03-21-02

ORIGINAL: MARCH, 2002
REVISIONS:
1
2
3
4
5

CITY OF TAMPA FLORIDA
DEPARTMENT OF SANITARY SEWERS

SOUTH TAMPA AREA RECLAIMED PROJECT
CONTRACT D4 - HYDE PARK / PALMA CEIA

PLAN SHEET

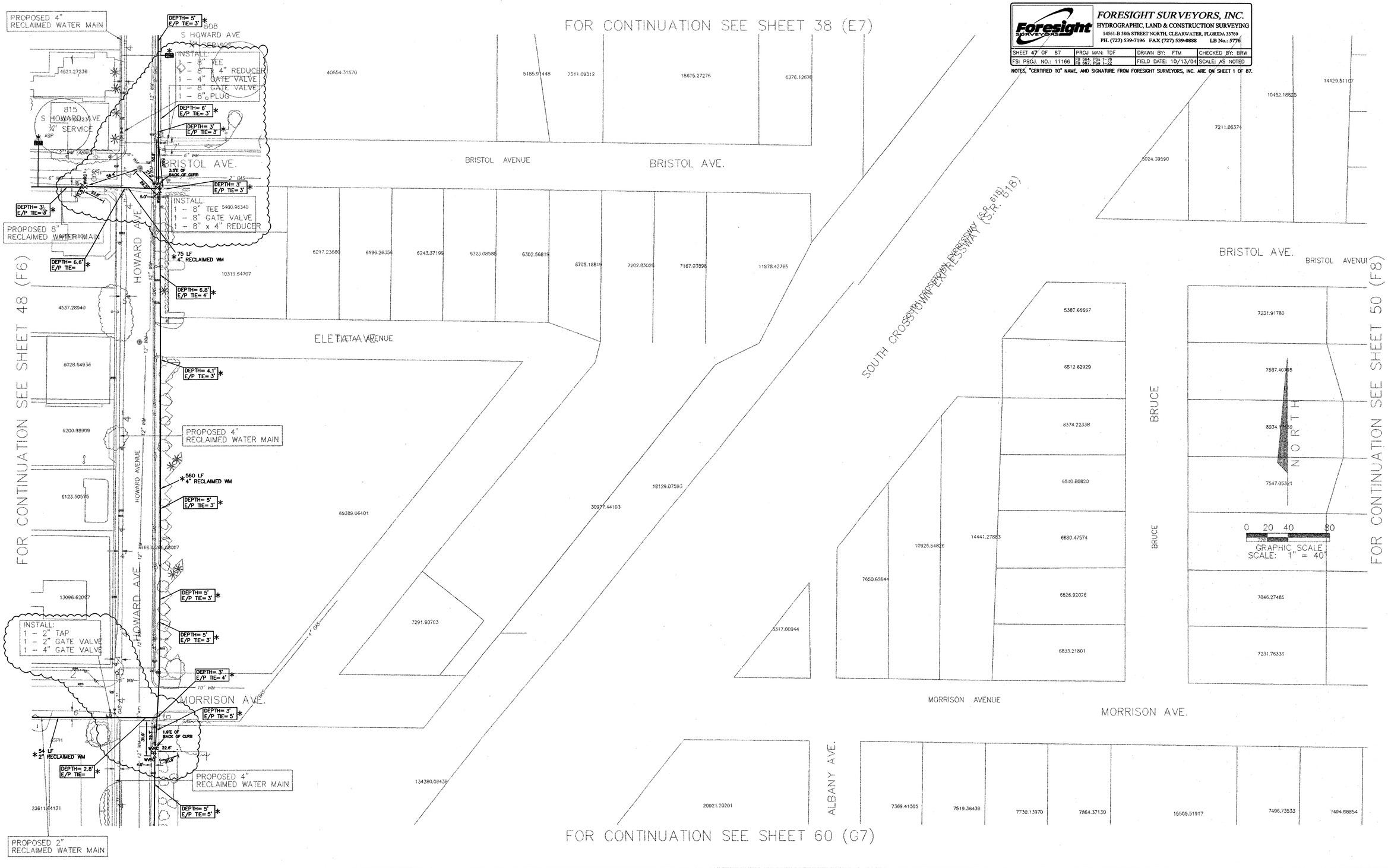
PROJECT No.
DRAWING No. F6
SHEET No. 48

RC0098

FORESIGHT SURVEYORS, INC.
HYDROGRAPHIC, LAND & CONSTRUCTION SURVEYING
14561-B 58th STREET NORTH, CLEARWATER, FLORIDA 33760
PH. (727) 539-7196 FAX (727) 539-0888 LB No.: 5776

SHEET 47 OF 87	PROJ MAN: TDF	DRAWN BY: FTM	CHECKED BY: BRW
FSI PROJ. NO.: 11166	FB 664, PGs 1-76 FB 667, PGs 1-22	FIELD DATE: 10/13/04	SCALE: AS NOTED

NOTES, "CERTIFIED TO" NAME, AND SIGNATURE FROM FORESIGHT SURVEYORS, INC. ARE ON SHEET 1 OF 87.



DDMONYEAR$HRMIN $$$$$$$$$$$$$$$$$$$$$$$$FILE$SPECIFICATION$$$$$$$$$$$$$$$$$$$$$$$$

PBS&J
POST, BUCKLEY, SCHUH & JERNIGAN, INC.
5300 WEST CYPRESS STREET
SUITE 300
TAMPA, FLORIDA 33607
PH. (813) 282-7275
POST BUCKLEY SCHUH & JERNIGAN, INC. d/b/a PBS&J
2001 N.E. FIFTH AVENUE, MIAMI, FL. 33173-3007
FIRM CERTIFICATE OF AUTHORIZATION NO. 24

DESIGNED BY:	ABR / EFP	DATE: 03-21-02
DRAWN BY:	ABR	DATE: 03-21-02
CHECKED BY:	EFP	DATE: 03-21-02
Q.C.:	KEW	DATE: 03-21-02

ORIGINAL: MARCH, 2002
REVISIONS:
1
2
3
4
5

CITY OF TAMPA FLORIDA
DEPARTMENT OF SANITARY SEWERS

SOUTH TAMPA AREA RECLAIMED PROJECT
CONTRACT D4 - HYDE PARK / PALMA CEIA

PLAN SHEET

PROJECT No.

DRAWING No. F7

SHEET No. 49

RC0099

FOR CONTINUATION SEE SHEET 48 (F6)

FOR CONTINUATION SEE SHEET 58 (G5)

FOR CONTINUATION SEE SHEET 60 (G7)

FOR CONTINUATION SEE SHEET 69 (H6)

NORTH

GRAPHIC SCALE
SCALE: 1" = 40'
0 20 40 80

*2521 W. JETTON AVE. 3/4" SERVICE
2519 W JETTON AVE ¾" SERVICE
2517 W JETTON AVE ¾" SERVICE
2515 W JETTON AVE ¾" SERVICE
2511 W JETTON AVE ¾" SERVICE
2507 W JETTON AVE ¾" SERVICE
2503 W JETTON AVE ¾" SERVICE
2522 W JETTON AVE ¾" SERVICE
2520 W JETTON AVE ¾" SERVICE
2518 W JETTON AVE ¾" SERVICE
2514 W JETTON AVE ¾" SERVICE
*2512 W. JETTON AVE 3/4" SERVICE
2510 W JETTON AVE ¾" SERVICE
2506 W JETTON AVE ¾" SERVICE
2504 W JETTON AVE ¾" SERVICE
2502 W JETTON AVE ¾" SERVICE
2412 W JETTON AVE ¾" SERVICE
2410 W JETTON AVE ¾" SERVICE
1007 S MOODY AVE ¾" SERVICE
*1006 S. MOODY AVE. 3/4" SERVICE
1008 S MOODY AVE 3/4" SERVICE
1011 S MOODY AVE ¾" SERVICE
*1010 S. MOODY AVE. 3/4" SERVICE
1102 S MOODY AVE ¾" SERVICE
1105 S MOODY AVE ¾" SERVICE
2423 W WATROUS AVE
2415 W WATROUS AVE 3/4" SERVICE
2413 W WATROUS AVE ¾" SERVICE
2417 W WATROUS AVE ¾" SERVICE
*2401 W. WATROUS AVE. 3/4" SERVICE
2422 W WATROUS AVE ¾" SERVICE
2418 W WATROUS AVE ¾" SERVICE
2416 W WATROUS AVE ¾" SERVICE
2414 W WATROUS AVE ¾" SERVICE
2412 W WATROUS AVE ¾" SERVICE
2410 W WATROUS AVE ¾" SERVICE
2408 W. WATROUS AVE. 3/4" SERVICE
2406 W WATROUS AVE ¾" SERVICE
2402 W. WATROUS AVE. 3/4" SERVICE
2309 W WATROUS AVE ¾" SERVICE
2807 W WATROUS AVE ¾" SERVICE
2425 W SUNSET DR ¾" SERVICE
2423 W SUNSET DR ¾" SERVICE
2421 W SUNSET DR ¾" SERVICE
2419 W SUNSET DR ¾" SERVICE
2415 W SUNSET DR ¾" SERVICE
2413 W SUNSET DR ¾" SERVICE
2409 W SUNSET DR ¾" SERVICE
2407 W SUNSET DR ¾" SERVICE
2405 W SUNSET DR ¾" SERVICE
*2403 SUNSET DR. 3/4" SERVICE
*2401 SUNSET DR. 3/4" SERVICE
2402 W PROSPECT RD ¾" SERVICE
#9418312 PARKS DEPT. 1110 S. MOODY AVE ¾" SERVICE
#03110816 PARKS DEPT. 2402 W. PROSPECT RD. ¾" SERVICE
*249 LF 12" RECLAIMED WM W PROSPECT RD ¾" SERVICE

PROPOSED 4" RECLAIMED WATER MAIN
PROPOSED 12" RECLAIMED WATER MAIN
PROPOSED 2" RECLAIMED WATER MAIN
540 LF 4" RECLAIMED WM
62 LF *12" RECLAIMED WM
180 LF *12" RECLAIMED WM
280 LF *2" RECLAIMED WM
290 LF *4" RECLAIMED WM
506 LF *12" RECLAIMED WM
341 LF *12" RECLAIMED WM
600 LF 4" RECLAIMED WM

INSTALL:
1 - 12" x 4" TEE
1 - 4" GATE VALVE
1 - 12" 90° BEND

INSTALL:
1 - 12" TEE
12" GATE VALVE
12" x 4" REDUCER
1 - 4" GATE VALVE
1 - 2" TAP
1 - 2" GATE VALVE

INSTALL:
1 - 4" GATE VALVE

INSTALL:
1 - 12" GATE VALVE
1 - 12" TEE
12" 22 1/2° BENDS
1 - 12" PLUG

INSTALL:
1 - 12" x 4" TEE
1 - 12" 11 1/4° BEND
1 - 4" GATE VALVE
1 - 4" 45° BEND

DEPTH= 4.4' E/P TIE= 4'
DEPTH= 4.3' E/P TIE= 4'
DEPTH= 4.4' E/P TIE= 4'
DEPTH= 3.8' E/P TIE= 4'
DEPTH= 3.1' E/P TIE= 6'
DEPTH= 4.7' E/P TIE= 6'
DEPTH= 4.2' E/P TIE= 6'
DEPTH= 4.7' E/P TIE= 4'
DEPTH= 5.2' E/P TIE= 4'
DEPTH= 3.8' E/P TIE= 5'
DEPTH= 3.7' E/P TIE= 5'
DEPTH= 3.4' E/P TIE= 5'
DEPTH= 3' E/P TIE= 5'
DEPTH= 4.2' E/P TIE= 4'
DEPTH= 3.8' E/P TIE= 8'
DEPTH= 4' E/P TIE= 9'
DEPTH= 3.7' E/P TIE= 5'
DEPTH= 3' E/P TIE=

ARMENIA AVE.
JETTON AVE.
MOODY AVE.
WATROUS AVE.
SUNSET DR.
PROSPECT RD.
CROSSTOWN EXPRESSWAY (S.R. 618)

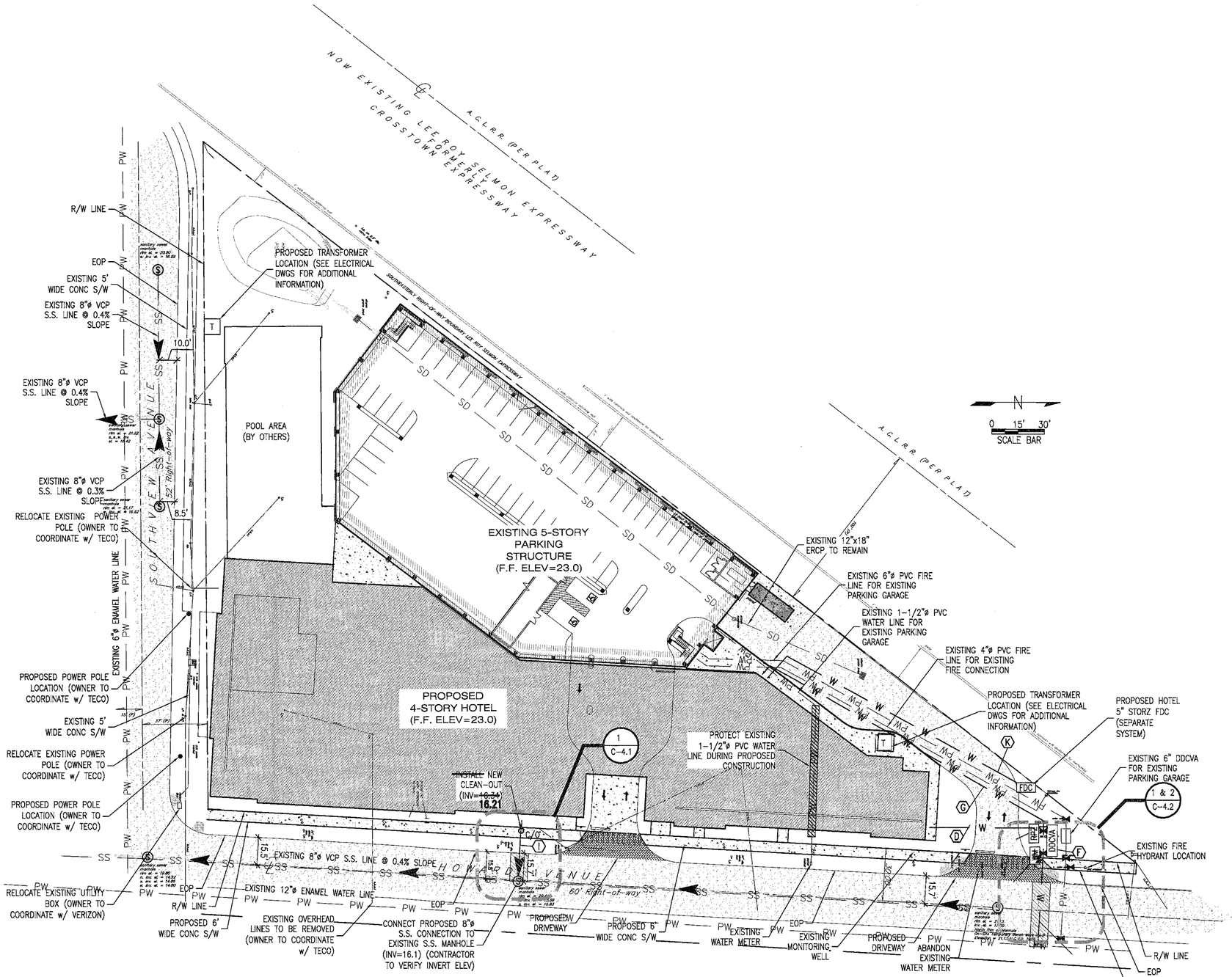
FORESIGHT SURVEYORS, INC.
HYDROGRAPHIC, LAND & CONSTRUCTION SURVEYING
14561-B 58th STREET NORTH CLEARWATER, FLORIDA 33760
PH. (727) 539-7196 FAX (727) 539-0888 LB No.: 5776

SHEET 57 OF 87	PROJ MAN: TDF	DRAWN BY: FTM	CHECKED BY: BRW
FSI PROJ. NO.: 11166	FB 665, PGS 1–76 FB 567, PGS 1–22	FIELD DATE: 10/13/04	SCALE: AS NOTED

NOTES, "CERTIFIED TO" NAME, AND SIGNATURE FROM FORESIGHT SURVEYORS, INC. ARE ON SHEET 1 OF 87.
REVISED PER CLIENTS COMMENTS ON 11/9/04

DDMONYEAR$HRMIN $$$$$$$$$$$$$$$$$$$$$$$$$$$$$FILE$SPECIFICATION$$$$$$$$$$$$$$$$$$$

Q.24 Epicurean Utilities Plan



NOTE:
THE CONTRACTOR SHALL RECONSTRUCT THE BENCH IN THE EXISTING MANHOLE TO ACCOMMODATE THE NEW FLOW.

BUILDING SQUARE FOOTAGE: 104.811 SF

ADDRESS: 1207 S. HOWARD AVENUE

FOLIO NUMBER(S): 117665.1202, 117665.1204, 117665.1206, 117665.1210

1 C-4.0 UTILITIES PLAN
1"=30'

UTILITY CONSTRUCTION NOTES

WATER & FIRE

(A) INSTALL NEW 3" DOMESTIC WATER METER (C.O.T. TO PROVIDE & INSTALL) THE CONTRACTOR IS TO FURNISH & INSTALL THE METER BOXES. METER DELIVERY & INSTALLATION TO BE COORDINATED THROUGH T.W.D. INSPECTOR (SEE C.O.T. STANDARD DETAILS 6.06, 6.07 & 6.08)

(B) FURNISH & INSTALL REDUCED PRESSURE ZONE ASSEMBLY (RPZ) IN COMPLIANCE WITH: USC MANUAL EIGHTH EDITION; ASSE STND. 1013; AWWA STND. C511; CSA B64.4. INSTALL AT 12" (MIN) ABOVE GRADE.

(C) NOT USED

(D) FURNISH & INSTALL 65 LF (±) OF 4"ø PVC (PER ASTM D22 41 (LATEST REVISION), CLASS 1120 OR CLASS 1220 (SDR 21), AWWA C-900) WATER LINE (BLUE P.E. TUBING). CONNECT TO RPZ AND TO BUILDING'S PLUMBING SYSTEM.

(E) FURNISH & INSTALL 48 LF (±) OF 8"ø D.I.P. & CONNECT TO 8" DDCVA (DOUBLE DETECTOR CHECK VALVE ASSEMBLY) (SEE SHEET C-4.2 FOR ADDITIONAL INFORMATION)

(F) FURNISH & INSTALL NEW 8" DDCVA (DOUBLE DETECTOR CHECK VALVE ASSEMBLY) (SEE C.O.T. STANDARD DETAILS 6.06, 6.07 & 6.08) (SEE SHEET C-4.2 FOR ADDITIONAL INFORMATION)

(G) INSTALL 180 LF (±) (TOTAL) 6"ø CPVC FIRELINE (PRIVATE SIDE). CONNECT TO DDCVA & RISER

(H) DENOTES FIRE SPRINKLER RISER (SEE FIRE SPRINKLER SYSTEM DRAWINGS FOR ADDITIONAL INFORMATION)

(K) FURNISH & INSTALL 170 LF (±) (TOTAL) 4"ø CPVC FIRELINE (PRIVATE SIDE). CONNECT TO RISER & PROPOSED 5" STORZ FDC

SANITARY SEWER

(I) ~~FURNISH & INSTALL~~ 30 LF (±) OF 8"ø PVC (PER ASTM D 3034, SDR 35 OR SDR 26) SS LINE (COLOR CODED GREEN) @ ~~0.6%~~ **0.4%** SLOPE (MIN) CONNECT TO PROPOSED CLEAN-OUT & EXISTING SS MANHOLE

(J) NOT USED

LEGEND/KEY

WATER LINE	—— W —— W ——	SANITARY SEWER MANHOLE	(S)
SANITARY SEWER LINE	—— SS —— SS ——	CLEAN OUT	c/o
WATER METER	WM	DIRECTIONAL FLOW ARROW	➤
REDUCED PRESSURE ZONE ASSEMBLY	RPZ	DOUBLE DETECTOR CHECK VALVE ASSEMBLY	DDCVA

AS-BUILT

REVISIONS	
2	10/17/12 W.WATER COMMENTS
3	01/22/13 WATER COMMENTS
4	05/07/13 ADDED FDC LINE
5	09/05/13 REVISED S.S. LINE

JAMES MATTHEW PAGLIARA LICENSE NO. 63820 STATE OF FLORIDA PROFESSIONAL ENGINEER
9/30/2013 DATE

EPICUREAN

1207 S. HOWARD AVENUE TAMPA, FL

UTILITIES PLAN

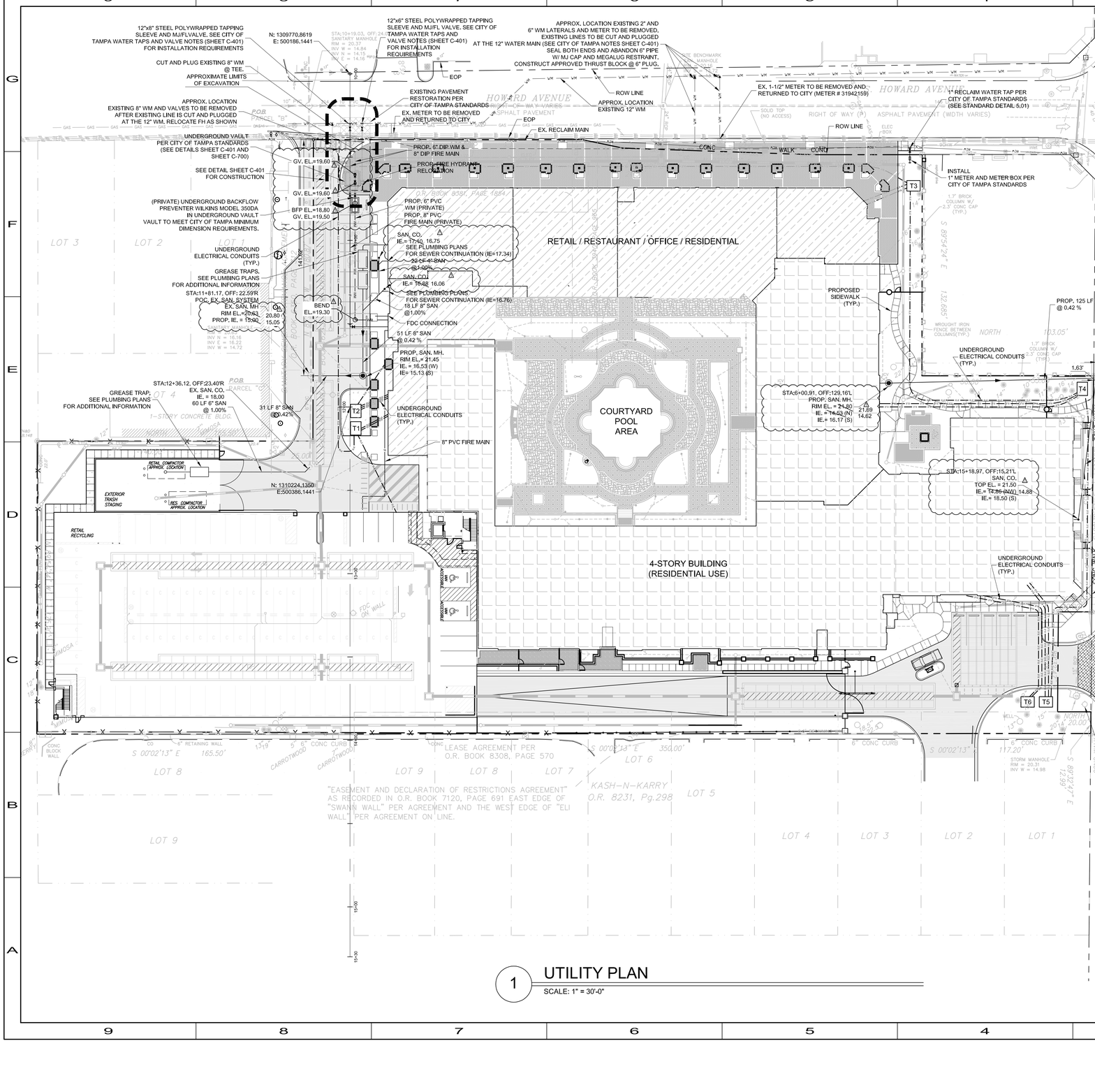
PROJ. #: 98-041.77
NAME: EPICUREAN
DATE: 07/26/2012
DRAWN BY: JR
PMJT. MNGR.: JR

Catalano Engineering, Inc.
CIVIL - STRUCTURAL - MARINE
120 SOUTH EDISON AVE. TAMPA, FL. 33606
(813) 254-1265 CERTIFICATE NO. 6828

SHEET # C-4.0

2014-129

Q.25 SOHO Square Apartments



NOTES

1. AT LEAST 3 WEEKS PRIOR TO ANY CONSTRUCTION, THE DEVELOPER'S REPRESENTATIVE SHALL CONTACT ALEX GONZALEZ OF THE WASTEWATER PLANNING DIVISION, 306 E. JACKSON STREET, TAMPA, FLORIDA 33602 (PHONE 813-274-12930, AND SUPPLY HIM WITH FURTHER CONSTRUCTION INFORMATION. THIS INFORMATION SHOULD INCLUDE ALL REQUIRED SHOP DRAWINGS, THE CONTRACTOR'S NAME, STARTING DATE, PROJECTED SCHEDULE, AND OTHER INFORMATION REQUIRED BY THE PLANNING DIVISION. THE PLANNING DIVISION OFFICE MUST ALSO BE CONTACTED BY TELEPHONE FIVE DAYS PRIOR TO THE ACTUAL START OF FIELD OPERATIONS IN ORDER TO ENSURE AVAILABILITY OF INSPECTION PERSONNEL. IT IS IMPERATIVE THAT YOUR CONTRACTOR BE FULLY INFORMED OF THE NOTIFICATION AND SUBMITTAL REQUIREMENTS. FAILURE TO COMPLY WITH THESE REQUIREMENTS WILL DELAY THE APPROVAL AND ACCEPTANCE OF THE CONSTRUCTED FACILITIES AND THE RELEASE OF THE CERTIFICATE OF OCCUPANCY FOR THE PROJECT.
2. ALL AREAS OF DISTURBED SOILS SHALL BE RESTORED TO PREVIOUS EXISTING CONDITIONS.
3. NO REMOVALS ARE TO BE MADE UNTIL THE REPLACEMENT SERVICES (IF ANY) ARE IN PLACE AND OPERATIONAL.
4. THE LOCATION OF ELECTRICAL UNDERGROUND LINES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS PRIOR TO REMOVAL / RELOCATION. REFER TO ELECTRICAL PLANS FOR ADDITIONAL INFORMATION AND SPECIFICATIONS.
5. CONTRACTOR SHALL COORDINATE WITH TECO FOR RELOCATION OF TECO GAS AND TECO ELECTRIC LINES.

LEGEND

- PROPERTY LINE / RIGHT-OF-WAY LINE
- PROPOSED ASPHALT PAVEMENT
- PAVEMENT RESTORATION
- T — PROPOSED TRANSFORMER
- G — PROPOSED GENERATOR
- PROPOSED FIRE MAIN
- WM — PROPOSED WATER MAIN
- EXISTING WATER
- EXISTING FIRE MAIN
- PROPOSED SAN. SEWER GRAVITY LINE
- EXISTING SAN. SEWER GRAVITY LINE
- PROPOSED STORM PIPE
- PROPOSED INLET
- PROPOSED STORM PIPE
- PROPOSED MES.
- CONCRETE LIGHT POLE TO REMAIN
- EXISTING BILLBOARD SIGN TO REMAIN
- EXISTING DRAINAGE INLET
- EXISTING MES
- EXISTING MH
- EXISTING BOLLARD
- EXISTING WHEEL STOP

SITE DATA:

FOLIO # : 186109.0500
ADDRESS: 708 SOUTH HOWARD AVENUE TAMPA, FL 34606
NUMBER UNITS: 231 UNITS

RECORD DRAWINGS NOTE:

ASBUILT SURVEY DATA WAS SUPPLIED BY THE CONTRACTOR AND IS TRUE, ACCURATE AND COMPLETE TO THE BEST OF THE ENGINEER'S KNOWLEDGE

RECORD DRAWING

NORTH
0 15 30 60
GRAPHIC SCALE
SCALE: 1" = 30'
HALF SIZE: 1" = 60'

1 UTILITY PLAN
SCALE: 1" = 30'-0"

THE PRESTON PARTNERSHIP, PLLC
A MULTI-DISCIPLINARY DESIGN FIRM
SOUTH TERRACES
115 PERIMETER CENTER PLACE, SUITE 650
ATLANTA, GEORGIA 30346
TELEPHONE: 770 396 7248
FAX: 770 396 2945
WWW.THEPRESTONPARTNERSHIP.COM
FLORIDA BUSINESS LICENCE NO.S:
Architecture: AA-0003501,
Engineering: 27515,
Landscape: LC26000312,
Interior Design: ID-0001275

CONSULTANT
ATKINS
CORPORATE OFFICE:
4030 W. BOY SCOUT BLVD
TAMPA, FLORIDA 33607
FBPR CERTIFICATE OF AUTHORIZATION NO.24
www.atkinsglobal.com

SEAL
FLEET M. WULF, P.E.
FLORIDA REGISTRATION # 53205
DATE: May 7, 2014

PROJECT
SOHO SQUARE APARTMENTS
708 S. HOWARD AVENUE
TAMPA, FLORIDA 33606

FOR
POST
POST SOHO SQUARE, LLC
ONE RIVERSIDE
4401 NORTHSIDE PARKWAY, SUITE 800
ATLANTA, GA 30327
(404) 846-5000

REVISIONS	
PLANS ISSUED DATE	05.01.14
1 AS-BUILT INFORMATION	05.01.14

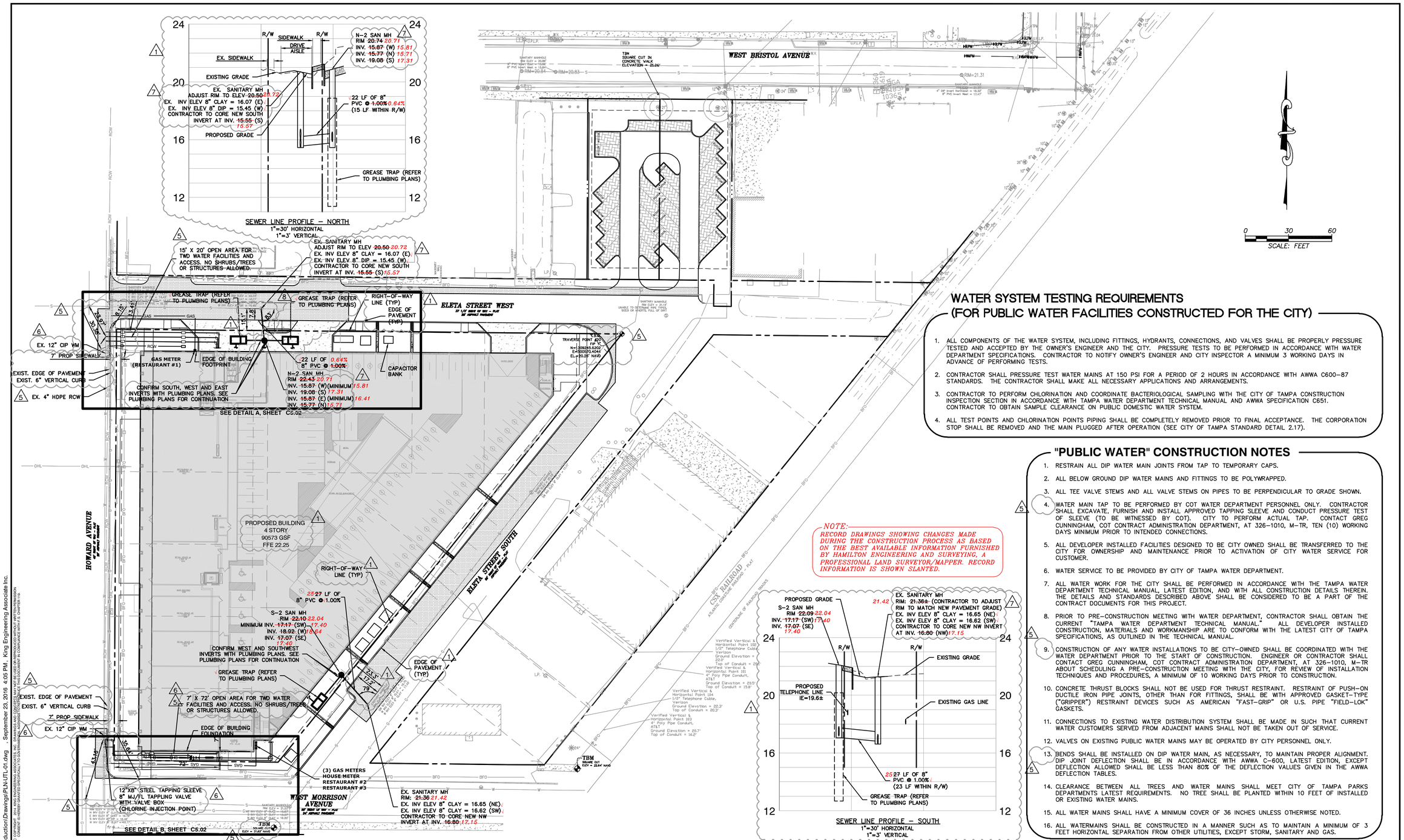
UTILITY PLAN

JOB NO.:	100024695.0000
DRAWN:	
DESIGN:	
CHECKED:	
APPROVED:	
SHEET NO.	C-400
REV.	1

DESCRIPTION: RECORD DRAWINGS 05.01.14

User Name: URDA3358
Drawing Name: L:\civil\Post SOHO\CONSTRUCTION\AS-BUILT\C-400 UTILITY.dwg May 07, 2014 - 1:45pm

2014-052



WATER SYSTEM TESTING REQUIREMENTS
(FOR PUBLIC WATER FACILITIES CONSTRUCTED FOR THE CITY)

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL BE PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER AND THE CITY. PRESSURE TESTS TO BE PERFORMED IN ACCORDANCE WITH WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY OWNER'S ENGINEER AND CITY INSPECTOR A MINIMUM 3 WORKING DAYS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR SHALL PRESSURE TEST WATER MAINS AT 150 PSI FOR A PERIOD OF 2 HOURS IN ACCORDANCE WITH AWWA C600–87 STANDARDS. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS.
3. CONTRACTOR TO PERFORM CHLORINATION AND COORDINATE BACTERIOLOGICAL SAMPLING WITH THE CITY OF TAMPA CONSTRUCTION INSPECTION SECTION IN ACCORDANCE WITH TAMPA WATER DEPARTMENT TECHNICAL MANUAL AND AWWA SPECIFICATION C651. CONTRACTOR TO OBTAIN SAMPLE CLEARANCE ON PUBLIC DOMESTIC WATER SYSTEM.
4. ALL TEST POINTS AND CHLORINATION POINTS PIPING SHALL BE COMPLETELY REMOVED PRIOR TO FINAL ACCEPTANCE. THE CORPORATION STOP SHALL BE REMOVED AND THE MAIN PLUGGED AFTER OPERATION (SEE CITY OF TAMPA STANDARD DETAIL 2.17).

"PUBLIC WATER" CONSTRUCTION NOTES

1. RESTRAIN ALL DIP WATER MAIN JOINTS FROM TAP TO TEMPORARY CAPS.
2. ALL BELOW GROUND DIP WATER MAINS AND FITTINGS TO BE POLYWRAPPED.
3. ALL TEE VALVE STEMS AND ALL VALVE STEMS ON PIPES TO BE PERPENDICULAR TO GRADE SHOWN.
4. WATER MAIN TAP TO BE PERFORMED BY COT WATER DEPARTMENT PERSONNEL ONLY. CONTRACTOR SHALL EXCAVATE, FURNISH AND INSTALL APPROVED TAPPING SLEEVE AND CONDUCT PRESSURE TEST OF SLEEVE (TO BE WITNESSED BY COT). CITY TO PERFORM ACTUAL TAP. CONTACT GREG CUNNINGHAM, COT CONTRACT ADMINISTRATION DEPARTMENT, AT 326–1010, M–TR, TEN (10) WORKING DAYS MINIMUM PRIOR TO INTENDED CONNECTIONS.
5. ALL DEVELOPER INSTALLED FACILITIES DESIGNED TO BE CITY OWNED SHALL BE TRANSFERRED TO THE CITY FOR OWNERSHIP AND MAINTENANCE PRIOR TO ACTIVATION OF CITY WATER SERVICE FOR CUSTOMER.
6. WATER SERVICE TO BE PROVIDED BY CITY OF TAMPA WATER DEPARTMENT.
7. ALL WATER WORK FOR THE CITY SHALL BE PERFORMED IN ACCORDANCE WITH THE TAMPA WATER DEPARTMENT TECHNICAL MANUAL, LATEST EDITION, AND WITH ALL CONSTRUCTION DETAILS THEREIN. THE DETAILS AND STANDARDS DESCRIBED ABOVE SHALL BE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT.
8. PRIOR TO PRE–CONSTRUCTION MEETING WITH WATER DEPARTMENT, CONTRACTOR SHALL OBTAIN THE CURRENT "TAMPA WATER DEPARTMENT TECHNICAL MANUAL." ALL DEVELOPER INSTALLED CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO CONFORM WITH THE LATEST CITY OF TAMPA SPECIFICATIONS, AS OUTLINED IN THE TECHNICAL MANUAL.
9. CONSTRUCTION OF ANY WATER INSTALLATIONS TO BE CITY–OWNED SHALL BE COORDINATED WITH THE WATER DEPARTMENT PRIOR TO THE START OF CONSTRUCTION. ENGINEER OR CONTRACTOR SHALL CONTACT GREG CUNNINGHAM, COT CONTRACT ADMINISTRATION DEPARTMENT, AT 326–1010, M–TR ABOUT SCHEDULING A PRE–CONSTRUCTION MEETING WITH THE CITY, FOR REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES, A MINIMUM OF 10 WORKING DAYS PRIOR TO CONSTRUCTION.
10. CONCRETE THRUST BLOCKS SHALL NOT BE USED FOR THRUST RESTRAINT. RESTRAINT OF PUSH–ON DUCTILE IRON PIPE JOINTS, OTHER THAN FOR FITTINGS, SHALL BE WITH APPROVED GASKET–TYPE ("GRIPPER") RESTRAINT DEVICES SUCH AS AMERICAN "FAST–GRIP" OR U.S. PIPE "FIELD–LOK" GASKETS.
11. CONNECTIONS TO EXISTING WATER DISTRIBUTION SYSTEM SHALL BE MADE IN SUCH THAT CURRENT WATER CUSTOMERS SERVED FROM ADJACENT MAINS SHALL NOT BE TAKEN OUT OF SERVICE.
12. VALVES ON EXISTING PUBLIC WATER MAINS MAY BE OPERATED BY CITY PERSONNEL ONLY.
13. BENDS SHALL BE INSTALLED ON DIP WATER MAIN, AS NECESSARY, TO MAINTAIN PROPER ALIGNMENT. DIP JOINT DEFLECTION SHALL BE IN ACCORDANCE WITH AWWA C–600, LATEST EDITION, EXCEPT DEFLECTION ALLOWED SHALL BE LESS THAN 80% OF THE DEFLECTION VALUES GIVEN IN THE AWWA DEFLECTION TABLES.
14. CLEARANCE BETWEEN ALL TREES AND WATER MAINS SHALL MEET CITY OF TAMPA PARKS DEPARTMENTS LATEST REQUIREMENTS. NO TREE SHALL BE PLANTED WITHIN 10 FEET OF INSTALLED OR EXISTING WATER MAINS.
15. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES UNLESS OTHERWISE NOTED.
16. ALL WATERMAINS SHALL BE CONSTRUCTED IN A MANNER SUCH AS TO MAINTAIN A MINIMUM OF 3 FEET HORIZONTAL SEPARATION FROM OTHER UTILITIES, EXCEPT STORM, SANITARY AND GAS.

Q:\CIVIL\4979\000\000\Production\Drawings\PLN-UTL-01.dwg - September 23, 2016 4:05 PM - King Engineering Associate Inc.
© COPYRIGHT 2016 KING ENGINEERING ASSOCIATES, INC.
CONSENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES FOR REPRODUCTION OF THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.

DESIGNED NLL
DRAWN JSH
CHECKED AGK
D.C.

THE SIGNATURE OF THE QUALITY CONTROL OFFICER IN THIS SPACE INDICATES THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND THAT CONSTRUCTION IS AUTHORIZED TO COMMENCE.

King ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway
One Memorial Center, Suite 300
Tampa, Florida 33634
Phone 813 880-8881
Fax 813 880-8882
www.kingengineering.com
Engineering License #2610

HOWARD AVENUE MIXED USE
FOR
HOWARD & MORRISON, LLC
500 N. WESTSHORE BLVD, SUITE 750
TAMPA, FLORIDA 33609

NO.	DATE	DESCRIPTION	APPD BY
8.	01/08/2016	ADDED GREASE TRAP	NLL
7.	05/21/2015	CONTRACTIBILITY REVIEW	NLL
6.	04/24/2015	TWD COMMENTS	NLL
5.	04/16/2015	TWD COMMENTS	NLL
4.	04/02/2015	COT COMMENTS	NLL
3.	03/03/2015	COT COMMENTS	NLL
2.	02/06/2015	COT COMMENTS	NLL
1.	01/20/2015	COT REVISIONS	NLL
6.	02/29/2016	ADDED RECORD DATA	

SANITARY SEWER AND WATER DISTRIBUTION PLAN

NICOLE L. LYNN, P.E.
9/26/2016
FL P.E. No. 71382

JOB NO. 4979-000-000
DATE: 06/04/2014
SCALE: AS SHOWN
SHEET NO. C5.01
RECORD DRAWING
SEPTEMBER 26, 2016

Q.26 Topographic Survey – Howard Ave, Swann Ave to Morrison Ave

SECTIONS 23 & 26 TOWNSHIP 29 SOUTH RANGE 18 EAST

CITY OF TAMPA HILLSBOROUGH COUNTY FLORIDA

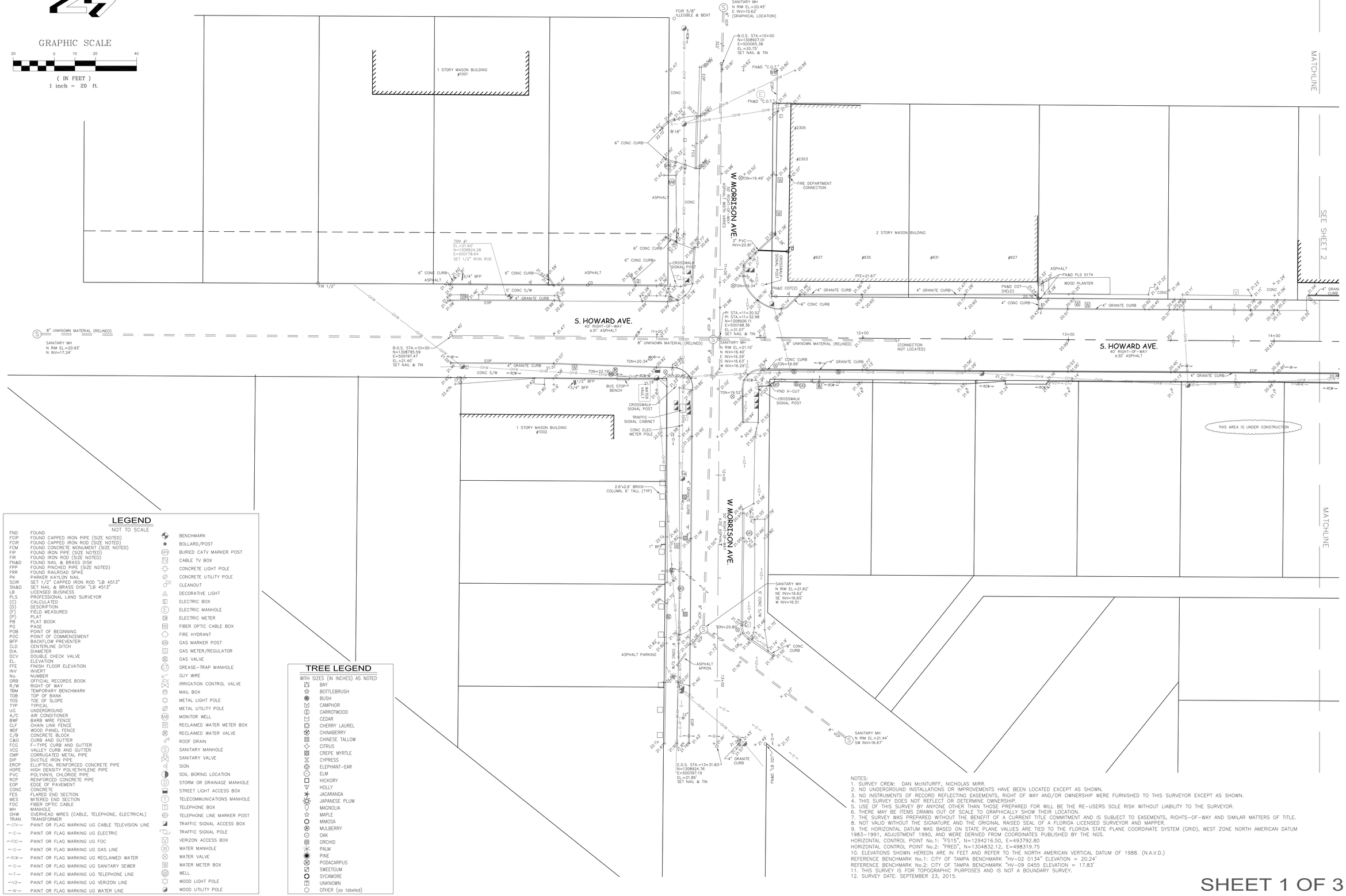
PW 2015-067

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.



LEGEND

NOT TO SCALE

FND	FOUND		BENCHMARK
FCIP	FOUND CAPPED IRON PIPE (SIZE NOTED)		BOLLARD/POST
FCM	FOUND CONCRETE MONUMENT (SIZE NOTED)	CATV	BURIED CATV MARKER POST
FIP	FOUND IRON PIPE (SIZE NOTED)	TV	CABLE TV BOX
FIR	FOUND IRON ROD (SIZE NOTED)		CONCRETE LIGHT POLE
FN&D	FOUND NAIL & BRASS DISK		CONCRETE UTILITY POLE
FPP	FOUND PINCHED PIPE (SIZE NOTED)		CLEANOUT
FRR	FOUND RAILROAD SPIKE		DECORATIVE LIGHT
PK	PARKER KAYLON NAIL	E	ELECTRIC BOX
SCIR	SET 1/2" CAPPED IRON ROD "LB 4513"	E	ELECTRIC MANHOLE
SN&D	SET NAIL & BRASS DISK "LB 4513"	EM	ELECTRIC METER
LB	LICENSED BUSINESS	FOS	FIBER OPTIC CABLE BOX
PLS	PROFESSIONAL LAND SURVEYOR		FIRE HYDRANT
(C)	CALCULATED	GAS	GAS MARKER POST
(D)	DESCRIPTION	G	GAS METER/REGULATOR
(F)	FIELD MEASURED		GAS VALVE
(P)	PLAT	GT	GREASE-TRAP MANHOLE
PB	PLAT BOOK		GUY WIRE
PG	PAGE		IRRIGATION CONTROL VALVE
POB	POINT OF BEGINNING		MAIL BOX
POC	POINT OF COMMENCEMENT		METAL LIGHT POLE
BFP	BACKFLOW PREVENTER		METAL UTILITY POLE
CLD	CENTERLINE DITCH	MW	MONITOR WELL
DIA.	DIAMETER	R	RECLAIMED WATER METER BOX
DCV	DOUBLE CHECK VALVE		RECLAIMED WATER VALVE
EL.	ELEVATION		ROOF DRAIN
FFE	FINISH FLOOR ELEVATION	S	SANITARY MANHOLE
INV	INVERT		SANITARY VALVE
No.	NUMBER		SIGN
ORB	OFFICIAL RECORDS BOOK		SOIL BORING LOCATION
R/W	RIGHT OF WAY	D	STORM OR DRAINAGE MANHOLE
TBM	TEMPORARY BENCHMARK		STREET LIGHT ACCESS BOX
TOB	TOP OF BANK	T	TELECOMMUNICATIONS MANHOLE
TOS	TOE OF SLOPE	T	TELEPHONE BOX
TYP	TYPICAL		TELEPHONE LINE MARKER POST
UG	UNDERGROUND		TRAFFIC SIGNAL ACCESS BOX
A/C	AIR CONDITIONER		TRAFFIC SIGNAL POLE
BWF	BARB WIRE FENCE	V	VERIZON ACCESS BOX
CLF	CHAIN LINK FENCE	W	WATER MANHOLE
WDF	WOOD PANEL FENCE		WATER VALVE
C/B	CONCRETE BLOCK	W	WATER METER BOX
C&G	CURB AND GUTTER		WELL
FCG	F-TYPE CURB AND GUTTER		WOOD LIGHT POLE
VCG	VALLEY CURB AND GUTTER		WOOD UTILITY POLE
CMP	CORRUCATED METAL PIPE		
DIP	DUCTILE IRON PIPE		
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE		
HDPE	HIGH DENSITY POLYETHYLENE PIPE		
PVC	POLYVINYL CHLORIDE PIPE		
RCP	REINFORCED CONCRETE PIPE		
EOP	EDGE OF PAVEMENT		
CONC	CONCRETE		
FES	FLARED END SECTION		
MES	MITERED END SECTION		
FOC	FIBER OPTIC CABLE		
MH	MANHOLE		
OHW	OVERHEAD WIRES (CABLE, TELEPHONE, ELECTRICAL)		
TRAN	TRANSFORMER		
-CTV-	PAINT OR FLAG MARKING UG CABLE TELEVISION LINE		
-E-	PAINT OR FLAG MARKING UG ELECTRIC		
-FOC-	PAINT OR FLAG MARKING UG FOC		
-G-	PAINT OR FLAG MARKING UG GAS LINE		
-RCW-	PAINT OR FLAG MARKING UG RECLAIMED WATER		
-S-	PAINT OR FLAG MARKING UG SANITARY SEWER		
-T-	PAINT OR FLAG MARKING UG TELEPHONE LINE		
-VZ-	PAINT OR FLAG MARKING UG VERIZON LINE		
-W-	PAINT OR FLAG MARKING UG WATER LINE		

TREE LEGEND

WITH SIZES (IN INCHES) AS NOTED

BAY	
BOTTLEBRUSH	
BUSH	
CAMPHOR	
CARROTWOOD	
CEDAR	
CHERRY LAUREL	
CHINABERRY	
CHINESE TALLOW	
CITRUS	
CREPE MYRTLE	
CYPRESS	
ELEPHANT-EAR	
ELM	
HICKORY	
HOLLY	
JACARANDA	
JAPANESE PLUM	
MAGNOLIA	
MAPLE	
MIMOSA	
MULBERRY	
OAK	
ORCHID	
PALM	
PINE	
PODACARPUS	
SWEETGUM	
SYCAMORE	
UNKNOWN	
OTHER (as labeled)	

NOTES:
1. SURVEY CREW: DAN McINTURFF, NICHOLAS MIRR.
2. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN.
3. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHT OF WAY AND/OR OWNERSHIP WERE FURNISHED TO THIS SURVEYOR EXCEPT AS SHOWN.
4. THIS SURVEY DOES NOT REFLECT OR DETERMINE OWNERSHIP.
5. USE OF THIS SURVEY BY ANYONE OTHER THAN THOSE PREPARED FOR WILL BE THE RE-USERS SOLE RISK WITHOUT LIABILITY TO THE SURVEYOR.
6. THERE MAY BE ITEMS DRAWN OUT OF SCALE TO GRAPHICALLY SHOW THEIR LOCATION.
7. THE SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT AND IS SUBJECT TO EASEMENTS, RIGHTS-OF-WAY AND SIMILAR MATTERS OF TITLE.
8. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
9. THE HORIZONTAL DATUM WAS BASED ON STATE PLANE VALUES ARE TIED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM (GRID), WEST ZONE NORTH AMERICAN DATUM 1983-1991; ADJUSTMENT 1990, AND WERE DERIVED FROM COORDINATES PUBLISHED BY THE NGS.
HORIZONTAL CONTROL POINT No.1: "FS15", N=1294216.50, E=493792.80
HORIZONTAL CONTROL POINT No.2: "FRED", N=1304832.12, E=498319.75
10. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988. (N.A.V.D.)
REFERENCE BENCHMARK No.1: CITY OF TAMPA BENCHMARK "HV-02 0134" ELEVATION = 20.24'
REFERENCE BENCHMARK No.2: CITY OF TAMPA BENCHMARK "HV-09 0455 ELEVATION = 17.83'
11. THIS SURVEY IS FOR TOPOGRAPHIC PURPOSES AND IS NOT A BOUNDARY SURVEY.
12. SURVEY DATE: SEPTEMBER 23, 2015.

SHEET 1 OF 3

Revisions				
No.	Date	Description	By	
1				
2				
3				
4				

Project No.	15034
Field Book	Page 53-55
285	
DRAWING#	15034.DWG
Checked by	KOM
Drawn by	JJB

TOPOGRAPHIC SURVEY
S. HOWARD AVE., W. SWANN AVE. TO W. MORRISON AVE.

DATE OF FIELD SURVEY 9-23-15

PREPARED FOR: CITY OF TAMPA, STORMWATER DEPARTMENT

SURVEYOR'S CERTIFICATE
I hereby certify that the survey shown hereon was performed under my RESPONSIBLE CHARGE on the date shown, and meets the MINIMUM TECHNICAL STANDARDS set forth by the FLORIDA BOARD OF PROFESSIONAL SURVEYORS & MAPPERS in Chapter 5J-17, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES.
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

9-23-15
DATE OF FIELD SURVEY

KELLY O. MCCLUNG, PLS No.4032

SUNCOAST LAND SURVEYING, Inc.
111 FOREST LAKES BOULEVARD
OLDSMAR, FLA. 34677
BOUNDARY - TOPOGRAPHIC - CONSTRUCTION STAKEOUT
PH: (813) 854-1342 SLSURVEY@TAMPABAY.RR.COM
LB 4513

SECTIONS 23 & 26 TOWNSHIP 29 SOUTH RANGE 18 EAST

CITY OF TAMPA HILLSBOROUGH COUNTY FLORIDA

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

MATCHLINE — SEE SHEET 1

MATCHLINE — SEE SHEET 3

S. HOWARD AVE.
40' RIGHT-OF-WAY
8.50' ASPHALT

BRISTOL AVE.
40' RIGHT-OF-WAY
ASPHALT WIDTH VARIES

WELETA ST.
40' RIGHT-OF-WAY
±28' ASPHALT

S. HOWARD AVE.
40' RIGHT-OF-WAY
ASPHALT WIDTH VARIES

2 STORY MASON BUILDING #2304

1 STORY MASON BUILDING #2301

1 STORY MASON BUILDING #915
FFE=21.38'

2 STORY MASON AND FRAME BUILDING #901

ASPHALT PARKING

ASPHALT PARKING LOT

1 STORY MASON BUILDING #815
FFE=21.07'

1 STORY MASON BUILDING #811
FFE=22.28'

2 STORY MASON BUILDING #807

1 STORY MASON BUILDING #717

2 STORY MASON BUILDING #715

1 STORY MASON BUILDING #804

4 STORY MASON BUILDING #811–#819

4 STORY MASON BUILDING #2236–#2240

4 STORY MASON BUILDING #718

STORM MH
N RIM EL=0.00'
N INV=13.83'
E INV 1=15.29'
E INV 2=15.24'
S INV 1=14.60'
S INV 2=14.63'
SW INV=14.19'
(GRAPHICAL LOCATION)

12" PVC(2)
12" RCP (2)
(BLOCKED WITH DIRT)
18" RCP
FLOW
FROM ACCESS BOX

FPP 3/4"
B.O.S. STA.=10+00
N=1309432.82
E=500017.38
EL.=20.42'
SET 1/2" IRON ROD

FIR 3/8"
*PAVEMENT CAVE IN DEPRESSION EL.=18.94'

4" GRANITE CURB
4' CONC S/W
PAVER DRIVE

SANITARY MH
N RIM EL=19.90'
E INV=14.78'
S INV=14.71'
W INV=14.88'

8" PVC
8" UNKNOWN MATERIAL (CRUSHED)

FIP 1/2"

4" GRANITE CURB
ASPHALT
4" CONC S/W
6" PAVERS S/W
6" CONC S/W
4" CONC S/W
4" GRANITE CURB
WALL
6" CONC CURB
FCR 5/8" "LB 6640"
FIR 5/8"
CANNOT OPEN

FN&D "C.O.T."
WOOD PLANTER
ASPHALT
COVERED PAVERS
PAVERS
6" CONC CURB
FN&D "LB 7652"

PI STA.=14+72.05
B.O.S. STA.=10+00
N=1309267.63
E=500200.68
EL.=20.45'
SET NAIL & TIN

SANITARY MH
N RIM EL.=20.45'
N INV=14.28'
E INV=14.43'
W INV=15.57'
10" PVC

PI STA.=16+35.99
PI STA.=11+84.41
N=1309431.56
E=500201.79
EL.=20.15'
SET NAIL & TIN

SANITARY MH
N RIM EL.=20.15'
N INV=13.98'
E INV=14.60'
S INV=14.00'
W INV=14.07'
10" PVC

TBM #2
EL.=20.97'
N=1309292.65
E=500233.73
SET 1/2" IRON ROD

FN&D "C.O.T."
4.5' CONC S/W
TON=16.72'
TON=19.00'
TON=17.55'
TON=17.28'
END X-CUT
FN&D "PSM 2878"

(4) 4" DIP
INV=20.21'
CONC FLUME
BOTTOM OF RETENTION POND EL.=18.9'
8' CONC S/W
8" UNKNOWN MATERIAL (CRUSHED)
CONC DRIVE
WALL
4' CONC S/W

SANITARY MH
N RIM EL.=20.77'
W INV=15.42'

E.O.S. STA=11+21.82
N=1309266.80
E=500322.50
EL.=20.81'
SET NAIL & TIN

E.O.S. STA.=13+07.41
N=1309430.73
E=500324.79
EL.=20.73'
SET NAIL & TIN

SANITARY MH
N RIM EL.=20.90'
W INV=16.04'
(GRAPHICAL LOCATION)

SANITARY MH
N RIM EL.=19.54'
N INV=13.33'
E INV=13.36'
S INV=13.33'
W INV=14.06'
CANNOT ACCESS TON
TON=16.24'

N=1309795.57
E=500204.27
EL.=19.36'
SET NAIL & TIN

8' WALL
6" CONC CURB
CONC DRIVE
(4) WATER METERS
±14" PAVERS S/W
FN&D "LB 6640"
PAVERS
FN&D "LB 7168"
STORM MH
N RIM EL.=20.14'
24" UNKNOWN MATERIAL

M #3
=20.11'
+1309740.58
-500236.07
T NAIL & TIN

SANITARY MH
N RIM EL.=20.27'
W INV=14.01'

TREE LEGEND

WITH SIZES (IN INCHES) AS NOTED

- BAY
- BOTTLEBRUSH
- BUSH
- CAMPHOR
- CARROTWOOD
- CEDAR
- CHERRY LAUREL
- CHINABERRY
- CHINESE TALLOW
- CITRUS
- CREPE MYRTLE
- CYPRESS
- ELEPHANT–EAR
- ELM
- HICKORY
- HOLLY
- JACARANDA
- JAPANESE PLUM
- MAGNOLIA
- MAPLE
- MIMOSA
- MULBERRY
- OAK
- ORCHID
- PALM
- PINE
- PODACARPUS
- SWEETGUM
- SYCAMORE
- UNKNOWN
- OTHER (as labeled)

LEGEND

NOT TO SCALE

FND	FOUND
FOIP	FOUND CAPPED IRON PIPE (SIZE NOTED)
FOIR	FOUND CAPPED IRON ROD (SIZE NOTED)
FCM	FOUND CONCRETE MONUMENT (SIZE NOTED)
FIP	FOUND IRON PIPE (SIZE NOTED)
FIR	FOUND IRON ROD (SIZE NOTED)
FN&D	FOUND NAIL & BRASS DISK
FPP	FOUND PINCHED PIPE (SIZE NOTED)
FRR	FOUND RAILROAD SPIKE
PK	PARKER KAYLON NAIL
SCIR	SET 1/2" CAPPED IRON ROD "LB 4513"
SN&D	SET NAIL & BRASS DISK "LB 4513"
LB	LICENSED BUSINESS
PLS	PROFESSIONAL LAND SURVEYOR
(C)	CALCULATED
(D)	DESCRIPTION
(F)	FIELD MEASURED
(P)	PLAT
PB	PLAT BOOK
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
BFP	BACKFLOW PREVENTER
CLD	CENTERLINE DITCH
DIA.	DIAMETER
DCV	DOUBLE CHECK VALVE
EL.	ELEVATION
FFE	FINISH FLOOR ELEVATION
INV	INVERT
No.	NUMBER
ORB	OFFICIAL RECORDS BOOK
R/W	RIGHT OF WAY
TBM	TEMPORARY BENCHMARK
TOB	TOP OF BANK
TOS	TOE OF SLOPE
TYP	TYPICAL
UG	UNDERGROUND
A/C	AIR CONDITIONER
BWF	BARB WIRE FENCE
CLF	CHAIN LINK FENCE
WDF	WOOD PANEL FENCE
C/B	CONCRETE BLOCK
C&G	CURB AND GUTTER
FCG	F–TYPE CURB AND GUTTER
VCG	VALLEY CURB AND GUTTER
CMP	CORRUGATED METAL PIPE
DIP	DUCTILE IRON PIPE
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
EOP	EDGE OF PAVEMENT
CONC	CONCRETE
FES	FLARED END SECTION
MES	MITERED END SECTION
FOC	FIBER OPTIC CABLE
MH	MANHOLE
OHW	OVERHEAD WIRES (CABLE, TELEPHONE, ELECTRICAL)
TRAN	TRANSFORMER
—CTV—	PAINT OR FLAG MARKING UG CABLE TELEVISION LINE
—E—	PAINT OR FLAG MARKING UG ELECTRIC
—FOC—	PAINT OR FLAG MARKING UG FOC
—G—	PAINT OR FLAG MARKING UG GAS LINE
—RCW—	PAINT OR FLAG MARKING UG RECLAIMED WATER
—S—	PAINT OR FLAG MARKING UG SANITARY SEWER
—T—	PAINT OR FLAG MARKING UG TELEPHONE LINE
—V2—	PAINT OR FLAG MARKING UG VERIZON LINE
—W—	PAINT OR FLAG MARKING UG WATER LINE
	BENCHMARK
	BOLLARD/POST
CATV	BURIED CATV MARKER POST
CV	CABLE TV BOX
	CONCRETE LIGHT POLE
	CONCRETE UTILITY POLE
CO	CLEANOUT
	DECORATIVE LIGHT
	ELECTRIC BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
FO	FIBER OPTIC CABLE BOX
	FIRE HYDRANT
GAS	GAS MARKER POST
G	GAS METER/REGULATOR
	GAS VALVE
GT	GREASE–TRAP MANHOLE
	GUY WIRE
ICV	IRRIGATION CONTROL VALVE
	MAIL BOX
	METAL LIGHT POLE
	METAL UTILITY POLE
MW	MONITOR WELL
R	RECLAIMED WATER METER BOX
	RECLAIMED WATER VALVE
	ROOF DRAIN
S	SANITARY MANHOLE
	SANITARY VALVE
	SIGN
	SOIL BORING LOCATION
D	STORM OR DRAINAGE MANHOLE
	STREET LIGHT ACCESS BOX
T	TELECOMMUNICATIONS MANHOLE
	TELEPHONE BOX
	TELEPHONE LINE MARKER POST
	TRAFFIC SIGNAL ACCESS BOX
	TRAFFIC SIGNAL POLE
V	VERIZON ACCESS BOX
W	WATER MANHOLE
	WATER VALVE
M	WATER METER BOX
W	WELL
	WOOD LIGHT POLE
	WOOD UTILITY POLE

SHEET 2 OF 3

Revisions				
No.	Date	Description		By
1				
2				
3				
4				

TOPOGRAPHIC SURVEY
S. HOWARD AVE., W. SWANN AVE. TO W. MORRISON AVE.

PREPARED FOR: CITY OF TAMPA, STORMWATER DEPARTMENT

Project No.	15034
Field Book	285
Page	53-55
DRAWING#	15034.DWG
Checked by	KDM
Drawn by	JJB

DATE OF FIELD SURVEY 9-23-15

SUNCOAST LAND SURVEYING, Inc.
111 FOREST LAKES BOULEVARD
OLDSMAR, FLA. 34677
BOUNDARY – TOPOGRAPHIC – CONSTRUCTION STAKEOUT
PH.: (813) 854–1342 SLSURVEY@TAMPABAY.RR.COM
LB 4513

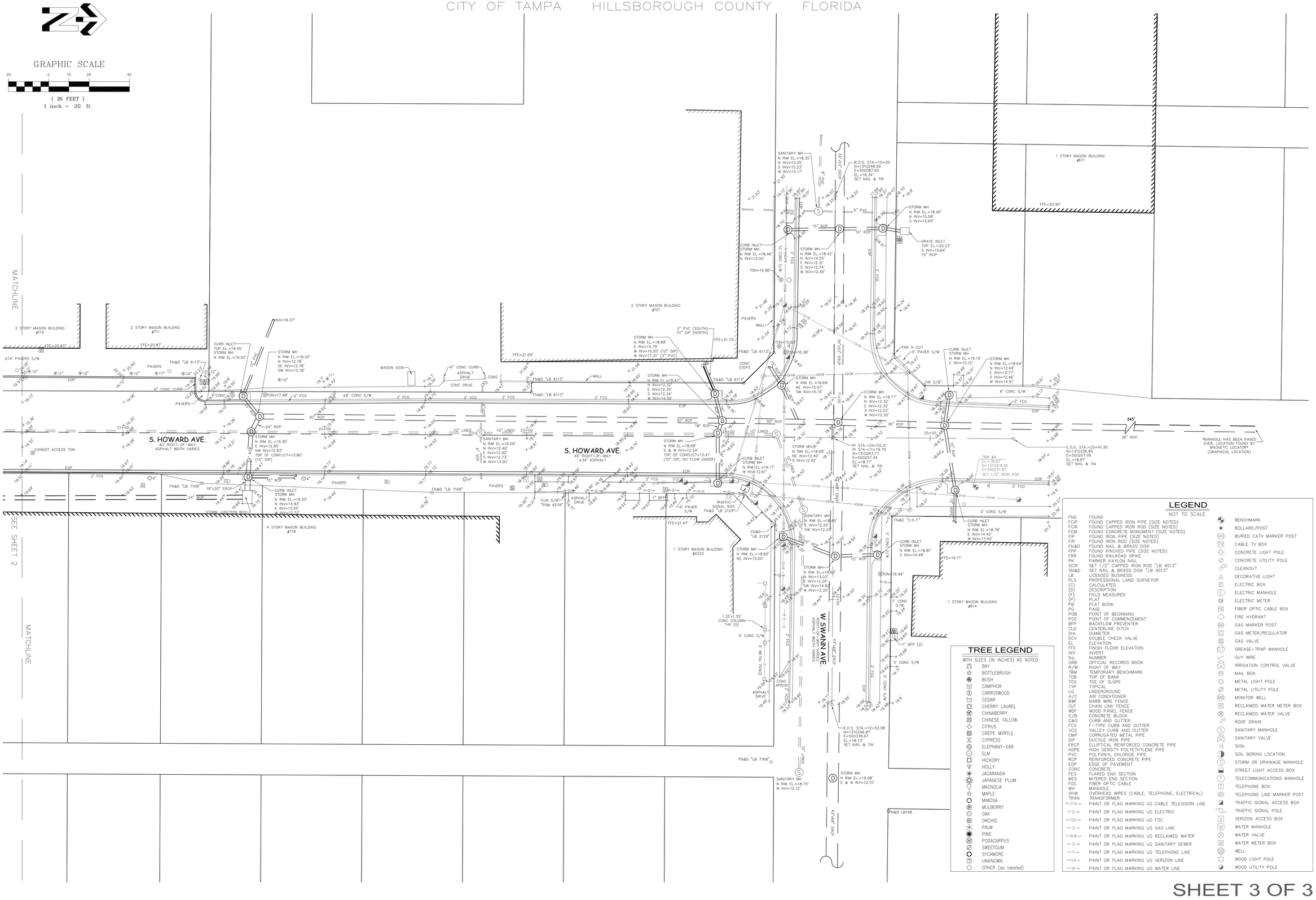
SECTIONS 23 & 26 TOWNSHIP 29 SOUTH RANGE 18 EAST

CITY OF TAMPA HILLSBOROUGH COUNTY FLORIDA

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.



TREE LEGEND

WITH SIZES (IN INCHES) AS NOTED

- BAY
- BOTTLEBRUSH
- BUSH
- CAMPHOR
- CARROTWOOD
- CEDAR
- CHERRY LAUREL
- CHINABERRY
- CHINESE TALLOW
- CITRUS
- CREPE MYRTLE
- CYPRESS
- ELEPHANT-EAR
- ELM
- HICKORY
- HOLLY
- JACARANDA
- JAPANESE PLUM
- MAGNOLIA
- MAPLE
- MIMOSA
- MULBERRY
- OAK
- ORCHID
- PALM
- PINE
- PODACARPUS
- SWEETGUM
- SYCAMORE
- UNKNOWN
- OTHER (as labeled)

LEGEND

NOT TO SCALE

FND	FOUND
FOIP	FOUND CAPPED IRON PIPE (SIZE NOTED)
FOIR	FOUND CAPPED IRON ROD (SIZE NOTED)
FCM	FOUND CONCRETE MONUMENT (SIZE NOTED)
FIP	FOUND IRON PIPE (SIZE NOTED)
FIR	FOUND IRON ROD (SIZE NOTED)
FN&D	FOUND NAIL & BRASS DISK
FPP	FOUND PINCHED PIPE (SIZE NOTED)
FRR	FOUND RAILROAD SPIKE
PK	PARKER KAYLON NAIL
SCIR	SET 1/2" CAPPED IRON ROD "LB 4513"
SN&D	SET NAIL & BRASS DISK "LB 4513"
LB	LICENSED BUSINESS
PLS	PROFESSIONAL LAND SURVEYOR
(C)	CALCULATED
(D)	DESCRIPTION
(F)	FIELD MEASURED
(P)	PLAT
PB	PLAT BOOK
PG	PAGE
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT
BFP	BACKFLOW PREVENTER
CLD	CENTERLINE DITCH
DIA.	DIAMETER
DCV	DOUBLE CHECK VALVE
EL.	ELEVATION
FFE	FINISH FLOOR ELEVATION
INV	INVERT
No.	NUMBER
ORB	OFFICIAL RECORDS BOOK
R/W	RIGHT OF WAY
TBM	TEMPORARY BENCHMARK
TOB	TOP OF BANK
TOS	TOE OF SLOPE
TYP	TYPICAL
UG	UNDERGROUND
A/C	AIR CONDITIONER
BWF	BARB WIRE FENCE
CLF	CHAIN LINK FENCE
WDF	WOOD PANEL FENCE
C/B	CONCRETE BLOCK
C&G	CURB AND GUTTER
FCG	F-TYPE CURB AND GUTTER
VCG	VALLEY CURB AND GUTTER
CMP	CORRUGATED METAL PIPE
DIP	DUCTILE IRON PIPE
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
RCP	REINFORCED CONCRETE PIPE
EOP	EDGE OF PAVEMENT
CONC	CONCRETE
FES	FLARED END SECTION
MES	MITERED END SECTION
FOC	FIBER OPTIC CABLE
MH	MANHOLE
OHW	OVERHEAD WIRES (CABLE, TELEPHONE, ELECTRICAL)
TRAN	TRANSFORMER
-CTV-	PAINT OR FLAG MARKING UG CABLE TELEVISION LINE
-E-	PAINT OR FLAG MARKING UG ELECTRIC
-FOC-	PAINT OR FLAG MARKING UG FOC
-G-	PAINT OR FLAG MARKING UG GAS LINE
-RCW-	PAINT OR FLAG MARKING UG RECLAIMED WATER
-S-	PAINT OR FLAG MARKING UG SANITARY SEWER
-T-	PAINT OR FLAG MARKING UG TELEPHONE LINE
-V-	PAINT OR FLAG MARKING UG VERIZON LINE
-W-	PAINT OR FLAG MARKING UG WATER LINE
	BENCHMARK
	BOLLARD/POST
CATV	BURIED CATV MARKER POST
TV	CABLE TV BOX
	CONCRETE LIGHT POLE
	CONCRETE UTILITY POLE
	CLEANOUT
	DECORATIVE LIGHT
E	ELECTRIC BOX
E	ELECTRIC MANHOLE
EM	ELECTRIC METER
FO	FIBER OPTIC CABLE BOX
	FIRE HYDRANT
GAS	GAS MARKER POST
G	GAS METER/REGULATOR
	GAS VALVE
GT	GREASE-TRAP MANHOLE
	GUY WIRE
IRCV	IRRIGATION CONTROL VALVE
	MAIL BOX
	METAL LIGHT POLE
	METAL UTILITY POLE
MW	MONITOR WELL
RI	RECLAIMED WATER METER BOX
RV	RECLAIMED WATER VALVE
d	ROOF DRAIN
S	SANITARY MANHOLE
	SANITARY VALVE
	SIGN
	SOIL BORING LOCATION
D	STORM OR DRAINAGE MANHOLE
	STREET LIGHT ACCESS BOX
T	TELECOMMUNICATIONS MANHOLE
T	TELEPHONE BOX
TMP	TELEPHONE LINE MARKER POST
	TRAFFIC SIGNAL ACCESS BOX
	TRAFFIC SIGNAL POLE
V	VERIZON ACCESS BOX
W	WATER MANHOLE
	WATER VALVE
W	WATER METER BOX
W	WELL
	WOOD LIGHT POLE
	WOOD UTILITY POLE

SHEET 3 OF 3

No.	Revisions	Date	By
1			
2			
3			
4			

Description

Project No. 15034
Field Book 285
Page 51-55

DRAWING# 15034.DWG
Checked by KOM
Drawn by JJB

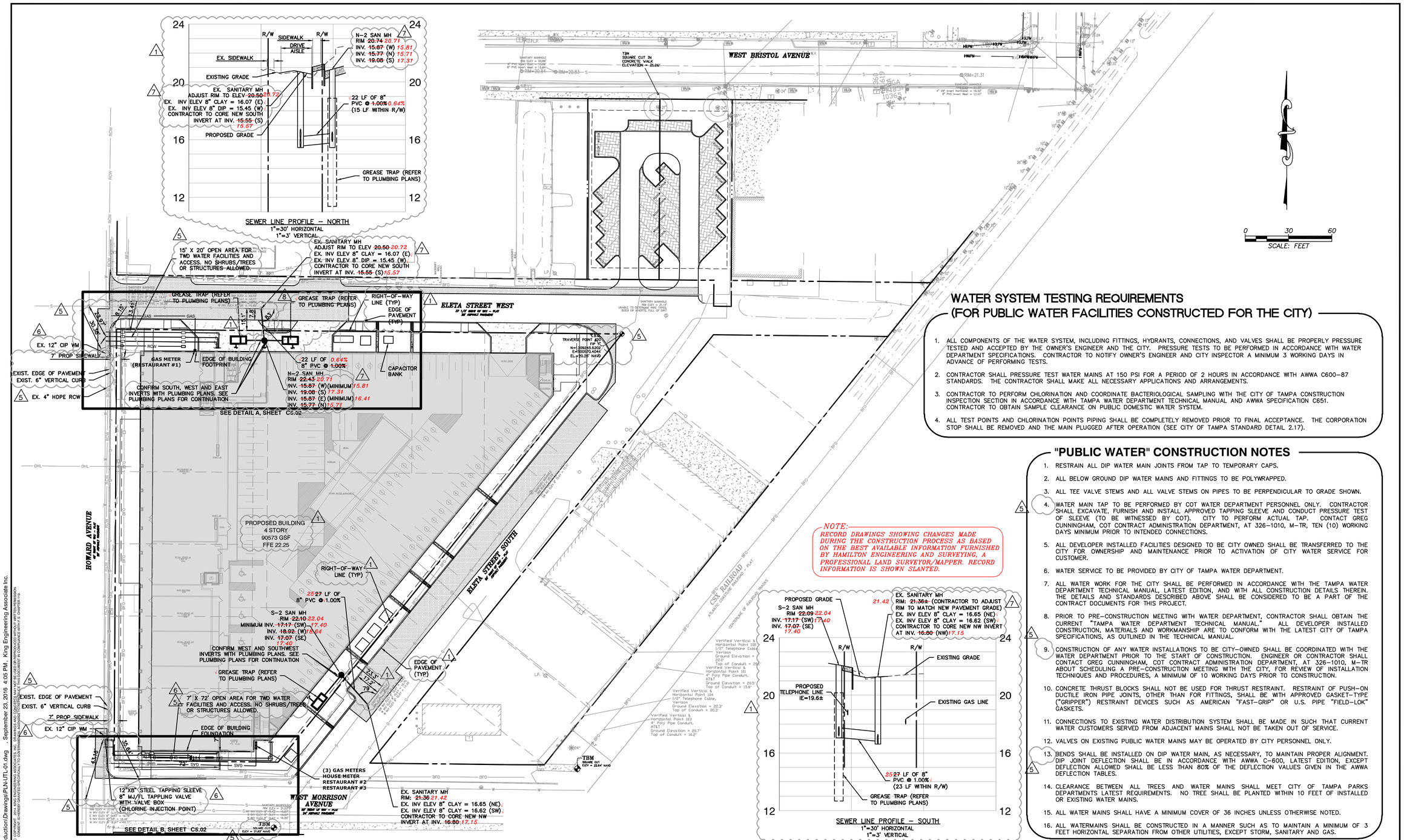
TOPOGRAPHIC SURVEY
S. HOWARD AVE., W. SWANN AVE. TO W. MORRISON AVE.

DATE OF FIELD SURVEY:9-23-15

PREPARED FOR: CITY OF TAMPA, STORMWATER DEPARTMENT

SUNCOAST LAND SURVEYING, Inc.
111 FOREST LAKES BOULEVARD
OLDSMAR, FLA. 34677
BOUNDARY - TOPOGRAPHIC - CONSTRUCTION STAKEOUT
PH: (813) 854-1342 SLSURVEY@TAMPABAY.RR.COM
LB 4513

Q.27 Howard Ave Mixed Use – Sanitary Sewer and Water Distribution Plan



WATER SYSTEM TESTING REQUIREMENTS
(FOR PUBLIC WATER FACILITIES CONSTRUCTED FOR THE CITY)

1. ALL COMPONENTS OF THE WATER SYSTEM, INCLUDING FITTINGS, HYDRANTS, CONNECTIONS, AND VALVES SHALL BE PROPERLY PRESSURE TESTED AND ACCEPTED BY THE OWNER'S ENGINEER AND THE CITY. PRESSURE TESTS TO BE PERFORMED IN ACCORDANCE WITH WATER DEPARTMENT SPECIFICATIONS. CONTRACTOR TO NOTIFY OWNER'S ENGINEER AND CITY INSPECTOR A MINIMUM 3 WORKING DAYS IN ADVANCE OF PERFORMING TESTS.
2. CONTRACTOR SHALL PRESSURE TEST WATER MAINS AT 150 PSI FOR A PERIOD OF 2 HOURS IN ACCORDANCE WITH AWWA C600–87 STANDARDS. THE CONTRACTOR SHALL MAKE ALL NECESSARY APPLICATIONS AND ARRANGEMENTS.
3. CONTRACTOR TO PERFORM CHLORINATION AND COORDINATE BACTERIOLOGICAL SAMPLING WITH THE CITY OF TAMPA CONSTRUCTION INSPECTION SECTION IN ACCORDANCE WITH TAMPA WATER DEPARTMENT TECHNICAL MANUAL AND AWWA SPECIFICATION C651. CONTRACTOR TO OBTAIN SAMPLE CLEARANCE ON PUBLIC DOMESTIC WATER SYSTEM.
4. ALL TEST POINTS AND CHLORINATION POINTS PIPING SHALL BE COMPLETELY REMOVED PRIOR TO FINAL ACCEPTANCE. THE CORPORATION STOP SHALL BE REMOVED AND THE MAIN PLUGGED AFTER OPERATION (SEE CITY OF TAMPA STANDARD DETAIL 2.17).

"PUBLIC WATER" CONSTRUCTION NOTES

1. RESTRAIN ALL DIP WATER MAIN JOINTS FROM TAP TO TEMPORARY CAPS.
2. ALL BELOW GROUND DIP WATER MAINS AND FITTINGS TO BE POLYWRAPPED.
3. ALL TEE VALVE STEMS AND ALL VALVE STEMS ON PIPES TO BE PERPENDICULAR TO GRADE SHOWN.
4. WATER MAIN TAP TO BE PERFORMED BY COT WATER DEPARTMENT PERSONNEL ONLY. CONTRACTOR SHALL EXCAVATE, FURNISH AND INSTALL APPROVED TAPPING SLEEVE AND CONDUCT PRESSURE TEST OF SLEEVE (TO BE WITNESSED BY COT). CITY TO PERFORM ACTUAL TAP. CONTACT GREG CUNNINGHAM, COT CONTRACT ADMINISTRATION DEPARTMENT, AT 326–1010, M–TR, TEN (10) WORKING DAYS MINIMUM PRIOR TO INTENDED CONNECTIONS.
5. ALL DEVELOPER INSTALLED FACILITIES DESIGNED TO BE CITY OWNED SHALL BE TRANSFERRED TO THE CITY FOR OWNERSHIP AND MAINTENANCE PRIOR TO ACTIVATION OF CITY WATER SERVICE FOR CUSTOMER.
6. WATER SERVICE TO BE PROVIDED BY CITY OF TAMPA WATER DEPARTMENT.
7. ALL WATER WORK FOR THE CITY SHALL BE PERFORMED IN ACCORDANCE WITH THE TAMPA WATER DEPARTMENT TECHNICAL MANUAL, LATEST EDITION, AND WITH ALL CONSTRUCTION DETAILS THEREIN. THE DETAILS AND STANDARDS DESCRIBED ABOVE SHALL BE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS FOR THIS PROJECT.
8. PRIOR TO PRE–CONSTRUCTION MEETING WITH WATER DEPARTMENT, CONTRACTOR SHALL OBTAIN THE CURRENT "TAMPA WATER DEPARTMENT TECHNICAL MANUAL." ALL DEVELOPER INSTALLED CONSTRUCTION, MATERIALS AND WORKMANSHIP ARE TO CONFORM WITH THE LATEST CITY OF TAMPA SPECIFICATIONS, AS OUTLINED IN THE TECHNICAL MANUAL.
9. CONSTRUCTION OF ANY WATER INSTALLATIONS TO BE CITY–OWNED SHALL BE COORDINATED WITH THE WATER DEPARTMENT PRIOR TO THE START OF CONSTRUCTION. ENGINEER OR CONTRACTOR SHALL CONTACT GREG CUNNINGHAM, COT CONTRACT ADMINISTRATION DEPARTMENT, AT 326–1010, M–TR ABOUT SCHEDULING A PRE–CONSTRUCTION MEETING WITH THE CITY, FOR REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES, A MINIMUM OF 10 WORKING DAYS PRIOR TO CONSTRUCTION.
10. CONCRETE THRUST BLOCKS SHALL NOT BE USED FOR THRUST RESTRAINT. RESTRAINT OF PUSH–ON DUCTILE IRON PIPE JOINTS, OTHER THAN FOR FITTINGS, SHALL BE WITH APPROVED GASKET–TYPE ("GRIPPER") RESTRAINT DEVICES SUCH AS AMERICAN "FAST–GRIP" OR U.S. PIPE "FIELD–LOK" GASKETS.
11. CONNECTIONS TO EXISTING WATER DISTRIBUTION SYSTEM SHALL BE MADE IN SUCH THAT CURRENT WATER CUSTOMERS SERVED FROM ADJACENT MAINS SHALL NOT BE TAKEN OUT OF SERVICE.
12. VALVES ON EXISTING PUBLIC WATER MAINS MAY BE OPERATED BY CITY PERSONNEL ONLY.
13. BENDS SHALL BE INSTALLED ON DIP WATER MAIN, AS NECESSARY, TO MAINTAIN PROPER ALIGNMENT. DIP JOINT DEFLECTION SHALL BE IN ACCORDANCE WITH AWWA C–600, LATEST EDITION, EXCEPT DEFLECTION ALLOWED SHALL BE LESS THAN 80% OF THE DEFLECTION VALUES GIVEN IN THE AWWA DEFLECTION TABLES.
14. CLEARANCE BETWEEN ALL TREES AND WATER MAINS SHALL MEET CITY OF TAMPA PARKS DEPARTMENTS LATEST REQUIREMENTS. NO TREE SHALL BE PLANTED WITHIN 10 FEET OF INSTALLED OR EXISTING WATER MAINS.
15. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 36 INCHES UNLESS OTHERWISE NOTED.
16. ALL WATERMAINS SHALL BE CONSTRUCTED IN A MANNER SUCH AS TO MAINTAIN A MINIMUM OF 3 FEET HORIZONTAL SEPARATION FROM OTHER UTILITIES, EXCEPT STORM, SANITARY AND GAS.

Q:\CIVIL\4979\000\000\Production\Drawings\PLN-UTL-01.dwg - September 23, 2016 4:05 PM - King Engineering Associate Inc.
© COPYRIGHT 2016 KING ENGINEERING ASSOCIATES, INC.
CONSENT IS HEREBY GRANTED SPECIFICALLY TO GOVERNMENTAL AGENCIES FOR REPRODUCTION OF THIS DOCUMENT IN COMPLIANCE WITH F.S. CHAPTER 119.

DESIGNED NLL
DRAWN JSH
CHECKED AGK
D.C.

THE SIGNATURE OF THE QUALITY CONTROL OFFICER IN THIS SPACE INDICATES THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND THAT CONSTRUCTION IS AUTHORIZED TO COMMENCE.

King ENGINEERING ASSOCIATES, INC.
4921 Memorial Highway
One Memorial Center, Suite 300
Tampa, Florida 33634
Phone 813 880-8881
Fax 813 880-8882
www.kingengineering.com
Engineering License #2610

HOWARD AVENUE MIXED USE
FOR
HOWARD & MORRISON, LLC
500 N. WESTSHORE BLVD, SUITE 750
TAMPA, FLORIDA 33609

NO.	DATE	DESCRIPTION	APPD BY
8.	01/08/2016	ADDED GREASE TRAP	NLL
7.	05/21/2015	CONTRACTIBILITY REVIEW	NLL
6.	04/24/2015	TWD COMMENTS	NLL
5.	04/16/2015	TWD COMMENTS	NLL
4.	04/02/2015	COT COMMENTS	NLL
3.	03/03/2015	COT COMMENTS	NLL
2.	02/06/2015	COT COMMENTS	NLL
1.	01/20/2015	COT REVISIONS	NLL
6.	02/29/2016	ADDED RECORD DATA	

SANITARY SEWER AND WATER DISTRIBUTION PLAN

NICOLE L. LYNN, P.E.
9/26/2016
FL P.E. No. 71382

JOB NO. 4979-000-000
DATE: 06/04/2014
SCALE: AS SHOWN
SHEET NO. C5.01
RECORD DRAWING
SEPTEMBER 26, 2016

Q.28 Howard Ave Flooding Relief (SW2017-01) (Marjory Ave Pump Station

SW 2017-01

SURVEYOR'S REPORT

TYPE OF SURVEY:
AS-BUILT SURVEY
FOR HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

MAP OF SURVEY:
THE SURVEY MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE MAP OF SURVEY SHEETS 01 OF 08 THRU SHEETS 08 OF 08.

LEGAL DESCRIPTION:
NOT APPLICABLE.

ACCURACY:
1. ALL MEASUREMENTS, DISTANCES, ELEVATIONS AND FEATURES WERE PERFORMED IN STRICT ACCORDANCE WITH THE STANDARDS OF PRACTICE SET FORTH IN CHAPTER 5J-17 PURSUANT TO SECTION 427.027 FLORIDA STATUTES.

2. METHODS FOR ALL CONTROL MEASUREMENTS WERE MADE WITH A TRANSIT AND STEEL TAPE, OR DEVICES WITH EQUIVALENT OR HIGHER DEGREES OF ACCURACY.

3. THE ACCURACY STANDARD USED FOR THIS SURVEY, AS CLASSIFIED IN THE STANDARDS OF PRACTICE 5J-17 F.A.C., IS "COMMERCIAL HIGH RISK". THE MINIMUM RELATIVE DISTANCE ACCURACY FOR THIS TYPE OF SURVEY IS 1 FOOT IN 10,000 FEET. THIS SURVEY IS BASED ON REPETITIVE RTK GPS AND/ OR ROBOTIC TOTAL STATION OBSERVATIONS ON MULTIPLE PROJECT HORIZONTAL AND VERTICAL CONTROL POINTS TO OBTAIN A REDUNDANCY OF MEASUREMENT. THE HORIZONTAL AND VERTICAL CLOSURE ACHIEVED FOR THIS SURVEY, EXCEEDED THE MINIMUM ACCURACY REQUIREMENTS.

DATA SOURCES:
1. CONSTRUCTION PLANS "HOWARD AVENUE FLOODING RELIEF" PREPARED BY CITY OF TAMPA DEPARTMENT OF TRANSPORTATION AND STORMWATER SERVICES, TELEPHONE NO. (813) 274-8333, DATED 12-15-16, WERE UTILIZED IN THE PREPARATION OF THIS SURVEY.

2. ALL ELEVATIONS SHOWN HEREON ARE IN FEET AND ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). PARENT BENCHMARK, HILLSBOROUGH COUNTY BENCHMARK "VA-922" HAVING AN ELEVATION OF 20.68 FEET. (DATA SOURCES 1).

3. BEARINGS AND COORDINATES SHOWN HERE ON AND ON THE MAP OF SURVEY ARE IN FEET AND NOT REFERENCED TO A PUBLISHED COORDINATE SYSTEM (ASSUMED) (DATA SOURCES 1).

4. ONSITE HORIZONTAL AND VERTICAL CONTROL POINTS UTILIZED FOR THIS SURVEY: CONTROL POINT 1, FOUND NAIL AND DISK "NO ID" NORTHING 1307591.32 FEET, EASTING 500156.76 FEET, ELEVATION = 19.04 FEET AND CONTROL POINT 2, FOUND NAIL AND DISK "NO ID", NORTHING 1307949.70 FEET, EASTING 500133.12 FEET, ELEVATION = 21.43 FEET, THE BASIS OF BEARING BEING N.03°46'22"W. BETWEEN SAID CONTROL POINTS 1 AND 2 (DATA SOURCES 1).

LIMITATIONS:
1. PURPOSE OF SURVEY: TO OBTAIN HORIZONTAL AND VERTICAL DIMENSIONAL DATA SO THAT CONSTRUCTED IMPROVEMENTS MAY BE LOCATED AND DELINEATED.

2. LAST FIELD DATE OF SURVEY: 08/03/2017 AS SHOWN IN FIELD BOOK 526, PAGES 10 AND 11.

3. THE SCREENED INFORMATION SHOWN ON THE MAP OF SURVEY IS PER PLAN (DATA SOURCES 1) AND FOR COMPARISON PURPOSES ONLY AND IS NOT A PART OF THE AS-BUILT INFORMATION. THE **BOLD DARK PRINT AND LINE WORK** SHOWN HERE ON IS AS-BUILT INFORMATION PREPARED BY FERGUSON LAND SURVEYORS, PLLC.

4. THIS IS NOT A BOUNDARY OR RIGHT-OF-WAY SURVEY.

5. PRINTED DIMENSIONS SHOWN ON THE SURVEY SUPERSEDE SCALED DIMENSIONS. THERE MAY BE ITEMS DRAWN OUT OF SCALE TO GRAPHICALLY SHOW THEIR LOCATION.

6. USE OF THIS SURVEY BY ANYONE OTHER THAN THOSE PREPARED FOR OR CERTIFIED TO, WILL BE THE RE-USERS SOLE RISK WITHOUT LIABILITY TO THE SURVEYOR.

7. SHOWN ANYWHERE ON THIS SURVEY, THE WORD "CERTIFY" IS UNDERSTOOD TO BE AN EXPRESSION OF A PROFESSIONAL OPINION BASED UPON THE SURVEYOR'S BEST KNOWLEDGE, INFORMATION AND BELIEF, AND THAT IT CONSTITUTES NEITHER A GUARANTEE NOR A WARRANTY.

BOUNDARY INCONSISTENCIES:
NOT APPLICABLE.

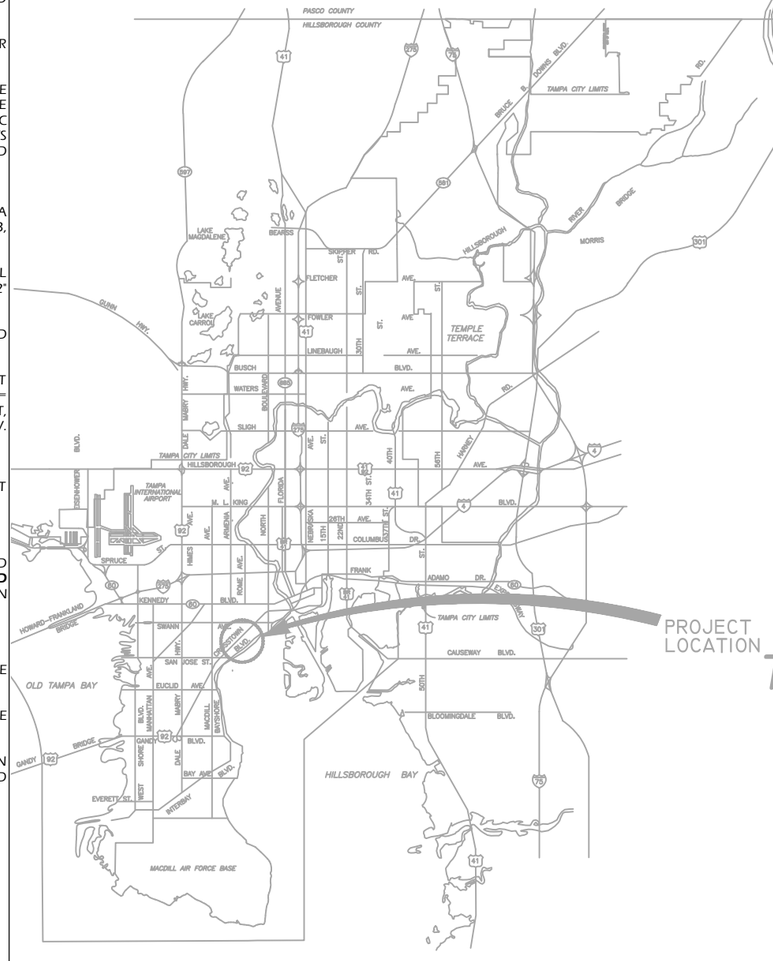
EASEMENTS/RIGHT-OF-WAY:
NOT APPLICABLE.

PREPARED FOR AND CERTIFIED TO:
DALLAS1
10328 MAIN STREET
P.O. BOX 249
THONOTOSASSA, FL 33592
TEL: (813) 986-1922

AND

CITY OF TAMPA
DEPARTMENT OF TRANSPORTATION AND STORMWATER SERVICES
306 E JACKSON STREET
TAMPA, FL 33602
TEL: (813) 274-8721

SURVEYOR AND MAPPER IN RESPONSIBLE CHARGE:
TERRY D. FERGUSON
PROFESSIONAL SURVEYOR AND MAPPER
LICENSE NUMBER LS #4535
STATE OF FLORIDA
TEL: (727) 230-9606



CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

DEPARTMENT OF
TRANSPORTATION AND STORMWATER SERVICES
STORMWATER ENGINEERING DIVISION

PLANS FOR
HOWARD AVENUE
FLOODING RELIEF

AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 01 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

THIS MAPPING CONFORMS TO STANDARDS OF PRACTICE FOR AN AS-BUILT SURVEY AS SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17 PURSUANT TO SECTION 427.027 FLORIDA STATUTES.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPERS. ADDITIONS OR DELETIONS TO SURVEY MAPS BY ANYONE OTHER THAN THE SIGNING SURVEYORS IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING SURVEYOR.

TERRY D. FERGUSON, P.S.M.
FLORIDA SURVEYORS REGISTRATION LS NO. 4535

AS-BUILT PLANS

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

DES: MTM
DRN: ME
CKD:
DATE:

No.	DATE	REVISIONS
3		
2		
1		

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

COVER SHEET

SHEET 1 OF 17

P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Cover Index & ConstNotes.dwg, Cover, 8/4/2017 11:27:56 AM

LEGEND

	UP to 18" & SMALLER	24" & LARGER
EX STORMWATER		
FORCE MAIN		
PIPES & MANHOLES		
CATCH BASIN, GRATE		
DITCHES, SWALES		
PROP STORMWATER		
FORCE MAIN		
PIPES & MANHOLES		
OTHER UTILITIES		
SAN SEWER & MANHOLES		
WATER LINE		
GAS LINE		
ELECTRICAL CABLE or DUCT		
TELEPHONE CABLE or DUCT		
TV CABLE		
VALVE		
HYDRANT		
CLEAN OUT		
EXISTING WYE		
POWER POLE		
TELEPHONE POLE		
GUY POLE		
GUY WIRE		
VALVE VAULT		
WATER METER		
ELECTRICAL MANHOLE or VAULT		
TELEPHONE MANHOLE or VAULT		
TRAFFIC BOX or VAULT		
OTHER FEATURES		
RIGHT of WAY LINE	R/W	
EDGE of PAVEMENT		
BUILDING LIMIT	1236	
PROPERTY OWNERSHIP	Z	
FENCE		
CONIFER	6"	
PALM	8"	
OAK	10"	
OTHER	12"	
SHRUB		
HEDGE		
RAILROAD TRACKS		
IRON PIPE		
CONCRETE MONUMENT		

ABBREVIATIONS

TOP of PIPE	TP
INVERT ELEVATION	IE or INV EL
RIGHT of WAY	R/W
MANHOLE	MH
POLYVINYL CHLORIDE PIPE	PVCP
VITRIFIED CLAY PIPE	VCP
ADVANCED DRAINAGE SYSTEM	ADS
DUCTILE IRON PIPE	DIP
REINFORCED CONCRETE PIPE	RCP
CONCRETE PIPE	CP
APPROXIMATE LOCATION	AL
BENCH MARK	BM
POINT of INTERSECTION	PI

INDEX

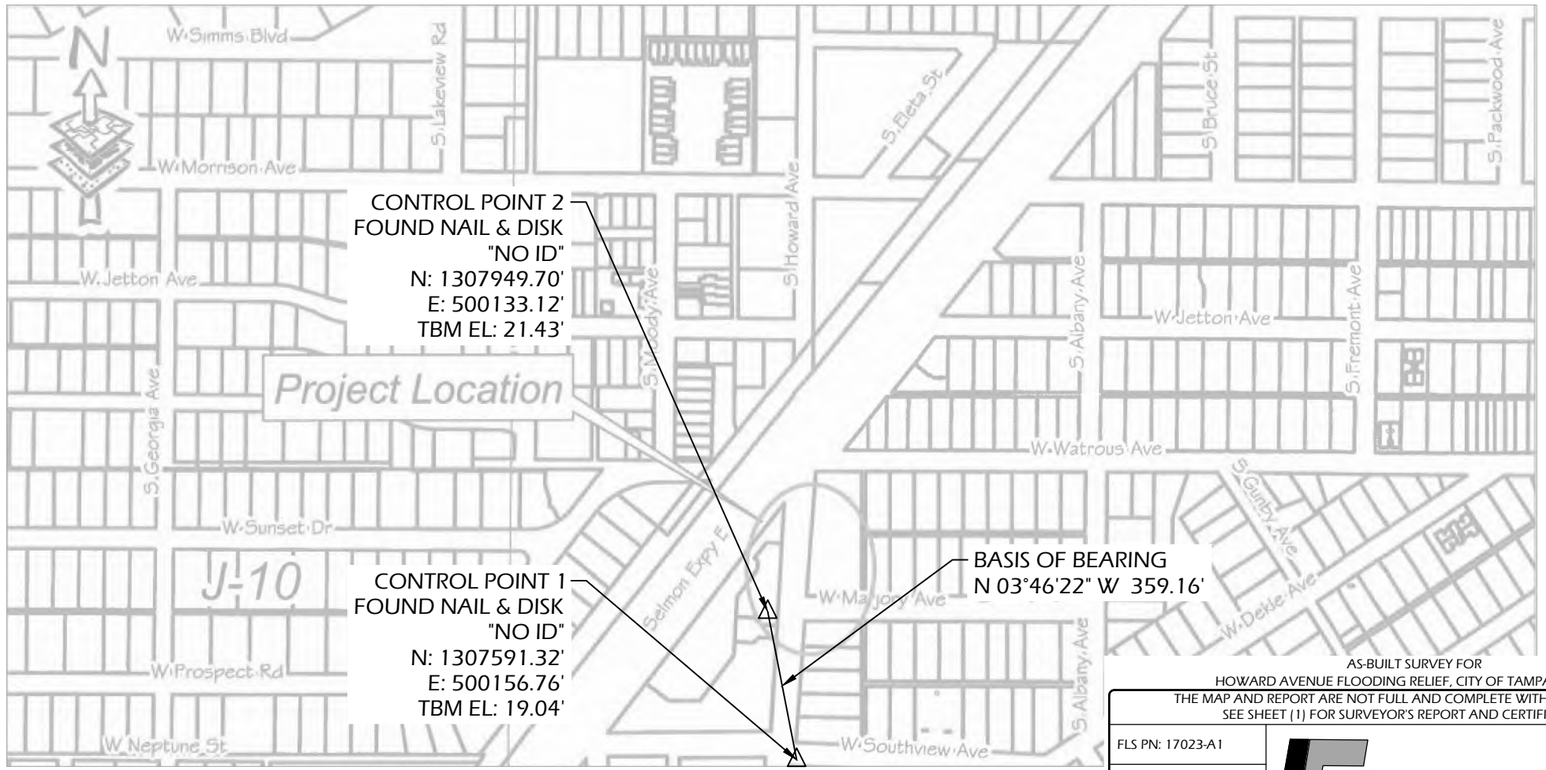
No.	DESCRIPTION
1	COVER SHEET
2	LEGEND, INDEX, AND MAP
3–4	GENERAL AND STRUCTURAL NOTES
5–6	EXISTING CONDITION
7–10	CONSTRUCTION PLAN & PROFILE
11–12	PUMP STATION/TRENCH DRAIN SITE PLANS
13–17	PUMP STATION & MISCELLANEOUS DETAILS
S1–S2	STRUCTURAL DETAILS

SW 2017-01

AS-BUILT PLANS

AS-BUILT LEGEND

N	NORTHING
E	EASTING
EL	ELEVATION
TBM	TEMPORARY BENCHMARK
LF	LINEAR FEET
FM	FORCE MAIN
HDPE	HIGH DENSITY POLYETHYLENE
DIP	DUCTILE IRON PIPE
PVC	POLYVINYL CHLORIDE
ARV	AIR RELEASE VALVE
T.O.P.	TOP OF PIPE
T.O.N.	TOP OF NUT
CONC	CONCRETE



LOCATION MAP

AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 02 OF 08
806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128		

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN:
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

HOWARD AVENUE
FLOODING RELIEF

SHEET 2 OF 17

P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Cover Index & ConstNotes.dwg, Index: 8/4/2017 11:27:56 AM

SW 2017-01

AS-BUILT PLANS

MATCH LINE STA. 43+00

8" HDPE FM
STA: 42+95.65 , 20.32' LT
N: 1308061.77'
E: 500151.99'
T.O.P. EL: 13.81'

CONC MIAMI CURB

4' CONC SHOULDER

STA. 42+95 BEGIN MIAMI GUTTER(SEE DETAILS THIS SHEET)

STA. 42+90 END 6" CONC. DRIVEWAY & SIDEWALK START TRANSITION TO MIAMI GUTTER

CONC DRIVE

6' CONC WALK

8" HDPE FM
STA: 42+42.20 , 20.39' LT
N: 1308008.48'
E: 500148.01'
T.O.P. EL: 14.44'

TOP EL.=15.10

STA. 42+15 START 6" CONC. DRIVEWAY & SIDEWALK END CONC. "D" CURB & 4" CONC. SIDEWALK

REPLACE 4" CONCRETE SIDEWALK & LANDING TO EXPANSION BREAK. INSTALL TYPE "D" CONC. CURB

STA. 42+00, 20'± LT. TRANSITION FROM 8" PVC TO 8" HDPE TOP EL.=15.25

DO NOT DISTURB CONCRETE

8" FM TRANSITION
STA: 41+99.78 , 20.39' LT
N: 1307966.16'
E: 500144.92'
T.O.P. EL: 14.82'

M.E.G.

8"-90° D.I. BEND @ 41+90, 18'± RT.
TOP EL.=15.25

CONC CURB

41+81.86 (S. HOWARD)
10+00.00 (W. MARJORY)
N 1307946.81
E 500163.95

PROP. 8" PVC C900 PIPE

8" 90° FM BEND
STA: 41+88.52 , 20.39' LT
N: 1307954.93'
E: 500144.09'
T.O.P. EL: 14.92'

TRENCH DRAIN

TRENCH DRAIN

LIMITS OF MILL & OVERLAY

GRADES IN MARJORY AS NOTED

8" 90° FM BEND
STA: 41+88.62 , 17.61' RT
N: 1307952.26'
E: 500182.00'
T.O.P. EL: 14.92'

CONC CURB

6' CONC WALK

PUMP STATION
N: 1307924.03'
E: 500181.16'
RIM EL: 20.37'

2 - 8" 45° FM BENDS
STA: 41+70.74 , 18.67' RT
N: 1307934.26'
E: 500181.68'
T.O.P. EL: 16.13'
T.O.P. EL: 14.64'

CONC CURB

TRANS. INLET THROAT & TOP ELEV. TO EXIST. PED. RAMP

S-1 PROP. C.O.T. TYPE 2 INLET MODIFIED
TOP EL.= ~~20.0~~ 20.37'
THROAT= 18.90
BOTTOM= ~~13.0~~ 13.18'
SEE PUMP DETAILS SH. 13,14&15

MARJORY AVE.

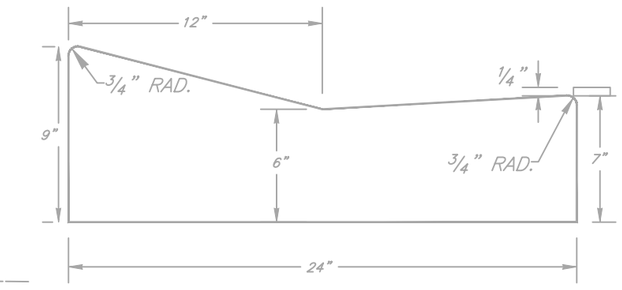
11+00

S 89°48'40"E 234.65'

TREE BARRICADE

J-11
SEC. 26 T29S R18E

0 20
1"=20'



TYPE "A"
MIAMI CURB & GUTTER

A) CLASS 1 CONCRETE 3,000 P.S.I. AT 28 DAYS.

B) CURB AND GUTTER SHALL MEET THE SPECIFICATIONS ESTABLISHED BY FLORIDA D.O.T. STANDARDS INDEX NO. 300, LATEST REVISION

AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 03 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN: ME
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

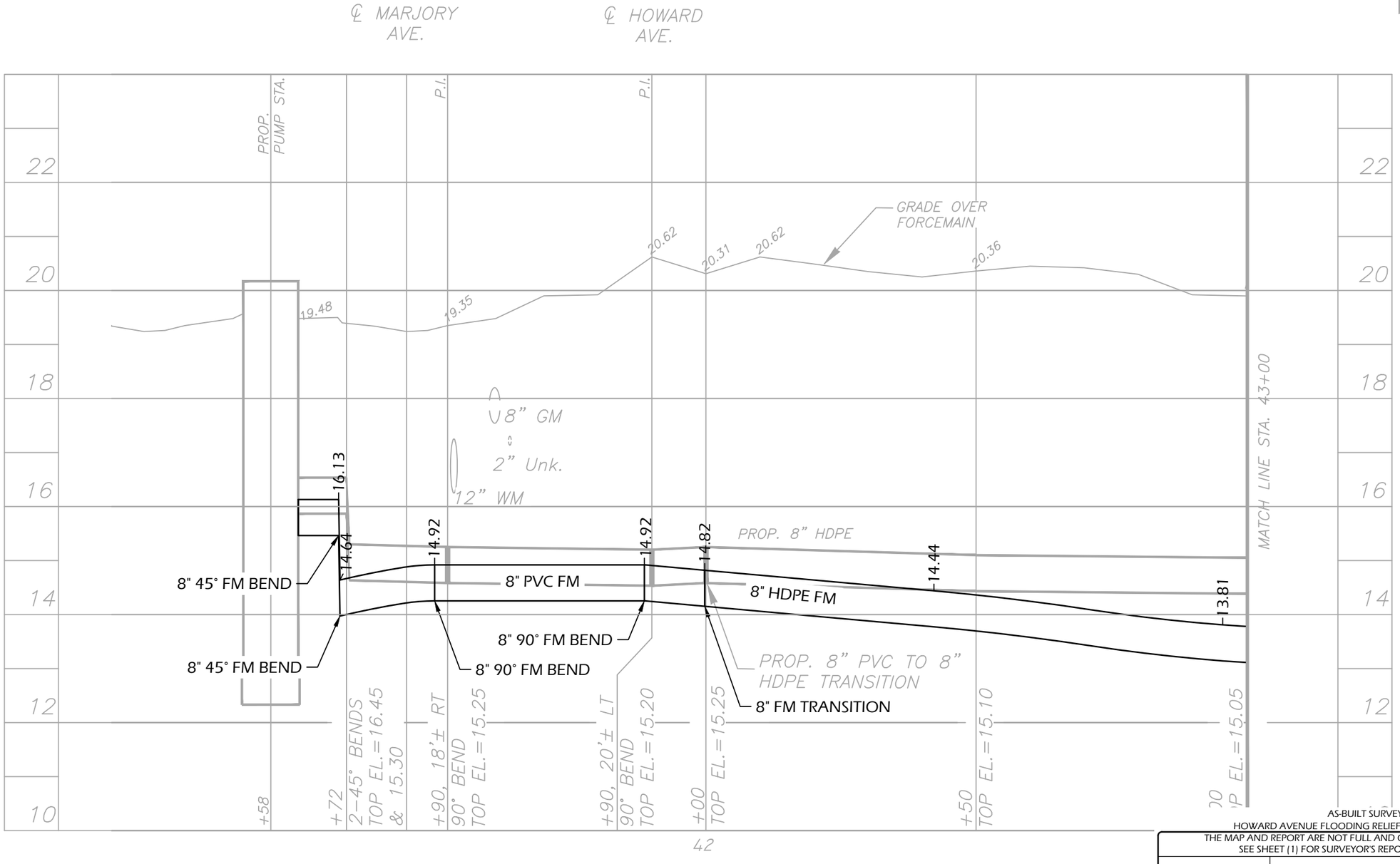
HOWARD AVE. FLOODING RELIEF
CONSTRUCTION PLANS

SHEET 7 OF 17

P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Howard & Marjory 101416.dwg, 8/4/2017 11:28:00 AM

SW 2017-01

AS-BUILT PLANS



AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 04 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN: ME
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

HOWARD AVE. FLOODING RELIEF

CONSTRUCTION PROFILE

SHEET 8 OF 17

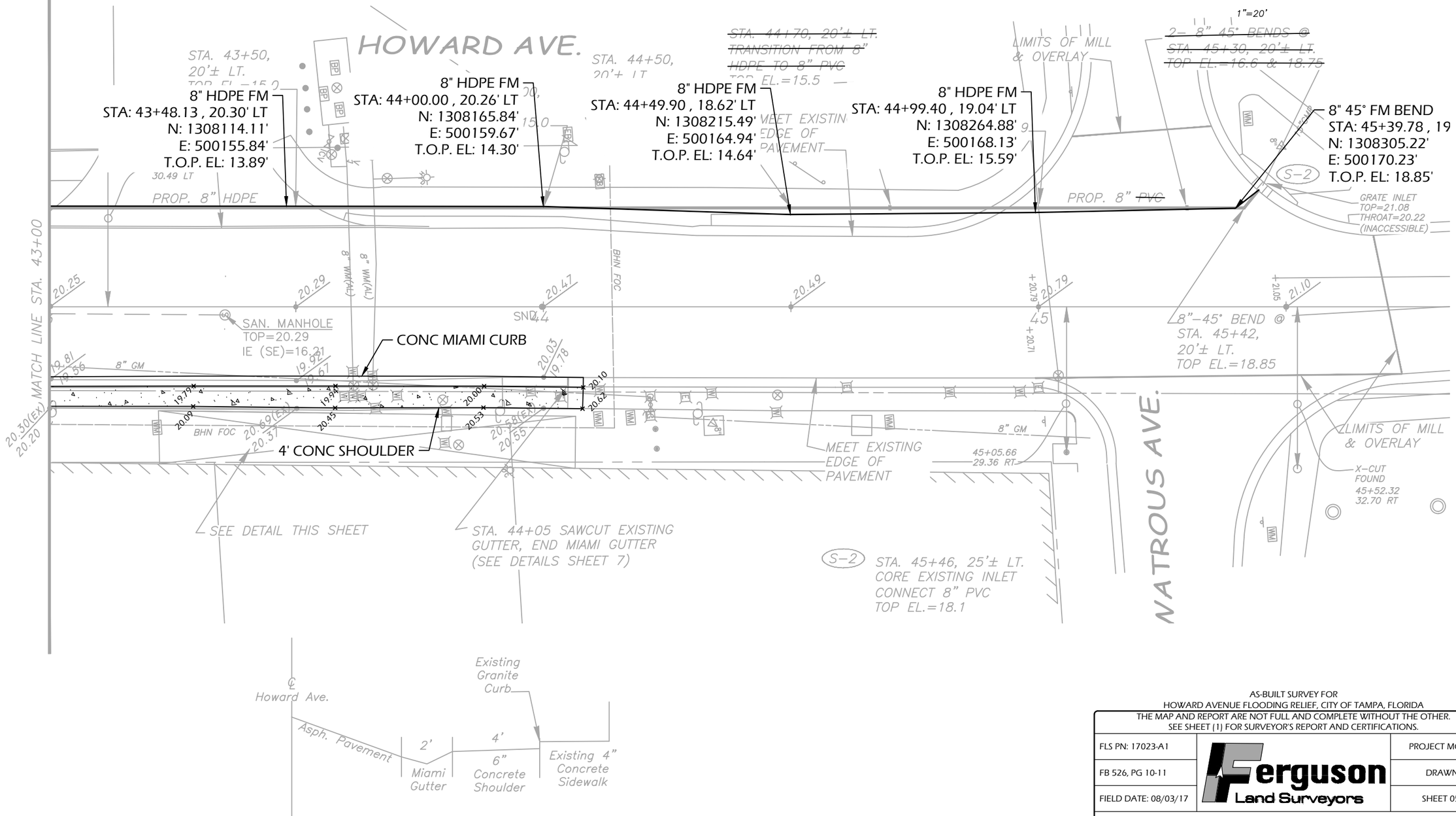
P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Howard & Marjory 101416.dwg, Marjory-Howard Prof, 8/4/2017 11:28:01 AM

SW 2017-01

AS-BUILT PLANS

J-11
SEC. 26 T29S R18E

0 20
1"=20'



AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 05 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN:
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

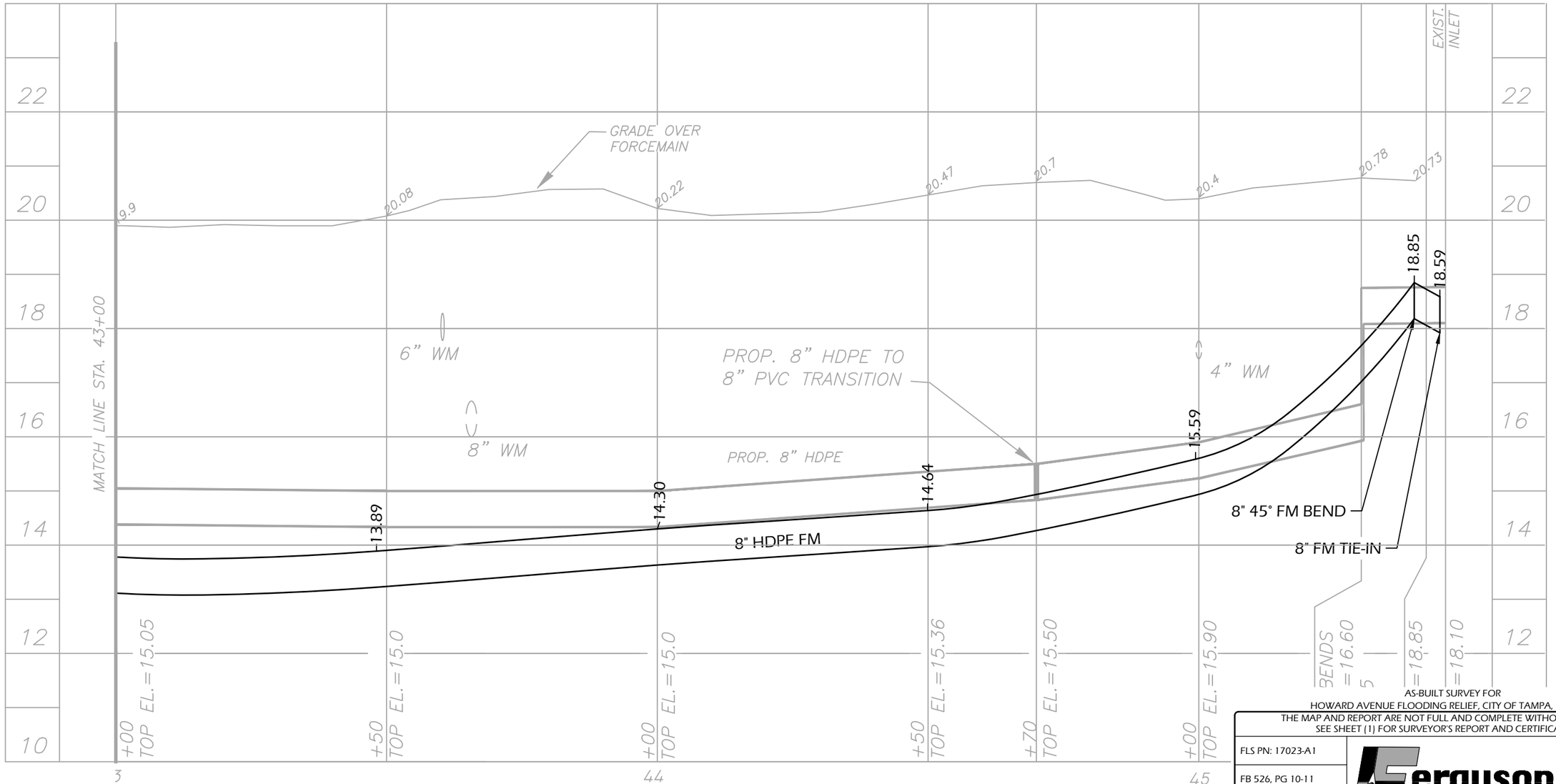
HOWARD AVE. FLOODING RELIEF
CONSTRUCTION PLANS

SHEET 9 OF 17

P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Howard & Marjory 101416.dwg, Howard Ave Const. Plans, 8/4/2017 11:28:01 AM

SW 2017-01

AS-BUILT PLANS



AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 06 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN:
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

HOWARD AVE. FLOODING RELIEF

CONSTRUCTION PROFILE

SHEET 10 OF 17

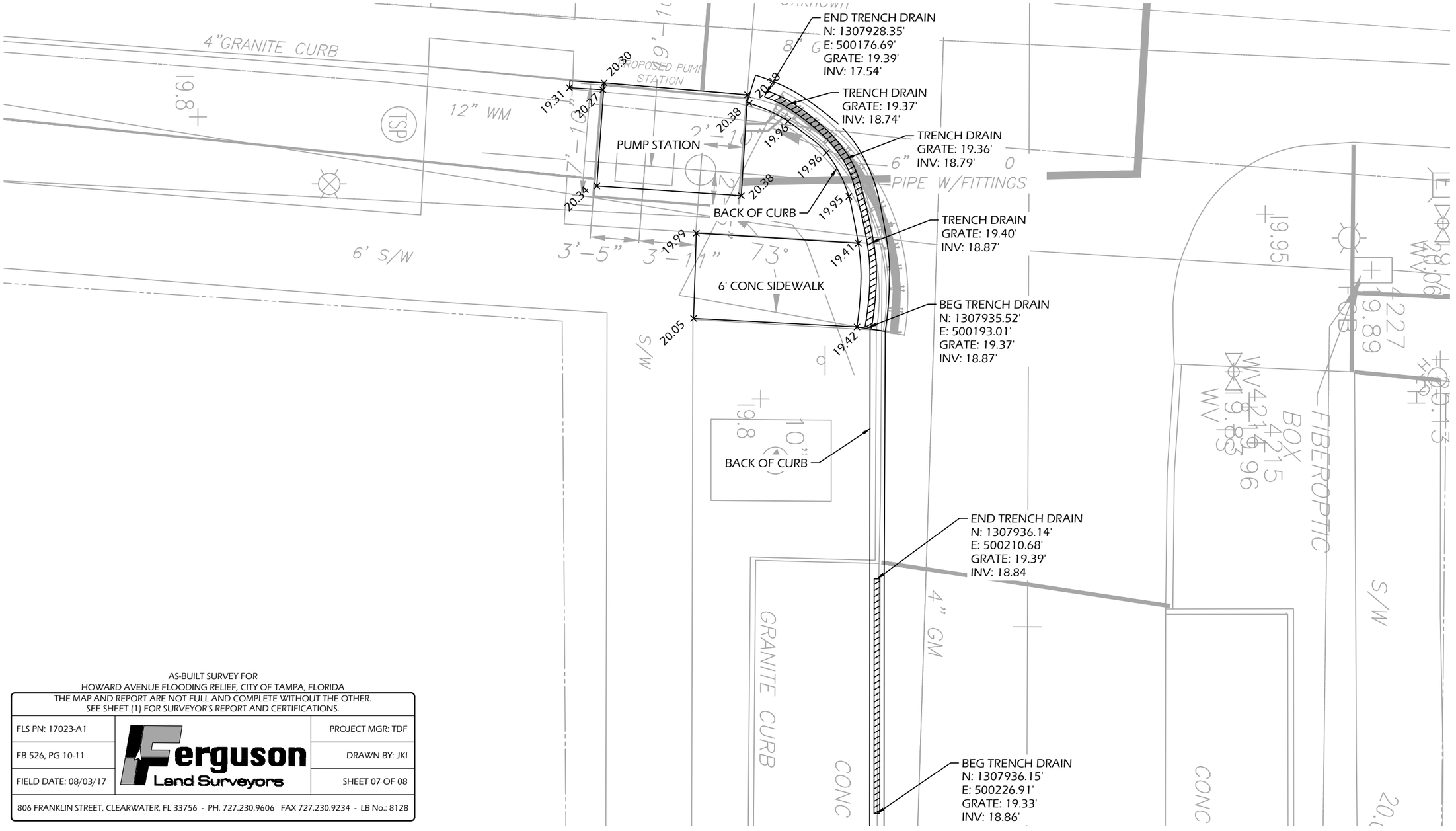
P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Howard & Marjory 10141116.dwg, Howard Prof, 8/4/2017 11:28:02 AM

SW 2017-01

AS-BUILT PLANS

J-11
SEC. 26 T29S R18E

N.T.S.



AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 07 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN:
CKD:
DATE:

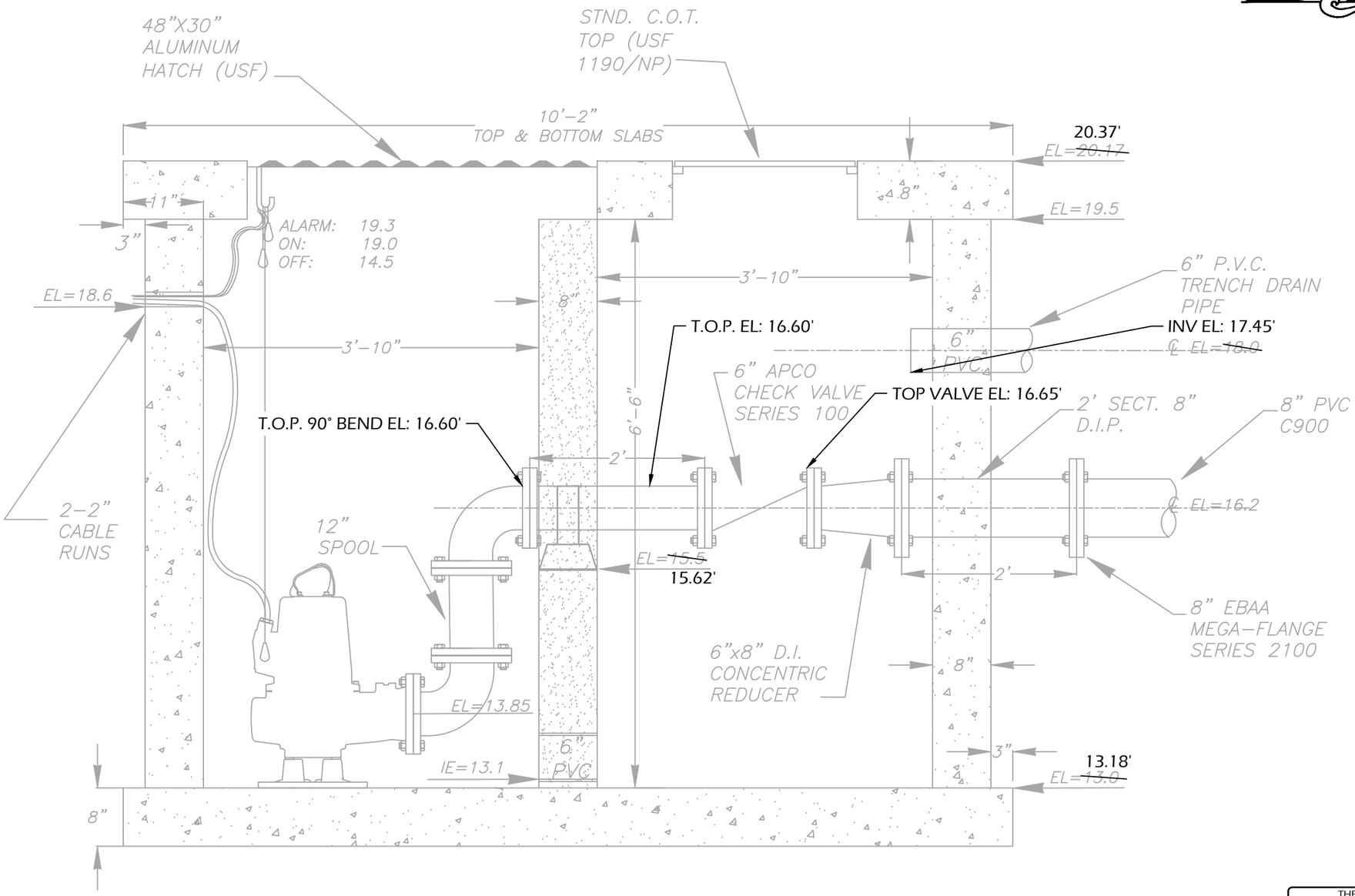
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

HOWARD AVE. FLOODING RELIEF

PROPOSED TRENCH DRAIN SITE PLANS

SHEET 12 OF 17

P:\PRODUCTION_Projects\2017\17023 - COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\As-builts\Howard & Marjory Site Plan.dwg, Site Plan w Trench Drain, 8/4/2017 11:28:04 AM



PROFILE

Scale: 3/4" = 1'-0"

NOTE:
PUMP, PUMP BASE, FLOATS ALUMINUM HATCH, & CONTROL PANEL TO BE PROVIDED BY CITY. CONTRACTOR RESPONSIBLE TO INSTALL & CONNECT AS DEPICTED.

AS-BUILT SURVEY FOR
HOWARD AVENUE FLOODING RELIEF, CITY OF TAMPA, FLORIDA

THE MAP AND REPORT ARE NOT FULL AND COMPLETE WITHOUT THE OTHER.
SEE SHEET (1) FOR SURVEYOR'S REPORT AND CERTIFICATIONS.

FLS PN: 17023-A1	Ferguson Land Surveyors	PROJECT MGR: TDF
FB 526, PG 10-11		DRAWN BY: JKI
FIELD DATE: 08/03/17		SHEET 08 OF 08

806 FRANKLIN STREET, CLEARWATER, FL 33756 - PH. 727.230.9606 FAX 727.230.9234 - LB No.: 8128

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

DES: MTM
DRN: MTM
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

HOWARD AVE. FLOODING RELIEF

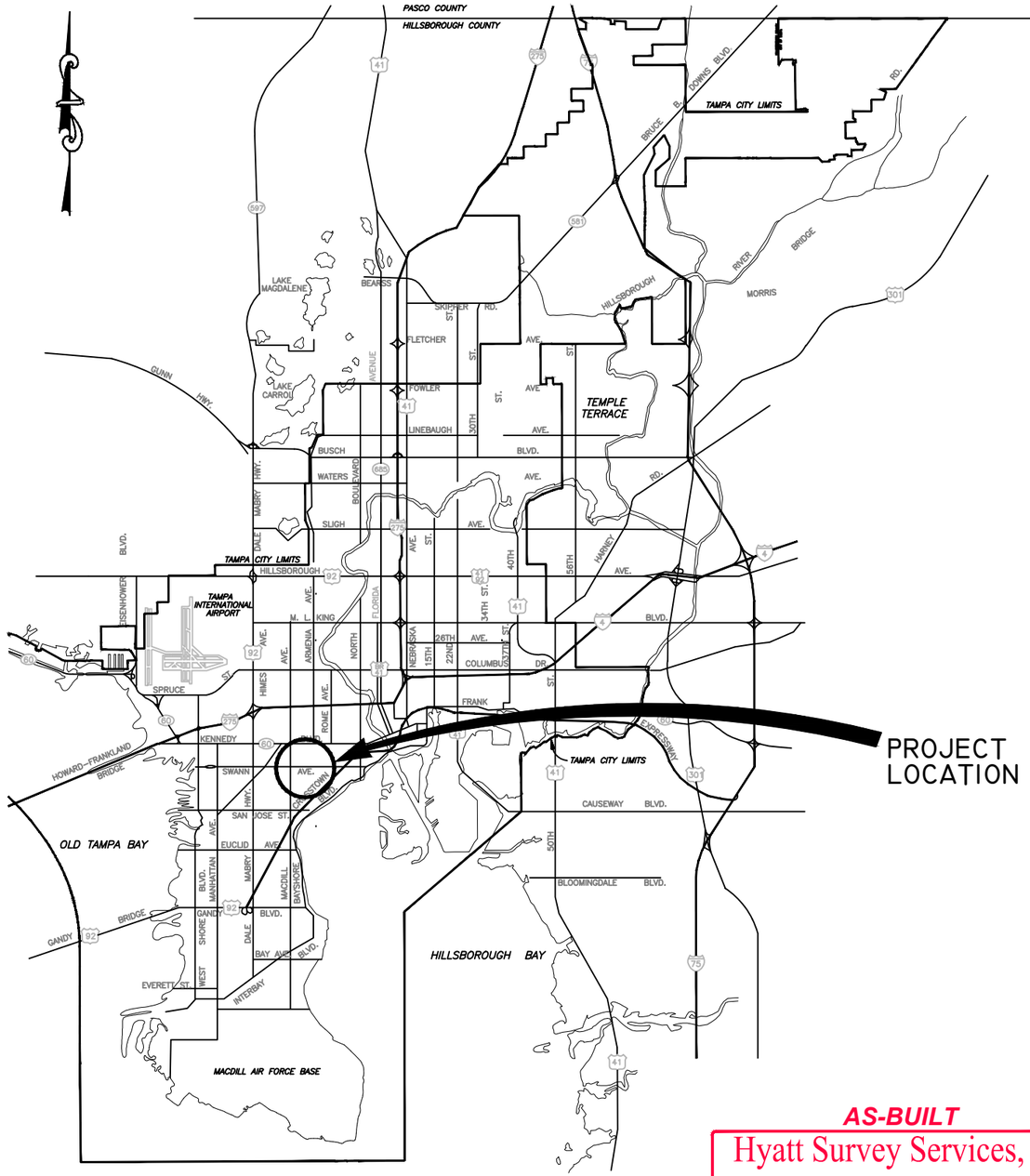
PUMP STATION DETAILS

SHEET 14 OF 17

P:\PRODUCTION_Projects\2017\17023-COT Howard and Marjory Avenues Pumping Station (Hillsborough)\dwg\AS-Builts\Howard & Marjory Pump Station.dwg, H&M ProfView, 8/4/2017 11:28:06 AM

Q.29 Swann Ave Drainage Improvements (SW2018-05)

SW 2018-05



CITY of TAMPA

CITY OF TAMPA FLORIDA
MASCOTTE
ORGANIZED JULY 15 1887

DEPARTMENT OF
TRANSPORTATION AND STORMWATER SERVICES
STORMWATER ENGINEERING DIVISION

PLANS FOR
SWANN AVENUE
DRAINAGE IMPROVEMENTS

AS-BUILT

Hyatt Survey Services, Inc.
11007 8TH AVENUE EAST BRADENTON, FLORIDA 34212
PH. (941) 748-4693 FAX (941) 744-1643 LB No.: 7203

CAD FILE:17-2151AB	PROJ MAN: CBW	DRAWN BY: MIJ	CHECKED BY: RPH
PROJ.: 17-2151	FB/PG: VAR.	FIELD DATE: 08/29/17	SCALE: AS SHOWN

THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

RUSSELL P. HYATT, P.S.M.
FLORIDA SURVEYORS REGISTRATION NO. 5303

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

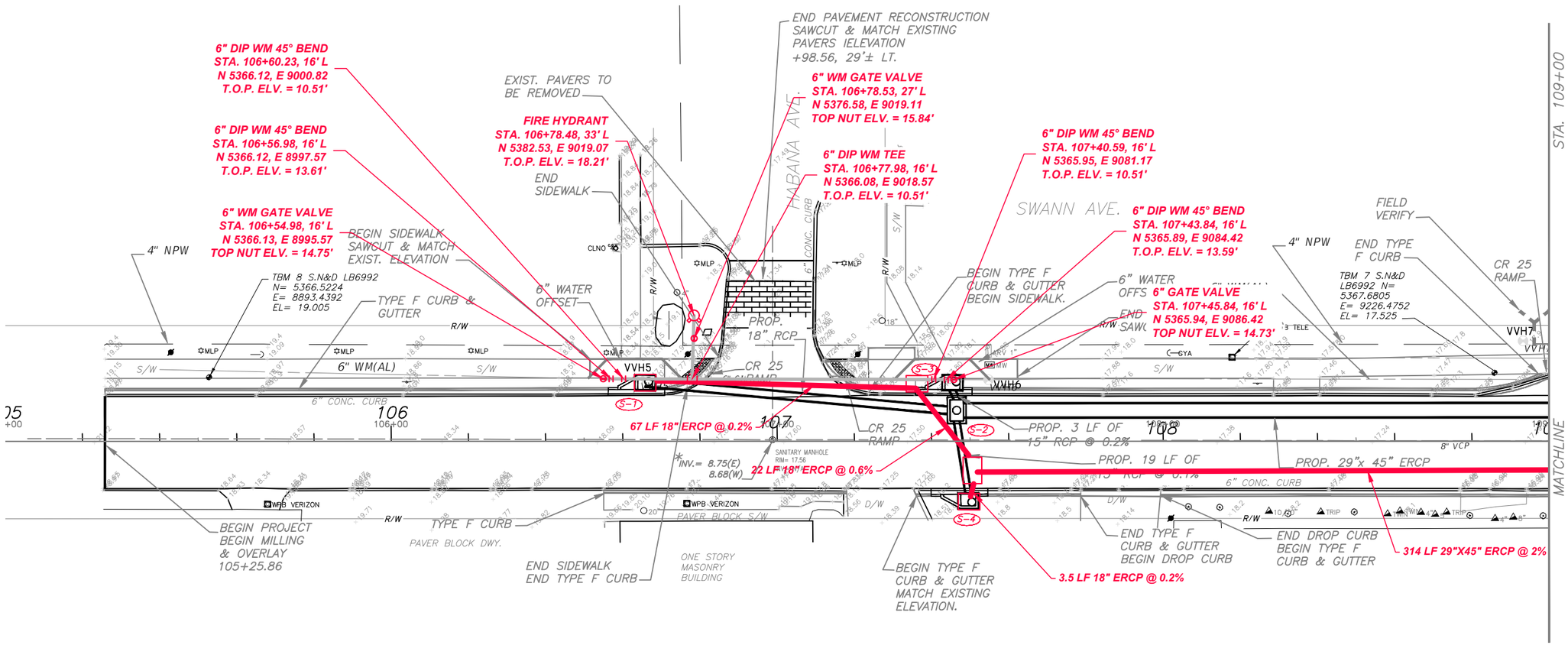
DES:
DRN:
CKD:
DATE:

No.	DATE
3	
2	
1	

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

COVER SHEET

SHEET 1 OF 16



(S-1) STA. 106+65.80, 15.17' LT.
PROP. CURB INLET TYPE 2
~~18" RCP INV. 12.97 (E)~~
EOP EL 17.40

S-1 MANHOLE
STA. 106+65.72, 15' L
18" RCP INV. 13.10' (E)

(S-2) STA. 107+46.54, 8' LT.
PROP. MANHOLE TYPE J7
J BOTTOM 3.5' X 4.5'
~~24" X 38" ERCP INV. 12.35 (W),~~
~~29" X 45" ERCP INV. 12.35 (E),~~
~~15" RCP INV. 12.91 (N),~~
~~15" RCP INV. 12.78 (S)~~
TOP EL 17.21

S-2 MANHOLE
STA. 107+50.43, 8' R
29"X45" ERCP INV. 12.23' (E)
18" RCP INV. 12.61' (N)
18" RCP INV. 12.67' (S)

(S-3) STA. 107+45.45, 15.15' LT.
PROP. CURB INLET TYPE 2
~~15" RCP INV. 12.97 (S)~~
EOP EL 17.10

S-3 MANHOLE
STA. 107+36.13, 15' L
18" RCP INV. 12.75' (SE)
18" RCP INV. 13.00' (W)

(S-4) STA. 107+49.51, 15.47' RT.
PROP. CURB INLET TYPE 2
~~15" RCP INV. 12.97 (N)~~
EOP EL 17.26

S-4 MANHOLE
STA. 107+49.93, 16' R
18" RCP INV. 13.23' (N)

NOTE: ✳ SANITARY SEWER INVERT ELEVATIONS SHOWN ON THESE PLANS ARE FROM 1954 RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.

No.	DATE	REVISIONS
3		**AS-BUILT**
2		
1		

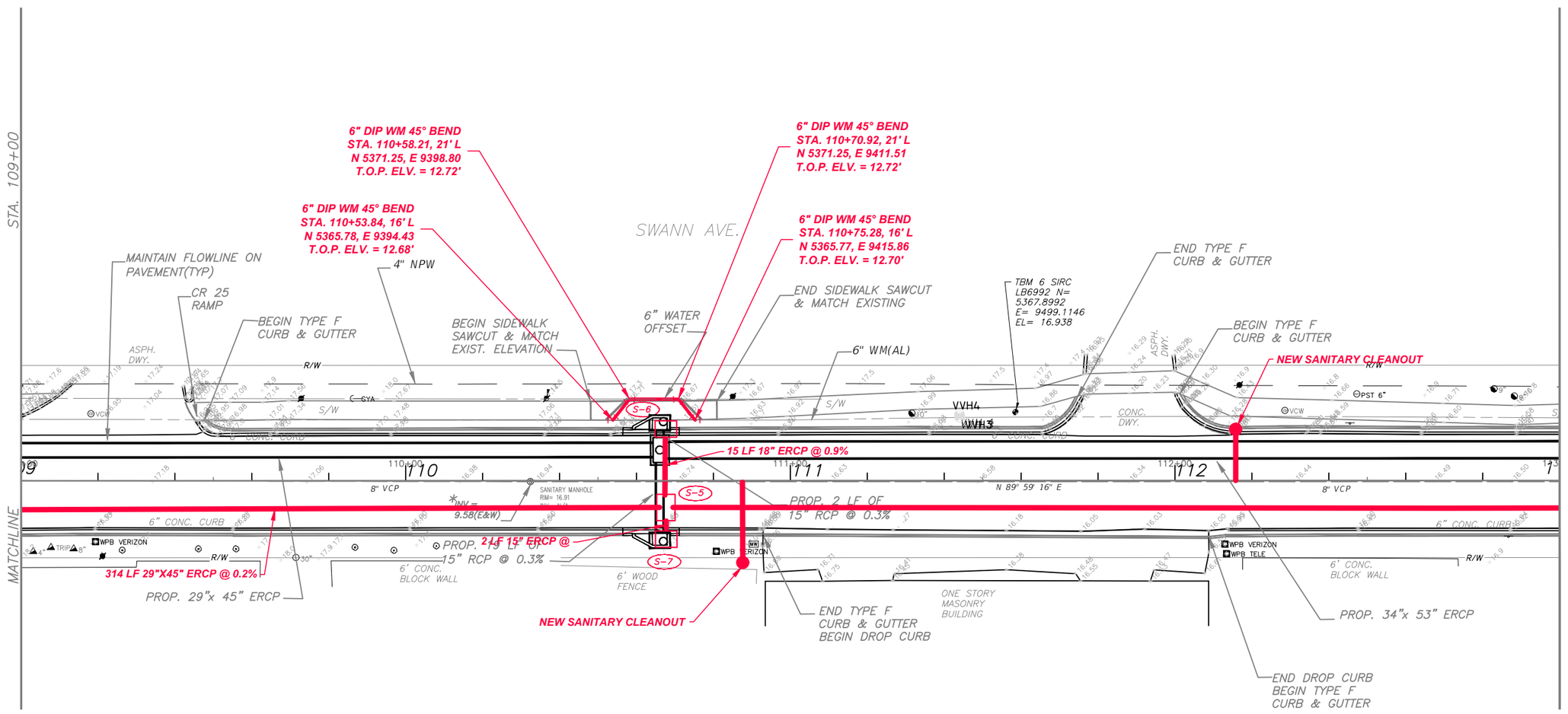
DES:
DRN:
CKD:
DATE:

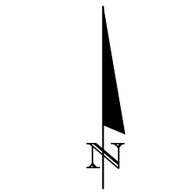
CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

SWANN AVE. DRAINAGE IMPROVEMENTS
FROM HABANA AVE. TO TAMPANIA AVE.

SHEET 4 OF 16

SW





S 22, T 29, R 18
ATLAS I-10

(S-5) STA. 110+66.07, 8' LT.
PROP. MANHOLE TYPE J7
3.5' X 6.5' J BOTTOM
~~29" X 45" ERCP INV. 11.72 (W)~~
~~34" X 53" ERCP INV. 11.72 (E)~~
~~15" RCP INV. 13.00 (N),~~
~~15" RCP INV. 13.00 (S)~~
TOP EL 16.58

S-5 MANHOLE
STA. 110+67.30, 7' R
29"X45" ERCP INV. 11.61' (W)
34"X53" ERCP INV. = 11.67' (E)
18" RCP INV. 12.67' (N)
15" RCP INV. 12.80' (S)

(S-6) STA. 110+66.07, 15.06' LT.
PROP. CURB INLET TYPE 2
~~15" RCP INV. 13.02 (S)~~
EOP EL 16.11

S-6 MANHOLE
STA. 110+67.41, 13' L
18" RCP INV. 12.81' (S)

(S-7) STA. 110+66.07, 15.48' RT.
PROP. CURB INLET TYPE 2
~~15" RCP INV. 13.20 (N)~~
EOP EL 16.20

S-7 MANHOLE
STA. 110+67.99, 15' R
15" RCP INV. 12.88' (N)

NOTE: ✳ SANITARY SEWER INVERT ELEVATIONS SHOWN ON THESE PLANS ARE FROM 1954 RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.

No.	DATE	REVISIONS
3		**AS-BUILT**
2		
1		

DES:
DRN:
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

SWANN AVE. DRAINAGE IMPROVEMENTS
FROM HABANA AVE. TO TAMPANIA AVE.

SHEET 6 OF 24

SW

(S-8) STA. 113+42.34, 14.96' LT.
PROP. CURB INLET TYPE 2
3.5' X 6.5' J BOTTOM
~~24" RCP INV. 11.60 (NE)~~
EOP EL 15.81

S-8 MANHOLE
STA. 113+44.35, 13' L
12" DIP INV. 13.85' (SE)

(S-9) ~~STA. 113+62.15, 23' LT.~~
~~CONNECT 24" RCP TO EXIST. MH~~
~~INV. 11.50 (SW)~~

(S-10) STA. 113+47.05, 15.49' RT.
PROP. CURB INLET TYPE 2
~~12"x18" ERCP INV. 14.10 (SE)~~
EOP EL 15.86

(S-11) STA. 113+65.31, 8.38' LT.
PROP. MANHOLE TYPE P7
5.5' X 6.5' J BOTTOM
34" X 53" ERCP INV. 11.12 (W)
EXISTING 42" RCP INV. 11.12
(N, S)
TOP EL 16.19

S-11 MANHOLE
STA. 113+44.34, 7' R
34"X53" ERCP INV. 11.45' (W)
42" RCP INV. 13.77' (E)
12" DIP INV. 12.09' (NW)

(S-12) ~~STA. 113+60.97, 35.44' LT.~~
PROP. CURB INLET TYPE 2
J BOTTOM 2.5' X 7'
18" RCP INV. 13.00 (E)
EXISTING 36" RCP INV. 11.20 (N, S)
EOP EL 16.25

(S-13) ~~STA. 113+89.76, 35.56' LT.~~
PROP. CURB INLET TYPE 2
18" RCP INV. 13.22 (W)
EOP EL 16.13

(S-14) STA. 113+65.66, 22' ± RT.
CONNECT TO EX. CURB INLET
INLET TO REMAIN TOP TO BE
MODIFIED TO INSTALL TYPE 1
CURB INLET
~~12"x18" ERCP INV. 14.00(NW)~~
EOP EL 15.63

S-14 MANHOLE
STA. 113+63.57, 27' R
18" RCP INV. 12.96' (SE)

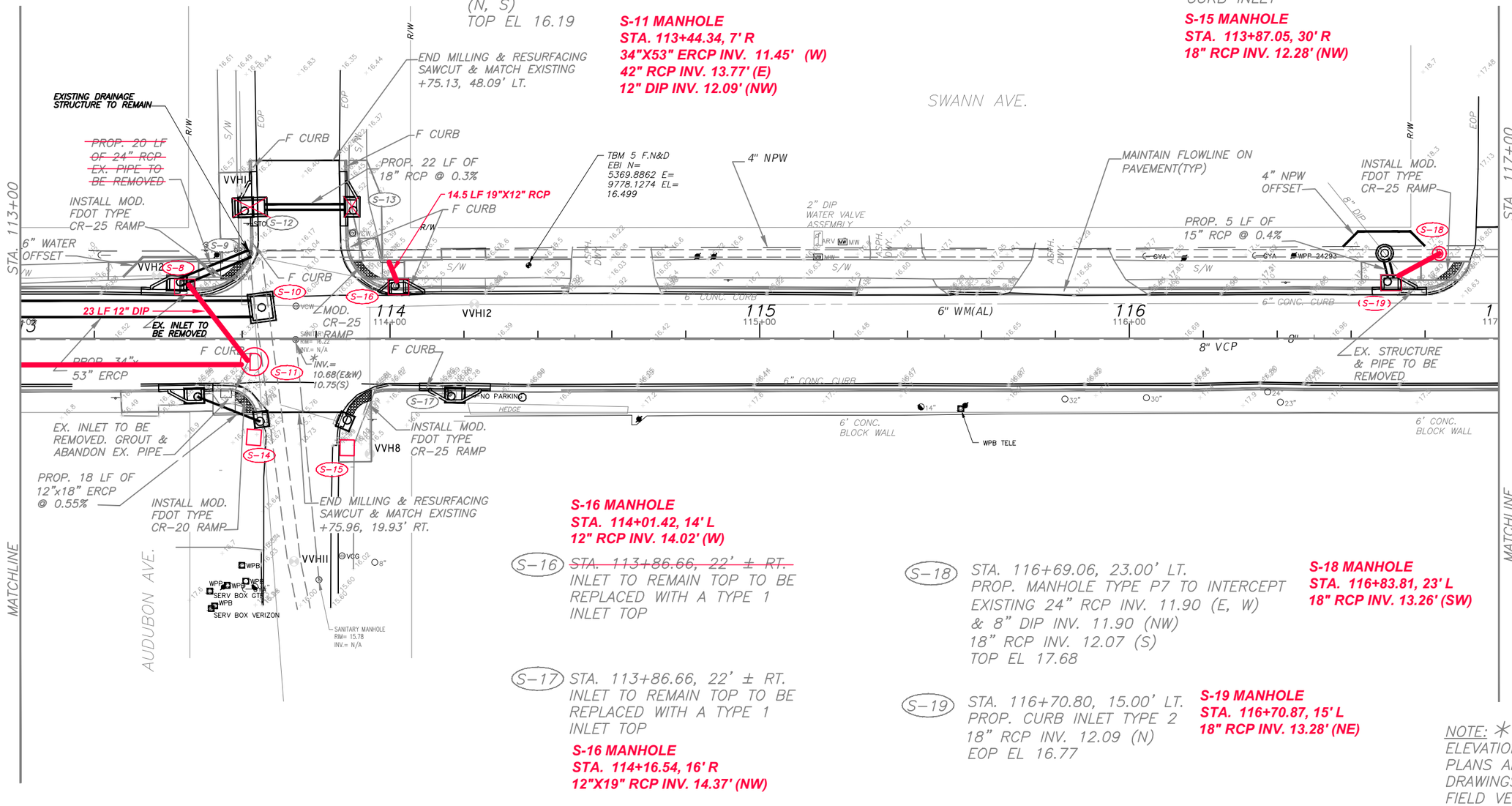
(S-15) STA. 113+86.66, 22' ± RT.
INLET TO REMAIN TOP TO BE
MODIFIED TO INSTALL TYPE 1
CURB INLET

S-15 MANHOLE
STA. 113+87.05, 30' R
18" RCP INV. 12.28' (NW)

N

0 10 20 30
Feet

S 22, T 29, R 18
ATLAS I-10



S-16 MANHOLE
STA. 114+01.42, 14' L
12" RCP INV. 14.02' (W)

(S-16) ~~STA. 113+86.66, 22' ± RT.~~
INLET TO REMAIN TOP TO BE
REPLACED WITH A TYPE 1
INLET TOP

(S-17) STA. 113+86.66, 22' ± RT.
INLET TO REMAIN TOP TO BE
REPLACED WITH A TYPE 1
INLET TOP

S-16 MANHOLE
STA. 114+16.54, 16' R
12"X19" RCP INV. 14.37' (NW)

(S-18) STA. 116+69.06, 23.00' LT.
PROP. MANHOLE TYPE P7 TO INTERCEPT
EXISTING 24" RCP INV. 11.90 (E, W)
& 8" DIP INV. 11.90 (NW)
18" RCP INV. 12.07 (S)
TOP EL 17.68

S-18 MANHOLE
STA. 116+83.81, 23' L
18" RCP INV. 13.26' (SW)

(S-19) STA. 116+70.80, 15.00' LT.
PROP. CURB INLET TYPE 2
18" RCP INV. 12.09 (N)
EOP EL 16.77

S-19 MANHOLE
STA. 116+70.87, 15' L
18" RCP INV. 13.28' (NE)

NOTE: ✳ SANITARY SEWER INVERT ELEVATIONS SHOWN ON THESE PLANS ARE FROM 1954 RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.

No.	DATE	REVISIONS
3		**AS-BUILT**
2		
1		

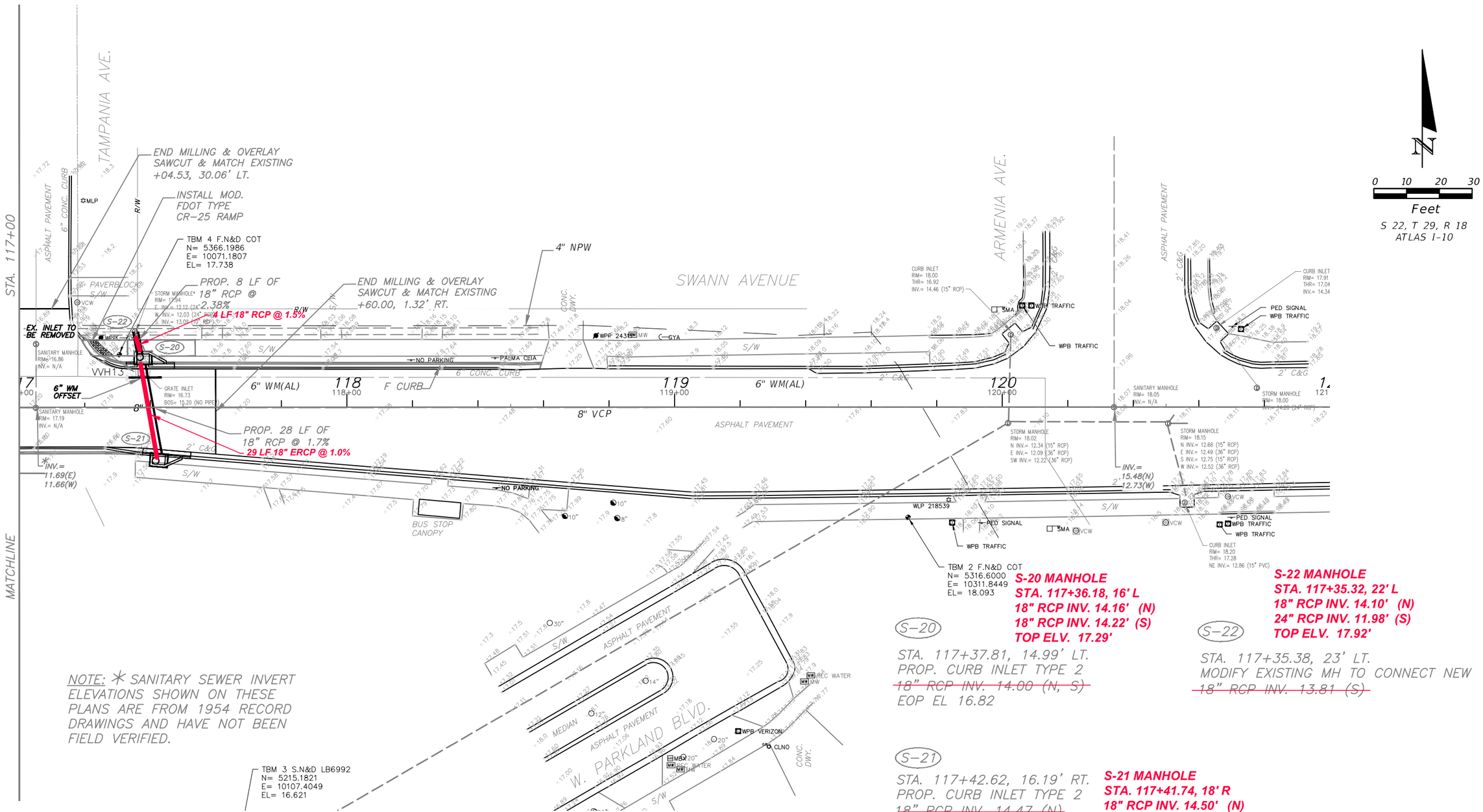
DES:
DRN:
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

SWANN AVE. DRAINAGE IMPROVEMENTS
FROM HABANA AVE. TO TAMPANIA AVE.

SHEET 8 OF 24

SW



NOTE: ✳ SANITARY SEWER INVERT ELEVATIONS SHOWN ON THESE PLANS ARE FROM 1954 RECORD DRAWINGS AND HAVE NOT BEEN FIELD VERIFIED.

S-20 MANHOLE
STA. 117+36.18, 16' L
18" RCP INV. 14.16' (N)
18" RCP INV. 14.22' (S)
TOP ELV. 17.29'

S-20

STA. 117+37.81, 14.99' LT.
PROP. CURB INLET TYPE 2
~~18" RCP INV. 14.00 (N, S)~~
EOP EL 16.82

S-22 MANHOLE
STA. 117+35.32, 22' L
18" RCP INV. 14.10' (N)
24" RCP INV. 11.98' (S)
TOP ELV. 17.92'

S-22

STA. 117+35.38, 23' LT.
MODIFY EXISTING MH TO CONNECT NEW
~~18" RCP INV. 13.81 (S)~~

S-21

STA. 117+42.62, 16.19' RT.
PROP. CURB INLET TYPE 2
~~18" RCP INV. 14.47 (N)~~
EOP EL 17.07

S-21 MANHOLE
STA. 117+41.74, 18' R
18" RCP INV. 14.50' (N)
TOP ELV. 17.56'

N

0 10 20 30
Feet

S 22, T 29, R 18
ATLAS I-10

No.	DATE	REVISIONS
3		**AS-BUILT**
2		
1		

DES:
DRN:
CKD:
DATE:

CITY of TAMPA
Department of Transportation and Stormwater Services
Stormwater Engineering Division

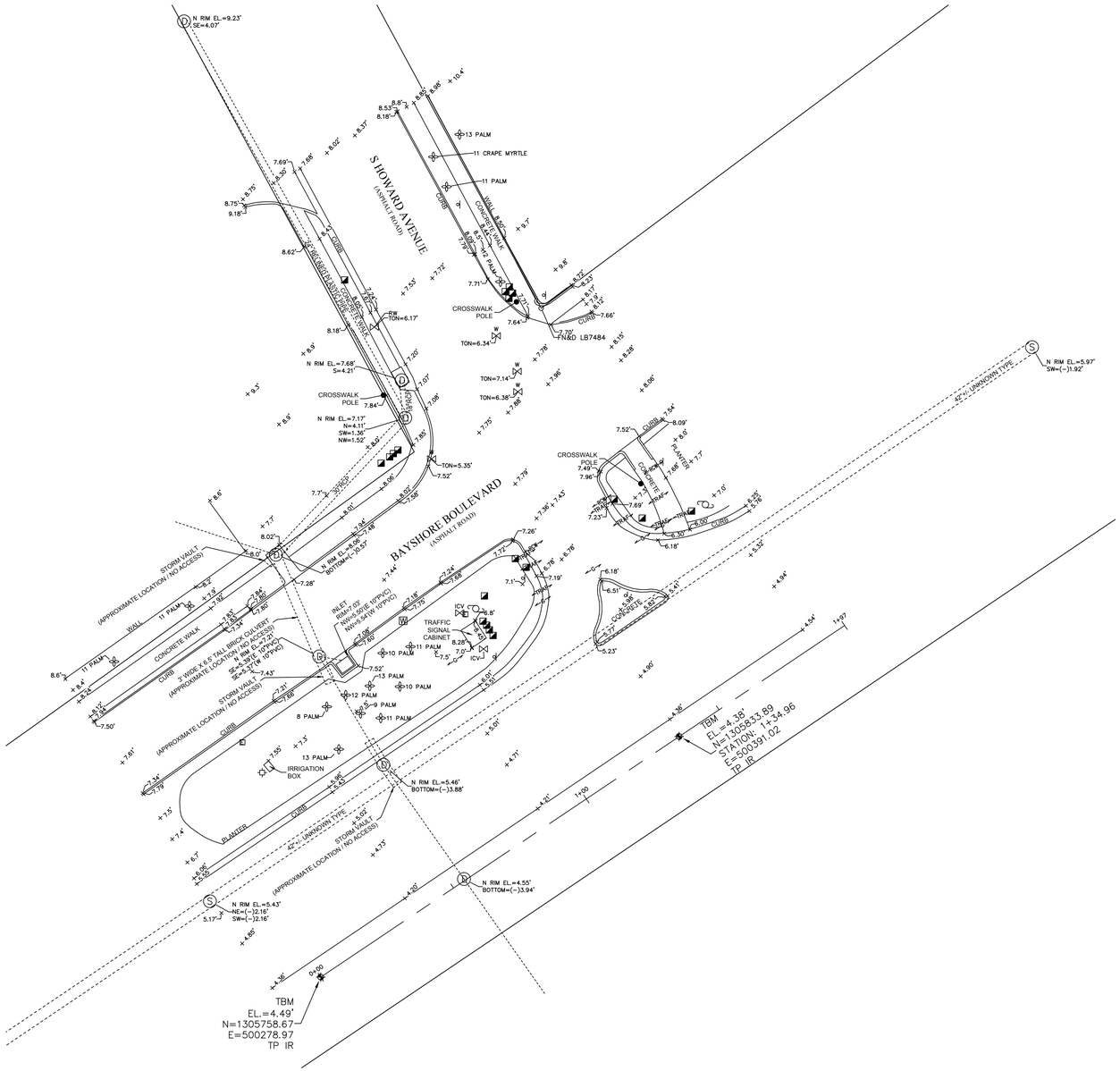
SWANN AVE. DRAINAGE IMPROVEMENTS
FROM HABANA AVE. TO TAMPANIA AVE.

SHEET 10 OF 24

Q.30 Topographic Survey – Howard and Bayshore

SECTION 26 TOWNSHIP 29 SOUTH RANGE 18 EAST

CITY OF TAMPA HILLSBOROUGH COUNTY FLORIDA



LEGEND

NOT TO SCALE

FND	FOUND
FCIR	FOUND CAPPED IRON ROD (SIZE NOTED)
FCM	FOUND CONCRETE MONUMENT (SIZE NOTED)
FIP	FOUND IRON PIPE (SIZE NOTED)
FIR	FOUND IRON ROD (SIZE NOTED)
FN&D	FOUND NAIL & BRASS DISK
FPP	FOUND PINCHED PIPE (SIZE NOTED)
FRRS	FOUND RAILROAD SPIKE
SCIR	SET 1/2" CAPPED IRON ROD "LB 4513"
SN&D	SET NAIL & BRASS DISK "LB 4513"
LB	LICENSED BUSINESS
PLS	PROFESSIONAL LAND SURVEYOR
(C)	CALCULATED
(R)	RECORDED
PB	PLAT BOOK
PG	PAGE
BFP	BACKFLOW PREVENTER
DCV	DOUBLE CHECK VALVE
FFE	FINISH FLOOR ELEVATION
INV	INVERT
ORB	OFFICIAL RECORDS BOOK
R/W	RIGHT OF WAY
TBM	TEMPORARY BENCHMARK
TOB	TOP OF BANK
TOS	TOE OF SLOPE
A/C	AIR CONDITIONER
BWF	BARB WIRE FENCE
CLF	CHAIN LINK FENCE
WDF	WOOD PANEL FENCE
CMP	CORRUGATED METAL PIPE
DIP	DUCTILE IRON PIPE
ERCP	ELLIPTICAL REINFORCED CONCRETE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
PVC	POLYVINYL CHLORIDE PIPE
VCP	VITRIFIED CLAY PIPE
RCP	REINFORCED CONCRETE PIPE
MES	MITERED END SECTION
FOC	FIBER OPTIC CABLE
OHE	OVERHEAD ELECTRIC
TRAN	TRANSFORMER
TP IR	TRAVERSE POINT IRON ROD
TP SN	TRAVERSE POINT SET NAIL
R	RADIUS
L	ARC LENGTH
Δ	DELTA ANGLE
CB	CHORD BEARING
C	CHORD LENGTH
—CTV—	PAINT OR FLAG MARKING UG CABLE TELEVISION LINE
—E—	PAINT OR FLAG MARKING UG ELECTRIC
—FOC—	PAINT OR FLAG MARKING UG FOC
—G—	PAINT OR FLAG MARKING UG GAS LINE
—RCW—	PAINT OR FLAG MARKING UG RECLAIMED WATER
—S—	PAINT OR FLAG MARKING UG SANITARY SEWER
—TRAF—	PAINT OR FLAG MARKING UG TRAFFIC LINE
—VZ—	PAINT OR FLAG MARKING UG VERIZON LINE
—W—	PAINT OR FLAG MARKING UG WATER LINE
	BENCHMARK
	BOLLARD/POST
ATV	BURIED CATV MARKER POST
TV	CABLE TV BOX
	CONCRETE LIGHT POLE
	CONCRETE UTILITY POLE
	CLEANOUT
	DECORATIVE LIGHT
	ELECTRIC BOX
E	ELECTRIC MANHOLE
E	ELECTRIC METER
	FIBER OPTIC CABLE BOX
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
GM	GAS MARKER POST
G	GAS METER/REGULATOR
	GAS VALVE
GT	GREASE-TRAP MANHOLE
	GUY WIRE
	IRRIGATION CONTROL VALVE
	MAIL BOX
	METAL UTILITY POLE
MW	MONITOR WELL
RW	RECLAIMED WATER METER BOX
	RECLAIMED WATER VALVE
	ROOF DRAIN
S	SANITARY MANHOLE
	SANITARY VALVE
	SIGN
	SOIL BORING LOCATION
D	STORM OR DRAINAGE MANHOLE
	STREET LIGHT ACCESS BOX
T	TELECOMMUNICATIONS MANHOLE
	TELEPHONE BOX
	TELEPHONE LINE MARKER POST
	TRAFFIC SIGNAL ACCESS BOX
	TRAFFIC SIGNAL POLE
V	VERIZON ACCESS BOX
W	WATER MANHOLE
	WATER VALVE
W	WATER METER BOX
W	WELL
	WOOD LIGHT POLE
	WOOD UTILITY POLE

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)
1 inch = 20 ft.

NOTES:
1. NO UNDERGROUND INSTALLATIONS OR IMPROVEMENTS HAVE BEEN LOCATED EXCEPT AS SHOWN.
2. NO INSTRUMENTS OF RECORD REFLECTING EASEMENTS, RIGHT OF WAY AND/OR OWNERSHIP WERE FURNISHED TO THIS SURVEYOR EXCEPT AS SHOWN.
3. THIS SURVEY DOES NOT REFLECT OR DETERMINE OWNERSHIP.
4. USE OF THIS SURVEY BY ANYONE OTHER THAN THOSE PREPARED FOR WILL BE THE RE-USERS SOLE RISK WITHOUT LIABILITY TO THE SURVEYOR.
5. THERE MAY BE ITEMS DRAWN OUT OF SCALE TO GRAPHICALLY SHOW THEIR LOCATION.
6. THE SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE COMMITMENT AND IS SUBJECT TO EASEMENTS, RIGHTS-OF-WAY AND SIMILAR MATTERS OF TITLE.
7. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
8. THE HORIZONTAL DATUM IS TIED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM (GRID), WEST ZONE NORTH AMERICAN DATUM 1983, ADJUSTMENT 2011.
9. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988. (N.A.V.D.) REFERENCE BENCHMARK No.1: HV-02 0136 ELEVATION = 4.635', REFERENCE BENCHMARK No.2: HV-02 0134 ELEVATION = 20.240'
10. THIS SURVEY IS FOR TOPOGRAPHIC PURPOSES AND IS NOT A BOUNDARY SURVEY.
11. BEARINGS AND DISTANCES ARE MEASURED UNLESS OTHERWISE NOTED.
12. BASIS OF BEARING IS GRID NORTH.

No.	Revisions	Date	BY
4			
3			
2			
1	DESCRIPTION		BY

CREW CHIEF DMC
CHECKED BY KKM
DRAWN BY KKM

Project No. 19038
Field Book
Page
xx

TOPOGRAPHIC SURVEY
HOWARD AND BAYSHORE

PREPARED FOR: CITY OF TAMPA

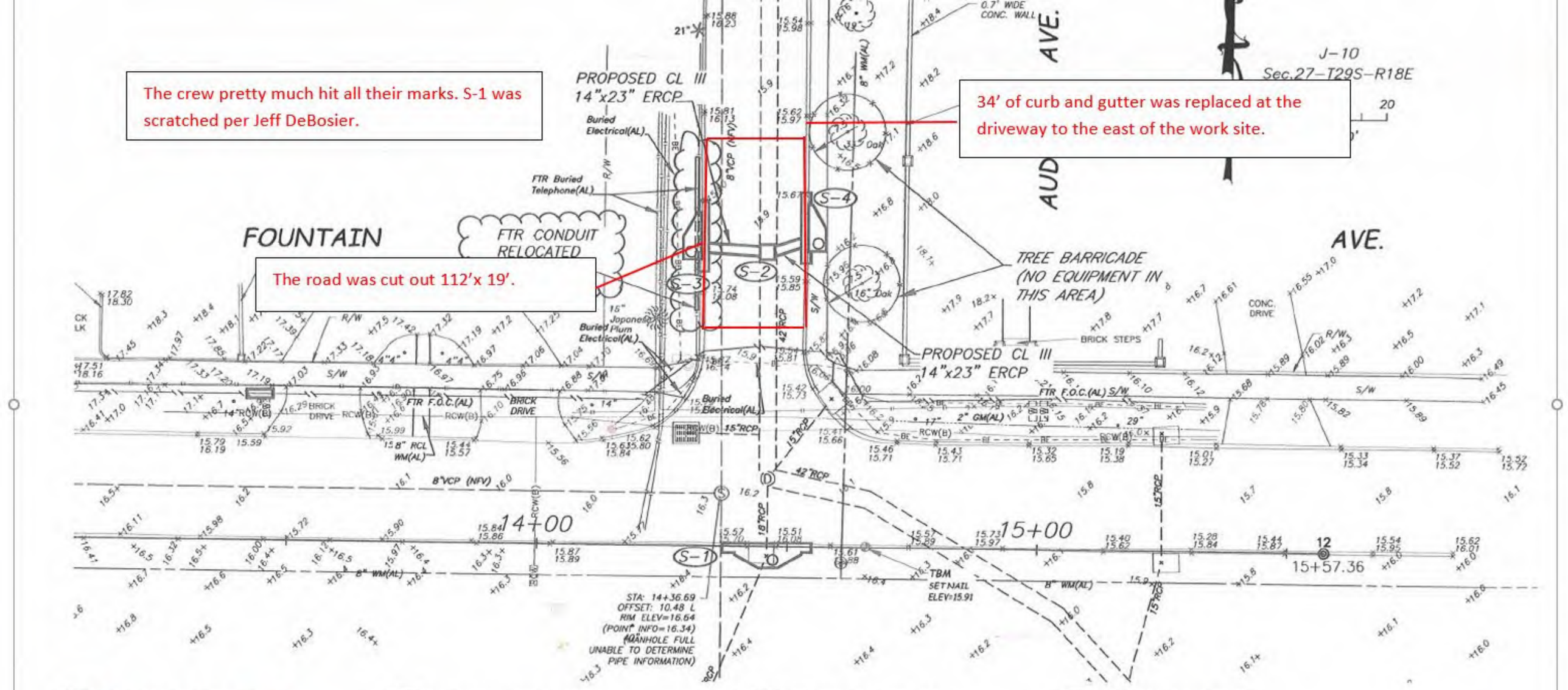
SURVEYOR'S CERTIFICATE:
I hereby certify that this survey was prepared under my RESPONSIBLE CHARGE on the date(s) shown, and meets the STANDARDS OF PRACTICE set forth by the FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS in CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODE pursuant to Section 472.027, FLORIDA STATUTES.
NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

7/15/19
DATE OF FIELD SURVEY

KYLE McCLUNG, LS 7177

SUNCOAST LAND SURVEYING, Inc.
111 FOREST LAKES BOULEVARD
OLDSMAR, FLA. 34677
BOUNDARY – TOPOGRAPHIC – CONSTRUCTION STAKEOUT
PH: (813) 854-1342 SLSURVEY@TAMPABAY.RR.COM
LB 4513

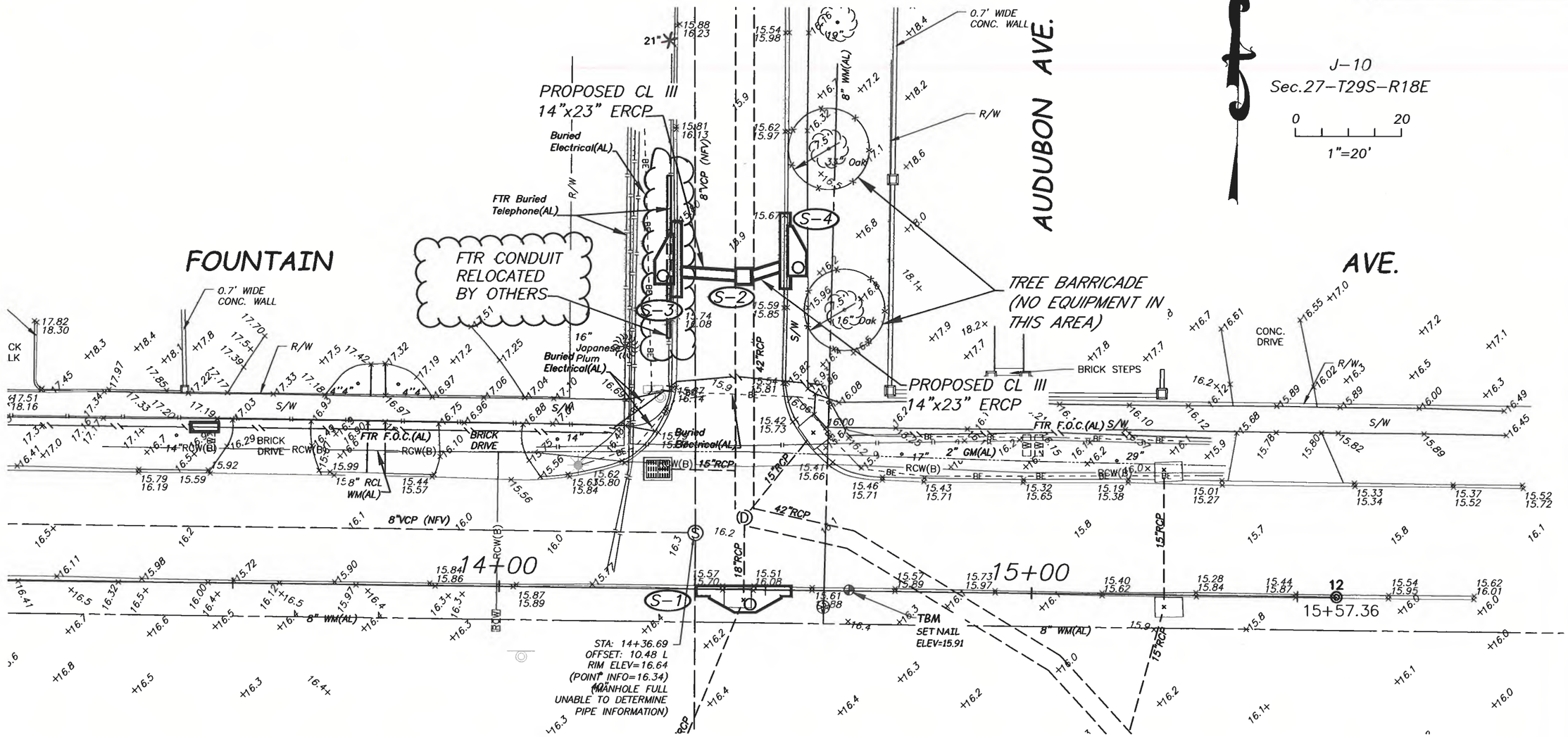
Q.31 Parkland Estates Flooding Relief (SW2021-01)


The crew pretty much hit all their marks. S-1 was scratched per Jeff DeBosier.
34' of curb and gutter was replaced at the driveway to the east of the work site.
The road was cut out 112'x 19'.
PROPOSED CL III
14"x23" ERCP
FOUNTAIN
FTR CONDUIT
RELOCATED
TREE BARRICADE
(NO EQUIPMENT IN
THIS AREA)
AVE.
J-10
Sec.27-T29S-R18E
14+00
15+00
15+57.36
S-1
S-2
S-3
S-4
STA: 14+36.69
OFFSET: 10.48 L
RIM ELEV=16.64
(POINT INFO=16.34)
(MANHOLE FULL
UNABLE TO DETERMINE
PIPE INFORMATION)
TBM
SET NAIL
ELEV=15.91
S-1 STA 14+48.8, 2'± RT
REMOVE EXISTING INLET TOP
INSTALL TYPE 3 INLET TOP
STRUCTURE BOTTOM TO REMAIN
EX. INV. EL.= 11.24(N)
EX. INV. EL.= 10.93(SW)
RIM EL.= 16.59
S-2 STA 14+45.3 59'± LT
PROP. DOGHOUSE MH
TOP EL.= 15.90
EXIST. 42" INV. EL.= 10.75(N/S)
BOTTOM EL.= ±10.60
PROP. 14"X 23"
INV. EL.= 12.35(E&W)
S-3 STA 14+30.4, 59'± LT
PROP. TYPE 2 INLET (N. WING)
EX. E.O.P. EL.=15.80
THROAT EL.=15.30
PROP. 14"X 23"
INV. EL.= 12.61(SE)
S-4 STA 14+55.3, 61'± LT
PROP. TYPE 2 INLET (N. WING)
EX. E.O.P. EL.=15.64
THROAT EL.=15.14
PROP. 14"X 23"
INV. EL.= 12.45(SW)

SW 2021-01

J-10
Sec.27-T29S-R18E

0 20
1"=20'



S-1 STA 14+48.8, 2'± RT
REMOVE EXISTING INLET TOP
INSTALL TYPE 3 INLET TOP
STRUCTURE BOTTOM TO REMAIN
EX. INV. EL.= 11.24(N)
EX. INV. EL.= 10.93(SW)
RIM EL.= 16.59

S-2 STA 14+45.3 59'± LT
PROP. DOGHOUSE MH
TOP EL.= 15.90
EXIST. 42" INV. EL.= 10.75(N/S)
BOTTOM EL.= ±10.60
PROP. 14"X 23"
INV. EL.= 12.35(E&W)

S-3 STA 14+30.4, 59'± LT
PROP. TYPE 2 INLET (N. WING)
EX. E.O.P. EL.=15.80
THROAT EL.=15.30
PROP. 14"X 23"
INV. EL.= 12.61(SE)

S-4 STA 14+55.3, 61'± LT
PROP. TYPE 2 INLET (N. WING)
EX. E.O.P. EL.=15.64
THROAT EL.=15.14
PROP. 14"X 23"
INV. EL.= 12.45(SW)

Plot Date: Thursday, October 01, 2020

RICHARD ALFRED HOEL, P.E. #41026
CHIEF ENGINEER

No.	DATE	REVISIONS
3		
2		
1		

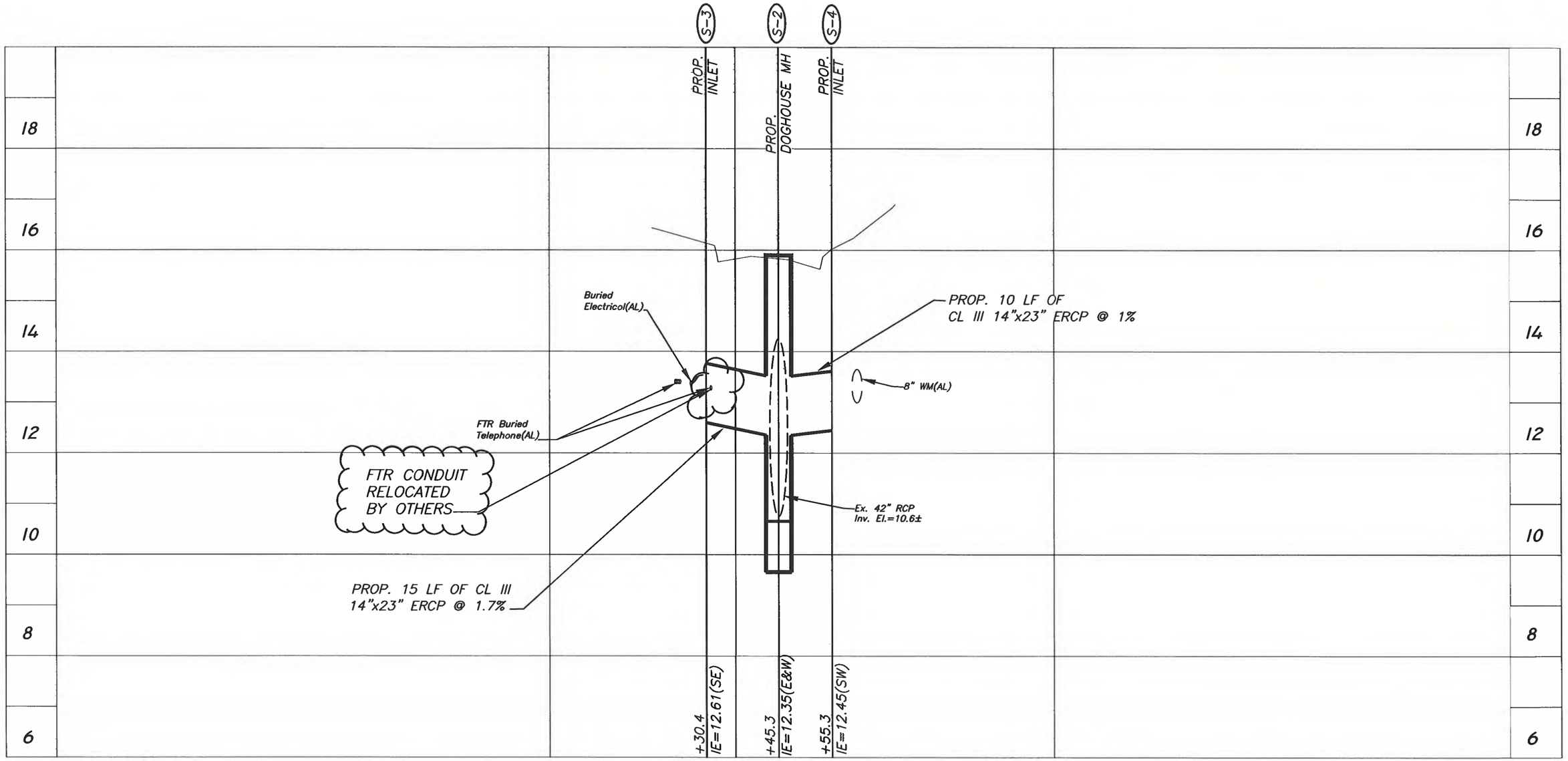
DES: RH/YP
DRN:
CKD:
DATE:

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

PARKLAND ESTATES
FLOODING RELIEF

SHEET 1 OF 2

SW 2021-01



Plot Date: Thursday, October 01, 2020

No.	DATE	REVISIONS	No.	DATE	REVISIONS
3			6		
2			5		
1			4		

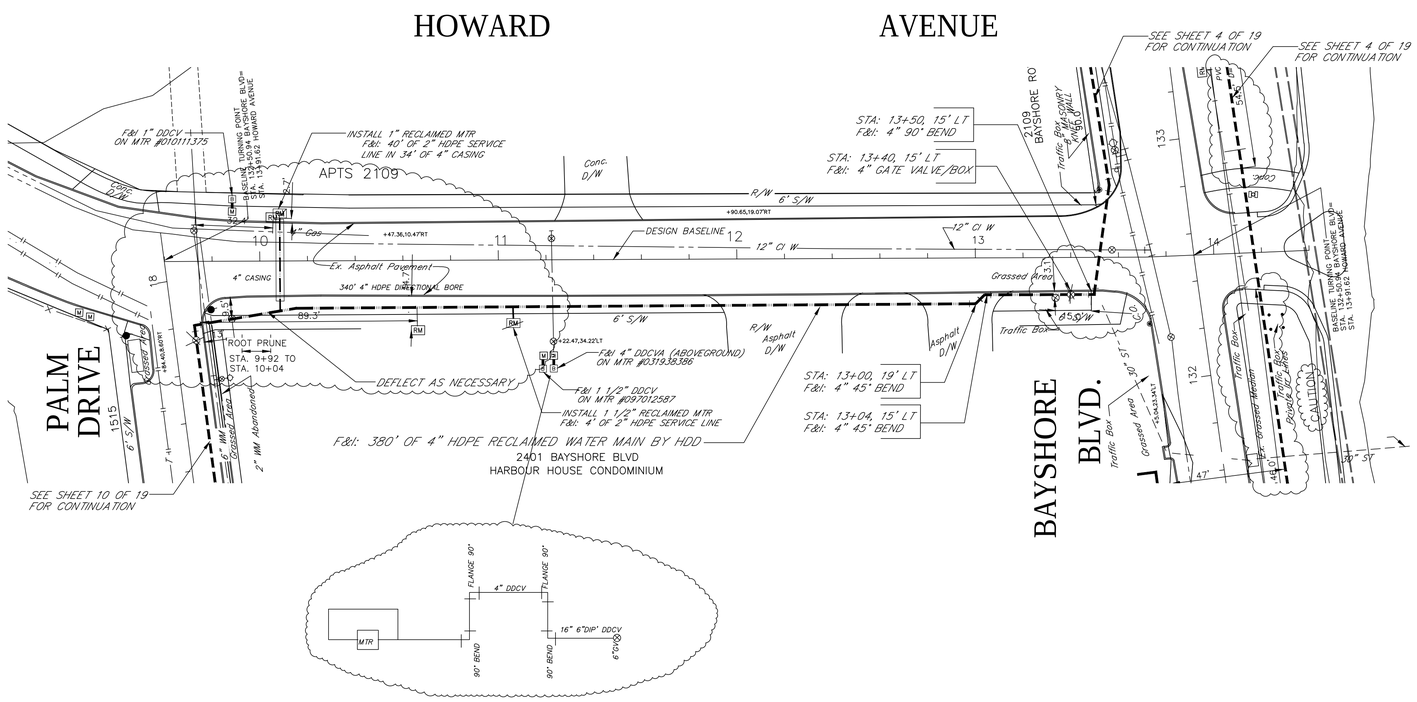
DES: RH/YP
DRN: AE
CKD: BC
DATE: 12/2020

CITY of TAMPA
Mobility Department
Stormwater Engineering Division

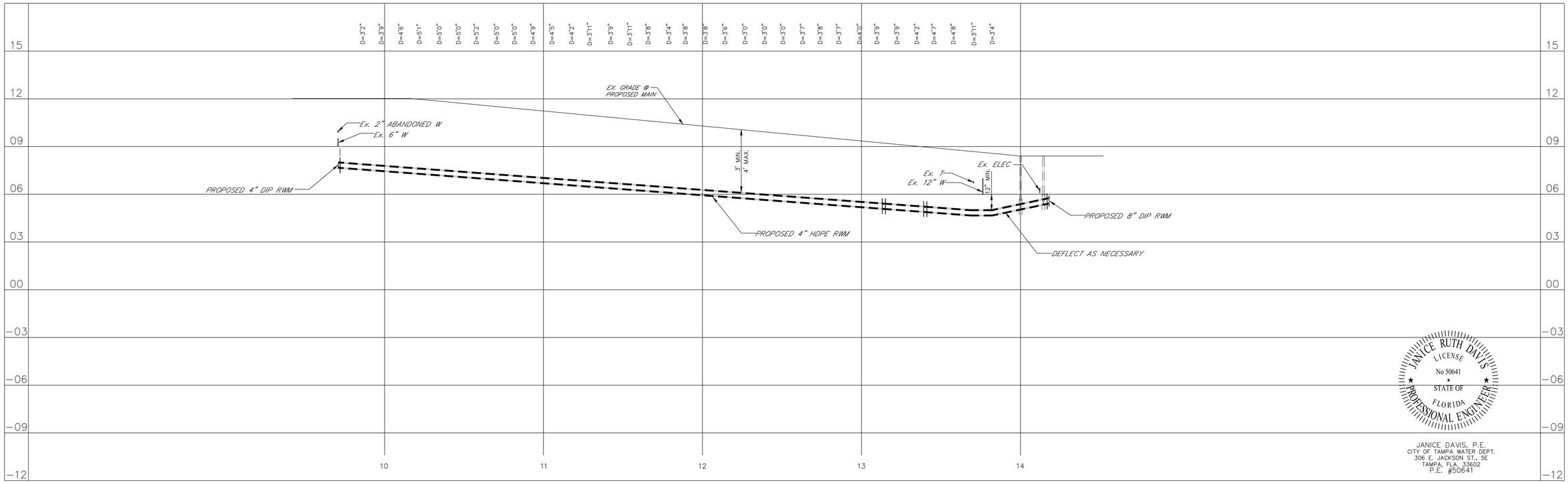
PARKLAND ESTATES
FLOODING RELIEF

SHEET 2 OF 2

Q.32 Reclaimed Water – Howard Avenue – from Bayshore Blvd to Palm Drive



NOTE
1. WRAP ALL DIP PIPE & FITTINGS WITH PANTONE PURPLE POLYWRAP.
2. CONTRACTOR TO FURNISH & INSTALL RECLAIMED SERVICE CONNECTIONS AND RECLAIMED METER BOXES & DDCVS ON POTABLE WATER METERS 1" AND LARGER.
3. CONTRACTOR SHALL INSTALL 3/4" T–10 METERS WITH BACK FLOW ON POTABLE WATER. METERS TO BE FURNISHED BY THE CITY.
4. CONTRACTOR SHALL FLUSH NEW MAIN WITH A FULL PORT TO REMOVE ALL CONSTRUCTION DEBRIS.
5. CONTRACTOR SHALL FIND DEPTH OF SANITARY SEWER LATERALS PRIOR TO DRILLING.



JANICE RUTH DAVIS LICENSE No 50641 STATE OF FLORIDA PROFESSIONAL ENGINEER

JANICE DAVIS, P.E.
CITY OF TAMPA WATER DEPT.
306 E. JACKSON ST., 5E
TAMPA, FLA. 33602
P.E. #50641

CITY OF TAMPA
WATER DEPARTMENT
ENGINEERING DIVISION

RECLAIMED WATER

HOWARD AVENUE – from Bayshore Blvd. to Palm Drive

30 0 30 60 — 1" = 30' HORIZ.
3 0 3 6 — 1" = 3' VERT.

Atlas Page J11–3

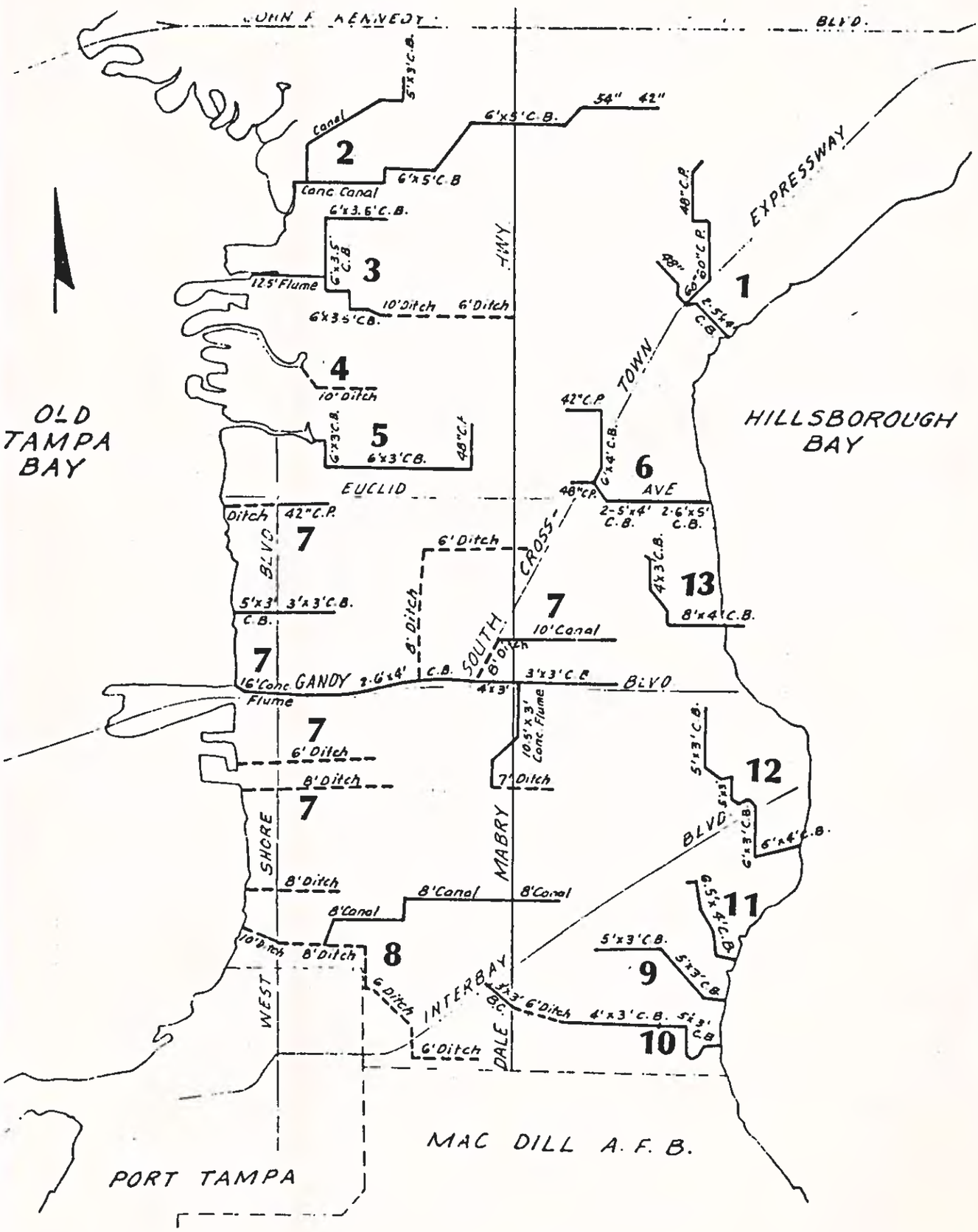
No.	Date	REVISION	By
		Approved	Date

Des: JH
Dwn: DD
Ckd: JRD

W.O. 7637 File: BAYSHORE BOULEVARD
FILE NUMBER F0403
SHEET 11 OF 19 SHEETS

Appendix R. Historical Stormwater Inventory Data

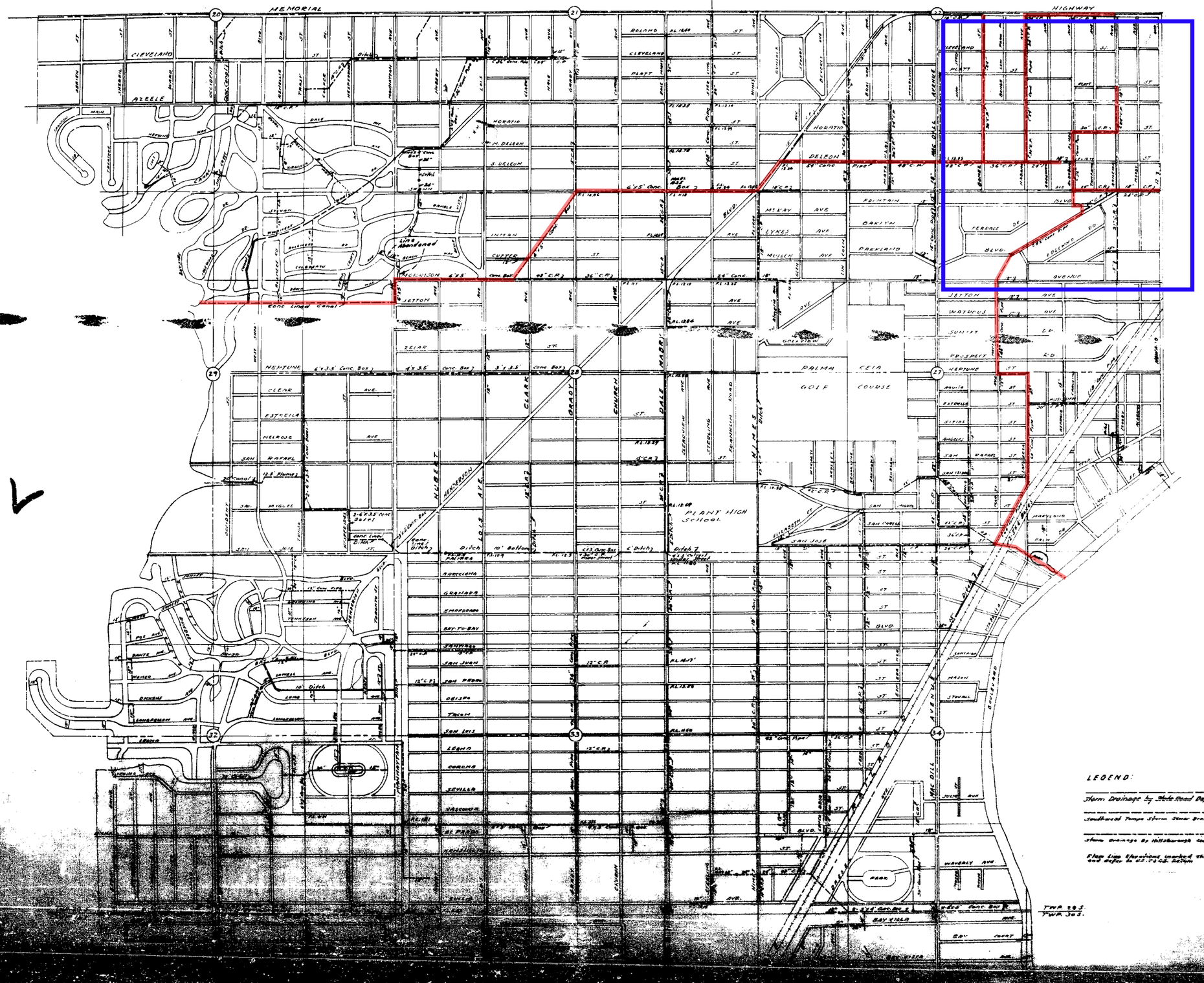
R.1 South West Tampa Drainage District Primary Drainage Facilities



SOUTH WEST TAMPA DRAINAGE DISTRICT
PRIMARY DRAINAGE FACILITIES

R.2 1954 Map of Drainage Facilities, in Place, for Interbay Area – City of Tampa

15-L


MEMORIAL
HIGHWAY
CLEVELAND
PLATT
HORATIO
DELEON
MAIN
KENNEDY
AZELE
DALE
JETTON
NEPTUNE
CLARK
BRADY
CHURCH
HUBERT
HENDERSON
DALE MABRY
PALMA CEIA GOLF COURSE
PLANT HIGH SCHOOL
McKAY
LYKES
MULLEN
POINTAIN
OAKLYN
PARKLAND
TERRACE
BLVD.
EDGEWOOD
AVENUE
WATROUS
SUNSET
PROSPECT
RD.
SAN RAFAEL
SAN MIGUEL
SAN LUIS
SAN JOSE
SAN CARLOS
MARYLAND
PALM
SANTIAGO
MASON
STEVENS
WAVERLY AVE
PARK
BAY VISTA
BAY POINT
GRANADA
BAY-TO-BAY
SAN JUAN
SAN PEDRO
ORIENTE
TAMPA
LEMON
CORONA
SEVILLE
VASCONIA
EL PRADO
ARAGON
ALCAZAR
MACDILL AVENUE
MACDILL
Cone Lined Canal
Ditch
10' Ditch
6'x5' Conc Box
4'x3.5' Conc Box
3'x2.5' Conc Box
42" C.P.
36" C.P.
30" C.P.
24" C.P.
18" C.P.
15" C.P.
12" C.P.
21" C.P.
42" Conc Pipe
36" Conc Pipe
24" Conc Pipe
18" Conc Pipe
15" Conc Pipe
12" Conc Pipe
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
LEGEND:
Storm Drainage by State Road Department
Southwest Tampa Storm Sewer Drainage District
Storm Drainage by Hillsborough County
Flag Line Elevations marked thus 23.5 and refer to U.S.C.&G. Datum
TWP 29 S.
RGE 18 E.

OLD TAMPA BAY

HILLSBOROUGH BAY

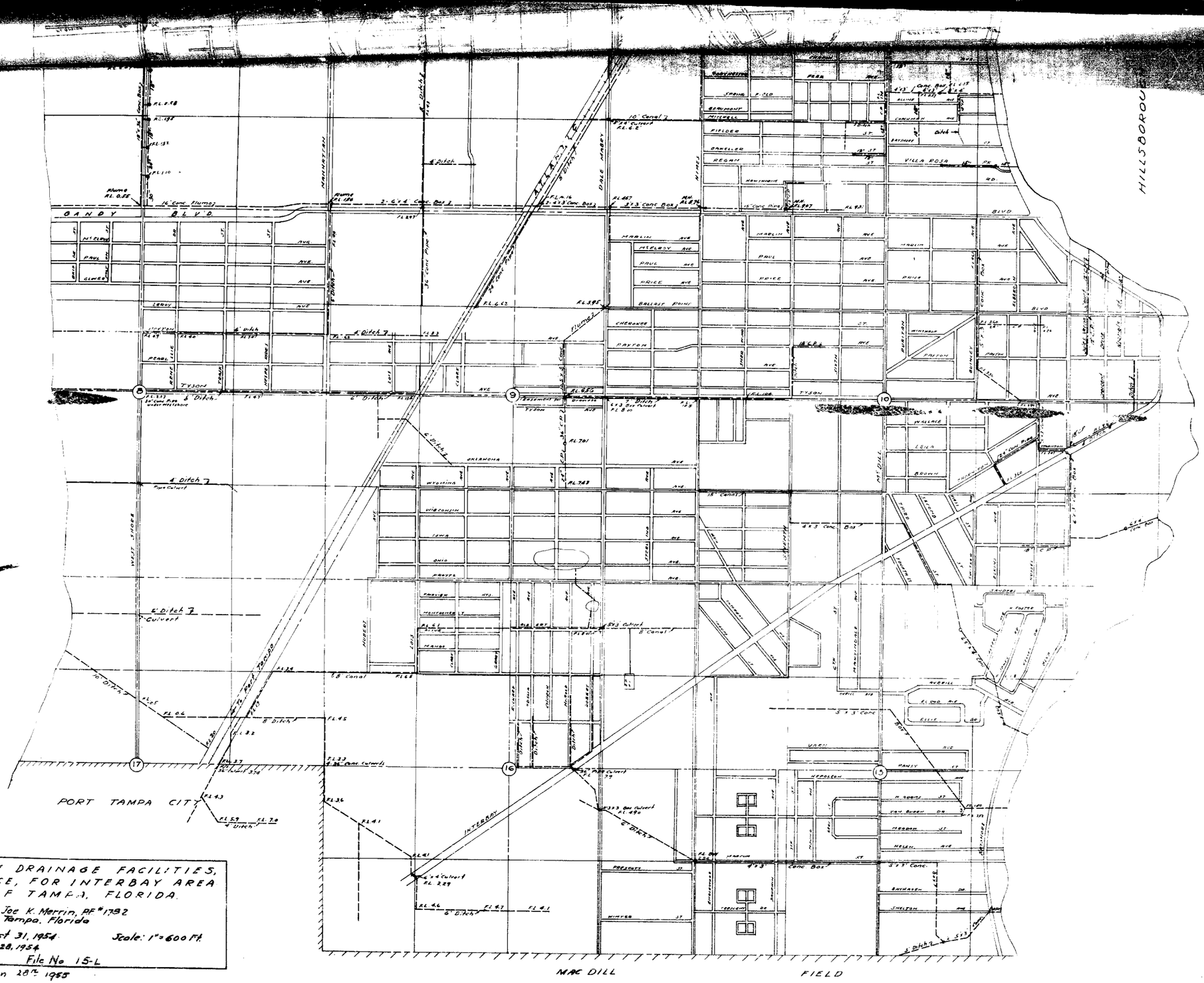
TWP 29 S.
TWP 30 S.

15-L

GANDY BLV'D.

PORT TAMPA

15-L



MAP OF DRAINAGE FACILITIES, IN PLACE, FOR INTERBAY AREA CITY OF TAMPA, FLORIDA.

Prepared By: Joe K. Merrin, PE #1782 Tampa, Florida

Date: August 31, 1954 Scale: 1" = 600 Ft.

Revised: Sept. 28, 1954

File No 15-L

Revised: Jan 28th 1955

AtkinsRéalis