DRAINAGE STUDY
PHASE 1 REPORT

FOR:

HIGHWAY 9 & 57

HORRY COUNTY, SC

PREPARED FOR:

HORRY COUNTY
STORMWATER DEPARTMENT

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TABLE OF CONTENTS

Background and Introduction ..... Page 1
Data Collection ..... Page 1
GIS Data ..... Page 1
Construction Plans/As-built Plans/Design Reports ..... Page 2
Field Reconnaissance ..... Page 2
Surveying ..... Page 2
Existing Conditions Model Development ..... Page 3
Hydrology Input ..... Page 3
Hydraulic Input ..... Page 4
Model Calibration ..... Page 4
Model Findings and Summary ..... Page 6
Observations & Recommendations ..... Page 6

FIGURES

Location Map 1
Soils Map 2
Existing Conditions Land Use Map 3

APPENDICES

Existing Conditions Curve Number Calculations ..... A
Existing Conditions Time of Concentration Calculations ..... B
Existing Conditions ICPR Model Input C
Existing Conditions ICPR Model Results ..... D

EXHIBITS

Existing Conditions Drainage Exhibit 1
Existing Conditions ICPR Model Schematic 2
Existing Conditions ICPR Model Results 3

BACKGROUND AND INTRODUCTION

Horry County is experiencing rapid growth and in certain places, the pace of development continues to outgrow the capacity of the existing drainage system. Recent flooding in the main drainage systems, in the vicinity of SC Highway 9 and SC Highway 57, raised concerns about existing and future drainage issues. Of particular concern is the box culvert crossing of Highway 9 between Highway 57 and the homes in Colonial Charters Golf Course. Horry County has retained Thomas & Hutton to conduct a drainage study of the Highway 9 & Highway 57 watershed. The purpose of this study is to assess the capacity of the existing drainage system and identify potential improvements.

The study watershed is approximately 1,850 acres and includes all or portions of the following neighborhoods/developments:

- Colonial Charters,
- The Retreat,
- The Preserve at Little River,
- Bay Tree,
- Village at Bay Tree,
- Golf Colony,
- The Spa at Little River,
- miscellaneous residential and commercial/industrial properties, and
- large undeveloped tracts.

The watershed outfalls to a tributary to the Waccamaw River south of Highway 9. The watershed location is illustrated in Figure 1. The watershed consists of undeveloped wooded areas, residential neighborhoods, commercial and industrial sites, golf courses, and multiple interconnected ponds. The area of focus for this study includes the drainage system that runs along the eastern border of the Colonial Charters development to a box culvert under Highway 9.

The Highway 9 & 57 Drainage Study approach includes two broad phases. Phase 1 is the development of the hydrologic and hydraulic model. Phase 2 will consist of an alternatives analysis and recommendations for improvements. This report documents Phase 1 of the study including the development of the hydrologic and hydraulic model and a discussion of the model findings. The model developed under Phase 1 simulates the existing conditions within the study area and serves as the basis for the analysis of alternatives for Phase 2.

Phase 1 of the Highway 9 & 57 Drainage Study includes the following six tasks:

- Task 1 – Data Collection
- Task 2 – Field Reconnaissance
- Task 3 – Surveying
- Task 4 – Existing Conditions Model Development
- Task 5 – Model Findings and Summary

DATA COLLECTION

Thomas & Hutton has collected various data to build and validate a hydrologic and hydraulic model to simulate existing conditions in the Highway 9 & 57 watershed.

GIS Data

Thomas & Hutton utilized data obtained from Horry County for the project. This data includes drainage infrastructure, utilities, roads, property parcels, structure footprints, LiDAR topography, and land use/land cover. Thomas & Hutton also utilized its extensive GIS data library as part of the project. Additional data used includes contours, aerial photography, and soils mapping (SSURGO) data.

Construction Plans/As-built Plans/Design Reports

Thomas & Hutton collected a set of SCDOT plans for the intersection improvement at SC Highway 9 (Carolina Bays Parkway) and SC Highway 57. Horry County provided several as-built drawings for the development within the project watershed as well as pre- and post-development ICPR drainage network maps. These plans, maps, and as-builts were used to confirm drainage patterns and model input.

Field Reconnaissance

Using the collected data, the basin and sub-basins were delineated, flow patterns were determined, and major drainage features were identified. Exhibit 1 illustrates the basin and sub-basins developed for this study. The basin was divided into 42 sub-basins based on the digital elevation model (DEM) and drainage infrastructure.

Field reconnaissance was conducted on June 9, 2016, to confirm the basin and sub-basin delineation, document drainage infrastructure, and assess reported flooding issues. Also during the field reconnaissance, geo-referenced photography was taken to document the drainage infrastructure. The field reconnaissance findings were used to refine the basin, sub-basins, and model link-node connectivity.

Surveying

A survey was conducted to obtain required data for the hydrologic and hydraulic model. Surveying was conducted on June 2, 2016. The survey focused on the drainage channel that parallels the eastern border of the Colonial Charters development from SC Highway 57 to SC Highway 9, including two crossings at Highway 57 and one crossing at SC Highway 9. The survey included cross-sections along the channel and upstream and downstream of each crossing. Additional survey was obtained on September 19-23, 2016 and October 17-19, 2016 which focused on the connectivity of the internal drainage system for the Colonial Charters neighborhood. All elevation data is referenced to NAVD 88.

EXISTING CONDITIONS MODEL DEVELOPMENT

The data collected was used to develop an existing conditions hydrologic and hydraulic model of the major sub-basins drainage system. The Interconnected Channel and Pond Routing (ICPR) Model by Streamline Technologies was used to develop the model. Exhibit 2 is a link-node-sub-basin schematic of the ICPR model.

The ICPR program models rainfall and stormwater runoff and performs hydraulic routing through the storm drainage system. The ICPR program is a FEMA approved model that analyzes complex interconnected drainage systems dynamically over extended time periods.

Two separate models were developed. The first model represents the portion of the watershed upstream of Highway 57. A second model was developed to represent the detailed study area between Highway 9 and Highway 57. The time vs. discharge relationship from the upper watershed model just upstream of the two Highway 9 Culverts were extracted and used as upstream boundary flows in the downstream, detailed model (between Highway 9 and Highway 57). The second model was extended downstream of Highway 9, beyond the existing developed area, in order compare existing WSELs with the WSELs associated with any proposed improvements. This will allow for the identification of potential adverse impacts downstream, associated with any proposed improvements.

Hydrology Input

The hydrologic input for ICPR consists of information for each drainage sub-basin within the watershed. Input variables include runoff curve number, rainfall distribution pattern, hydrograph peaking factor, contributing area, and time of concentration. The ICPR program generates runoff hydrographs for each sub-basin based on these user-specified variables. Hydrographs are generated by ICPR using the SCS Unit Hydrograph Method.

Hydrologic inputs for each sub-basin include the contributing area, composite curve number, and time of concentration. The following paragraphs summarize the calculation of the hydrologic inputs.

Composite Curve Number

Composite curve numbers (CNs) were calculated for each sub-basin using land use/land cover data that was created using parcel lines and aerial imagery. The existing land use is shown in Exhibit 3. Hydrologic soils group (HSG) data is available from the USDA SSURGO GIS soils coverage for Horry County. The HSGs within the watershed are illustrated in Exhibit 4.

Sub-basin, land use, and HSG data were merged to create unique polygons that contain one soil type and one land use/land coverage description within each sub-basin. The unique land use/HSG descriptions were then summarized for each sub-basin and then multiplied by the curve numbers in the table below. These curve numbers are based on the NRCS (formerly SCS) TR-55 reference. The curve number calculations are summarized in Appendix A.

Curve Numbers

Land Use	Hydrologic Soil Group						
	A	A/D	B	B/D	C	C/D	D
Commercial/Industrial	89	89	92	92	94	94	95
Medium Density Residential	61	61	75	75	83	83	87
Paved Road (Including ROW)	83	83	89	89	92	92	93
Open	39	39	61	61	74	74	80
Water	100	100	100	100	100	100	100
Woods	25	77	55	77	70	77	77

Time of Concentration

A time of concentration (Tc) value was estimated for each sub-basin. The time of concentration was calculated based on the NRCS, three-part travel time method documented in TR-55. The three equations used are summarized below:

Sheet Flow: (min)

$$t_1 = \frac{0.007(nL)^{0.8}}{P_2^{0.05} \times S^{0.4}} \times 60$$

Symbol	Dimension	Units
n	Manning's n	--
L	Length of flow	ft
P_2	2 yr event rainfall	in
S	Slope	ft/ft

Shallow Concentrated Flow: (min)

$$t_2 = \frac{L}{60V}$$

Symbol	Dimension	Units
L	Length of flow	ft
V*	Velocity	ft/s

*Based on TR-55 velocity-slope relationship

Pipe & Chanel Flow: (min)

$$V = \left(\frac{1.49}{n}\right) r^{2/3} S^{1/2}$$

$$t_3 = \frac{L}{60V}$$

Symbol	Dimension	Units
L	Length of flow	ft
V*	Velocity	ft/s
r	Hydraulic Radius (A/P)	ft
A	Cross-sectional Area	sf
P	Wetted Perimeter	ft
S	Slope	ft/ft

*Assumed to be 2 ft/s for pipes

Time of Concentration: (min)

$$t_c = t_1 + t_2 + t_3$$

The longest flow path for each sub-basin was estimated by visually inspecting the available topographic and drainage system GIS data. The longest flow paths were digitized in GIS and split into three segments representing sheet flow, shallow concentrated flow, and pipe/channel flow. The slope of each line segment was determined using the available elevation data. The time of concentration calculations are summarized in Appendix B.

Additional hydrologic data input for the ICPR model includes the following:

- SCS Unit Hydrograph Method
- SCS Type III Statistical Rainfall Distribution: The Type III distribution is appropriate for coastal South Carolina, per the NRCS TR-55 reference.
- 323 and 256 Peaking Factors: The 323 peaking factor was used for the developed sub-basins in the watershed and is appropriate for graded areas with drainage systems. The 256 peaking factor is more appropriate for undeveloped areas that do not have a man-made drainage system.
- Design Storm Rainfall Amounts taken from the Horry County Stormwater Design Manual:
    - 2-year, 24-hour = 4.5 inches
    - 10-year, 24-hour = 6.7 inches
    - 25-year, 24-hour = 7.6 inches
    - 50-year, 24-hour = 8.6 inches
    - 100-year, 24-hour = 9.7 inches

Hydraulic Input

Link-Node

The model hydraulic input data consists of a system of nodes and links. Nodes represent locations where flows enter or exit the system, pipe or channel characteristics change, or where stage/storage/time relationships are provided. Links represent traditional types of hydraulic conveyance such as pipes, channels, drop structures, weirs, etc. The sizes, inverts, lengths, and Manning's "n" values for links are input into the model. In addition to pipe information, all pond, lake, and detention stage–area information and the respective outfall structure information are input into the model. The node and link conditions are analyzed within the model for a given storm, and flow conditions are determined.

Input data for the hydraulic portion of the hydrologic and hydraulic model was developed from a variety of sources including GIS, survey, and as-built data. Nodes were located at strategic locations to simulate the hydraulics of the watershed's drainage system. Major lake, ponds, and other storage areas are simulated as stage-area nodes to properly account for the detention of hydrographs in the system. LiDAR topography was utilized, where appropriate, to generate the stage-storage relationship data for model input. Road overtopping and overland flow paths were simulated as weirs in the model for the accurate simulation of flooding conditions. Exhibit 2 is the ICPR link-node schematic for the developed model, and graphically illustrates the location and alignment of various model inputs.

Model Calibration

The results of the two models were compared to the results from applicable USGS regression equations. The regression equations were applied to the drainage basins for the two Highway 57 culvert crossing locations and for the entire watershed where it crosses Highway 9. These three areas correspond to the outfall nodes in the ICPR models. The results were comparable and fell within the 95% confidence interval of the USGS regression equations.

The resulting maximum water surface elevations (WSEs) of the simulation were extracted from the ICPR results and mapped at the appropriate node locations in the GIS system. Exhibit 3 illustrates the resulting maximum WSEs.

The simulated maximum WSEs were analyzed to determine if the model was reproducing feasible flooding conditions. The results were evaluated based upon the known October 2015 and October 2016 (Hurricane Matthew) flood events. Based on the hourly rainfall data extracted from the Grand Strand Airport Rain Gauge (Station KCRE), ICPR model input was developed to simulate the rainfall as measured by the gauge for the two events. The resulting maximum WSEs of the simulation were extracted from the ICPR results and mapped at the appropriate node locations in the GIS system. Exhibit 3 illustrates the resulting maximum WSEs.

Structural flooding was reported at multiple private residences along the canal ditch that borders the eastern limits of the Colonial Charters neighborhood. Street flooding was reported on Eagle Run, Birdie Way, and Edwards Lane. As summarized in Exhibit 3, the model reproduces the reported flooding conditions. Some minor model adjustments were made during the calibration of the model. This generally included the addition of overland flow weirs to simulate extreme surface flooding and the movement of flood waters overland.

Based on the results of the above simulations, the ICPR model reproduced representative results of the reported flood conditions within the basin (particularity in the area adjacent to the canal ditch that runs parallel to the eastern edge of Colonial Charters neighborhood).

MODEL FINDINGS AND SUMMARY

Thomas & Hutton developed a hydrologic and hydraulic model of the watershed and examined the model results for errors and reasonableness. The model executes without errors and, in general, produces results consistent with the function of the drainage system under existing conditions. A summary of the model input is included in Appendix C. The model results for the existing conditions model for the 2-, 10-, 25-, 50-, and 100-year storm events and October 2015 and 2016 flood events are summarized in Appendix D. The work documented in this report and the attached deliverables complete Phase I of the drainage study.

Observations & Recommendations

The following are observations made by examining the existing conditions model results for the Highway 9 & 57 watershed.

- The entire watershed (approximately 1,800 acres) discharges through a drainage canal that borders the Colonial Charters neighborhood, and ultimately through a dual 6'x6' box culvert under S.C. Highway 9.
- Model results show that the residences along the canal ditch (homes along the eastern portions of Eagle Run, Birdie Way, and Edwards Lane), may experience structural flooding in the 25-year storm event.
- Some homes in the Colonial Charters Neighborhood appear to have been constructed significantly lower (Elev. 27 +/-) than other adjacent properties most of which were constructed at higher elevations (Elev. 30 +/-).
- The system in the area of the flooded homes appears to be dependent on the conveyance capacity of the dual box culvert under SC Highway 9 and downstream channel.
- Field observations determined that the canal ditch was undergoing active erosion along the channel banks resulting in heavy sediment and debris deposition at the upstream end of the box culvert. This is creating channel blockage and decreasing the capacity of the culvert.
- The significantly large upstream area – undeveloped parcels upstream of SC Highway 57 – has only minor natural storage and affects drainage in the canal and the Colonial Charters neighborhood. Any future upstream development could add to the existing flooding conditions.
- Based on design flows and modeling conducted for this study, SC Highway 9 is susceptible to overtopping from relatively minor events, possibly below the intended design event of the road.
- Downstream channel improvements and a culvert/bridge upgrade at SC Highway 9 appear to be a viable alternative to improve upstream flooding. However, this alternative may be cost prohibitive.

Thomas & Hutton is prepared to move promptly to Phase 2 of this project. Phase 2 includes an alternatives analysis and improvement recommendations which will involve screening, evaluation, and selection of potential alternatives to improve drainage conditions in the basin.

Highway 9 & 57
Drainage Study

Appendix A

Existing Conditions
Curve Number Calculations

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way 57
Curve Number Calculations

(ac)													
Residential			Water				Woods						Grand
B/D	C/D	WATER	A/D	B/D	C/D	WATER	A	A/D	B	B/D	C/D	WATER	Total
							23.48			40.75			65.90
							11.06	11.07		30.02			52.15
							1.01	35.08		1.88			37.98
								100.93		7.67			108.60
							3.08	52.41		15.70	18.13		89.32
								52.58		11.68			64.26
6.33								60.16		64.18		0.49	131.16
6.91				8.08	1.40			4.94		157.13	17.28		196.66
24.87				0.70			7.15	0.09		11.85			45.48
								1.73	0.11	2.51			40.44
0.12							0.12	18.31		17.14			35.68
			0.76	0.06			2.94	99.10		1.83			112.22
							7.89	12.30		31.38			51.57
24.90	4.65	0.15	0.93	5.78		1.23	15.39	23.63		11.90	0.00	1.14	119.16
10.62	3.90		3.43	0.51	1.07	2.50	18.33	29.00		20.06	76.43	1.56	172.65
12.06	46.41			1.12	1.17					0.00	7.22		91.11
4.23			3.14	2.14		0.98		47.25		22.15		0.24	83.58
			3.98	1.59									12.43
10.68								8.16		5.57			35.11
8.14							0.10			22.40		0.77	56.20
0.71	0.35									8.23	2.02		13.04
0.26	1.59				0.19					3.28	0.51		12.56
	0.90			0.22	0.03					11.16	6.54		24.12
				0.62						0.42			22.09
				0.18						18.96			40.07
4.35	1.07									4.73			10.15
	3.21												3.21
0.00	7.87										0.27		8.14
1.05	2.67									2.06	2.45		8.23
0.03										12.01	0.00		12.03
	0.80									20.41	4.39		27.01
0.10	8.95			0.02	0.30						0.20		9.57
	6.63				1.81						7.81		16.26
3.47	6.47			0.08									10.02
													5.94
2.01				0.07									11.47
0.24										0.63			13.30
				0.22						14.28			66.07
9.36				1.05						0.20			10.61
14.87				3.98						2.51			21.36
25.91				1.23					5.63	69.88			107.38
3.82										66.54			70.36
0.44	1.52			0.06	0.78					0.68	2.64		7.49
175.471	**96.97151**	**0.146924**	**12.23845**	**27.70984**	**6.734254**	**4.707239**	**90.55379**	**556.7492**	**5.736033**	**711.8049**	**145.9056**	**4.208153**	**2132.164**

way 57
Curve Number Calculations

X CN													
Residential			Water				Woods						Grand Total
B/D	C/D	Water	A/D	B/D	C/D	WATER	A	A/D	B	B/D	C/D	Water	
75	83	100	100	100	100	100	25	77	55	77	77	100	
0	0	0	0	0	0	0	587.0814	0	0	3137.827	0	0	58.8
0	0	0	0	0	0	0	276.4443	852.4113	0	2311.483	0	0	66.0
0	0	0	0	0	0	0	25.33796	2701.526	0	145.055	0	0	75.6
0	0	0	0	0	0	0	0	7771.645	0	590.7875	0	0	77.0
0	0	0	0	0	0	0	76.93923	4035.696	0	1208.857	1396.142	0	75.2
0	0	0	0	0	0	0	0	4048.708	0	898.9882	0	0	77.0
474.7482	0	0	0	0	0	0	0	4632.26	0	4942.059	0	49.22566	77.0
518.0963	0	0	0	808.1887	139.5704	0	0	380.6365	0	12099.33	1330.516	0	78.1
1864.941	0	0	0	69.90303	0	0	178.8284	6.850745	0	912.4055	0	0	68.3
0	0	0	0	0	0	0	0	133.3313	6.02263	193.6356	0	0	88.7
8.65444	0	0	0	0	0	0	3.016127	1409.555	0	1319.965	0	0	76.8
0	0	0	75.55619	5.692464	0	0	73.57055	7630.773	0	141.2246	0	0	76.3
0	0	0	0	0	0	0	197.1529	947.4793	0	2416.551	0	0	69.0
1867.202	385.8592	14.69244	92.89617	577.5459	0	123.3053	384.8141	1819.623	0	916.2009	0.064859	114.2622	73.0
796.6107	323.5652	0	342.8332	50.89528	107.0231	249.769	458.2807	2232.906	0	1544.782	5885.458	156.0764	73.2
904.2077	3852.25	0	0	112.4199	116.6362	0	0	0	0	0.324055	555.9344	0	84.1
317.5086	0	0	314.3608	214.1039	0	97.64956	0	3638.228	0	1705.494	0	24.01073	79.0
0	0	0	398.1984	158.8263	0	0	0	0	0	0	0	0	92.6
800.6409	0	0	0	0	0	0	0	628.0599	0	428.8942	0	0	79.7
610.508	0	0	0	0	0	0	2.379123	0	0	1724.992	0	77.24034	82.6
53.51184	29.17586	0	0	0	0	0	0	0	0	633.3886	155.5506	0	78.8
19.50924	132.1696	0	0	0	18.77379	0	0	0	0	252.8494	39.62377	0	85.9
0	74.60418	0	0	21.73237	2.610003	0	0	0	0	859.1542	503.2761	0	80.6
0	0	0	0	61.93385	0	0	0	0	0	32.27497	0	0	91.6
0	0	0	0	18.47799	0	0	0	0	0	1460.037	0	0	84.8
326.1733	88.70299	0	0	0	0	0	0	0	0	364.0366	0	0	76.8
0	266.4862	0	0	0	0	0	0	0	0	0	0	0	83.0
0.011582	652.9839	0	0	0	0	0	0	0	0	0	21.02536	0	82.8
78.93329	221.3182	0	0	0	0	0	0	0	0	158.3094	188.7018	0	78.7
1.969212	0	0	0	0	0	0	0	0	0	924.5528	0.013032	0	77.0
0	66.14306	0	0	0	0	0	0	0	0	1571.904	338.3159	0	77.8
7.468671	742.5828	0	0	2.190591	29.79121	0	0	0	0	0	15.34867	0	83.4
0	550.2552	0	0	0	181.4918	0	0	0	0	0	601.5405	0	82.0
260.3543	536.7336	0	0	8.358394	0	0	0	0	0	0	0	0	80.4
0	0	0	0	0	0	0	0	0	0	0	0	0	89.7
150.6926	0	0	0	7.005277	0	0	0	0	0	0	0	0	88.7
18.18171	0	0	0	0	0	0	0	0	0	48.88121	0	0	91.0
0	0	0	0	21.61701	0	0	0	0	0	1099.58	0	0	88.4
701.6447	0	0	0	104.8714	0	0	0	0	0	15.6065	0	0	77.5
1115.569	0	0	0	398.2154	0	0	0	0	0	192.9814	0	0	79.9
1943.594	0	0	0	123.0537	0	0	0	0	309.4592	5380.966	0	0	76.2
286.6447	0	0	0	0	0	0	0	0	0	5123.197	0	0	76.9
32.94524	125.8054	0	0	5.952443	77.52879	0	0	0	0	52.39778	203.2232	0	83.0

Highway 9 & 57
Drainage Study

Appendix B

Existing Conditions
Time of Concentration
Calculations

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Prepared by:

THOMAS & HUTTON

Savannah, GA | Charleston, SC | Myrtle Beach, SC | Brunswick, GA | Wilmington, NC

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57N_a **DRAINAGE BASIN 57N_a**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0120 ft/ft
t_1 = 22.2 min

Shallow Concentrated Flow:

t=1/60v

where l = 424 ft
Paved ? No
Slope, S = 0.0120 ft/ft
v = 1.77 ft/s
t_2 = 4.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1935 ft
S = 0.0040 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.97 ft/s
t_3 = 33.3 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_a: Tc = 60.0 min

DRAINAGE BASIN 57N_b **DRAINAGE BASIN 57N_b**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0140 ft/ft
t_1 = 20.9 min

Shallow Concentrated Flow:

t=1/60v

where l = 780 ft
Paved ? No
Slope, S = 0.0140 ft/ft
v = 1.91 ft/s
t_2 = 6.8 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1357 ft
S = 0.0050 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.08 ft/s
t_3 = 20.9 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_b: Tc = 49.0 min

DRAINAGE BASIN 57N_c **DRAINAGE BASIN 57N_c**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0140 ft/ft
t_1 = 20.9 min

Shallow Concentrated Flow:

t=1/60v

where l = 108 ft
Paved ? No
Slope, S = 0.0140 ft/ft
v = 1.91 ft/s
t_2 = 0.9 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1202 ft
S = 0.0050 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.08 ft/s
t_3 = 18.5 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_c: Tc = 40.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57N_d **DRAINAGE BASIN 57N_d**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0060 ft/ft
t_1 = 29.3 min

Shallow Concentrated Flow:

t=1/60v

where l = 975 ft
Paved ? No
Slope, S = 0.0050 ft/ft
v = 1.14 ft/s
t_2 = 14.2 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1852 ft
S = 0.0050 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.08 ft/s
t_3 = 28.5 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_d: Tc = 72.0 min

DRAINAGE BASIN 57N_e **DRAINAGE BASIN 57N_e**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0230 ft/ft
t_1 = 17.1 min

Shallow Concentrated Flow:

t=1/60v

where l = 332 ft
Paved ? No
Slope, S = 0.0050 ft/ft
v = 1.14 ft/s
t_2 = 4.9 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1976 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 48.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_e: Tc = 70.0 min

DRAINAGE BASIN 57N_f **DRAINAGE BASIN 57N_f**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0100 ft/ft
t_1 = 23.9 min

Shallow Concentrated Flow:

t=1/60v

where l = 319 ft
Paved ? No
Slope, S = 0.0050 ft/ft
v = 1.14 ft/s
t_2 = 4.7 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1939 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 47.2 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_f: Tc = 76.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57N_g **DRAINAGE BASIN 57N_g**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0120 ft/ft
t_1 = 22.2 min

Shallow Concentrated Flow:

t=1/60v

where l = 395 ft
Paved ? No
Slope, S = 0.0120 ft/ft
v = 1.77 ft/s
t_2 = 3.7 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 3411 ft
S = 0.0010 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.48 ft/s
t_3 = 117.4 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_g: Tc = 143.0 min

DRAINAGE BASIN 57N_h **DRAINAGE BASIN 57N_h**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0070 ft/ft
t_1 = 27.6 min

Shallow Concentrated Flow:

t=1/60v

where l = 1337 ft
Paved ? No
Slope, S = 0.0070 ft/ft
v = 1.35 ft/s
t_2 = 16.5 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 4480 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 109.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57N_h: Tc = 153.0 min

DRAINAGE BASIN 57S_a **DRAINAGE BASIN 57S_a**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0080 ft/ft
t_1 = 26.1 min

Shallow Concentrated Flow:

t=1/60v

where l = 750 ft
Paved ? No
Slope, S = 0.0080 ft/ft
v = 1.44 ft/s
t_2 = 8.7 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 975 ft
S = 0.0030 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.84 ft/s
t_3 = 19.4 min

Pipe Flow: t=1/60v

l= 456 ft
v= 2.00 ft/s
t= 3.8 min

Basin 57S_a: Tc = 58.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**

PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57S_b **DRAINAGE BASIN 57S_b**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 93 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 5.6 min

Shallow Concentrated Flow:

t=1/60v

where l = 0 ft
Paved ? No
Slope, S = 0.0080 ft/ft
v = 1.44 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 3413 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 83.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_b: Tc = 89.0 min

DRAINAGE BASIN 57S_c **DRAINAGE BASIN 57S_c**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0300 ft/ft
t_1 = 15.4 min

Shallow Concentrated Flow:

t=1/60v

where l = 172 ft
Paved ? No
Slope, S = 0.0300 ft/ft
v = 2.79 ft/s
t_2 = 1.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1708 ft
S = 0.0030 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.84 ft/s
t_3 = 33.9 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_c: Tc = 50.0 min

DRAINAGE BASIN 57S_d **DRAINAGE BASIN 57S_d**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 100 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 6.0 min

Shallow Concentrated Flow:

t=1/60v

where l = 683 ft
Paved ? No
Slope, S = 0.0120 ft/ft
v = 1.77 ft/s
t_2 = 6.4 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 2944 ft
S = 0.0015 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.59 ft/s
t_3 = 82.8 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_d: Tc = 95.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57S_e **DRAINAGE BASIN 57S_e**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0080 ft/ft
t_1 = 26.1 min

Shallow Concentrated Flow:
t=1/60v
where l = 1198 ft
Paved ? No
Slope, S = 0.0080 ft/ft
v = 1.44 ft/s
t_2 = 13.8 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 1013 ft
S = 0.0010 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.48 ft/s
t_3 = 34.9 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_e: Tc = 75.0 min

DRAINAGE BASIN 57S_f **DRAINAGE BASIN 57S_f**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 59 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 3.9 min

Shallow Concentrated Flow:
t=1/60v
where l = 0 ft
Paved ? No
Slope, S = 0.0080 ft/ft
v = 1.44 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 3160 ft
S = 0.0025 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.77 ft/s
t_3 = 68.8 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_f: Tc = 73.0 min

DRAINAGE BASIN 57S_g **DRAINAGE BASIN 57S_g**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0120 ft/ft
t_1 = 22.2 min

Shallow Concentrated Flow:
t=1/60v
where l = 230 ft
Paved ? No
Slope, S = 0.0120 ft/ft
v = 1.77 ft/s
t_2 = 2.2 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 6935 ft
S = 0.0025 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.77 ft/s
t_3 = 151.0 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_g: Tc = 175.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**

PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57S_h **DRAINAGE BASIN 57S_h**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 100 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 6.0 min

Shallow Concentrated Flow:

t=1/60v

where l = 0 ft
Paved ? No
Slope, S = 0.0120 ft/ft
v = 1.77 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 4010 ft
S = 0.0013 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.55 ft/s
t_3 = 121.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_h: Tc = 127.0 min

DRAINAGE BASIN 57S_i **DRAINAGE BASIN 57S_i**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 18.1 min

Shallow Concentrated Flow:

t=1/60v

where l = 270 ft
Paved ? No
Slope, S = 0.0200 ft/ft
v = 2.28 ft/s
t_2 = 2.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 2445 ft
S = 0.0010 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.48 ft/s
t_3 = 84.2 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_i: Tc = 104.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN 57S_j **DRAINAGE BASIN 57S_j**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 100 ft
P2 = 4.50 in
S = 0.1000 ft/ft
t_1 = 3.1 min

Shallow Concentrated Flow:
t=1/60v
where l = 47 ft
Paved ? No
Slope, S = 0.1000 ft/ft
v = 5.10 ft/s
t_2 = 0.2 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 215 ft
S = 0.0100 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.53 ft/s
t_3 = 2.3 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_j: Tc = 6.0 min

DRAINAGE BASIN 57S_k **DRAINAGE BASIN 57S_k**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Dense = 0.240
l = 100 ft
P2 = 4.50 in
S = 0.0070 ft/ft
t_1 = 18.3 min

Shallow Concentrated Flow:
t=1/60v
where l = 241 ft
Paved ? No
Slope, S = 0.0070 ft/ft
v = 1.35 ft/s
t_2 = 3.0 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 1596 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 38.9 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_k: Tc = 60.0 min

DRAINAGE BASIN 57S_l **DRAINAGE BASIN 57S_l**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0060 ft/ft
t_1 = 29.3 min

Shallow Concentrated Flow:
t=1/60v
where l = 202 ft
Paved ? No
Slope, S = 0.0060 ft/ft
v = 1.25 ft/s
t_2 = 2.7 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 2690 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 65.5 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin 57S_l: Tc = 97.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**

PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN A — DRAINAGE BASIN A

Calculate Existing Conditions "Tc" — **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 18.1 min

Shallow Concentrated Flow:

t=1/60v

where l = 329 ft
Paved ? No
Slope, S = 0.0200 ft/ft
v = 2.28 ft/s
t_2 = 2.4 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 295 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 7.2 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin A: Tc = 28.0 min

DRAINAGE BASIN B — DRAINAGE BASIN B

Calculate Existing Conditions "Tc" — **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 56 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 3.8 min

Shallow Concentrated Flow:

t=1/60v

where l = 0 ft
Paved ? No
Slope, S = 0.0200 ft/ft
v = 2.28 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1893 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 7.00 sf
P = 10.32 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 46.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin B: Tc = 50.0 min

DRAINAGE BASIN C — DRAINAGE BASIN C

Calculate Existing Conditions "Tc" — **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0100 ft/ft
t_1 = 23.9 min

Shallow Concentrated Flow:

t=1/60v

where l = 403 ft
Paved ? No
Slope, S = 0.0100 ft/ft
v = 1.61 ft/s
t_2 = 4.2 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 2223 ft
S = 0.0030 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 7.00 sf
P = 10.32 ft => Hydraulic Radius, R = 0.68 ft
v = 0.84 ft/s
t_3 = 44.2 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin C: Tc = 72.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57** **Job:** **26146**

PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN D — DRAINAGE BASIN D

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 23 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 5.6 min

Shallow Concentrated Flow:

t=1/60v

where l = 0 ft
Paved ? No
Slope, S = 0.0100 ft/ft
v = 1.61 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1628 ft
S = 0.0060 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 7.00 sf
P = 10.32 ft => Hydraulic Radius, R = 0.68 ft
v = 1.18 ft/s
t_3 = 22.9 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin D: Tc = 28.0 min

DRAINAGE BASIN E — DRAINAGE BASIN E

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0080 ft/ft
t_1 = 26.1 min

Shallow Concentrated Flow:

t=1/60v

where l = 735 ft
Paved ? No
Slope, S = 0.0080 ft/ft
v = 1.44 ft/s
t_2 = 8.5 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1250 ft
S = 0.0036 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 7.00 sf
P = 10.32 ft => Hydraulic Radius, R = 0.68 ft
v = 0.92 ft/s
t_3 = 22.7 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin E: Tc = 57.0 min

DRAINAGE BASIN F — DRAINAGE BASIN F

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0100 ft/ft
t_1 = 23.9 min

Shallow Concentrated Flow:

t=1/60v

where l = 507 ft
Paved ? No
Slope, S = 0.0100 ft/ft
v = 1.61 ft/s
t_2 = 5.2 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 578 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 14.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin F: Tc = 43.0 min

STORMWATER DESIGN CONSIDERATIONS

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PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN G

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Bermuda = 0.410
l = 83 ft
P2 = 4.50 in
S = 0.0120 ft/ft
t_1 = 19.5 min

Shallow Concentrated Flow:

t=1/60v

where l = 0 ft
Paved ? No
Slope, S = 0.0100 ft/ft
v = 1.61 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 268 ft
S = 0.0050 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 3.00 sf
P = 6.12 ft => Hydraulic Radius, R = 0.49 ft
v = 0.93 ft/s
t_3 = 4.8 min

Pipe Flow: t=1/60v

l= 117 ft
v= 2.00 ft/s
t= 1.0 min

Basin G: Tc = 25.0 min

DRAINAGE BASIN H

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Bermuda = 0.410
l = 100 ft
P2 = 4.50 in
S = 0.0026 ft/ft
t_1 = 41.8 min

Shallow Concentrated Flow:

t=1/60v

where l = 210 ft
Paved ? No
Slope, S = 0.0026 ft/ft
v = 0.82 ft/s
t_2 = 4.3 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 0 ft
S = 0.0050 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 3.00 sf
P = 6.12 ft => Hydraulic Radius, R = 0.49 ft
v = 0.93 ft/s
t_3 = 0.0 min

Pipe Flow: t=1/60v

l= 940 ft
v= 2.00 ft/s
t= 7.8 min

Basin H: Tc = 54.0 min

DRAINAGE BASIN I

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0020 ft/ft
t_1 = 45.5 min

Shallow Concentrated Flow:

t=1/60v

where l = 385 ft
Paved ? No
Slope, S = 0.0020 ft/ft
v = 0.72 ft/s
t_2 = 8.9 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1072 ft
S = 0.0060 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.19 ft/s
t_3 = 15.1 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin I: Tc = 69.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN J

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0060 ft/ft
t_1 = 29.3 min

Shallow Concentrated Flow:
t=1/60v
where l = 792 ft
Paved ? No
Slope, S = 0.0060 ft/ft
v = 1.25 ft/s
t_2 = 10.6 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 420 ft
S = 0.0070 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.28 ft/s
t_3 = 5.5 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin J: Tc = 45.0 min

DRAINAGE BASIN K

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 42 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 3.0 min

Shallow Concentrated Flow:
t=1/60v
where l = 0 ft
Paved ? No
Slope, S = 0.0060 ft/ft
v = 1.25 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 1617 ft
S = 0.0040 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.97 ft/s
t_3 = 27.8 min

Pipe Flow: t=1/60v
l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin K: Tc = 31.0 min

DRAINAGE BASIN Pond A

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:
t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))
where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Bermuda = 0.410
l = 100 ft
P2 = 4.50 in
S = 0.0160 ft/ft
t_1 = 20.2 min

Shallow Concentrated Flow:
t=1/60v
where l = 18 ft
Paved ? No
Slope, S = 0.0160 ft/ft
v = 2.04 ft/s
t_2 = 0.1 min

Channel Flow: t=l/60v
where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55
l = 0 ft
S = 0.0100 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 3.00 sf
P = 6.12 ft => Hydraulic Radius, R = 0.49 ft
v = 1.32 ft/s
t_3 = 0.0 min

Pipe Flow: t=1/60v
l= 1008 ft
v= 2.00 ft/s
t= 8.4 min

Basin Pond A: Tc = 29.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**

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Revised:
By: HEH

DRAINAGE BASIN **Pond B** **DRAINAGE BASIN Pond B**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Bermuda = 0.410
l = 100 ft
P2 = 4.50 in
S = 0.0300 ft/ft
t_1 = 15.7 min

Shallow Concentrated Flow:

t=1/60v

where l = 79 ft
Paved ? No
Slope, S = 0.0300 ft/ft
v = 2.79 ft/s
t_2 = 0.5 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 318 ft
S = 0.0100 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 7.00 sf
P = 10.32 ft => Hydraulic Radius, R = 0.68 ft
v = 1.64 ft/s
t_3 = 3.2 min

Pipe Flow: t=1/60v

l= 351 ft
v= 2.00 ft/s
t= 2.9 min

Basin Pond B: Tc = 22.0 min

DRAINAGE BASIN **Pond C** **DRAINAGE BASIN Pond C**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Bermuda = 0.410
l = 100 ft
P2 = 4.50 in
S = 0.0120 ft/ft
t_1 = 22.7 min

Shallow Concentrated Flow:

t=1/60v

where l = 60 ft
Paved ? Yes
Slope, S = 0.0120 ft/ft
v = 2.23 ft/s
t_2 = 0.4 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 0 ft
S = 0.0100 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 7.00 sf
P = 10.32 ft => Hydraulic Radius, R = 0.68 ft
v = 1.64 ft/s
t_3 = 0.0 min

Pipe Flow: t=1/60v

l= 1445 ft
v= 2.00 ft/s
t= 12.0 min

Basin Pond C: Tc = 35.0 min

DRAINAGE BASIN **Pond Off** **DRAINAGE BASIN Pond Off**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Bermuda = 0.410
l = 100 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 18.5 min

Shallow Concentrated Flow:

t=1/60v

where l = 208 ft
Paved ? No
Slope, S = 0.0060 ft/ft
v = 1.25 ft/s
t_2 = 2.8 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 208 ft
S = 0.0100 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 3.00 sf
P = 6.12 ft => Hydraulic Radius, R = 0.49 ft
v = 1.32 ft/s
t_3 = 2.6 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin Pond Off: Tc = 24.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN X1 — DRAINAGE BASIN X1

Calculate Existing Conditions "Tc" — **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 74 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 4.7 min

Shallow Concentrated Flow:

t=1/60v

where
l = 0 ft
Paved ? No
Slope, S = 0.0200 ft/ft
v = 2.28 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 1756 ft
S = 0.0020 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.73 ft/s
t_3 = 39.9 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin X1: Tc = 45.0 min

DRAINAGE BASIN X2 — DRAINAGE BASIN X2

Calculate Existing Conditions "Tc" — **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Smooth/Paved Surfaces = 0.011
l = 100 ft
P2 = 4.50 in
S = 0.0003 ft/ft
t_1 = 5.5 min

Shallow Concentrated Flow:

t=1/60v

where
l = 344 ft
Paved ? Yes
Slope, S = 0.0030 ft/ft
v = 1.11 ft/s
t_2 = 5.1 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 626 ft
S = 0.0030 ft/ft
n = Hwy. r/w grass 4-6 inches = 0.0700
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.90 ft/s
t_3 = 11.6 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin X2: Tc = 22.0 min

DRAINAGE BASIN X3 — DRAINAGE BASIN X3

Calculate Existing Conditions "Tc" — **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Smooth/Paved Surfaces = 0.011
l = 100 ft
P2 = 4.50 in
S = 0.0040 ft/ft
t_1 = 1.9 min

Shallow Concentrated Flow:

t=1/60v

where
l = 568 ft
Paved ? Yes
Slope, S = 0.0040 ft/ft
v = 1.29 ft/s
t_2 = 7.4 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 534 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 13.0 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin X3: Tc = 22.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**
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PREPARED FOR: Horry County

Job: **26146**
Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN X4 — DRAINAGE BASIN X4

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Grass: Dense = 0.240
l = 100 ft
P2 = 4.50 in
S = 0.0100 ft/ft
t_1 = 15.9 min

Shallow Concentrated Flow:

t=1/60v

where l = 105 ft
Paved ? No
Slope, S = 0.0100 ft/ft
v = 1.61 ft/s
t_2 = 1.1 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 2209 ft
S = 0.0070 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.28 ft/s
t_3 = 28.7 min

Pipe Flow: t=1/60v

l= 816 ft
v= 2.00 ft/s
t= 6.8 min

Basin X4: Tc = 53.0 min

DRAINAGE BASIN X5 — DRAINAGE BASIN X5

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 64 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 4.2 min

Shallow Concentrated Flow:

t=1/60v

where l = 282 ft
Paved ? Yes
Slope, S = 0.0040 ft/ft
v = 1.29 ft/s
t_2 = 3.7 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 0 ft
S = 0.0036 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.92 ft/s
t_3 = 0.0 min

Pipe Flow: t=1/60v

l= 150 ft
v= 2.00 ft/s
t= 1.3 min

Basin X5: Tc = 9.0 min

DRAINAGE BASIN X6 — DRAINAGE BASIN X6

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Pvmt. & Grass Combo (50/50) = 0.100
l = 73 ft
P2 = 4.50 in
S = 0.0200 ft/ft
t_1 = 4.6 min

Shallow Concentrated Flow:

t=1/60v

where l = 133 ft
Paved ? Yes
Slope, S = 0.0040 ft/ft
v = 1.29 ft/s
t_2 = 1.7 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 0 ft
S = 0.0020 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 0.68 ft/s
t_3 = 0.0 min

Pipe Flow: t=1/60v

l= 697 ft
v= 2.00 ft/s
t= 5.8 min

Basin X6: Tc = 12.0 min

STORMWATER DESIGN CONSIDERATIONS

PROJECT: **Highway 9 & 57**

PREPARED BY: Thomas and Hutton Engineering Company
PREPARED FOR: Horry County

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Date: 1/4/17
Revised:
By: HEH

DRAINAGE BASIN X7 **DRAINAGE BASIN X7**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 94 ft
P2 = 4.50 in
S = 0.0150 ft/ft
t_1 = 19.3 min

Shallow Concentrated Flow:

t=1/60v

where l = 0 ft
Paved ? No
Slope, S = 0.0100 ft/ft
v = 1.61 ft/s
t_2 = 0.0 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 4385 ft
S = 0.0050 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.08 ft/s
t_3 = 67.5 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin X7: Tc = 87.0 min

DRAINAGE BASIN X8 **DRAINAGE BASIN X8**

Calculate Existing Conditions "Tc" **EX**

Calculate Time of Concentration:

Use Travel Time Concept:

Overland Sheet Flow:

t = (0.007(nl)^0.8)/((P2^0.5)*(S^0.4))

where: t = Travel time for Overland Flow (min)
n = Manning's coefficient - from TR-55
l = Length of flow (ft)
P2 = 2-yr rainfall depth (in)
S = Hydraulic slope (ft/ft)

n = Woods: Light Underbrush = 0.400
l = 100 ft
P2 = 4.50 in
S = 0.0150 ft/ft
t_1 = 20.3 min

Shallow Concentrated Flow:

t=1/60v

where l = 442 ft
Paved ? No
Slope, S = 0.0150 ft/ft
v = 1.98 ft/s
t_2 = 3.7 min

Channel Flow: t=l/60v

where: t=Travel time for Pipe Flow (min)
l=Length of flow (ft)
S=Average watercourse slope (ft/ft)
n = Manning's Coefficient for Channel Flow
A=Cross-Sectional Area (ft^2)
P=Wetted Perimeter (ft)
R=Hydraulic Radius (ft)
v=Velocity (ft/s)- From TR-55

l = 2815 ft
S = 0.0050 ft/ft
n = Not maintained, clean btm, brush on sides = 0.0750
A = 9.00 sf
P = 13.25 ft => Hydraulic Radius, R = 0.68 ft
v = 1.08 ft/s
t_3 = 43.3 min

Pipe Flow: t=1/60v

l= 0 ft
v= 2.00 ft/s
t= 0.0 min

Basin X8: Tc = 67.0 min

Highway 9 & 57
Drainage Study

Appendix C

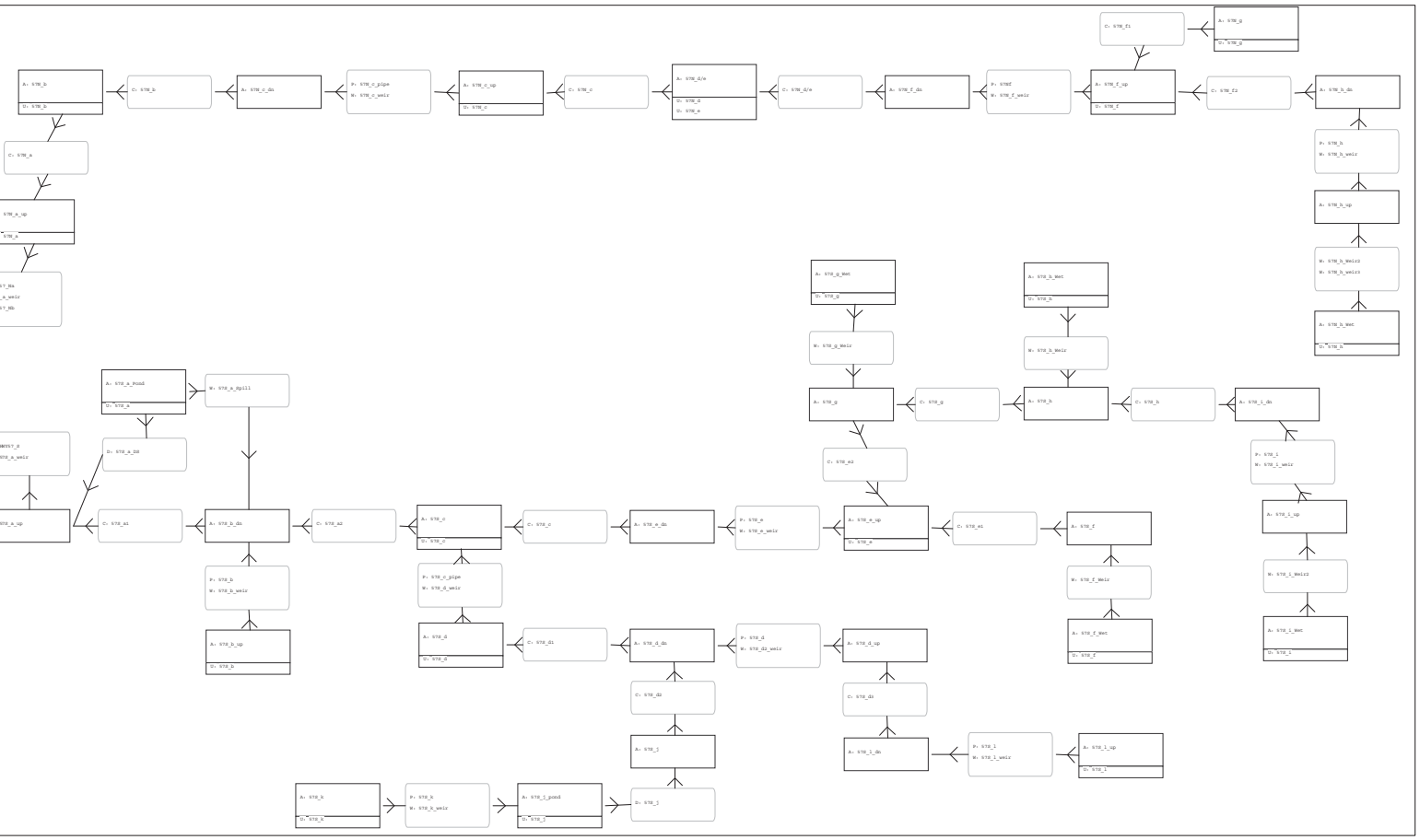
Existing Condtions
ICPR Model Input

J – 26146.0000

Prepared by:

THOMAS & HUTTON

Savannah, GA | Charleston, SC | Myrtle Beach, SC | Brunswick, GA | Wilmington, NC


A: STM_b
U: STM_b
C: STM_b
A: STM_c_dn
P: STM_c_pipe
W: STM_c_weir
A: STM_c_up
U: STM_c
C: STM_c
A: STM_d/e
D: STM_d
D: STM_e
C: STM_d/e
A: STM_f_dn
P: STMf
W: STM_f_weir
A: STM_f_up
U: STM_f
C: STM_f1
A: STM_g
U: STM_g
C: STM_f2
A: STM_h_dn
P: STM_h
W: STM_h_weir
A: STM_h_up
W: STM_h_Weirs
W: STM_h_weirs
A: STM_h_Wet
U: STM_h
C: STM_a
STM_a_up
STM_a
STM_Ma
_a_weir
STM_Mb
A: STM_g_Wet
U: STM_g
W: STM_g_Weir
A: STM_h_Wet
U: STM_h
W: STM_h_Weir
A: STM_a_Pond
U: STM_a
W: STM_a_Spill
D: STM_a_DS
A: STM_g
C: STM_g
A: STM_h
C: STM_h
A: STM_i_dn
C: STM_e2
P: STM_i
W: STM_i_weir
A: STM_i_up
W: STM_i_Weirs
A: STM_i_Wet
U: STM_i
C: STM_a1
A: STM_b_dn
C: STM_a2
A: STM_c
U: STM_c
C: STM_c
A: STM_e_dn
P: STM_e
W: STM_e_weir
A: STM_e_up
U: STM_e
C: STM_e1
A: STM_f
W: STM_f_Weir
A: STM_f_Wet
U: STM_f
P: STM_b
W: STM_b_weir
A: STM_b_up
U: STM_b
P: STM_c_pipe
W: STM_d_weir
A: STM_d
U: STM_d
C: STM_d1
A: STM_d_dn
P: STM_d
W: STM_d2_weir
A: STM_d_up
C: STM_d2
C: STM_d1
A: STM_j
A: STM_l_dn
P: STM_l
W: STM_l_weir
A: STM_l_up
U: STM_l
A: STM_k
U: STM_k
P: STM_k
W: STM_k_weir
A: STM_j_pond
U: STM_j
D: STM_j

```
==========================================================================================
==== Basins ==============================================================================
==========================================================================================

         Name: 57N_a                    Node: 57N_a_up               Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 60.00
            Area(ac): 65.900                    Time Shift(hrs): 0.00
         Curve Number: 58.80             Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: 57N_b                    Node: 57N_b                  Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 49.00
            Area(ac): 52.150                    Time Shift(hrs): 0.00
         Curve Number: 66.00             Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: 57N_c                    Node: 57N_c_up               Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 40.00
            Area(ac): 37.980                    Time Shift(hrs): 0.00
         Curve Number: 75.60             Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: 57N_d                    Node: 57N_d/e                Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 72.00
            Area(ac): 108.600                   Time Shift(hrs): 0.00
         Curve Number: 77.00             Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: 57N_e                    Node: 57N_d/e                Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 70.00
            Area(ac): 89.320                    Time Shift(hrs): 0.00
         Curve Number: 75.20             Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: 57N_f                    Node: 57N_f_up               Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 76.00
            Area(ac): 64.260                    Time Shift(hrs): 0.00
         Curve Number: 77.00             Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: 57N_g                    Node: 57N_g                  Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii             Storm Duration(hrs): 0.00
```

```
    Rainfall Amount(in): 0.000                Time of Conc(min): 143.00
               Area(ac): 131.160                Time Shift(hrs): 0.00
           Curve Number: 77.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57N_h                    Node: 57N_h_Wet              Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 153.00
               Area(ac): 196.660                Time Shift(hrs): 0.00
           Curve Number: 78.10              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_a                    Node: 57S_a_Pond             Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 58.00
               Area(ac): 45.480                 Time Shift(hrs): 0.00
           Curve Number: 68.30              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_b                    Node: 57S_b_up               Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 89.00
               Area(ac): 40.440                 Time Shift(hrs): 0.00
           Curve Number: 88.70              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_c                    Node: 57S_c                  Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 50.00
               Area(ac): 35.680                 Time Shift(hrs): 0.00
           Curve Number: 76.80              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_d                    Node: 57S_d                  Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 95.00
               Area(ac): 112.220                Time Shift(hrs): 0.00
           Curve Number: 76.30              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_e                    Node: 57S_e_up               Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh256                   Peaking Factor: 256.0
          Rainfall File: Scsiii               Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 75.00
               Area(ac): 51.570                 Time Shift(hrs): 0.00
           Curve Number: 69.00              Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_f                    Node: 57S_f_Wet              Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN
```

```
        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 73.00
            Area(ac): 119.160                    Time Shift(hrs): 0.00
         Curve Number: 73.00              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_g                    Node: 57S_g_Wet              Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 175.00
            Area(ac): 172.650                    Time Shift(hrs): 0.00
         Curve Number: 73.20              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_h                    Node: 57S_h_Wet              Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 127.00
            Area(ac): 91.110                     Time Shift(hrs): 0.00
         Curve Number: 84.10              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_i                    Node: 57S_i_wet              Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 104.00
            Area(ac): 83.580                     Time Shift(hrs): 0.00
         Curve Number: 79.00              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_j                    Node: 57S_j_pond             Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 6.00
            Area(ac): 12.430                     Time Shift(hrs): 0.00
         Curve Number: 92.60              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_k                    Node: 57S_k                  Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 60.00
            Area(ac): 35.110                     Time Shift(hrs): 0.00
         Curve Number: 79.70              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: 57S_l                    Node: 57S_l_up               Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                    Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 0.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 97.00
            Area(ac): 56.200                     Time Shift(hrs): 0.00
         Curve Number: 82.60              Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00
```

```
==========================================================================================
==== Nodes ===============================================================================
==========================================================================================

      Name: 57N_a_dn            Base Flow(cfs): 0.000          Init Stage(ft): 25.760
     Group: BASE                                               Warn Stage(ft): 30.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          25.760
        9999.00          25.760

------------------------------------------------------------------------------------------
      Name: 57N_a_up            Base Flow(cfs): 0.000          Init Stage(ft): 25.060
     Group: BASE                                               Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         29.000          0.0100
         30.000          0.0500
         31.000          0.1100
         32.000          2.8400

------------------------------------------------------------------------------------------
      Name: 57N_b               Base Flow(cfs): 0.000          Init Stage(ft): 31.000
     Group: BASE                                               Warn Stage(ft): 33.500
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

------------------------------------------------------------------------------------------
      Name: 57N_c_dn            Base Flow(cfs): 0.000          Init Stage(ft): 31.500
     Group: BASE                                               Warn Stage(ft): 35.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

------------------------------------------------------------------------------------------
      Name: 57N_c_up            Base Flow(cfs): 0.000          Init Stage(ft): 31.700
     Group: BASE                                               Warn Stage(ft): 34.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         31.000          0.3300
         32.000          0.8000
         33.000          1.5000

------------------------------------------------------------------------------------------
      Name: 57N_d/e             Base Flow(cfs): 0.000          Init Stage(ft): 30.240
     Group: BASE                                               Warn Stage(ft): 34.500
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

------------------------------------------------------------------------------------------
      Name: 57N_f_dn            Base Flow(cfs): 0.000          Init Stage(ft): 30.500
     Group: BASE                                               Warn Stage(ft): 33.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

------------------------------------------------------------------------------------------
      Name: 57N_f_up            Base Flow(cfs): 0.000          Init Stage(ft): 30.500
     Group: BASE                                               Warn Stage(ft): 34.000
      Type: Stage/Area
```

```
      Stage(ft)        Area(ac)
--------------- ---------------
         31.000          0.3300
         32.000          0.8000
         33.000          1.5000

-------------------------------------------------------------------------------------------
      Name: 57N_g               Base Flow(cfs): 0.000          Init Stage(ft): 30.800
     Group: BASE                                              Warn Stage(ft): 33.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         31.000          0.5000
         32.000          1.0000
         33.000          1.5000

-------------------------------------------------------------------------------------------
      Name: 57N_h_dn            Base Flow(cfs): 0.000          Init Stage(ft): 32.500
     Group: BASE                                              Warn Stage(ft): 45.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         32.500          0.0100
         45.000          1.0000

-------------------------------------------------------------------------------------------
      Name: 57N_h_up            Base Flow(cfs): 0.000          Init Stage(ft): 32.800
     Group: BASE                                              Warn Stage(ft): 45.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         32.800          0.0100
         45.000          1.0000

-------------------------------------------------------------------------------------------
      Name: 57N_h_Wet           Base Flow(cfs): 0.000          Init Stage(ft): 37.000
     Group: BASE                                              Warn Stage(ft): 45.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         37.000          6.0000
         38.000          9.0000
         39.000         12.0000
         45.000         20.0000

-------------------------------------------------------------------------------------------
      Name: 57S_a_dn            Base Flow(cfs): 0.000          Init Stage(ft): 24.200
     Group: BASE                                              Warn Stage(ft): 33.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          24.200
        9999.00          24.200

-------------------------------------------------------------------------------------------
      Name: 57S_a_Pond          Base Flow(cfs): 0.000          Init Stage(ft): 27.400
     Group: BASE                                              Warn Stage(ft): 30.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         27.400          0.5000
         29.000          0.7000

-------------------------------------------------------------------------------------------
      Name: 57S_a_up            Base Flow(cfs): 0.000          Init Stage(ft): 25.100
     Group: BASE                                              Warn Stage(ft): 33.000
      Type: Stage/Area
```

```
      Stage(ft)        Area(ac)
--------------- ---------------
         27.000          0.0100
         28.000          0.1100
         29.000          0.1600
         30.000          0.2100
         31.000          0.6200

-------------------------------------------------------------------------------------------
      Name: 57S_b_dn            Base Flow(cfs): 0.000          Init Stage(ft): 25.200
     Group: BASE                                               Warn Stage(ft): 31.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_b_up            Base Flow(cfs): 0.000          Init Stage(ft): 26.900
     Group: BASE                                               Warn Stage(ft): 31.500
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         26.000          0.0100
         31.500          0.0100

-------------------------------------------------------------------------------------------
      Name: 57S_c               Base Flow(cfs): 0.000          Init Stage(ft): 25.400
     Group: BASE                                               Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         28.000          0.0200
         29.000          0.1300
         30.000          0.5200
         31.000          1.7600

-------------------------------------------------------------------------------------------
      Name: 57S_d               Base Flow(cfs): 0.000          Init Stage(ft): 25.500
     Group: BASE                                               Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_d_dn            Base Flow(cfs): 0.000          Init Stage(ft): 26.000
     Group: BASE                                               Warn Stage(ft): 33.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_d_up            Base Flow(cfs): 0.000          Init Stage(ft): 26.200
     Group: BASE                                               Warn Stage(ft): 33.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_e_dn            Base Flow(cfs): 0.000          Init Stage(ft): 26.900
     Group: BASE                                               Warn Stage(ft): 33.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_e_up            Base Flow(cfs): 0.000          Init Stage(ft): 28.100
     Group: BASE                                               Warn Stage(ft): 33.000
```

```
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         29.000          0.0200
         30.000          0.1100
         31.000          0.4000
         32.000          4.4000
         33.000         24.3000

-------------------------------------------------------------------------------------------
      Name: 57S_f               Base Flow(cfs): 0.000          Init Stage(ft): 29.900
     Group: BASE                                               Warn Stage(ft): 34.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_f_Wet           Base Flow(cfs): 0.000          Init Stage(ft): 32.000
     Group: BASE                                               Warn Stage(ft): 33.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         32.000          6.0000
         33.000          6.0000

-------------------------------------------------------------------------------------------
      Name: 57S_g               Base Flow(cfs): 0.000          Init Stage(ft): 29.500
     Group: BASE                                               Warn Stage(ft): 38.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_g_Wet           Base Flow(cfs): 0.000          Init Stage(ft): 35.000
     Group: BASE                                               Warn Stage(ft): 40.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         35.000          4.0000
         36.000          8.0000
         37.000         15.0000

-------------------------------------------------------------------------------------------
      Name: 57S_h               Base Flow(cfs): 0.000          Init Stage(ft): 34.100
     Group: BASE                                               Warn Stage(ft): 38.700
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: 57S_h_Wet           Base Flow(cfs): 0.000          Init Stage(ft): 37.500
     Group: BASE                                               Warn Stage(ft): 40.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         37.500          2.0000
         40.000          8.0000

-------------------------------------------------------------------------------------------
      Name: 57S_i_dn            Base Flow(cfs): 0.000          Init Stage(ft): 38.500
     Group: BASE                                               Warn Stage(ft): 40.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
```

```
-------------------------------------------------------------------------------------
      Name: 57S_i_up            Base Flow(cfs): 0.000          Init Stage(ft): 38.700
     Group: BASE                                               Warn Stage(ft): 40.500
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: 57S_i_Wet           Base Flow(cfs): 0.000          Init Stage(ft): 38.500
     Group: BASE                                               Warn Stage(ft): 40.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         38.500          6.0000
         40.000          8.0000

-------------------------------------------------------------------------------------
      Name: 57S_j               Base Flow(cfs): 0.000          Init Stage(ft): 26.000
     Group: BASE                                               Warn Stage(ft): 34.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: 57S_j_pond          Base Flow(cfs): 0.000          Init Stage(ft): 28.000
     Group: BASE                                               Warn Stage(ft): 35.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         28.000          5.3000
         29.000          5.4000
         30.000          5.5000
         31.000          5.7000
         32.000          6.0000
         33.000          6.4000
         34.000          7.0000
         35.000          8.7000

-------------------------------------------------------------------------------------
      Name: 57S_k               Base Flow(cfs): 0.000          Init Stage(ft): 31.800
     Group: BASE                                               Warn Stage(ft): 34.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: 57S_l_dn            Base Flow(cfs): 0.000          Init Stage(ft): 31.800
     Group: BASE                                               Warn Stage(ft): 35.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: 57S_l_up            Base Flow(cfs): 0.000          Init Stage(ft): 33.300
     Group: BASE                                               Warn Stage(ft): 35.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

=====================================================================================
==== Pipes ==========================================================================
=====================================================================================

         Name: 57N_c_pipe          From Node: 57N_c_up          Length(ft): 35.00
        Group: BASE                  To Node: 57N_c_dn                Count: 1
                                                          Friction Equation: Automatic
```

```
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.50
   Invert(ft): 31.700         31.500                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: 57N_h               From Node: 57N_h_up          Length(ft): 36.00
        Group: BASE                  To Node: 57N_h_dn                Count: 1
                                                             Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.50
   Invert(ft): 32.800         32.500                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: 57Nf                From Node: 57N_f_up          Length(ft): 35.00
        Group: BASE                  To Node: 57N_f_dn                Count: 1
                                                             Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 24.00          24.00                      Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                          Exit Loss Coef: 0.50
   Invert(ft): 30.500         30.500                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: 57S_b               From Node: 57S_b_up          Length(ft): 38.00
        Group: BASE                  To Node: 57S_b_dn                Count: 1
                                                             Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                 Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 36.00          36.00                      Entrance Loss Coef: 0.20
     Rise(in): 36.00          36.00                          Exit Loss Coef: 0.50
   Invert(ft): 26.900         26.300                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall
```

```
-----------------------------------------------------------------------------------------------
         Name: 57S_c_pipe          From Node: 57S_d              Length(ft): 40.00
        Group: BASE                  To Node: 57S_c                   Count: 1
                                                            Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 18.00          18.00                       Entrance Loss Coef: 0.20
     Rise(in): 18.00          18.00                           Exit Loss Coef: 0.50
   Invert(ft): 25.500         25.400                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: 57S_d               From Node: 57S_d_up           Length(ft): 40.00
        Group: BASE                  To Node: 57S_d_dn                Count: 1
                                                            Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 18.00          18.00                       Entrance Loss Coef: 0.20
     Rise(in): 18.00          18.00                           Exit Loss Coef: 0.50
   Invert(ft): 26.200         26.000                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: 57S_e               From Node: 57S_e_up           Length(ft): 40.00
        Group: BASE                  To Node: 57S_e_dn                Count: 1
                                                            Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 18.00          18.00                       Entrance Loss Coef: 0.20
     Rise(in): 18.00          18.00                           Exit Loss Coef: 0.50
   Invert(ft): 28.100         26.900                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: 57S_i               From Node: 57S_i_up           Length(ft): 50.00
        Group: BASE                  To Node: 57S_i_dn                Count: 1
                                                            Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 18.00          18.00                       Entrance Loss Coef: 0.20
     Rise(in): 18.00          18.00                           Exit Loss Coef: 0.50
   Invert(ft): 38.700         38.500                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
```

Circular Concrete: Square edge w/ headwall

```
-----------------------------------------------------------------------------------------------
         Name: 57S_k              From Node: 57S_k             Length(ft): 140.00
        Group: BASE                 To Node: 57S_j_pond             Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                       Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                           Exit Loss Coef: 0.50
   Invert(ft): 31.800         28.400                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None
```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```
-----------------------------------------------------------------------------------------------
         Name: 57S_l              From Node: 57S_l_up          Length(ft): 142.00
        Group: BASE                 To Node: 57S_l_dn               Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                       Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                           Exit Loss Coef: 0.50
   Invert(ft): 33.300         31.800                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None
```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```
-----------------------------------------------------------------------------------------------
         Name: HWY57_Na           From Node: 57N_a_up          Length(ft): 48.00
        Group: BASE                 To Node: 57N_a_dn               Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 24.00          24.00                       Entrance Loss Coef: 0.20
     Rise(in): 24.00          24.00                           Exit Loss Coef: 0.50
   Invert(ft): 27.100         27.640                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None
```

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

```
-----------------------------------------------------------------------------------------------
         Name: HWY57_Nb           From Node: 57N_a_up          Length(ft): 48.00
        Group: BASE                 To Node: 57N_a_dn               Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                 Flow: Both
     Span(in): 18.00          18.00                       Entrance Loss Coef: 0.20
     Rise(in): 18.00          18.00                           Exit Loss Coef: 0.50
   Invert(ft): 25.060         25.760                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None
```

```
Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall



-----------------------------------------------------------------------------------------------
         Name: HWY57_S             From Node: 57S_a_up          Length(ft): 48.00
        Group: BASE                  To Node: 57S_a_dn               Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Rectangular    Rectangular                              Flow: Both
     Span(in): 168.00         168.00                     Entrance Loss Coef: 0.20
     Rise(in): 96.00          96.00                          Exit Loss Coef: 0.50
   Invert(ft): 24.200         25.100                         Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                        Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares

Downstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares



=================================================================================
==== Channels ===================================================================
=================================================================================

          Name: 57N_a               From Node: 57N_b              Length(ft): 1575.00
         Group: BASE                  To Node: 57N_a_up                Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                 Solution Algorithm: Automatic
    Invert(ft): 31.000         25.060                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                      Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                        Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 2.000          2.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57N_b               From Node: 57N_c_dn           Length(ft): 1568.00
         Group: BASE                  To Node: 57N_b                   Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                 Solution Algorithm: Automatic
    Invert(ft): 31.500         31.000                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                      Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                        Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          2.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57N_c               From Node: 57N_d/e            Length(ft): 1857.00
         Group: BASE                  To Node: 57N_c_up                Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                 Solution Algorithm: Automatic
```

```
    Invert(ft): 30.240         31.700                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57N_d/e             From Node: 57N_f_dn           Length(ft): 578.00
         Group: BASE                  To Node: 57N_d/e                 Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 30.500         30.240                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57N_f1              From Node: 57N_g              Length(ft): 1390.00
         Group: BASE                  To Node: 57N_f_up                Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 30.800         30.500                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57N_f2              From Node: 57N_h_dn           Length(ft): 1790.00
         Group: BASE                  To Node: 57N_f_up                Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 32.500         30.500                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00
```

```
-----------------------------------------------------------------------------------------------
          Name: 57S_a1              From Node: 57S_b_dn           Length(ft): 130.00
         Group: BASE                  To Node: 57S_a_up                Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 25.200         25.100                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_a2              From Node: 57S_c              Length(ft): 700.00
         Group: BASE                  To Node: 57S_b_dn                Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 25.400         25.200                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_c               From Node: 57S_e_dn           Length(ft): 1490.00
         Group: BASE                  To Node: 57S_c                   Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 26.900         25.400                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_d1              From Node: 57S_d_dn           Length(ft): 1454.00
         Group: BASE                  To Node: 57S_d                   Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 26.000         25.500                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
```

```
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_d2              From Node: 57S_j             Length(ft): 1287.00
         Group: BASE                  To Node: 57S_d_dn               Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal               Solution Algorithm: Automatic
    Invert(ft): 26.000         26.000                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                     Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                     Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                         Exit Loss Coef: 0.000
     Main XSec:                                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                             Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_d3              From Node: 57S_l_dn          Length(ft): 2440.00
         Group: BASE                  To Node: 57S_d_up               Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal               Solution Algorithm: Automatic
    Invert(ft): 31.800         26.200                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                     Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                     Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                         Exit Loss Coef: 0.000
     Main XSec:                                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                             Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_e1              From Node: 57S_f             Length(ft): 611.00
         Group: BASE                  To Node: 57S_e_up               Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal               Solution Algorithm: Automatic
    Invert(ft): 29.900         28.100                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                     Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                     Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                         Exit Loss Coef: 0.000
     Main XSec:                                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                             Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_e2              From Node: 57S_g             Length(ft): 2429.00
         Group: BASE                  To Node: 57S_e_up               Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal               Solution Algorithm: Automatic
```

```
    Invert(ft): 29.500         28.100                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_g                From Node: 57S_h              Length(ft): 4006.00
         Group: BASE                   To Node: 57S_g                   Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 34.100         29.500                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.060000       0.060000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


-----------------------------------------------------------------------------------------------
          Name: 57S_h                From Node: 57S_i_dn           Length(ft): 2402.00
         Group: BASE                   To Node: 57S_h                   Count: 1

                UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 38.500         34.100                                  Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                       Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                           Exit Loss Coef: 0.000
     Main XSec:                                              Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                               Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 4.00           4.00
  RtSdSlp(h/v): 4.00           4.00


==========================================================================================
==== Drop Structures ======================================================================
==========================================================================================

         Name: 57S_a_DS             From Node: 57S_a_pond         Length(ft): 119.00
        Group: BASE                   To Node: 57S_a_up                Count: 2

               UPSTREAM       DOWNSTREAM                   Friction Equation: Automatic
     Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
     Span(in): 18.00          18.00                                   Flow: Both
     Rise(in): 18.00          18.00                       Entrance Loss Coef: 0.200
   Invert(ft): 27.180         26.700                          Exit Loss Coef: 0.500
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                          Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                            Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall
```

```
*** Weir 1 of 2 for Drop Structure 57S_a_DS ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 60.00                       Invert(ft): 27.400
              Rise(in): 6.00                  Control Elev(ft): 27.400

*** Weir 2 of 2 for Drop Structure 57S_a_DS ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Horizontal                Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 60.00                       Invert(ft): 28.000
              Rise(in): 48.00                 Control Elev(ft): 28.000


-----------------------------------------------------------------------------------------------
         Name: 57S_j               From Node: 57S_j_pond        Length(ft): 150.00
        Group: BASE                  To Node: 57S_j                  Count: 2

              UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
     Span(in): 30.00          30.00                                 Flow: Both
     Rise(in): 30.00          30.00                    Entrance Loss Coef: 0.200
   Invert(ft): 26.000         26.000                       Exit Loss Coef: 0.500
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 2 for Drop Structure 57S_j ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 48.00                       Invert(ft): 28.000
              Rise(in): 6.00                  Control Elev(ft): 28.000

*** Weir 2 of 2 for Drop Structure 57S_j ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Horizontal                Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Circular              Orifice Disc Coef: 0.600

              Span(in): 48.00                       Invert(ft): 30.000
              Rise(in): 48.00                 Control Elev(ft): 30.000


===============================================================================================
==== Weirs ====================================================================================
===============================================================================================

         Name: 57N_a_weir          From Node: 57N_a_up
        Group: BASE                  To Node: 57N_a_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 100.00
        Left Side Slope(h/v): 250.00
       Right Side Slope(h/v): 250.00
                  Invert(ft): 32.000
       Control Elevation(ft): 32.000
      Struct Opening Dim(ft): 9999.00
                                          TABLE
              Bottom Clip(ft): 0.000
                 Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600
```

```
-----------------------------------------------------------------------------------------------
         Name: 57N_c_weir          From Node: 57N_c_up
        Group: BASE                  To Node: 57N_c_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 100.00
       Left Side Slope(h/v): 100.00
      Right Side Slope(h/v): 100.00
                 Invert(ft): 34.000
      Control Elevation(ft): 34.000
     Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
        Weir Discharge Coef: 3.200
     Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------
         Name: 57N_f_weir          From Node: 57N_f_up
        Group: BASE                  To Node: 57N_f_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 100.00
       Left Side Slope(h/v): 250.00
      Right Side Slope(h/v): 250.00
                 Invert(ft): 34.000
      Control Elevation(ft): 34.000
     Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
        Weir Discharge Coef: 3.200
     Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------
         Name: 57N_h_weir          From Node: 57N_h_up
        Group: BASE                  To Node: 57N_h_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 100.00
       Left Side Slope(h/v): 200.00
      Right Side Slope(h/v): 200.00
                 Invert(ft): 35.000
      Control Elevation(ft): 35.000
     Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
        Weir Discharge Coef: 3.200
     Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------
         Name: 57N_h_Weir2         From Node: 57N_h_wet
        Group: BASE                  To Node: 57N_h_up
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Rectangular

                    Span(in): 60.00
                    Rise(in): 12.00
                 Invert(ft): 38.000
      Control Elevation(ft): 38.000
                                          TABLE
             Bottom Clip(in): 0.000
                Top Clip(in): 0.000
        Weir Discharge Coef: 3.200
     Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------
         Name: 57N_h_weir3         From Node: 57N_h_wet
        Group: BASE                  To Node: 57N_h_up
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 100.00
       Left Side Slope(h/v): 200.00
      Right Side Slope(h/v): 200.00
                 Invert(ft): 40.000
```

```
       Control Elevation(ft): 40.000
      Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
         Name: 57S_a_Spill         From Node: 57S_a_Pond
        Group: BASE                  To Node: 57S_b_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 4.00
       Right Side Slope(h/v): 4.00
                  Invert(ft): 28.500
       Control Elevation(ft): 28.500
      Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
         Name: 57S_a_weir          From Node: 57S_a_up
        Group: BASE                  To Node: 57S_a_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 50.00
        Left Side Slope(h/v): 250.00
       Right Side Slope(h/v): 1000.00
                  Invert(ft): 33.140
       Control Elevation(ft): 33.140
      Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
         Name: 57S_b_weir          From Node: 57S_b_up
        Group: BASE                  To Node: 57S_b_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 50.00
        Left Side Slope(h/v): 50.00
       Right Side Slope(h/v): 100.00
                  Invert(ft): 31.500
       Control Elevation(ft): 31.500
      Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
         Name: 57S_d2_weir         From Node: 57S_d_up
        Group: BASE                  To Node: 57S_d_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 200.00
        Left Side Slope(h/v): 250.00
       Right Side Slope(h/v): 100.00
                  Invert(ft): 32.700
       Control Elevation(ft): 32.700
      Struct Opening Dim(ft): 9999.00
                                          TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600
```

```
-----------------------------------------------------------------------------------------------------
         Name: 57S_d_weir          From Node: 57S_d
        Group: BASE                  To Node: 57S_c
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 80.00
        Left Side Slope(h/v): 200.00
       Right Side Slope(h/v): 50.00
                  Invert(ft): 32.300
       Control Elevation(ft): 32.300
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------------
         Name: 57S_e_weir          From Node: 57S_e_up
        Group: BASE                  To Node: 57S_e_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 200.00
        Left Side Slope(h/v): 250.00
       Right Side Slope(h/v): 100.00
                  Invert(ft): 32.700
       Control Elevation(ft): 32.700
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------------
         Name: 57S_f_Weir          From Node: 57S_f_Wet
        Group: BASE                  To Node: 57S_f
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Rectangular

                    Span(in): 60.00
                    Rise(in): 1.00
                  Invert(ft): 33.000
       Control Elevation(ft): 33.000
                                              TABLE
             Bottom Clip(in): 0.000
                Top Clip(in): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------------
         Name: 57S_g_Weir          From Node: 57S_g_Wet
        Group: BASE                  To Node: 57S_g
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Rectangular

                    Span(in): 60.00
                    Rise(in): 1.00
                  Invert(ft): 37.000
       Control Elevation(ft): 37.000
                                              TABLE
             Bottom Clip(in): 0.000
                Top Clip(in): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600


-----------------------------------------------------------------------------------------------------
         Name: 57S_h_Weir          From Node: 57S_h_Wet
        Group: BASE                  To Node: 57S_h
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Rectangular

                    Span(in): 60.00
                    Rise(in): 1.00
                  Invert(ft): 37.500
       Control Elevation(ft): 37.500
```

```
                                          TABLE
            Bottom Clip(in): 0.000
               Top Clip(in): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
        Name: 57S_i_weir          From Node: 57S_i_up
       Group: BASE                  To Node: 57S_i_dn
        Flow: Both                    Count: 1
        Type: Vertical: Fread      Geometry: Trapezoidal

           Bottom Width(ft): 50.00
      Left Side Slope(h/v): 75.00
     Right Side Slope(h/v): 180.00
                 Invert(ft): 40.500
     Control Elevation(ft): 40.500
     Struct Opening Dim(ft): 9999.00
                                          TABLE
            Bottom Clip(ft): 0.000
               Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
        Name: 57S_i_Weir2         From Node: 57S_i_Wet
       Group: BASE                  To Node: 57S_i_up
        Flow: Both                    Count: 1
        Type: Vertical: Fread      Geometry: Rectangular

                    Span(in): 60.00
                    Rise(in): 1.00
                 Invert(ft): 40.000
     Control Elevation(ft): 40.000
                                          TABLE
            Bottom Clip(in): 0.000
               Top Clip(in): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
        Name: 57S_k_weir          From Node: 57S_k
       Group: BASE                  To Node: 57S_j_pond
        Flow: Both                    Count: 1
        Type: Vertical: Fread      Geometry: Trapezoidal

           Bottom Width(ft): 400.00
      Left Side Slope(h/v): 230.00
     Right Side Slope(h/v): 500.00
                 Invert(ft): 36.800
     Control Elevation(ft): 36.800
     Struct Opening Dim(ft): 9999.00
                                          TABLE
            Bottom Clip(ft): 0.000
               Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------
        Name: 57S_l_weir          From Node: 57S_l_up
       Group: BASE                  To Node: 57S_l_dn
        Flow: Both                    Count: 1
        Type: Vertical: Fread      Geometry: Trapezoidal

           Bottom Width(ft): 200.00
      Left Side Slope(h/v): 500.00
     Right Side Slope(h/v): 800.00
                 Invert(ft): 37.500
     Control Elevation(ft): 37.500
     Struct Opening Dim(ft): 9999.00
                                          TABLE
            Bottom Clip(ft): 0.000
               Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



===============================================================================================
==== Hydrology Simulations ====================================================================
```

```
==========================================================================================

         Name: 002-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\002-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 4.50

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

------------------------------------------------------------------------------------------
         Name: 010-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\010-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 6.70

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

------------------------------------------------------------------------------------------
         Name: 025-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\025-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 7.60

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

------------------------------------------------------------------------------------------
         Name: 050-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\050-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 8.60

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

------------------------------------------------------------------------------------------
         Name: 100-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\100-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 9.70

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

------------------------------------------------------------------------------------------
         Name: OCT-2015
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\OCT-2015.R32

      Override Defaults: Yes
    Storm Duration(hrs): 120.00
          Rainfall File: OCT2015
    Rainfall Amount(in): 17.91

Time(hrs)       Print Inc(min)
--------------- ---------------
120.000         5.00

------------------------------------------------------------------------------------------
         Name: OCT-2016
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\OCT-2016.R32

      Override Defaults: Yes
    Storm Duration(hrs): 47.00
          Rainfall File: OCT2016
    Rainfall Amount(in): 10.68
```

```
Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

==========================================================================================
==== Routing Simulations ================================================================
==========================================================================================

         Name: 002-yr              Hydrology Sim: 002-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\002-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 10.0000
        Boundary Stages: 002-yr                   Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


------------------------------------------------------------------------------------------------
         Name: 010-yr              Hydrology Sim: 010-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\010-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 10.0000
        Boundary Stages: 010-yr                   Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


------------------------------------------------------------------------------------------------
         Name: 025-yr              Hydrology Sim: 025-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\025-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 10.0000
        Boundary Stages: 025-yr                   Boundary Flows:



Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


------------------------------------------------------------------------------------------------
         Name: 050-yr              Hydrology Sim: 050-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\050-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
```

```
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: 050-yr                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-------------------------------------------------------------------------------------------------
         Name: 100-yr              Hydrology Sim: 100-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\100-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: 100-yr                  Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-------------------------------------------------------------------------------------------------
         Name: OCT-2015            Hydrology Sim: OCT-2015
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\OCT-2015.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 144.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: OCT-2015                Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-------------------------------------------------------------------------------------------------
         Name: OCT-2016            Hydrology Sim: OCT-2016
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\OCT-2016.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: OCT-2016                Boundary Flows:


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


=================================================================================================
```

==== Boundary Conditions ==========

Name: 002-yr Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760
2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760
3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.760
4.750	25.760
5.000	25.760
5.250	25.760
5.500	25.760
5.750	25.760
6.000	25.760
6.250	25.760
6.500	25.760
6.750	25.760
7.000	25.760
7.250	25.760
7.500	25.760
7.750	25.760
8.000	25.760
8.250	25.760
8.500	25.760
8.750	25.760
9.000	25.770
9.250	25.810
9.500	25.870
9.750	25.970
10.000	26.080
10.250	26.210
10.500	26.330
10.750	26.450
11.000	26.560
11.250	26.650
11.500	26.710
11.750	26.780
12.000	26.950
12.250	27.500
12.500	28.010
12.750	28.150
13.000	28.360
13.250	28.560
13.500	28.720
13.750	28.860
14.000	28.980
14.250	29.050
14.500	29.110
14.750	29.160
15.000	29.200
15.250	29.230
15.500	29.260
15.750	29.290
16.000	29.390
16.250	29.450
16.500	29.480
16.750	29.530
17.000	29.630
17.250	29.730
17.500	29.780
17.750	29.820
18.000	29.830
18.250	29.840
18.500	29.840
18.750	29.840
19.000	29.830
19.250	29.830
19.500	29.810
19.750	29.800
20.000	29.790

20.250	29.770
20.500	29.760
20.750	29.740
21.000	29.730
21.250	29.720
21.500	29.700
21.750	29.690
22.000	29.680
22.250	29.670
22.500	29.650
22.750	29.640
23.000	29.630
23.250	29.610
23.500	29.600
23.750	29.580
24.000	29.550
24.250	29.530
24.500	29.510
24.750	29.490
25.000	29.490
25.250	29.480
25.500	29.480
25.750	29.470
26.000	29.460
26.250	29.460
26.500	29.450
26.750	29.440
27.000	29.430
27.250	29.410
27.500	29.390
27.750	29.370
28.000	29.350
28.250	29.320
28.500	29.270
28.750	29.220
29.000	29.050
29.250	28.960
29.500	28.920
29.750	28.880
30.000	28.840
30.250	28.800
30.500	28.770
30.750	28.740
31.000	28.710
31.250	28.680
31.500	28.640
31.750	28.610
32.000	28.560
32.250	28.510
32.500	28.450
32.750	28.400
33.000	28.340
33.250	28.280
33.500	28.220
33.750	28.170
34.000	28.120
34.250	28.080
34.500	28.050
34.750	28.030
35.000	28.010
35.250	27.990
35.500	27.980
35.750	27.970
36.000	27.950
36.250	27.940
36.500	27.920
36.750	27.910
37.000	27.890
37.250	27.880
37.500	27.870
37.750	27.850
38.000	27.840
38.250	27.830
38.500	27.820
38.750	27.810
39.000	27.800
39.250	27.790
39.500	27.780
39.750	27.770
40.000	27.760
40.250	27.750
40.500	27.750
40.750	27.740
41.000	27.730
41.250	27.720
41.500	27.710
41.750	27.700
42.000	27.690

42.250	27.690
42.500	27.680
42.750	27.670
43.000	27.660
43.250	27.650
43.500	27.640
43.750	27.640
44.000	27.630
44.250	27.620
44.500	27.610
44.750	27.600
45.000	27.590
45.250	27.580
45.500	27.580
45.750	27.570
46.000	27.560
46.250	27.550
46.500	27.540
46.750	27.530
47.000	27.530
47.250	27.520
47.500	27.510
47.750	27.500
48.000	27.490
48.250	27.480
48.500	27.480
48.750	27.470
49.000	27.460
49.250	27.450
49.500	27.440
49.750	27.440
50.000	27.430
50.250	27.420
50.500	27.410
50.750	27.400
51.000	27.400
51.250	27.390
51.500	27.380
51.750	27.370
52.000	27.360
52.250	27.360
52.500	27.350
52.750	27.340
53.000	27.330
53.250	27.330
53.500	27.320
53.750	27.310
54.000	27.310
54.250	27.300
54.500	27.290
54.750	27.280
55.000	27.270
55.250	27.270
55.500	27.260
55.750	27.250
56.000	27.240
56.250	27.230
56.500	27.230
56.750	27.220
57.000	27.210
57.250	27.200
57.500	27.200
57.750	27.190
58.000	27.180
58.250	27.170
58.500	27.170
58.750	27.160
59.000	27.150
59.250	27.140
59.500	27.140
59.750	27.130
60.000	27.120
60.250	27.120
60.500	27.110
60.750	27.100
61.000	27.100
61.250	27.090
61.500	27.090
61.750	27.080
62.000	27.070
62.250	27.070
62.500	27.060
62.750	27.050
63.000	27.050
63.250	27.040
63.500	27.040
63.750	27.030
64.000	27.030

64.250	27.020
64.500	27.010
64.750	27.010
65.000	27.000
65.250	27.000
65.500	26.990
65.750	26.990
66.000	26.980
66.250	26.980
66.500	26.970
66.750	26.970
67.000	26.960
67.250	26.960
67.500	26.950
67.750	26.950
68.000	26.940
68.250	26.940
68.500	26.930
68.750	26.930
69.000	26.920
69.250	26.920
69.500	26.920
69.750	26.910
70.000	26.910
70.250	26.900
70.500	26.900
70.750	26.900
71.000	26.890
71.250	26.890
71.500	26.880
71.750	26.880
72.000	26.880

Name: 002-yr Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200
3.250	24.200
3.500	24.200
3.750	24.200
4.000	24.200
4.250	24.200
4.500	24.200
4.750	24.200
5.000	24.200
5.250	24.200
5.500	24.200
5.750	24.200
6.000	24.200
6.250	24.200
6.500	24.230
6.750	24.270
7.000	24.320
7.250	24.370
7.500	24.420
7.750	24.460
8.000	24.510
8.250	24.550
8.500	24.590
8.750	24.630
9.000	24.670
9.250	24.720
9.500	24.760
9.750	24.820
10.000	24.850
10.250	24.890
10.500	24.950
10.750	25.010
11.000	25.090
11.250	25.160
11.500	25.240
11.750	25.350
12.000	25.520
12.250	25.920

12.500	26.630
12.750	27.400
13.000	27.910
13.250	28.090
13.500	28.080
13.750	28.010
14.000	27.920
14.250	27.820
14.500	27.730
14.750	27.650
15.000	27.580
15.250	27.510
15.500	27.440
15.750	27.370
16.000	27.310
16.250	27.240
16.500	27.190
16.750	27.130
17.000	27.080
17.250	27.030
17.500	26.980
17.750	26.940
18.000	26.910
18.250	26.880
18.500	26.850
18.750	26.830
19.000	26.800
19.250	26.780
19.500	26.760
19.750	26.740
20.000	26.730
20.250	26.710
20.500	26.700
20.750	26.690
21.000	26.670
21.250	26.660
21.500	26.650
21.750	26.650
22.000	26.640
22.250	26.630
22.500	26.620
22.750	26.610
23.000	26.590
23.250	26.570
23.500	26.560
23.750	26.560
24.000	26.550
24.250	26.540
24.500	26.520
24.750	26.500
25.000	26.480
25.250	26.450
25.500	26.420
25.750	26.400
26.000	26.380
26.250	26.350
26.500	26.330
26.750	26.310
27.000	26.290
27.250	26.260
27.500	26.240
27.750	26.220
28.000	26.210
28.250	26.200
28.500	26.180
28.750	26.170
29.000	26.160
29.250	26.150
29.500	26.140
29.750	26.130
30.000	26.120
30.250	26.110
30.500	26.100
30.750	26.090
31.000	26.080
31.250	26.070
31.500	26.060
31.750	26.050
32.000	26.040
32.250	26.030
32.500	26.020
32.750	26.010
33.000	26.010
33.250	26.000
33.500	25.990
33.750	25.980
34.000	25.970
34.250	25.960

34.500	25.950
34.750	25.950
35.000	25.940
35.250	25.930
35.500	25.920
35.750	25.920
36.000	25.910
36.250	25.900
36.500	25.900
36.750	25.890
37.000	25.880
37.250	25.880
37.500	25.870
37.750	25.860
38.000	25.860
38.250	25.850
38.500	25.840
38.750	25.840
39.000	25.830
39.250	25.820
39.500	25.820
39.750	25.810
40.000	25.810
40.250	25.800
40.500	25.800
40.750	25.790
41.000	25.780
41.250	25.780
41.500	25.770
41.750	25.770
42.000	25.760
42.250	25.750
42.500	25.750
42.750	25.740
43.000	25.730
43.250	25.730
43.500	25.720
43.750	25.710
44.000	25.700
44.250	25.690
44.500	25.680
44.750	25.670
45.000	25.660
45.250	25.650
45.500	25.640
45.750	25.640
46.000	25.620
46.250	25.610
46.500	25.600
46.750	25.590
47.000	25.580
47.250	25.570
47.500	25.560
47.750	25.540
48.000	25.530
48.250	25.520
48.500	25.510
48.750	25.500
49.000	25.480
49.250	25.470
49.500	25.460
49.750	25.450
50.000	25.440
50.250	25.430
50.500	25.420
50.750	25.420
51.000	25.410
51.250	25.400
51.500	25.400
51.750	25.390
52.000	25.380
52.250	25.380
52.500	25.370
52.750	25.370
53.000	25.360
53.250	25.360
53.500	25.360
53.750	25.350
54.000	25.350
54.250	25.350
54.500	25.340
54.750	25.340
55.000	25.340
55.250	25.330
55.500	25.330
55.750	25.330
56.000	25.320
56.250	25.320

56.500	25.320
56.750	25.320
57.000	25.310
57.250	25.310
57.500	25.310
57.750	25.310
58.000	25.300
58.250	25.300
58.500	25.300
58.750	25.300
59.000	25.300
59.250	25.290
59.500	25.290
59.750	25.290
60.000	25.290
60.250	25.290
60.500	25.290
60.750	25.280
61.000	25.280
61.250	25.280
61.500	25.280
61.750	25.280
62.000	25.280
62.250	25.270
62.500	25.270
62.750	25.270
63.000	25.270
63.250	25.270
63.500	25.270
63.750	25.260
64.000	25.260
64.250	25.260
64.500	25.260
64.750	25.260
65.000	25.260
65.250	25.260
65.500	25.250
65.750	25.250
66.000	25.250
66.250	25.250
66.500	25.250
66.750	25.240
67.000	25.240
67.250	25.240
67.500	25.240
67.750	25.240
68.000	25.240
68.250	25.230
68.500	25.230
68.750	25.230
69.000	25.230
69.250	25.230
69.500	25.230
69.750	25.220
70.000	25.220
70.250	25.220
70.500	25.220
70.750	25.220
71.000	25.220
71.250	25.210
71.500	25.210
71.750	25.210
72.000	25.210

Name: 010-yr Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760
2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760
3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.760

4.750	25.760
5.000	25.760
5.250	25.760
5.500	25.760
5.750	25.760
6.000	25.760
6.250	25.760
6.500	25.760
6.750	25.760
7.000	25.760
7.250	25.760
7.500	25.780
7.750	25.810
8.000	25.890
8.250	25.990
8.500	26.120
8.750	26.250
9.000	26.370
9.250	26.480
9.500	26.580
9.750	26.650
10.000	26.690
10.250	26.710
10.500	26.740
10.750	26.770
11.000	26.820
11.250	26.870
11.500	26.940
11.750	27.100
12.000	27.510
12.250	28.350
12.500	28.980
12.750	29.330
13.000	29.510
13.250	29.590
13.500	29.740
13.750	30.130
14.000	30.370
14.250	30.440
14.500	30.460
14.750	30.480
15.000	30.500
15.250	30.530
15.500	30.540
15.750	30.550
16.000	30.560
16.250	30.570
16.500	30.570
16.750	30.580
17.000	30.580
17.250	30.590
17.500	30.590
17.750	30.590
18.000	30.590
18.250	30.580
18.500	30.580
18.750	30.570
19.000	30.560
19.250	30.550
19.500	30.530
19.750	30.520
20.000	30.510
20.250	30.500
20.500	30.480
20.750	30.470
21.000	30.450
21.250	30.440
21.500	30.430
21.750	30.410
22.000	30.390
22.250	30.370
22.500	30.360
22.750	30.340
23.000	30.320
23.250	30.300
23.500	30.280
23.750	30.270
24.000	30.250
24.250	30.230
24.500	30.210
24.750	30.190
25.000	30.170
25.250	30.150
25.500	30.130
25.750	30.100
26.000	30.080
26.250	30.040
26.500	30.010

26.750	29.990
27.000	29.800
27.250	29.730
27.500	29.700
27.750	29.670
28.000	29.640
28.250	29.610
28.500	29.590
28.750	29.540
29.000	29.510
29.250	29.490
29.500	29.480
29.750	29.470
30.000	29.470
30.250	29.460
30.500	29.450
30.750	29.440
31.000	29.430
31.250	29.420
31.500	29.390
31.750	29.370
32.000	29.350
32.250	29.320
32.500	29.280
32.750	29.220
33.000	29.060
33.250	28.970
33.500	28.920
33.750	28.880
34.000	28.840
34.250	28.810
34.500	28.770
34.750	28.740
35.000	28.710
35.250	28.680
35.500	28.650
35.750	28.620
36.000	28.580
36.250	28.530
36.500	28.470
36.750	28.420
37.000	28.360
37.250	28.310
37.500	28.250
37.750	28.200
38.000	28.150
38.250	28.100
38.500	28.070
38.750	28.040
39.000	28.020
39.250	28.000
39.500	27.990
39.750	27.980
40.000	27.960
40.250	27.950
40.500	27.930
40.750	27.920
41.000	27.910
41.250	27.890
41.500	27.880
41.750	27.860
42.000	27.850
42.250	27.840
42.500	27.830
42.750	27.820
43.000	27.810
43.250	27.800
43.500	27.790
43.750	27.780
44.000	27.770
44.250	27.760
44.500	27.760
44.750	27.750
45.000	27.740
45.250	27.730
45.500	27.720
45.750	27.710
46.000	27.710
46.250	27.700
46.500	27.690
46.750	27.680
47.000	27.670
47.250	27.660
47.500	27.660
47.750	27.650
48.000	27.640
48.250	27.630
48.500	27.620

48.750	27.610
49.000	27.610
49.250	27.600
49.500	27.590
49.750	27.580
50.000	27.570
50.250	27.560
50.500	27.560
50.750	27.550
51.000	27.540
51.250	27.530
51.500	27.520
51.750	27.510
52.000	27.510
52.250	27.500
52.500	27.490
52.750	27.480
53.000	27.470
53.250	27.460
53.500	27.460
53.750	27.450
54.000	27.440
54.250	27.430
54.500	27.420
54.750	27.420
55.000	27.410
55.250	27.400
55.500	27.390
55.750	27.380
56.000	27.380
56.250	27.370
56.500	27.360
56.750	27.350
57.000	27.350
57.250	27.340
57.500	27.330
57.750	27.320
58.000	27.320
58.250	27.310
58.500	27.300
58.750	27.300
59.000	27.290
59.250	27.280
59.500	27.270
59.750	27.260
60.000	27.260
60.250	27.250
60.500	27.240
60.750	27.230
61.000	27.220
61.250	27.220
61.500	27.210
61.750	27.200
62.000	27.190
62.250	27.190
62.500	27.180
62.750	27.170
63.000	27.160
63.250	27.160
63.500	27.150
63.750	27.140
64.000	27.140
64.250	27.130
64.500	27.120
64.750	27.120
65.000	27.110
65.250	27.100
65.500	27.100
65.750	27.090
66.000	27.080
66.250	27.080
66.500	27.070
66.750	27.070
67.000	27.060
67.250	27.050
67.500	27.050
67.750	27.040
68.000	27.040
68.250	27.030
68.500	27.020
68.750	27.020
69.000	27.010
69.250	27.010
69.500	27.000
69.750	27.000
70.000	26.990
70.250	26.990
70.500	26.980

70.750	26.980
71.000	26.970
71.250	26.970
71.500	26.960
71.750	26.960
72.000	26.950
72.000	27.910

Name: 010-yr Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200
3.250	24.200
3.500	24.200
3.750	24.200
4.000	24.200
4.250	24.200
4.500	24.200
4.750	24.200
5.000	24.240
5.250	24.300
5.500	24.360
5.750	24.420
6.000	24.470
6.250	24.520
6.500	24.560
6.750	24.590
7.000	24.610
7.250	24.650
7.500	24.680
7.750	24.710
8.000	24.760
8.250	24.820
8.500	24.850
8.750	24.900
9.000	24.970
9.250	25.040
9.500	25.120
9.750	25.170
10.000	25.230
10.250	25.310
10.500	25.390
10.750	25.480
11.000	25.590
11.250	25.730
11.500	25.880
11.750	26.060
12.000	26.360
12.250	27.050
12.500	28.100
12.750	28.980
13.000	29.410
13.250	29.470
13.500	29.370
13.750	29.210
14.000	29.050
14.250	28.910
14.500	28.820
14.750	28.920
15.000	29.000
15.250	28.990
15.500	28.920
15.750	28.840
16.000	28.760
16.250	28.690
16.500	28.640
16.750	28.600
17.000	28.570
17.250	28.560
17.500	28.560
17.750	28.540
18.000	28.510
18.250	28.460
18.500	28.400

18.750	28.340
19.000	28.270
19.250	28.200
19.500	28.140
19.750	28.070
20.000	28.010
20.250	27.950
20.500	27.890
20.750	27.840
21.000	27.780
21.250	27.720
21.500	27.670
21.750	27.610
22.000	27.540
22.250	27.480
22.500	27.420
22.750	27.350
23.000	27.280
23.250	27.220
23.500	27.170
23.750	27.140
24.000	27.110
24.250	27.090
24.500	27.070
24.750	27.040
25.000	27.010
25.250	26.960
25.500	26.920
25.750	26.880
26.000	26.850
26.250	26.820
26.500	26.790
26.750	26.770
27.000	26.750
27.250	26.740
27.500	26.720
27.750	26.710
28.000	26.700
28.250	26.680
28.500	26.660
28.750	26.650
29.000	26.640
29.250	26.630
29.500	26.620
29.750	26.610
30.000	26.600
30.250	26.600
30.500	26.590
30.750	26.590
31.000	26.580
31.250	26.570
31.500	26.570
31.750	26.560
32.000	26.550
32.250	26.540
32.500	26.510
32.750	26.500
33.000	26.490
33.250	26.490
33.500	26.480
33.750	26.470
34.000	26.460
34.250	26.460
34.500	26.450
34.750	26.450
35.000	26.440
35.250	26.440
35.500	26.430
35.750	26.420
36.000	26.420
36.250	26.410
36.500	26.410
36.750	26.400
37.000	26.400
37.250	26.390
37.500	26.390
37.750	26.380
38.000	26.380
38.250	26.370
38.500	26.360
38.750	26.360
39.000	26.350
39.250	26.350
39.500	26.340
39.750	26.330
40.000	26.320
40.250	26.320
40.500	26.310

40.750	26.300
41.000	26.290
41.250	26.280
41.500	26.280
41.750	26.270
42.000	26.260
42.250	26.250
42.500	26.240
42.750	26.230
43.000	26.230
43.250	26.220
43.500	26.210
43.750	26.200
44.000	26.190
44.250	26.190
44.500	26.180
44.750	26.170
45.000	26.170
45.250	26.160
45.500	26.150
45.750	26.150
46.000	26.140
46.250	26.130
46.500	26.130
46.750	26.120
47.000	26.110
47.250	26.110
47.500	26.100
47.750	26.090
48.000	26.090
48.250	26.080
48.500	26.080
48.750	26.070
49.000	26.070
49.250	26.060
49.500	26.050
49.750	26.050
50.000	26.040
50.250	26.040
50.500	26.030
50.750	26.030
51.000	26.020
51.250	26.020
51.500	26.010
51.750	26.010
52.000	26.000
52.250	26.000
52.500	25.990
52.750	25.980
53.000	25.980
53.250	25.970
53.500	25.970
53.750	25.960
54.000	25.950
54.250	25.950
54.500	25.940
54.750	25.930
55.000	25.920
55.250	25.920
55.500	25.910
55.750	25.900
56.000	25.890
56.250	25.880
56.500	25.870
56.750	25.860
57.000	25.850
57.250	25.840
57.500	25.830
57.750	25.820
58.000	25.800
58.250	25.790
58.500	25.780
58.750	25.770
59.000	25.760
59.250	25.750
59.500	25.740
59.750	25.730
60.000	25.720
60.250	25.710
60.500	25.700
60.750	25.690
61.000	25.680
61.250	25.670
61.500	25.670
61.750	25.660
62.000	25.650
62.250	25.640
62.500	25.640

62.750	25.630
63.000	25.630
63.250	25.620
63.500	25.620
63.750	25.610
64.000	25.610
64.250	25.600
64.500	25.600
64.750	25.590
65.000	25.590
65.250	25.580
65.500	25.580
65.750	25.580
66.000	25.570
66.250	25.570
66.500	25.570
66.750	25.560
67.000	25.560
67.250	25.560
67.500	25.550
67.750	25.550
68.000	25.550
68.250	25.540
68.500	25.540
68.750	25.540
69.000	25.530
69.250	25.530
69.500	25.530
69.750	25.530
70.000	25.530
70.250	25.520
70.500	25.520
70.750	25.520
71.000	25.520
71.250	25.510
71.500	25.510
71.750	25.510
72.000	25.510

Name: 025-yr Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760
2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760
3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.760
4.750	25.760
5.000	25.760
5.250	25.760
5.500	25.760
5.750	25.760
6.000	25.760
6.250	25.760
6.500	25.760
6.750	25.760
7.000	25.790
7.250	25.830
7.500	25.900
7.750	25.990
8.000	26.110
8.250	26.240
8.500	26.370
8.750	26.480
9.000	26.580
9.250	26.650
9.500	26.690
9.750	26.710
10.000	26.740
10.250	26.760
10.500	26.800
10.750	26.830

11.000	26.890
11.250	26.990
11.500	27.160
11.750	27.400
12.000	27.830
12.250	28.650
12.500	29.260
12.750	29.530
13.000	29.640
13.250	30.080
13.500	30.440
13.750	30.510
14.000	30.530
14.250	30.560
14.500	30.590
14.750	30.630
15.000	30.650
15.250	30.670
15.500	30.680
15.750	30.690
16.000	30.710
16.250	30.720
16.500	30.730
16.750	30.740
17.000	30.740
17.250	30.740
17.500	30.740
17.750	30.730
18.000	30.730
18.250	30.720
18.500	30.710
18.750	30.700
19.000	30.690
19.250	30.670
19.500	30.660
19.750	30.650
20.000	30.630
20.250	30.620
20.500	30.600
20.750	30.580
21.000	30.560
21.250	30.540
21.500	30.520
21.750	30.510
22.000	30.490
22.250	30.470
22.500	30.460
22.750	30.440
23.000	30.430
23.250	30.410
23.500	30.390
23.750	30.370
24.000	30.340
24.250	30.330
24.500	30.310
24.750	30.280
25.000	30.260
25.250	30.230
25.500	30.200
25.750	30.160
26.000	30.140
26.250	30.140
26.500	30.120
26.750	30.090
27.000	30.070
27.250	30.020
27.500	30.000
27.750	29.820
28.000	29.730
28.250	29.700
28.500	29.670
28.750	29.640
29.000	29.610
29.250	29.580
29.500	29.540
29.750	29.510
30.000	29.490
30.250	29.480
30.500	29.470
30.750	29.470
31.000	29.460
31.250	29.450
31.500	29.440
31.750	29.430
32.000	29.410
32.250	29.390
32.500	29.360
32.750	29.340

33.000	29.310
33.250	29.260
33.500	29.190
33.750	29.010
34.000	28.950
34.250	28.900
34.500	28.860
34.750	28.820
35.000	28.790
35.250	28.760
35.500	28.730
35.750	28.700
36.000	28.660
36.250	28.630
36.500	28.590
36.750	28.550
37.000	28.490
37.250	28.440
37.500	28.380
37.750	28.330
38.000	28.270
38.250	28.210
38.500	28.160
38.750	28.120
39.000	28.080
39.250	28.050
39.500	28.030
39.750	28.010
40.000	27.990
40.250	27.980
40.500	27.970
40.750	27.950
41.000	27.940
41.250	27.920
41.500	27.910
41.750	27.890
42.000	27.880
42.250	27.870
42.500	27.860
42.750	27.840
43.000	27.830
43.250	27.820
43.500	27.810
43.750	27.800
44.000	27.790
44.250	27.780
44.500	27.770
44.750	27.770
45.000	27.760
45.250	27.750
45.500	27.740
45.750	27.730
46.000	27.720
46.250	27.710
46.500	27.710
46.750	27.700
47.000	27.690
47.250	27.680
47.500	27.670
47.750	27.670
48.000	27.660
48.250	27.650
48.500	27.640
48.750	27.630
49.000	27.620
49.250	27.610
49.500	27.610
49.750	27.600
50.000	27.590
50.250	27.580
50.500	27.570
50.750	27.560
51.000	27.560
51.250	27.550
51.500	27.540
51.750	27.530
52.000	27.520
52.250	27.520
52.500	27.510
52.750	27.500
53.000	27.490
53.250	27.480
53.500	27.470
53.750	27.470
54.000	27.460
54.250	27.450
54.500	27.440
54.750	27.430

55.000	27.420
55.250	27.420
55.500	27.410
55.750	27.400
56.000	27.390
56.250	27.390
56.500	27.380
56.750	27.370
57.000	27.360
57.250	27.350
57.500	27.350
57.750	27.340
58.000	27.330
58.250	27.330
58.500	27.320
58.750	27.310
59.000	27.300
59.250	27.300
59.500	27.290
59.750	27.280
60.000	27.270
60.250	27.260
60.500	27.260
60.750	27.250
61.000	27.240
61.250	27.230
61.500	27.220
61.750	27.220
62.000	27.210
62.250	27.200
62.500	27.190
62.750	27.190
63.000	27.180
63.250	27.170
63.500	27.160
63.750	27.160
64.000	27.150
64.250	27.140
64.500	27.140
64.750	27.130
65.000	27.120
65.250	27.120
65.500	27.110
65.750	27.100
66.000	27.100
66.250	27.090
66.500	27.080
66.750	27.080
67.000	27.070
67.250	27.070
67.500	27.060
67.750	27.050
68.000	27.050
68.250	27.040
68.500	27.040
68.750	27.030
69.000	27.020
69.250	27.020
69.500	27.010
69.750	27.010
70.000	27.000
70.250	27.000
70.500	26.990
70.750	26.990
71.000	26.980
71.250	26.980
71.500	26.970
71.750	26.970
72.000	26.960

Name: 025-yr Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200

3.250	24.200
3.500	24.200
3.750	24.200
4.000	24.200
4.250	24.200
4.500	24.230
4.750	24.280
5.000	24.350
5.250	24.420
5.500	24.470
5.750	24.520
6.000	24.560
6.250	24.600
6.500	24.630
6.750	24.660
7.000	24.700
7.250	24.730
7.500	24.780
7.750	24.820
8.000	24.850
8.250	24.890
8.500	24.960
8.750	25.030
9.000	25.110
9.250	25.170
9.500	25.230
9.750	25.320
10.000	25.390
10.250	25.480
10.500	25.580
10.750	25.700
11.000	25.830
11.250	25.980
11.500	26.150
11.750	26.350
12.000	26.720
12.250	27.460
12.500	28.590
12.750	29.480
13.000	29.870
13.250	29.900
13.500	29.770
13.750	29.590
14.000	29.640
14.250	29.930
14.500	30.020
14.750	29.960
15.000	29.870
15.250	29.760
15.500	29.660
15.750	29.570
16.000	29.500
16.250	29.460
16.500	29.440
16.750	29.420
17.000	29.390
17.250	29.340
17.500	29.280
17.750	29.210
18.000	29.140
18.250	29.070
18.500	29.000
18.750	28.930
19.000	28.850
19.250	28.780
19.500	28.720
19.750	28.650
20.000	28.590
20.250	28.530
20.500	28.460
20.750	28.400
21.000	28.330
21.250	28.270
21.500	28.200
21.750	28.130
22.000	28.070
22.250	28.000
22.500	27.930
22.750	27.860
23.000	27.800
23.250	27.740
23.500	27.680
23.750	27.620
24.000	27.570
24.250	27.510
24.500	27.430
24.750	27.360
25.000	27.260

25.250	27.160
25.500	27.090
25.750	27.040
26.000	26.990
26.250	26.960
26.500	26.920
26.750	26.880
27.000	26.850
27.250	26.820
27.500	26.790
27.750	26.770
28.000	26.750
28.250	26.740
28.500	26.730
28.750	26.710
29.000	26.700
29.250	26.690
29.500	26.670
29.750	26.670
30.000	26.660
30.250	26.650
30.500	26.640
30.750	26.630
31.000	26.630
31.250	26.620
31.500	26.620
31.750	26.610
32.000	26.600
32.250	26.600
32.500	26.590
32.750	26.580
33.000	26.570
33.250	26.550
33.500	26.530
33.750	26.520
34.000	26.520
34.250	26.510
34.500	26.500
34.750	26.500
35.000	26.490
35.250	26.480
35.500	26.480
35.750	26.470
36.000	26.470
36.250	26.460
36.500	26.460
36.750	26.450
37.000	26.450
37.250	26.440
37.500	26.440
37.750	26.430
38.000	26.430
38.250	26.420
38.500	26.420
38.750	26.410
39.000	26.410
39.250	26.400
39.500	26.390
39.750	26.390
40.000	26.380
40.250	26.380
40.500	26.370
40.750	26.360
41.000	26.350
41.250	26.350
41.500	26.340
41.750	26.330
42.000	26.320
42.250	26.320
42.500	26.310
42.750	26.300
43.000	26.290
43.250	26.280
43.500	26.280
43.750	26.270
44.000	26.260
44.250	26.250
44.500	26.250
44.750	26.240
45.000	26.230
45.250	26.230
45.500	26.220
45.750	26.210
46.000	26.210
46.250	26.200
46.500	26.190
46.750	26.190
47.000	26.180

47.250	26.180
47.500	26.170
47.750	26.170
48.000	26.160
48.250	26.150
48.500	26.150
48.750	26.140
49.000	26.140
49.250	26.130
49.500	26.130
49.750	26.120
50.000	26.120
50.250	26.110
50.500	26.110
50.750	26.100
51.000	26.100
51.250	26.090
51.500	26.090
51.750	26.080
52.000	26.080
52.250	26.070
52.500	26.070
52.750	26.060
53.000	26.060
53.250	26.050
53.500	26.050
53.750	26.040
54.000	26.040
54.250	26.030
54.500	26.030
54.750	26.020
55.000	26.020
55.250	26.010
55.500	26.000
55.750	26.000
56.000	25.990
56.250	25.980
56.500	25.970
56.750	25.960
57.000	25.950
57.250	25.940
57.500	25.930
57.750	25.920
58.000	25.910
58.250	25.900
58.500	25.890
58.750	25.880
59.000	25.870
59.250	25.860
59.500	25.850
59.750	25.840
60.000	25.830
60.250	25.820
60.500	25.810
60.750	25.800
61.000	25.790
61.250	25.790
61.500	25.780
61.750	25.770
62.000	25.760
62.250	25.760
62.500	25.750
62.750	25.740
63.000	25.740
63.250	25.730
63.500	25.730
63.750	25.720
64.000	25.720
64.250	25.710
64.500	25.710
64.750	25.700
65.000	25.700
65.250	25.690
65.500	25.690
65.750	25.690
66.000	25.680
66.250	25.680
66.500	25.680
66.750	25.680
67.000	25.670
67.250	25.670
67.500	25.670
67.750	25.670
68.000	25.660
68.250	25.660
68.500	25.660
68.750	25.660
69.000	25.650

69.250	25.650
69.500	25.650
69.750	25.650
70.000	25.650
70.250	25.640
70.500	25.640
70.750	25.640
71.000	25.640
71.250	25.640
71.500	25.640
71.750	25.630
72.000	25.630

Name: 050-yr Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760
2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760
3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.760
4.750	25.760
5.000	25.760
5.250	25.760
5.500	25.760
5.750	25.760
6.000	25.760
6.250	25.770
6.500	25.800
6.750	25.850
7.000	25.930
7.250	26.030
7.500	26.130
7.750	26.240
8.000	26.350
8.250	26.470
8.500	26.580
8.750	26.650
9.000	26.690
9.250	26.720
9.500	26.740
9.750	26.760
10.000	26.790
10.250	26.820
10.500	26.860
10.750	26.940
11.000	27.090
11.250	27.290
11.500	27.500
11.750	27.750
12.000	28.180
12.250	28.970
12.500	29.470
12.750	29.660
13.000	30.180
13.250	30.550
13.500	30.620
13.750	30.630
14.000	30.660
14.250	30.690
14.500	30.730
14.750	30.760
15.000	30.780
15.250	30.810
15.500	30.820
15.750	30.840
16.000	30.860
16.250	30.870
16.500	30.870
16.750	30.880
17.000	30.870
17.250	30.870

17.500	30.860
17.750	30.850
18.000	30.840
18.250	30.820
18.500	30.810
18.750	30.790
19.000	30.780
19.250	30.760
19.500	30.750
19.750	30.730
20.000	30.720
20.250	30.700
20.500	30.680
20.750	30.670
21.000	30.650
21.250	30.630
21.500	30.620
21.750	30.600
22.000	30.580
22.250	30.560
22.500	30.540
22.750	30.520
23.000	30.500
23.250	30.480
23.500	30.470
23.750	30.450
24.000	30.440
24.250	30.420
24.500	30.400
24.750	30.370
25.000	30.340
25.250	30.320
25.500	30.290
25.750	30.260
26.000	30.230
26.250	30.200
26.500	30.160
26.750	30.130
27.000	30.120
27.250	30.110
27.500	30.090
27.750	30.050
28.000	30.010
28.250	29.970
28.500	29.780
28.750	29.720
29.000	29.680
29.250	29.650
29.500	29.620
29.750	29.600
30.000	29.570
30.250	29.520
30.500	29.490
30.750	29.480
31.000	29.480
31.250	29.470
31.500	29.460
31.750	29.450
32.000	29.440
32.250	29.430
32.500	29.420
32.750	29.390
33.000	29.370
33.250	29.350
33.500	29.320
33.750	29.270
34.000	29.220
34.250	29.040
34.500	28.960
34.750	28.910
35.000	28.870
35.250	28.830
35.500	28.800
35.750	28.760
36.000	28.730
36.250	28.700
36.500	28.670
36.750	28.640
37.000	28.600
37.250	28.550
37.500	28.500
37.750	28.440
38.000	28.380
38.250	28.330
38.500	28.270
38.750	28.210
39.000	28.160
39.250	28.120

39.500	28.080
39.750	28.050
40.000	28.030
40.250	28.010
40.500	27.990
40.750	27.980
41.000	27.970
41.250	27.950
41.500	27.940
41.750	27.920
42.000	27.910
42.250	27.890
42.500	27.880
42.750	27.870
43.000	27.850
43.250	27.840
43.500	27.830
43.750	27.820
44.000	27.810
44.250	27.800
44.500	27.790
44.750	27.780
45.000	27.770
45.250	27.770
45.500	27.760
45.750	27.750
46.000	27.740
46.250	27.730
46.500	27.720
46.750	27.710
47.000	27.710
47.250	27.700
47.500	27.690
47.750	27.680
48.000	27.670
48.250	27.660
48.500	27.660
48.750	27.650
49.000	27.640
49.250	27.630
49.500	27.620
49.750	27.610
50.000	27.610
50.250	27.600
50.500	27.590
50.750	27.580
51.000	27.570
51.250	27.560
51.500	27.560
51.750	27.550
52.000	27.540
52.250	27.530
52.500	27.520
52.750	27.510
53.000	27.510
53.250	27.500
53.500	27.490
53.750	27.480
54.000	27.470
54.250	27.460
54.500	27.460
54.750	27.450
55.000	27.440
55.250	27.430
55.500	27.420
55.750	27.420
56.000	27.410
56.250	27.400
56.500	27.390
56.750	27.380
57.000	27.380
57.250	27.370
57.500	27.360
57.750	27.350
58.000	27.350
58.250	27.340
58.500	27.330
58.750	27.320
59.000	27.320
59.250	27.310
59.500	27.300
59.750	27.300
60.000	27.290
60.250	27.280
60.500	27.270
60.750	27.260
61.000	27.260
61.250	27.250

61.500	27.240
61.750	27.230
62.000	27.220
62.250	27.220
62.500	27.210
62.750	27.200
63.000	27.190
63.250	27.190
63.500	27.180
63.750	27.170
64.000	27.160
64.250	27.160
64.500	27.150
64.750	27.140
65.000	27.140
65.250	27.130
65.500	27.120
65.750	27.120
66.000	27.110
66.250	27.100
66.500	27.100
66.750	27.090
67.000	27.080
67.250	27.080
67.500	27.070
67.750	27.060
68.000	27.060
68.250	27.050
68.500	27.050
68.750	27.040
69.000	27.040
69.250	27.030
69.500	27.020
69.750	27.020
70.000	27.010
70.250	27.010
70.500	27.000
70.750	27.000
71.000	26.990
71.250	26.990
71.500	26.980
71.750	26.980
72.000	26.970

Name: 050-yr Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200
3.250	24.200
3.500	24.200
3.750	24.200
4.000	24.200
4.250	24.240
4.500	24.310
4.750	24.390
5.000	24.470
5.250	24.530
5.500	24.570
5.750	24.600
6.000	24.640
6.250	24.670
6.500	24.710
6.750	24.750
7.000	24.790
7.250	24.830
7.500	24.860
7.750	24.900
8.000	24.950
8.250	25.020
8.500	25.100
8.750	25.160
9.000	25.230
9.250	25.310
9.500	25.390

9.750	25.480
10.000	25.580
10.250	25.690
10.500	25.810
10.750	25.950
11.000	26.080
11.250	26.250
11.500	26.440
11.750	26.710
12.000	27.110
12.250	27.930
12.500	29.060
12.750	29.950
13.000	30.310
13.250	30.330
13.500	30.200
13.750	30.540
14.000	31.190
14.250	31.330
14.500	31.260
14.750	31.140
15.000	30.950
15.250	30.790
15.500	30.520
15.750	30.340
16.000	30.200
16.250	30.110
16.500	30.010
16.750	29.920
17.000	29.830
17.250	29.740
17.500	29.650
17.750	29.570
18.000	29.480
18.250	29.400
18.500	29.310
18.750	29.230
19.000	29.160
19.250	29.080
19.500	29.010
19.750	28.950
20.000	28.890
20.250	28.830
20.500	28.780
20.750	28.720
21.000	28.660
21.250	28.590
21.500	28.520
21.750	28.460
22.000	28.410
22.250	28.350
22.500	28.290
22.750	28.230
23.000	28.170
23.250	28.100
23.500	28.040
23.750	27.970
24.000	27.900
24.250	27.840
24.500	27.770
24.750	27.690
25.000	27.600
25.250	27.520
25.500	27.440
25.750	27.350
26.000	27.270
26.250	27.160
26.500	27.080
26.750	27.020
27.000	26.980
27.250	26.940
27.500	26.900
27.750	26.860
28.000	26.830
28.250	26.810
28.500	26.780
28.750	26.760
29.000	26.750
29.250	26.740
29.500	26.730
29.750	26.720
30.000	26.710
30.250	26.690
30.500	26.680
30.750	26.670
31.000	26.670
31.250	26.660
31.500	26.650

31.750	26.650
32.000	26.640
32.250	26.630
32.500	26.630
32.750	26.620
33.000	26.620
33.250	26.610
33.500	26.600
33.750	26.590
34.000	26.580
34.250	26.550
34.500	26.540
34.750	26.530
35.000	26.530
35.250	26.520
35.500	26.510
35.750	26.510
36.000	26.500
36.250	26.500
36.500	26.490
36.750	26.490
37.000	26.480
37.250	26.480
37.500	26.470
37.750	26.470
38.000	26.460
38.250	26.460
38.500	26.450
38.750	26.450
39.000	26.440
39.250	26.440
39.500	26.430
39.750	26.430
40.000	26.420
40.250	26.410
40.500	26.410
40.750	26.400
41.000	26.400
41.250	26.390
41.500	26.380
41.750	26.370
42.000	26.370
42.250	26.360
42.500	26.350
42.750	26.340
43.000	26.330
43.250	26.330
43.500	26.320
43.750	26.310
44.000	26.300
44.250	26.300
44.500	26.290
44.750	26.280
45.000	26.280
45.250	26.270
45.500	26.260
45.750	26.260
46.000	26.250
46.250	26.240
46.500	26.240
46.750	26.230
47.000	26.230
47.250	26.220
47.500	26.210
47.750	26.210
48.000	26.200
48.250	26.200
48.500	26.190
48.750	26.190
49.000	26.180
49.250	26.180
49.500	26.170
49.750	26.170
50.000	26.160
50.250	26.160
50.500	26.150
50.750	26.150
51.000	26.140
51.250	26.140
51.500	26.130
51.750	26.130
52.000	26.120
52.250	26.120
52.500	26.120
52.750	26.110
53.000	26.110
53.250	26.100
53.500	26.100

53.750	26.090
54.000	26.090
54.250	26.080
54.500	26.080
54.750	26.070
55.000	26.070
55.250	26.060
55.500	26.060
55.750	26.050
56.000	26.050
56.250	26.040
56.500	26.030
56.750	26.020
57.000	26.020
57.250	26.010
57.500	26.000
57.750	25.990
58.000	25.980
58.250	25.970
58.500	25.960
58.750	25.950
59.000	25.940
59.250	25.930
59.500	25.920
59.750	25.910
60.000	25.900
60.250	25.890
60.500	25.880
60.750	25.870
61.000	25.870
61.250	25.860
61.500	25.850
61.750	25.840
62.000	25.830
62.250	25.830
62.500	25.820
62.750	25.810
63.000	25.810
63.250	25.800
63.500	25.790
63.750	25.790
64.000	25.780
64.250	25.780
64.500	25.780
64.750	25.770
65.000	25.770
65.250	25.760
65.500	25.760
65.750	25.760
66.000	25.750
66.250	25.750
66.500	25.750
66.750	25.750
67.000	25.740
67.250	25.740
67.500	25.740
67.750	25.740
68.000	25.740
68.250	25.730
68.500	25.730
68.750	25.730
69.000	25.730
69.250	25.730
69.500	25.730
69.750	25.720
70.000	25.720
70.250	25.720
70.500	25.720
70.750	25.720
71.000	25.720
71.250	25.720
71.500	25.710
71.750	25.710
72.000	25.710

Name: 100-yr Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760

2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760
3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.760
4.750	25.760
5.000	25.760
5.250	25.760
5.500	25.760
5.750	25.770
6.000	25.800
6.250	25.860
6.500	25.940
6.750	26.050
7.000	26.160
7.250	26.270
7.500	26.360
7.750	26.460
8.000	26.560
8.250	26.640
8.500	26.690
8.750	26.710
9.000	26.740
9.250	26.770
9.500	26.790
9.750	26.820
10.000	26.860
10.250	26.920
10.500	27.050
10.750	27.230
11.000	27.420
11.250	27.620
11.500	27.850
11.750	28.130
12.000	28.530
12.250	29.230
12.500	29.610
12.750	30.000
13.000	30.560
13.250	30.720
13.500	30.720
13.750	30.740
14.000	30.790
14.250	30.820
14.500	30.860
14.750	30.900
15.000	30.930
15.250	30.960
15.500	30.980
15.750	31.000
16.000	31.010
16.250	31.010
16.500	31.010
16.750	31.010
17.000	31.000
17.250	30.990
17.500	30.980
17.750	30.970
18.000	30.950
18.250	30.940
18.500	30.920
18.750	30.900
19.000	30.880
19.250	30.860
19.500	30.830
19.750	30.810
20.000	30.790
20.250	30.770
20.500	30.760
20.750	30.740
21.000	30.720
21.250	30.700
21.500	30.680
21.750	30.670
22.000	30.650
22.250	30.630
22.500	30.620
22.750	30.600
23.000	30.580
23.250	30.560
23.500	30.540
23.750	30.520

24.000	30.500
24.250	30.480
24.500	30.460
24.750	30.440
25.000	30.420
25.250	30.390
25.500	30.370
25.750	30.340
26.000	30.310
26.250	30.280
26.500	30.250
26.750	30.220
27.000	30.180
27.250	30.140
27.500	30.120
27.750	30.110
28.000	30.100
28.250	30.070
28.500	30.020
28.750	29.990
29.000	29.810
29.250	29.730
29.500	29.690
29.750	29.660
30.000	29.630
30.250	29.600
30.500	29.570
30.750	29.530
31.000	29.500
31.250	29.480
31.500	29.480
31.750	29.470
32.000	29.460
32.250	29.450
32.500	29.440
32.750	29.430
33.000	29.420
33.250	29.400
33.500	29.370
33.750	29.350
34.000	29.320
34.250	29.270
34.500	29.220
34.750	29.040
35.000	28.960
35.250	28.910
35.500	28.870
35.750	28.830
36.000	28.790
36.250	28.760
36.500	28.730
36.750	28.700
37.000	28.660
37.250	28.630
37.500	28.590
37.750	28.540
38.000	28.490
38.250	28.430
38.500	28.380
38.750	28.320
39.000	28.260
39.250	28.200
39.500	28.150
39.750	28.110
40.000	28.070
40.250	28.040
40.500	28.020
40.750	28.000
41.000	27.990
41.250	27.980
41.500	27.960
41.750	27.950
42.000	27.930
42.250	27.920
42.500	27.900
42.750	27.890
43.000	27.880
43.250	27.860
43.500	27.850
43.750	27.840
44.000	27.830
44.250	27.820
44.500	27.810
44.750	27.800
45.000	27.790
45.250	27.780
45.500	27.770
45.750	27.760

46.000	27.750
46.250	27.750
46.500	27.740
46.750	27.730
47.000	27.720
47.250	27.710
47.500	27.700
47.750	27.690
48.000	27.690
48.250	27.680
48.500	27.670
48.750	27.660
49.000	27.650
49.250	27.640
49.500	27.640
49.750	27.630
50.000	27.620
50.250	27.610
50.500	27.600
50.750	27.590
51.000	27.590
51.250	27.580
51.500	27.570
51.750	27.560
52.000	27.550
52.250	27.540
52.500	27.540
52.750	27.530
53.000	27.520
53.250	27.510
53.500	27.500
53.750	27.490
54.000	27.490
54.250	27.480
54.500	27.470
54.750	27.460
55.000	27.450
55.250	27.450
55.500	27.440
55.750	27.430
56.000	27.420
56.250	27.410
56.500	27.410
56.750	27.400
57.000	27.390
57.250	27.380
57.500	27.370
57.750	27.370
58.000	27.360
58.250	27.350
58.500	27.340
58.750	27.340
59.000	27.330
59.250	27.320
59.500	27.320
59.750	27.310
60.000	27.300
60.250	27.290
60.500	27.280
60.750	27.280
61.000	27.270
61.250	27.260
61.500	27.250
61.750	27.240
62.000	27.240
62.250	27.230
62.500	27.220
62.750	27.210
63.000	27.200
63.250	27.200
63.500	27.190
63.750	27.180
64.000	27.180
64.250	27.170
64.500	27.160
64.750	27.150
65.000	27.150
65.250	27.140
65.500	27.130
65.750	27.130
66.000	27.120
66.250	27.110
66.500	27.110
66.750	27.100
67.000	27.090
67.250	27.090
67.500	27.080
67.750	27.080

68.000	27.070
68.250	27.060
68.500	27.060
68.750	27.050
69.000	27.050
69.250	27.040
69.500	27.030
69.750	27.030
70.000	27.020
70.250	27.020
70.500	27.010
70.750	27.010
71.000	27.000
71.250	27.000
71.500	26.990
71.750	26.980
72.000	26.980

Name: 100-yr Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200
3.250	24.200
3.500	24.200
3.750	24.230
4.000	24.280
4.250	24.350
4.500	24.440
4.750	24.510
5.000	24.560
5.250	24.610
5.500	24.640
5.750	24.680
6.000	24.720
6.250	24.760
6.500	24.810
6.750	24.840
7.000	24.870
7.250	24.910
7.500	24.960
7.750	25.010
8.000	25.080
8.250	25.150
8.500	25.210
8.750	25.300
9.000	25.380
9.250	25.480
9.500	25.580
9.750	25.690
10.000	25.810
10.250	25.930
10.500	26.060
10.750	26.190
11.000	26.360
11.250	26.560
11.500	26.800
11.750	27.070
12.000	27.470
12.250	28.350
12.500	29.510
12.750	30.380
13.000	30.760
13.250	31.110
13.500	31.600
13.750	31.970
14.000	32.040
14.250	31.970
14.500	31.830
14.750	31.670
15.000	31.540
15.250	31.430
15.500	31.330
15.750	31.220
16.000	31.110

16.250	30.990
16.500	30.790
16.750	30.620
17.000	30.340
17.250	30.080
17.500	29.970
17.750	29.860
18.000	29.750
18.250	29.650
18.500	29.560
18.750	29.460
19.000	29.370
19.250	29.290
19.500	29.220
19.750	29.160
20.000	29.100
20.250	29.050
20.500	29.000
20.750	28.940
21.000	28.900
21.250	28.850
21.500	28.800
21.750	28.760
22.000	28.710
22.250	28.660
22.500	28.600
22.750	28.550
23.000	28.490
23.250	28.440
23.500	28.390
23.750	28.340
24.000	28.280
24.250	28.220
24.500	28.150
24.750	28.070
25.000	27.980
25.250	27.890
25.500	27.800
25.750	27.700
26.000	27.620
26.250	27.550
26.500	27.470
26.750	27.380
27.000	27.290
27.250	27.180
27.500	27.120
27.750	27.070
28.000	27.020
28.250	26.970
28.500	26.930
28.750	26.900
29.000	26.870
29.250	26.850
29.500	26.820
29.750	26.800
30.000	26.790
30.250	26.780
30.500	26.770
30.750	26.750
31.000	26.740
31.250	26.720
31.500	26.710
31.750	26.700
32.000	26.700
32.250	26.690
32.500	26.680
32.750	26.670
33.000	26.670
33.250	26.660
33.500	26.650
33.750	26.650
34.000	26.640
34.250	26.630
34.500	26.620
34.750	26.600
35.000	26.580
35.250	26.570
35.500	26.560
35.750	26.550
36.000	26.540
36.250	26.540
36.500	26.530
36.750	26.520
37.000	26.520
37.250	26.510
37.500	26.510
37.750	26.500
38.000	26.500

38.250	26.490
38.500	26.480
38.750	26.480
39.000	26.470
39.250	26.470
39.500	26.460
39.750	26.460
40.000	26.450
40.250	26.440
40.500	26.440
40.750	26.430
41.000	26.430
41.250	26.420
41.500	26.410
41.750	26.400
42.000	26.400
42.250	26.390
42.500	26.380
42.750	26.370
43.000	26.360
43.250	26.360
43.500	26.350
43.750	26.340
44.000	26.330
44.250	26.320
44.500	26.320
44.750	26.310
45.000	26.300
45.250	26.290
45.500	26.290
45.750	26.280
46.000	26.270
46.250	26.270
46.500	26.260
46.750	26.250
47.000	26.250
47.250	26.240
47.500	26.240
47.750	26.230
48.000	26.220
48.250	26.220
48.500	26.210
48.750	26.210
49.000	26.200
49.250	26.200
49.500	26.190
49.750	26.190
50.000	26.180
50.250	26.180
50.500	26.170
50.750	26.170
51.000	26.160
51.250	26.160
51.500	26.160
51.750	26.150
52.000	26.150
52.250	26.140
52.500	26.140
52.750	26.130
53.000	26.130
53.250	26.120
53.500	26.120
53.750	26.120
54.000	26.110
54.250	26.110
54.500	26.100
54.750	26.100
55.000	26.090
55.250	26.090
55.500	26.080
55.750	26.080
56.000	26.070
56.250	26.070
56.500	26.060
56.750	26.050
57.000	26.050
57.250	26.040
57.500	26.030
57.750	26.020
58.000	26.010
58.250	26.000
58.500	25.990
58.750	25.990
59.000	25.980
59.250	25.970
59.500	25.960
59.750	25.950
60.000	25.940

60.250	25.930
60.500	25.920
60.750	25.910
61.000	25.900
61.250	25.890
61.500	25.880
61.750	25.870
62.000	25.870
62.250	25.860
62.500	25.850
62.750	25.840
63.000	25.840
63.250	25.830
63.500	25.830
63.750	25.820
64.000	25.820
64.250	25.810
64.500	25.810
64.750	25.800
65.000	25.800
65.250	25.790
65.500	25.790
65.750	25.790
66.000	25.780
66.250	25.780
66.500	25.780
66.750	25.770
67.000	25.770
67.250	25.770
67.500	25.770
67.750	25.770
68.000	25.760
68.250	25.760
68.500	25.760
68.750	25.760
69.000	25.760
69.250	25.760
69.500	25.750
69.750	25.750
70.000	25.750
70.250	25.750
70.500	25.750
70.750	25.750
71.000	25.750
71.250	25.750
71.500	25.740
71.750	25.740
72.000	25.740

Name: OCT-2015 Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760
2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760
3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.760
4.750	25.760
5.000	25.760
5.250	25.760
5.500	25.760
5.750	25.760
6.000	25.760
6.250	25.760
6.500	25.760
6.750	25.760
7.000	25.760
7.250	25.760
7.500	25.760
7.750	25.760
8.000	25.760
8.250	25.760

8.500	25.760
8.750	25.760
9.000	25.760
9.250	25.760
9.500	25.760
9.750	25.760
10.000	25.760
10.250	25.760
10.500	25.760
10.750	25.760
11.000	25.760
11.250	25.760
11.500	25.760
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19.750	25.760
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21.250	25.760
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21.750	25.760
22.000	25.760
22.250	25.760
22.500	25.760
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24.750	25.760
25.000	25.760
25.250	25.760
25.500	25.760
25.750	25.800
26.000	25.890
26.250	26.020
26.500	26.190
26.750	26.350
27.000	26.480
27.250	26.590
27.500	26.680
27.750	26.740
28.000	26.780
28.250	26.800
28.500	26.780
28.750	26.760
29.000	26.750
29.250	26.810
29.500	27.060
29.750	27.330
30.000	27.600
30.250	27.840

30.500	28.010
30.750	28.140
31.000	28.240
31.250	28.310
31.500	28.340
31.750	28.360
32.000	28.370
32.250	28.390
32.500	28.430
32.750	28.480
33.000	28.540
33.250	28.590
33.500	28.630
33.750	28.650
34.000	28.660
34.250	28.670
34.500	28.670
34.750	28.670
35.000	28.660
35.250	28.660
35.500	28.650
35.750	28.640
36.000	28.620
36.250	28.610
36.500	28.590
36.750	28.560
37.000	28.530
37.250	28.490
37.500	28.450
37.750	28.410
38.000	28.370
38.250	28.340
38.500	28.320
38.750	28.330
39.000	28.360
39.250	28.430
39.500	28.620
39.750	28.880
40.000	29.200
40.250	29.430
40.500	29.550
40.750	29.610
41.000	29.960
41.250	30.380
41.500	30.510
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42.000	30.580
42.250	30.600
42.500	30.630
42.750	30.650
43.000	30.660
43.250	30.670
43.500	30.680
43.750	30.690
44.000	30.710
44.250	30.730
44.500	30.760
44.750	30.820
45.000	30.890
45.250	30.950
45.500	31.000
45.750	31.020
46.000	31.020
46.250	31.030
46.500	31.040
46.750	31.050
47.000	31.050
47.250	31.040
47.500	31.030
47.750	31.020
48.000	31.000
48.250	30.970
48.500	30.950
48.750	30.920
49.000	30.890
49.250	30.860
49.500	30.830
49.750	30.800
50.000	30.770
50.250	30.740
50.500	30.710
50.750	30.690
51.000	30.660
51.250	30.640
51.500	30.610
51.750	30.590
52.000	30.550
52.250	30.520

52.500	30.490
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53.000	30.450
53.250	30.430
53.500	30.400
53.750	30.370
54.000	30.340
54.250	30.310
54.500	30.280
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55.250	30.180
55.500	30.140
55.750	30.120
56.000	30.100
56.250	30.090
56.500	30.070
56.750	30.020
57.000	29.990
57.250	29.800
57.500	29.740
57.750	29.740
58.000	29.770
58.250	29.820
58.500	29.850
58.750	29.850
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59.250	29.780
59.500	29.750
59.750	29.720
60.000	29.690
60.250	29.670
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60.750	29.630
61.000	29.610
61.250	29.590
61.500	29.550
61.750	29.510
62.000	29.490
62.250	29.480
62.500	29.480
62.750	29.470
63.000	29.460
63.250	29.460
63.500	29.450
63.750	29.440
64.000	29.420
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64.750	29.360
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65.500	29.250
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71.750	28.510
72.000	28.460
72.250	28.410
72.500	28.360
72.750	28.320
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73.250	28.220
73.500	28.170
73.750	28.130
74.000	28.090
74.250	28.060

74.500	28.040
74.750	28.020
75.000	28.000
75.250	28.000
75.500	28.060
75.750	28.190
76.000	28.340
76.250	28.490
76.500	28.590
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81.750	28.830
82.000	28.840
82.250	28.850
82.500	28.870
82.750	28.900
83.000	28.950
83.250	29.000
83.500	29.100
83.750	29.280
84.000	29.420
84.250	29.500
84.500	29.550
84.750	29.620
85.000	29.850
85.250	30.170
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89.250	30.940
89.500	30.930
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90.250	30.860
90.500	30.840
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91.250	30.770
91.500	30.750
91.750	30.730
92.000	30.700
92.250	30.680
92.500	30.660
92.750	30.640
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93.250	30.590
93.500	30.550
93.750	30.520
94.000	30.500
94.250	30.470
94.500	30.450
94.750	30.430
95.000	30.410
95.250	30.390
95.500	30.360
95.750	30.340
96.000	30.320
96.250	30.290

96.500	30.260
96.750	30.230
97.000	30.200
97.250	30.160
97.500	30.140
97.750	30.120
98.000	30.120
98.250	30.110
98.500	30.090
98.750	30.070
99.000	30.040
99.250	30.030
99.500	30.020
99.750	30.030
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100.250	30.080
100.500	30.110
100.750	30.120
101.000	30.120
101.250	30.120
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101.750	30.160
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103.500	30.360
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104.250	30.390
104.500	30.390
104.750	30.400
105.000	30.410
105.250	30.420
105.500	30.420
105.750	30.420
106.000	30.410
106.250	30.400
106.500	30.390
106.750	30.370
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110.250	30.010
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112.750	29.580
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113.500	29.500
113.750	29.490
114.000	29.480
114.250	29.470
114.500	29.470
114.750	29.460
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115.250	29.450
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116.500	29.370
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117.000	29.330
117.250	29.290
117.500	29.250
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118.000	29.010
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118.750	28.880
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119.750	28.750
120.000	28.730
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120.500	28.670
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121.250	28.560
121.500	28.510
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123.250	28.130
123.500	28.090
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124.750	27.980
125.000	27.970
125.250	27.960
125.500	27.940
125.750	27.930
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126.250	27.900
126.500	27.880
126.750	27.870
127.000	27.860
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135.000	27.580
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135.500	27.560
135.750	27.550
136.000	27.540
136.250	27.530
136.500	27.530
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137.000	27.510
137.250	27.500
137.500	27.490
137.750	27.480
138.000	27.480
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138.500	27.460
138.750	27.450
139.000	27.440
139.250	27.440
139.500	27.430
139.750	27.420
140.000	27.410
140.250	27.400

140.500	27.400
140.750	27.390
141.000	27.380
141.250	27.370
141.500	27.360
141.750	27.360
142.000	27.350
142.250	27.340
142.500	27.340
142.750	27.330
143.000	27.320
143.250	27.310
143.500	27.310
143.750	27.300
144.000	27.290

Name: OCT-2015 Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200
3.250	24.200
3.500	24.200
3.750	24.200
4.000	24.200
4.250	24.200
4.500	24.200
4.750	24.200
5.000	24.200
5.250	24.200
5.500	24.200
5.750	24.200
6.000	24.200
6.250	24.200
6.500	24.200
6.750	24.200
7.000	24.200
7.250	24.200
7.500	24.200
7.750	24.200
8.000	24.200
8.250	24.200
8.500	24.200
8.750	24.200
9.000	24.200
9.250	24.200
9.500	24.200
9.750	24.200
10.000	24.200
10.250	24.200
10.500	24.200
10.750	24.200
11.000	24.200
11.250	24.200
11.500	24.200
11.750	24.200
12.000	24.200
12.250	24.200
12.500	24.200
12.750	24.200
13.000	24.200
13.250	24.200
13.500	24.200
13.750	24.200
14.000	24.200
14.250	24.200
14.500	24.200
14.750	24.200
15.000	24.200
15.250	24.200
15.500	24.200
15.750	24.200
16.000	24.200
16.250	24.200
16.500	24.200

16.750	24.200
17.000	24.200
17.250	24.200
17.500	24.200
17.750	24.200
18.000	24.200
18.250	24.200
18.500	24.200
18.750	24.200
19.000	24.200
19.250	24.200
19.500	24.200
19.750	24.200
20.000	24.200
20.250	24.200
20.500	24.200
20.750	24.200
21.000	24.200
21.250	24.200
21.500	24.200
21.750	24.200
22.000	24.200
22.250	24.200
22.500	24.200
22.750	24.200
23.000	24.200
23.250	24.200
23.500	24.200
23.750	24.200
24.000	24.200
24.250	24.200
24.500	24.240
24.750	24.340
25.000	24.460
25.250	24.570
25.500	24.650
25.750	24.720
26.000	24.810
26.250	24.860
26.500	24.920
26.750	24.990
27.000	25.080
27.250	25.140
27.500	25.200
27.750	25.300
28.000	25.400
28.250	25.520
28.500	25.630
28.750	25.720
29.000	25.780
29.250	25.840
29.500	25.960
29.750	26.180
30.000	26.500
30.250	26.870
30.500	27.120
30.750	27.220
31.000	27.190
31.250	27.110
31.500	27.010
31.750	26.890
32.000	26.780
32.250	26.660
32.500	26.560
32.750	26.450
33.000	26.370
33.250	26.300
33.500	26.240
33.750	26.180
34.000	26.120
34.250	26.070
34.500	26.030
34.750	25.990
35.000	25.950
35.250	25.920
35.500	25.900
35.750	25.880
36.000	25.860
36.250	25.840
36.500	25.820
36.750	25.800
37.000	25.780
37.250	25.770
37.500	25.760
37.750	25.740
38.000	25.730
38.250	25.720
38.500	25.740

38.750	25.820
39.000	25.930
39.250	26.080
39.500	26.370
39.750	26.890
40.000	27.500
40.250	28.110
40.500	28.520
40.750	28.800
41.000	29.000
41.250	29.140
41.500	29.200
41.750	29.190
42.000	29.150
42.250	29.120
42.500	29.350
42.750	29.540
43.000	29.550
43.250	29.460
43.500	29.360
43.750	29.300
44.000	29.270
44.250	29.330
44.500	29.610
44.750	30.120
45.000	31.040
45.250	31.670
45.500	32.020
45.750	32.120
46.000	32.120
46.250	32.020
46.500	31.830
46.750	31.580
47.000	31.300
47.250	31.020
47.500	30.700
47.750	30.190
48.000	29.890
48.250	29.710
48.500	29.550
48.750	29.400
49.000	29.270
49.250	29.150
49.500	29.050
49.750	28.950
50.000	28.860
50.250	28.770
50.500	28.690
50.750	28.620
51.000	28.550
51.250	28.460
51.500	28.370
51.750	28.290
52.000	28.210
52.250	28.140
52.500	28.070
52.750	28.010
53.000	27.950
53.250	27.890
53.500	27.820
53.750	27.750
54.000	27.680
54.250	27.600
54.500	27.540
54.750	27.460
55.000	27.380
55.250	27.290
55.500	27.190
55.750	27.110
56.000	27.060
56.250	27.020
56.500	26.970
56.750	26.920
57.000	26.890
57.250	26.870
57.500	26.890
57.750	26.970
58.000	27.100
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59.250	27.300
59.500	27.240
59.750	27.180
60.000	27.140
60.250	27.090
60.500	27.050

60.750	27.010
61.000	26.980
61.250	26.950
61.500	26.920
61.750	26.890
62.000	26.860
62.250	26.830
62.500	26.810
62.750	26.790
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68.250	26.830
68.500	26.800
68.750	26.770
69.000	26.740
69.250	26.720
69.500	26.690
69.750	26.670
70.000	26.650
70.250	26.630
70.500	26.610
70.750	26.600
71.000	26.580
71.250	26.570
71.500	26.550
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72.750	26.500
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76.500	27.120
76.750	27.180
77.000	27.180
77.250	27.160
77.500	27.120
77.750	27.090
78.000	27.060
78.250	27.030
78.500	27.000
78.750	26.970
79.000	26.930
79.250	26.890
79.500	26.850
79.750	26.830
80.000	26.810
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80.500	26.780
80.750	26.760
81.000	26.730
81.250	26.700
81.500	26.680
81.750	26.680
82.000	26.700
82.250	26.730
82.500	26.770

82.750	26.850
83.000	26.940
83.250	27.040
83.500	27.210
83.750	27.470
84.000	27.800
84.250	28.090
84.500	28.300
84.750	28.400
85.000	28.440
85.250	28.500
85.500	28.790
85.750	29.390
86.000	30.050
86.250	30.600
86.500	31.790
86.750	32.190
87.000	32.310
87.250	32.300
87.500	32.240
87.750	32.110
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88.500	31.460
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89.750	29.890
90.000	29.700
90.250	29.540
90.500	29.410
90.750	29.300
91.000	29.210
91.250	29.140
91.500	29.070
91.750	28.990
92.000	28.900
92.250	28.820
92.500	28.730
92.750	28.640
93.000	28.530
93.250	28.430
93.500	28.340
93.750	28.260
94.000	28.170
94.250	28.090
94.500	28.020
94.750	27.960
95.000	27.910
95.250	27.870
95.500	27.830
95.750	27.780
96.000	27.730
96.250	27.680
96.500	27.620
96.750	27.550
97.000	27.480
97.250	27.400
97.500	27.310
97.750	27.260
98.000	27.230
98.250	27.200
98.500	27.170
98.750	27.160
99.000	27.170
99.250	27.190
99.500	27.230
99.750	27.310
100.000	27.420
100.250	27.530
100.500	27.620
100.750	27.670
101.000	27.690
101.250	27.710
101.500	27.740
101.750	27.830
102.000	27.930
102.250	28.060
102.500	28.150
102.750	28.200
103.000	28.210
103.250	28.250
103.500	28.340
103.750	28.420
104.000	28.500
104.250	28.560
104.500	28.590

104.750	28.620
105.000	28.660
105.250	28.690
105.500	28.700
105.750	28.670
106.000	28.610
106.250	28.530
106.500	28.430
106.750	28.310
107.000	28.190
107.250	28.060
107.500	27.920
107.750	27.780
108.000	27.650
108.250	27.530
108.500	27.430
108.750	27.340
109.000	27.270
109.250	27.210
109.500	27.170
109.750	27.140
110.000	27.110
110.250	27.080
110.500	27.060
110.750	27.040
111.000	27.020
111.250	27.000
111.500	26.990
111.750	26.990
112.000	26.990
112.250	27.000
112.500	27.010
112.750	27.020
113.000	27.020
113.250	27.020
113.500	27.020
113.750	27.010
114.000	26.990
114.250	26.980
114.500	26.960
114.750	26.950
115.000	26.930
115.250	26.920
115.500	26.910
115.750	26.910
116.000	26.910
116.250	26.910
116.500	26.910
116.750	26.900
117.000	26.890
117.250	26.880
117.500	26.870
117.750	26.860
118.000	26.850
118.250	26.840
118.500	26.830
118.750	26.820
119.000	26.800
119.250	26.780
119.500	26.770
119.750	26.760
120.000	26.750
120.250	26.740
120.500	26.730
120.750	26.730
121.000	26.720
121.250	26.720
121.500	26.710
121.750	26.700
122.000	26.700
122.250	26.690
122.500	26.690
122.750	26.680
123.000	26.680
123.250	26.670
123.500	26.660
123.750	26.660
124.000	26.650
124.250	26.650
124.500	26.640
124.750	26.640
125.000	26.630
125.250	26.620
125.500	26.620
125.750	26.610
126.000	26.600
126.250	26.600
126.500	26.590

126.750	26.580
127.000	26.570
127.250	26.560
127.500	26.560
127.750	26.550
128.000	26.540
128.250	26.530
128.500	26.530
128.750	26.520
129.000	26.510
129.250	26.500
129.500	26.500
129.750	26.490
130.000	26.480
130.250	26.480
130.500	26.470
130.750	26.470
131.000	26.460
131.250	26.450
131.500	26.450
131.750	26.440
132.000	26.440
132.250	26.430
132.500	26.420
132.750	26.420
133.000	26.410
133.250	26.410
133.500	26.400
133.750	26.400
134.000	26.390
134.250	26.390
134.500	26.380
134.750	26.380
135.000	26.370
135.250	26.370
135.500	26.360
135.750	26.360
136.000	26.350
136.250	26.350
136.500	26.340
136.750	26.340
137.000	26.330
137.250	26.330
137.500	26.330
137.750	26.320
138.000	26.320
138.250	26.310
138.500	26.310
138.750	26.300
139.000	26.300
139.250	26.290
139.500	26.290
139.750	26.290
140.000	26.280
140.250	26.280
140.500	26.270
140.750	26.270
141.000	26.260
141.250	26.250
141.500	26.250
141.750	26.240
142.000	26.230
142.250	26.230
142.500	26.220
142.750	26.210
143.000	26.200
143.250	26.190
143.500	26.180
143.750	26.180
144.000	26.170

Name: OCT-2016 Node: 57N_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	25.760
0.250	25.760
0.500	25.760
0.750	25.760
1.000	25.760
1.250	25.760
1.500	25.760
1.750	25.760
2.000	25.760
2.250	25.760
2.500	25.760
2.750	25.760

3.000	25.760
3.250	25.760
3.500	25.760
3.750	25.760
4.000	25.760
4.250	25.760
4.500	25.770
4.750	25.860
5.000	26.120
5.250	26.600
5.500	26.990
5.750	27.210
6.000	27.390
6.250	27.560
6.500	27.660
6.750	27.760
7.000	27.870
7.250	27.950
7.500	28.000
7.750	28.050
8.000	28.070
8.250	28.090
8.500	28.100
8.750	28.100
9.000	28.100
9.250	28.090
9.500	28.080
9.750	28.070
10.000	28.060
10.250	28.050
10.500	28.050
10.750	28.050
11.000	28.050
11.250	28.060
11.500	28.060
11.750	28.060
12.000	28.060
12.250	28.060
12.500	28.050
12.750	28.040
13.000	28.030
13.250	28.020
13.500	28.010
13.750	28.000
14.000	27.990
14.250	27.980
14.500	27.970
14.750	27.970
15.000	27.960
15.250	27.950
15.500	27.940
15.750	27.920
16.000	27.910
16.250	27.900
16.500	27.890
16.750	27.870
17.000	27.860
17.250	27.850
17.500	27.840
17.750	27.830
18.000	27.820
18.250	27.820
18.500	27.830
18.750	27.860
19.000	27.900
19.250	27.950
19.500	27.990
19.750	28.000
20.000	28.010
20.250	28.010
20.500	28.010
20.750	28.010
21.000	28.020
21.250	28.040
21.500	28.060
21.750	28.070
22.000	28.090
22.250	28.090
22.500	28.110
22.750	28.140
23.000	28.190
23.250	28.250
23.500	28.290
23.750	28.330
24.000	28.370
24.250	28.430
24.500	28.490
24.750	28.550

25.000	28.620
25.250	28.680
25.500	28.730
25.750	28.770
26.000	28.810
26.250	28.850
26.500	28.880
26.750	28.940
27.000	29.050
27.250	29.230
27.500	29.370
27.750	29.420
28.000	29.450
28.250	29.460
28.500	29.480
28.750	29.500
29.000	29.580
29.250	29.740
29.500	29.900
29.750	30.110
30.000	30.230
30.250	30.390
30.500	30.500
30.750	30.550
31.000	30.560
31.250	30.570
31.500	30.590
31.750	30.610
32.000	30.630
32.250	30.640
32.500	30.660
32.750	30.670
33.000	30.680
33.250	30.680
33.500	30.690
33.750	30.680
34.000	30.680
34.250	30.670
34.500	30.660
34.750	30.650
35.000	30.630
35.250	30.620
35.500	30.610
35.750	30.610
36.000	30.650
36.250	30.700
36.500	30.740
36.750	30.770
37.000	30.790
37.250	30.810
37.500	30.840
37.750	30.850
38.000	30.860
38.250	30.860
38.500	30.870
38.750	30.880
39.000	30.890
39.250	30.900
39.500	30.900
39.750	30.900
40.000	30.890
40.250	30.880
40.500	30.870
40.750	30.860
41.000	30.840
41.250	30.820
41.500	30.800
41.750	30.780
42.000	30.760
42.250	30.740
42.500	30.720
42.750	30.700
43.000	30.670
43.250	30.650
43.500	30.630
43.750	30.600
44.000	30.570
44.250	30.540
44.500	30.510
44.750	30.480
45.000	30.450
45.250	30.430
45.500	30.400
45.750	30.360
46.000	30.330
46.250	30.300
46.500	30.270
46.750	30.230

47.000	30.190
47.250	30.150
47.500	30.120
47.750	30.100
48.000	30.090
48.250	30.080
48.500	30.030
48.750	30.000
49.000	29.810
49.250	29.720
49.500	29.680
49.750	29.650
50.000	29.620
50.250	29.590
50.500	29.540
50.750	29.500
51.000	29.480
51.250	29.480
51.500	29.470
51.750	29.460
52.000	29.450
52.250	29.440
52.500	29.430
52.750	29.410
53.000	29.390
53.250	29.360
53.500	29.340
53.750	29.300
54.000	29.250
54.250	29.120
54.500	28.980
54.750	28.920
55.000	28.870
55.250	28.830
55.500	28.790
55.750	28.760
56.000	28.720
56.250	28.690
56.500	28.660
56.750	28.620
57.000	28.580
57.250	28.530
57.500	28.470
57.750	28.410
58.000	28.350
58.250	28.300
58.500	28.240
58.750	28.180
59.000	28.130
59.250	28.090
59.500	28.060
59.750	28.030
60.000	28.010
60.250	28.000
60.500	27.980
60.750	27.970
61.000	27.950
61.250	27.940
61.500	27.930
61.750	27.910
62.000	27.900
62.250	27.880
62.500	27.870
62.750	27.860
63.000	27.840
63.250	27.830
63.500	27.820
63.750	27.810
64.000	27.800
64.250	27.790
64.500	27.780
64.750	27.770
65.000	27.770
65.250	27.760
65.500	27.750
65.750	27.740
66.000	27.730
66.250	27.720
66.500	27.710
66.750	27.710
67.000	27.700
67.250	27.690
67.500	27.680
67.750	27.670
68.000	27.660
68.250	27.660
68.500	27.650
68.750	27.640

69.000	27.630
69.250	27.620
69.500	27.610
69.750	27.600
70.000	27.600
70.250	27.590
70.500	27.580
70.750	27.570
71.000	27.560
71.250	27.550
71.500	27.550
71.750	27.540
72.000	27.530

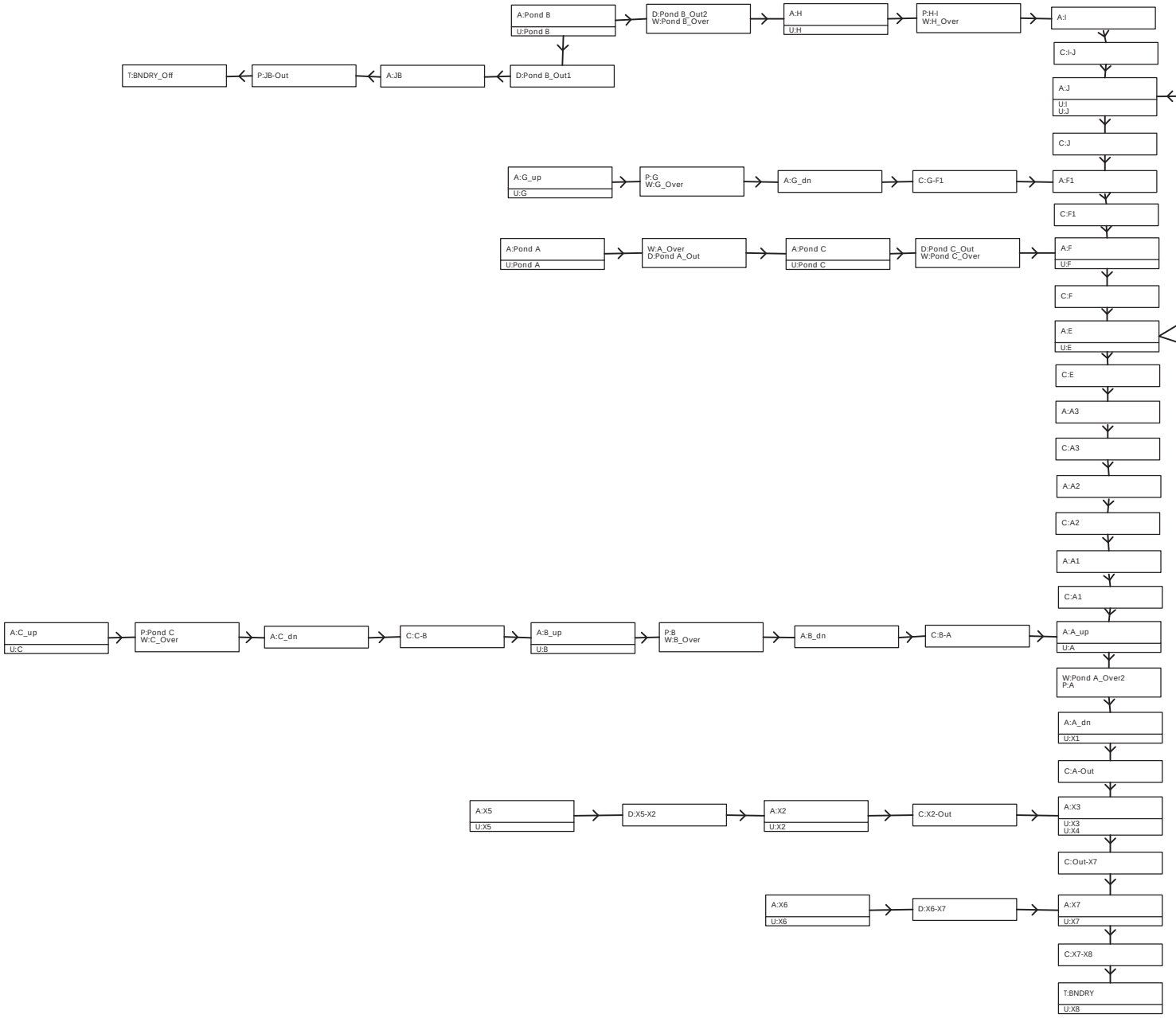
Name: OCT-2016 Node: 57S_a_dn Type: Stage

Time(hrs)	Stage(ft)
0.000	24.200
0.250	24.200
0.500	24.200
0.750	24.200
1.000	24.200
1.250	24.200
1.500	24.200
1.750	24.200
2.000	24.200
2.250	24.200
2.500	24.200
2.750	24.200
3.000	24.200
3.250	24.200
3.500	24.200
3.750	24.200
4.000	24.200
4.250	24.280
4.500	24.500
4.750	24.740
5.000	24.930
5.250	25.110
5.500	25.390
5.750	25.750
6.000	26.190
6.250	26.650
6.500	26.990
6.750	27.120
7.000	27.110
7.250	27.020
7.500	26.900
7.750	26.780
8.000	26.660
8.250	26.540
8.500	26.430
8.750	26.330
9.000	26.250
9.250	26.170
9.500	26.100
9.750	26.030
10.000	25.980
10.250	25.930
10.500	25.880
10.750	25.850
11.000	25.820
11.250	25.790
11.500	25.770
11.750	25.750
12.000	25.730
12.250	25.710
12.500	25.700
12.750	25.680
13.000	25.670
13.250	25.660
13.500	25.650
13.750	25.640
14.000	25.640
14.250	25.630
14.500	25.620
14.750	25.610
15.000	25.600
15.250	25.600
15.500	25.590
15.750	25.580
16.000	25.570
16.250	25.560
16.500	25.550
16.750	25.540
17.000	25.530

17.250	25.520
17.500	25.510
17.750	25.500
18.000	25.480
18.250	25.470
18.500	25.480
18.750	25.530
19.000	25.610
19.250	25.690
19.500	25.750
19.750	25.780
20.000	25.780
20.250	25.760
20.500	25.740
20.750	25.730
21.000	25.750
21.250	25.780
21.500	25.810
21.750	25.830
22.000	25.840
22.250	25.840
22.500	25.850
22.750	25.880
23.000	25.950
23.250	26.060
23.500	26.140
23.750	26.190
24.000	26.200
24.250	26.200
24.500	26.210
24.750	26.220
25.000	26.250
25.250	26.280
25.500	26.320
25.750	26.360
26.000	26.390
26.250	26.430
26.500	26.450
26.750	26.520
27.000	26.730
27.250	27.060
27.500	27.370
27.750	27.570
28.000	27.620
28.250	27.590
28.500	27.530
28.750	27.470
29.000	27.440
29.250	27.450
29.500	27.480
29.750	27.550
30.000	27.790
30.250	28.280
30.500	28.790
30.750	29.000
31.000	28.990
31.250	28.910
31.500	28.850
31.750	28.770
32.000	28.880
32.250	29.040
32.500	29.110
32.750	29.080
33.000	29.020
33.250	28.940
33.500	28.870
33.750	28.800
34.000	28.740
34.250	28.660
34.500	28.560
34.750	28.450
35.000	28.350
35.250	28.260
35.500	28.220
35.750	28.360
36.000	28.740
36.250	29.340
36.500	29.930
36.750	30.360
37.000	31.010
37.250	31.310
37.500	31.390
37.750	31.360
38.000	31.250
38.250	31.080
38.500	30.800
38.750	30.430
39.000	30.120

39.250	30.080
39.500	30.070
39.750	30.060
40.000	30.050
40.250	30.030
40.500	29.980
40.750	29.900
41.000	29.780
41.250	29.650
41.500	29.510
41.750	29.370
42.000	29.230
42.250	29.110
42.500	28.990
42.750	28.880
43.000	28.780
43.250	28.690
43.500	28.580
43.750	28.480
44.000	28.380
44.250	28.290
44.500	28.190
44.750	28.100
45.000	28.010
45.250	27.920
45.500	27.830
45.750	27.740
46.000	27.650
46.250	27.570
46.500	27.500
46.750	27.420
47.000	27.330
47.250	27.250
47.500	27.140
47.750	27.070
48.000	27.020
48.250	26.980
48.500	26.930
48.750	26.890
49.000	26.860
49.250	26.840
49.500	26.820
49.750	26.800
50.000	26.780
50.250	26.770
50.500	26.760
50.750	26.750
51.000	26.730
51.250	26.720
51.500	26.710
51.750	26.700
52.000	26.700
52.250	26.690
52.500	26.680
52.750	26.680
53.000	26.670
53.250	26.660
53.500	26.660
53.750	26.650
54.000	26.640
54.250	26.630
54.500	26.620
54.750	26.600
55.000	26.580
55.250	26.570
55.500	26.560
55.750	26.550
56.000	26.550
56.250	26.540
56.500	26.530
56.750	26.530
57.000	26.520
57.250	26.520
57.500	26.510
57.750	26.510
58.000	26.500
58.250	26.490
58.500	26.490
58.750	26.480
59.000	26.480
59.250	26.470
59.500	26.460
59.750	26.460
60.000	26.450
60.250	26.440
60.500	26.440
60.750	26.430
61.000	26.420

61.250	26.410
61.500	26.400
61.750	26.400
62.000	26.390
62.250	26.380
62.500	26.370
62.750	26.360
63.000	26.360
63.250	26.350
63.500	26.340
63.750	26.330
64.000	26.330
64.250	26.320
64.500	26.310
64.750	26.310
65.000	26.300
65.250	26.290
65.500	26.290
65.750	26.280
66.000	26.270
66.250	26.270
66.500	26.260
66.750	26.260
67.000	26.250
67.250	26.240
67.500	26.240
67.750	26.230
68.000	26.230
68.250	26.220
68.500	26.220
68.750	26.210
69.000	26.210
69.250	26.200
69.500	26.190
69.750	26.190
70.000	26.180
70.250	26.180
70.500	26.170
70.750	26.170
71.000	26.160
71.250	26.160
71.500	26.160
71.750	26.150
72.000	26.150


A:Pond B
U:Pond B
D:Pond B_Out2
W:Pond B_Over
A:H
U:H
P:H-I
W:H_Over
A:I
C:I-J
A:J
U:I
U:J
C:J
T:BNDRY_Off
P:JB-Out
A:JB
D:Pond B_Out1
A:G_up
U:G
P:G
W:G_Over
A:G_dn
C:G-F1
A:F1
C:F1
A:Pond A
U:Pond A
W:A_Over
D:Pond A_Out
A:Pond C
U:Pond C
D:Pond C_Out
W:Pond C_Over
A:F
U:F
C:F
A:E
U:E
C:E
A:A3
C:A3
A:A2
C:A2
A:A1
C:A1
A:C_up
U:C
P:Pond C
W:C_Over
A:C_dn
C:C-B
A:B_up
U:B
P:B
W:B_Over
A:B_dn
C:B-A
A:A_up
U:A
W:Pond A_Over2
P:A
A:A_dn
U:X1
C:A-Out
A:X5
U:X5
D:X5-X2
A:X2
U:X2
C:X2-Out
A:X3
U:X3
U:X4
C:Out-X7
A:X6
U:X6
D:X6-X7
A:X7
U:X7
C:X7-X8
T:BNDRY
U:X8

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==========================================================================================
==== Basins ==============================================================================
==========================================================================================

         Name: A                        Node: A_up                   Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 28.00
            Area(ac): 13.040                     Time Shift(hrs): 0.00
         Curve Number: 78.80               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


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         Name: B                        Node: B_up                   Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 50.00
            Area(ac): 12.560                     Time Shift(hrs): 0.00
         Curve Number: 85.90               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: C                        Node: C_up                   Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 72.00
            Area(ac): 24.120                     Time Shift(hrs): 0.00
         Curve Number: 80.60               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: D                        Node: D                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 28.00
            Area(ac): 22.090                     Time Shift(hrs): 0.00
         Curve Number: 91.60               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: E                        Node: E                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 57.00
            Area(ac): 40.070                     Time Shift(hrs): 0.00
         Curve Number: 84.80               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: F                        Node: F                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 43.00
            Area(ac): 10.150                     Time Shift(hrs): 0.00
         Curve Number: 76.80               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-------------------------------------------------------------------------------------------
         Name: G                        Node: G_up                   Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
```

```
    Rainfall Amount(in): 0.000                Time of Conc(min): 25.00
               Area(ac): 3.210                  Time Shift(hrs): 0.00
           Curve Number: 83.00             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: H                        Node: H                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                  Peaking Factor: 323.0
          Rainfall File: Scsiii             Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 54.00
               Area(ac): 8.140                  Time Shift(hrs): 0.00
           Curve Number: 82.80             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: I                        Node: J                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                  Peaking Factor: 323.0
          Rainfall File: Scsiii             Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 69.00
               Area(ac): 8.230                  Time Shift(hrs): 0.00
           Curve Number: 78.70             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: J                        Node: J                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                  Peaking Factor: 323.0
          Rainfall File: Scsiii             Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 45.00
               Area(ac): 12.030                 Time Shift(hrs): 0.00
           Curve Number: 77.00             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: K                        Node: K                      Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                  Peaking Factor: 323.0
          Rainfall File: Scsiii             Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 31.00
               Area(ac): 27.010                 Time Shift(hrs): 0.00
           Curve Number: 77.80             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: Pond A                   Node: Pond A                 Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                  Peaking Factor: 323.0
          Rainfall File: Scsiii             Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 29.00
               Area(ac): 9.570                  Time Shift(hrs): 0.00
           Curve Number: 83.40             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: Pond B                   Node: Pond B                 Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                  Peaking Factor: 323.0
          Rainfall File: Scsiii             Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                Time of Conc(min): 22.00
               Area(ac): 16.260                 Time Shift(hrs): 0.00
           Curve Number: 82.00             Max Allowable Q(cfs): 999999.000
                DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: Pond C                   Node: Pond C                 Status: Onsite
        Group: BASE                     Type: SCS Unit Hydrograph CN
```

```
       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 35.00
             Area(ac): 10.020                   Time Shift(hrs): 0.00
        Curve Number: 80.40              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
        Name: X1                      Node: A_dn                   Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 45.00
             Area(ac): 5.940                    Time Shift(hrs): 0.00
        Curve Number: 89.70              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
        Name: X2                      Node: X2                     Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 22.00
             Area(ac): 11.470                   Time Shift(hrs): 0.00
        Curve Number: 88.70              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
        Name: X3                      Node: X3                     Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 22.00
             Area(ac): 13.300                   Time Shift(hrs): 0.00
        Curve Number: 91.00              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
        Name: X4                      Node: X3                     Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 53.00
             Area(ac): 66.070                   Time Shift(hrs): 0.00
        Curve Number: 88.40              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
        Name: X5                      Node: X5                     Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 9.00
             Area(ac): 10.610                   Time Shift(hrs): 0.00
        Curve Number: 77.50              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
        Name: X6                      Node: X6                     Status: Onsite
       Group: BASE                    Type: SCS Unit Hydrograph CN

       Unit Hydrograph: Uh323                    Peaking Factor: 323.0
         Rainfall File: Scsiii              Storm Duration(hrs): 24.00
   Rainfall Amount(in): 0.000                 Time of Conc(min): 12.00
             Area(ac): 21.360                   Time Shift(hrs): 0.00
        Curve Number: 79.90              Max Allowable Q(cfs): 999999.000
             DCIA(%): 0.00
```

```
-----------------------------------------------------------------------------------------------
         Name: X7                      Node: X7                     Status: Onsite
        Group: BASE                    Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 87.00
            Area(ac): 107.380                    Time Shift(hrs): 0.00
         Curve Number: 76.20               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


-----------------------------------------------------------------------------------------------
         Name: X8                      Node: BNDRY                  Status: Onsite
        Group: BASE                    Type: SCS Unit Hydrograph CN

        Unit Hydrograph: Uh323                   Peaking Factor: 323.0
          Rainfall File: Scsiii              Storm Duration(hrs): 24.00
    Rainfall Amount(in): 0.000                 Time of Conc(min): 67.00
            Area(ac): 70.360                     Time Shift(hrs): 0.00
         Curve Number: 76.90               Max Allowable Q(cfs): 999999.000
              DCIA(%): 0.00


==============================================================================================
==== Nodes ===================================================================================
==============================================================================================

      Name: A1                  Base Flow(cfs): 0.000          Init Stage(ft): 20.000
     Group: BASE                                               Warn Stage(ft): 26.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-----------------------------------------------------------------------------------------------
      Name: A2                  Base Flow(cfs): 0.000          Init Stage(ft): 20.000
     Group: BASE                                               Warn Stage(ft): 26.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-----------------------------------------------------------------------------------------------
      Name: A3                  Base Flow(cfs): 0.000          Init Stage(ft): 20.100
     Group: BASE                                               Warn Stage(ft): 26.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-----------------------------------------------------------------------------------------------
      Name: A_dn                Base Flow(cfs): 0.000          Init Stage(ft): 19.600
     Group: BASE                                               Warn Stage(ft): 25.600
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-----------------------------------------------------------------------------------------------
      Name: A_up                Base Flow(cfs): 0.000          Init Stage(ft): 20.110
     Group: BASE                                               Warn Stage(ft): 26.110
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-----------------------------------------------------------------------------------------------
      Name: B_dn                Base Flow(cfs): 0.000          Init Stage(ft): 20.800
     Group: BASE                                               Warn Stage(ft): 24.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
```

```
-------------------------------------------------------------------------------------------
      Name: B_up                Base Flow(cfs): 0.000          Init Stage(ft): 21.200
     Group: BASE                                              Warn Stage(ft): 24.200
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: BNDRY               Base Flow(cfs): 0.000          Init Stage(ft): 16.000
     Group: BASE                                              Warn Stage(ft): 23.000
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          16.000
         999.00          16.000

-------------------------------------------------------------------------------------------
      Name: BNDRY_Off           Base Flow(cfs): 0.000          Init Stage(ft): 23.280
     Group: BASE                                              Warn Stage(ft): 27.210
      Type: Time/Stage


      Time(hrs)       Stage(ft)
--------------- ---------------
           0.00          23.280
         999.00          23.280

-------------------------------------------------------------------------------------------
      Name: C_dn                Base Flow(cfs): 0.000          Init Stage(ft): 23.000
     Group: BASE                                              Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: C_up                Base Flow(cfs): 0.000          Init Stage(ft): 23.450
     Group: BASE                                              Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         23.450          0.0000
         27.000          2.0000

-------------------------------------------------------------------------------------------
      Name: D                   Base Flow(cfs): 0.000          Init Stage(ft): 22.800
     Group: BASE                                              Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: E                   Base Flow(cfs): 0.000          Init Stage(ft): 20.200
     Group: BASE                                              Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         20.200          0.0000
         27.000          0.0100

-------------------------------------------------------------------------------------------
      Name: E1                  Base Flow(cfs): 0.000          Init Stage(ft): 21.000
     Group: BASE                                              Warn Stage(ft): 28.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
```

```
-------------------------------------------------------------------------------------------
      Name: E2                 Base Flow(cfs): 0.000         Init Stage(ft): 21.500
     Group: BASE                                             Warn Stage(ft): 30.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: E3                 Base Flow(cfs): 0.000         Init Stage(ft): 22.500
     Group: BASE                                             Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: E4                 Base Flow(cfs): 0.000         Init Stage(ft): 23.000
     Group: BASE                                             Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: F                  Base Flow(cfs): 0.000         Init Stage(ft): 19.070
     Group: BASE                                             Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: F1                 Base Flow(cfs): 0.000         Init Stage(ft): 19.700
     Group: BASE                                             Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------------
      Name: G_dn               Base Flow(cfs): 0.000         Init Stage(ft): 24.430
     Group: BASE                                             Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         24.430          0.0000
         27.000          0.0100

-------------------------------------------------------------------------------------------
      Name: G_up               Base Flow(cfs): 0.000         Init Stage(ft): 25.000
     Group: BASE                                             Warn Stage(ft): 27.660
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         25.000          0.0000
         28.000          0.0100

-------------------------------------------------------------------------------------------
      Name: H                  Base Flow(cfs): 0.000         Init Stage(ft): 21.810
     Group: BASE                                             Warn Stage(ft): 27.590
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         21.810          0.0010
         27.590          0.0010

-------------------------------------------------------------------------------------------
```

```
      Name: HWY57_N             Base Flow(cfs): 0.000         Init Stage(ft): 25.760
     Group: BASE                                             Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: HWY57_S             Base Flow(cfs): 0.000         Init Stage(ft): 24.200
     Group: BASE                                             Warn Stage(ft): 32.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: I                   Base Flow(cfs): 0.000         Init Stage(ft): 20.750
     Group: BASE                                             Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: J                   Base Flow(cfs): 0.000         Init Stage(ft): 22.500
     Group: BASE                                             Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: J1                  Base Flow(cfs): 0.000         Init Stage(ft): 23.500
     Group: BASE                                             Warn Stage(ft): 29.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: JB                  Base Flow(cfs): 0.000         Init Stage(ft): 24.130
     Group: BASE                                             Warn Stage(ft): 27.210
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: K                   Base Flow(cfs): 0.000         Init Stage(ft): 26.320
     Group: BASE                                             Warn Stage(ft): 30.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------

-------------------------------------------------------------------------------------
      Name: Pond A              Base Flow(cfs): 0.000         Init Stage(ft): 23.550
     Group: BASE                                             Warn Stage(ft): 27.000
      Type: Stage/Area


      Stage(ft)        Area(ac)
--------------- ---------------
         23.390          0.4100
         27.000          0.8000

-------------------------------------------------------------------------------------
      Name: Pond B              Base Flow(cfs): 0.000         Init Stage(ft): 24.620
     Group: BASE                                             Warn Stage(ft): 29.000
      Type: Stage/Area
```

Stage(ft)	Area(ac)
24.620	1.8100
29.000	2.0000

Name: Pond C Base Flow(cfs): 0.000 Init Stage(ft): 23.550
Group: BASE Warn Stage(ft): 28.000
Type: Stage/Area

Stage(ft)	Area(ac)
23.550	0.4000
28.000	0.4500

Name: X2 Base Flow(cfs): 0.000 Init Stage(ft): 18.500
Group: BASE Warn Stage(ft): 25.000
Type: Stage/Area

Stage(ft)	Area(ac)

Name: X3 Base Flow(cfs): 0.000 Init Stage(ft): 18.000
Group: BASE Warn Stage(ft): 25.000
Type: Stage/Area

Stage(ft)	Area(ac)

Name: X5 Base Flow(cfs): 0.000 Init Stage(ft): 22.000
Group: BASE Warn Stage(ft): 25.000
Type: Stage/Area

Stage(ft)	Area(ac)
22.000	1.0500
25.000	1.9000

Name: X6 Base Flow(cfs): 0.000 Init Stage(ft): 21.000
Group: BASE Warn Stage(ft): 23.000
Type: Stage/Area

Stage(ft)	Area(ac)
21.000	3.9800
23.000	5.5000

Name: X7 Base Flow(cfs): 0.000 Init Stage(ft): 17.000
Group: BASE Warn Stage(ft): 23.000
Type: Stage/Area

Stage(ft)	Area(ac)

==========
==== Cross Sections ==========
==========

Name: 0 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	27.968	0.045000
4.989	27.848	0.045000
9.978	27.742	0.045000
14.967	27.664	0.045000
19.956	27.618	0.045000
24.946	27.546	0.045000

29.935	27.485	0.045000
34.924	27.440	0.045000
39.913	27.395	0.045000
44.902	27.334	0.045000
49.891	27.294	0.045000
54.880	27.278	0.045000
59.869	27.285	0.045000
64.858	27.227	0.045000
69.848	27.132	0.045000
74.837	27.021	0.045000
79.826	26.941	0.045000
84.815	26.947	0.045000
89.804	26.838	0.045000
94.793	26.786	0.045000
99.782	26.781	0.045000
104.771	26.676	0.045000
109.760	26.597	0.045000
114.749	26.482	0.045000
119.739	26.294	0.045000
124.728	26.015	0.045000
129.717	25.807	0.045000
134.706	25.688	0.045000
139.695	25.666	0.045000
144.684	25.646	0.045000
149.673	25.455	0.045000
154.662	25.317	0.045000
159.651	25.305	0.045000
164.641	25.184	0.045000
169.630	25.118	0.045000
174.619	25.009	0.045000
179.608	25.019	0.045000
184.597	24.845	0.045000
189.586	24.775	0.045000
194.575	24.656	0.045000
199.564	24.564	0.045000
204.553	24.399	0.045000
209.543	24.423	0.045000
214.532	24.552	0.045000
219.521	24.569	0.045000
224.510	24.506	0.045000
229.499	24.299	0.045000
234.488	24.202	0.045000
239.477	24.133	0.045000
244.466	23.965	0.045000
249.455	24.004	0.045000
254.445	23.995	0.045000
259.434	23.927	0.045000
264.423	23.757	0.045000
269.412	23.692	0.045000
274.401	23.723	0.045000
279.390	23.716	0.045000
284.379	23.718	0.045000
289.368	23.667	0.045000
294.357	23.482	0.045000
299.346	23.291	0.045000
304.336	23.284	0.045000
309.325	23.308	0.045000
314.314	23.367	0.045000
319.303	23.453	0.045000
324.292	23.441	0.045000
329.281	23.437	0.045000
334.270	23.334	0.045000
339.259	23.344	0.045000
344.248	23.552	0.045000
349.238	23.673	0.045000
354.227	23.561	0.045000
359.216	23.401	0.045000
364.205	23.465	0.045000
369.194	23.459	0.045000
374.183	23.468	0.045000
379.172	23.439	0.045000
384.161	23.368	0.045000
389.150	23.357	0.045000
394.140	23.329	0.045000
399.129	23.386	0.045000
404.118	23.269	0.045000
409.107	23.250	0.045000
414.096	23.048	0.045000
419.085	23.404	0.045000
424.035	23.719	0.045000
428.984	23.699	0.045000
433.934	23.635	0.045000
438.883	23.831	0.045000
443.833	23.773	0.045000
448.782	23.687	0.045000
453.732	23.670	0.045000
458.681	23.644	0.045000
463.577	23.500	0.045000

466.686	19.000	0.045000
471.453	18.000	0.045000
476.327	19.100	0.045000
481.835	22.600	0.045000
488.379	22.690	0.045000
493.328	22.970	0.045000
498.278	23.051	0.045000
503.227	23.213	0.045000
508.177	23.369	0.045000
513.126	23.248	0.045000
518.076	22.896	0.045000
523.026	22.914	0.045000
527.975	23.366	0.045000
532.925	23.746	0.045000
537.874	23.983	0.045000
542.824	24.148	0.045000
547.773	24.249	0.045000
552.723	24.318	0.045000
557.694	24.398	0.045000
562.665	24.446	0.045000
567.636	24.415	0.045000
572.607	24.460	0.045000
577.578	24.609	0.045000
582.549	24.687	0.045000
587.520	24.775	0.045000
592.491	24.833	0.045000
597.462	24.897	0.045000
602.433	24.892	0.045000
607.405	24.926	0.045000
612.376	24.952	0.045000
617.347	24.996	0.045000
622.318	24.978	0.045000
627.289	25.031	0.045000
632.260	25.111	0.045000
637.231	25.162	0.045000
642.202	25.210	0.045000
647.173	25.259	0.045000
652.042	25.284	0.045000
656.912	25.391	0.045000
661.781	25.378	0.045000
666.650	25.393	0.045000
671.519	25.495	0.045000
676.389	25.514	0.045000
681.258	25.594	0.045000
686.127	25.668	0.045000
690.996	25.721	0.045000
695.866	25.762	0.045000
700.735	25.845	0.045000
705.604	25.898	0.045000
710.473	25.941	0.045000
715.343	25.980	0.045000
720.212	26.045	0.045000
725.081	26.084	0.045000
729.950	26.150	0.045000
734.820	26.262	0.045000
739.689	26.367	0.045000
744.558	26.403	0.045000
749.427	26.484	0.045000
754.296	26.525	0.045000
759.166	26.520	0.045000
764.041	26.596	0.045000
768.916	26.573	0.045000
773.791	26.604	0.045000
778.666	26.521	0.045000
783.542	26.453	0.045000
788.417	26.439	0.045000
793.292	26.512	0.045000
798.167	26.538	0.045000
803.042	26.559	0.045000
807.918	26.496	0.045000
812.793	26.436	0.045000
817.668	26.375	0.045000
822.543	26.431	0.045000
827.418	26.423	0.045000
832.293	26.384	0.045000
837.169	26.479	0.045000
842.044	26.492	0.045000
846.919	26.562	0.045000
851.794	26.594	0.045000
856.669	26.584	0.045000
861.545	26.643	0.045000
866.420	26.768	0.045000
871.295	26.724	0.045000
876.170	26.712	0.045000
881.045	26.802	0.045000
885.920	26.793	0.045000

Name: 1 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	27.000	0.045000
4.961	27.006	0.045000
9.921	27.011	0.045000
14.882	27.008	0.045000
19.843	26.959	0.045000
24.803	26.958	0.045000
29.764	27.000	0.045000
34.724	26.934	0.045000
39.685	26.907	0.045000
44.646	26.950	0.045000
49.606	27.033	0.045000
54.567	27.095	0.045000
59.528	27.209	0.045000
64.488	27.206	0.045000
69.449	27.213	0.045000
74.410	27.235	0.045000
79.370	27.256	0.045000
84.331	27.274	0.045000
89.291	27.096	0.045000
94.252	27.070	0.045000
99.213	27.061	0.045000
104.173	26.978	0.045000
109.134	26.854	0.045000
114.095	26.816	0.045000
119.055	26.779	0.045000
124.016	26.741	0.045000
128.976	26.684	0.045000
133.937	26.613	0.045000
138.898	26.499	0.045000
143.858	26.143	0.045000
148.819	25.691	0.045000
153.780	25.636	0.045000
158.740	25.648	0.045000
163.701	25.772	0.045000
168.662	25.530	0.045000
170.000	25.300	0.045000
176.241	22.300	0.045000
181.606	18.900	0.045000
185.124	18.200	0.045000
189.879	19.300	0.045000
197.158	24.900	0.045000
201.666	25.800	0.045000
205.529	25.886	0.045000
210.137	25.749	0.045000
214.746	25.684	0.045000
219.724	25.471	0.045000
224.702	25.334	0.045000
229.680	25.320	0.045000
234.658	25.304	0.045000
239.636	25.435	0.045000
244.614	25.418	0.045000
249.592	25.470	0.045000
254.571	25.500	0.045000
259.549	25.523	0.045000
264.527	25.657	0.045000
269.505	25.823	0.045000
274.483	25.932	0.045000
279.461	25.969	0.045000
284.439	25.954	0.045000
289.417	25.961	0.045000
294.395	25.957	0.045000
299.373	25.880	0.045000
304.351	25.976	0.045000
309.330	26.283	0.045000
314.308	27.315	0.045000
319.286	28.107	0.045000
324.264	28.239	0.045000
329.242	28.216	0.045000
334.220	28.212	0.045000
339.198	28.209	0.045000
344.176	28.205	0.045000
349.154	28.202	0.045000
354.132	28.208	0.045000
359.111	28.169	0.045000
364.089	28.180	0.045000
369.067	28.151	0.045000
374.045	28.104	0.045000
379.023	28.029	0.045000
384.001	28.125	0.045000
388.979	28.184	0.045000
393.957	28.228	0.045000

398.935	28.269	0.045000
403.913	28.310	0.045000
408.892	28.351	0.045000
413.870	28.392	0.045000
418.848	28.432	0.045000
423.826	28.449	0.045000

Name: A1 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	25.861	0.045000
4.940	25.834	0.045000
9.881	25.841	0.045000
14.821	25.772	0.045000
19.762	25.564	0.045000
24.702	25.349	0.045000
29.643	25.217	0.045000
34.583	25.112	0.045000
39.524	24.924	0.045000
44.464	25.045	0.045000
49.404	24.976	0.045000
54.345	24.958	0.045000
59.285	24.933	0.045000
64.226	24.770	0.045000
69.166	24.684	0.045000
74.107	24.469	0.045000
79.047	24.291	0.045000
83.987	24.337	0.045000
88.928	24.357	0.045000
93.868	24.397	0.045000
98.809	24.464	0.045000
103.749	24.348	0.045000
108.690	24.351	0.045000
113.630	24.425	0.045000
118.571	24.442	0.045000
123.511	24.435	0.045000
128.451	24.535	0.045000
133.392	24.530	0.045000
138.332	24.517	0.045000
143.273	24.555	0.045000
148.213	24.590	0.045000
153.154	24.640	0.045000
158.094	24.622	0.045000
163.034	24.610	0.045000
167.975	24.543	0.045000
172.915	24.584	0.045000
177.856	24.652	0.045000
182.796	24.697	0.045000
187.737	24.806	0.045000
192.677	24.764	0.045000
197.618	24.745	0.045000
202.558	24.729	0.045000
207.498	24.607	0.045000
212.439	24.566	0.045000
217.379	24.558	0.045000
222.320	24.584	0.045000
227.260	24.724	0.045000
232.201	24.865	0.045000
237.141	24.925	0.045000
242.081	24.956	0.045000
247.022	25.053	0.045000
251.962	25.236	0.045000
256.903	25.386	0.045000
261.843	25.384	0.045000
266.784	25.369	0.045000
271.724	25.426	0.045000
276.665	25.336	0.045000
281.605	25.256	0.045000
286.545	25.160	0.045000
291.486	25.111	0.045000
296.426	25.023	0.045000
301.367	24.915	0.045000
306.307	24.835	0.045000
311.248	24.783	0.045000
316.188	24.679	0.045000
321.129	24.189	0.045000
328.572	20.200	0.045000
332.070	20.000	0.045000
337.344	20.300	0.045000
350.712	25.190	0.045000
355.633	25.371	0.045000
360.554	25.535	0.045000
365.474	25.692	0.045000

370.395	25.873	0.045000
375.316	26.172	0.045000
380.237	25.992	0.045000
385.157	26.149	0.045000
390.078	26.137	0.045000
394.999	26.285	0.045000
399.920	26.463	0.045000
404.840	26.249	0.045000
409.761	26.067	0.045000
414.682	26.030	0.045000
419.603	26.124	0.045000
424.523	26.032	0.045000
429.444	26.140	0.045000
434.365	26.175	0.045000
439.286	26.233	0.045000
444.206	26.316	0.045000
449.127	26.503	0.045000
454.048	26.674	0.045000
458.969	26.773	0.045000
463.889	26.859	0.045000
468.810	26.952	0.045000
473.731	27.038	0.045000
478.652	27.112	0.045000
483.572	27.202	0.045000
488.493	27.200	0.045000
493.418	27.192	0.045000
498.343	27.233	0.045000
503.268	27.358	0.045000
508.193	27.303	0.045000
513.118	27.279	0.045000
518.043	27.338	0.045000
522.968	27.295	0.045000
527.893	27.176	0.045000
532.818	27.259	0.045000
537.743	27.447	0.045000
542.668	27.497	0.045000
547.593	27.463	0.045000
552.518	27.420	0.045000
557.443	27.502	0.045000
562.368	27.762	0.045000
567.293	27.932	0.045000
572.218	27.924	0.045000
577.143	27.864	0.045000
582.068	27.951	0.045000
586.993	28.081	0.045000
591.918	28.113	0.045000
596.843	28.119	0.045000
601.768	28.180	0.045000
606.693	28.237	0.045000
611.618	28.273	0.045000
616.543	28.293	0.045000
621.468	28.228	0.045000
626.393	28.115	0.045000
631.318	28.207	0.045000
636.243	28.321	0.045000
641.168	28.442	0.045000
646.093	28.453	0.045000
651.018	28.410	0.045000
655.943	28.367	0.045000
660.868	28.274	0.045000
665.793	28.182	0.045000
670.718	28.151	0.045000
675.643	28.178	0.045000
680.568	28.238	0.045000
685.493	28.336	0.045000
690.418	28.336	0.045000
695.343	28.327	0.045000
700.268	28.265	0.045000
705.193	28.197	0.045000
710.118	28.504	0.045000
715.043	28.711	0.045000
719.968	29.063	0.045000
724.893	29.694	0.045000
729.818	30.134	0.045000
734.743	30.217	0.045000

Name: A2 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	29.155	0.045000
4.979	29.262	0.045000
9.958	29.122	0.045000
14.937	29.049	0.045000

19.917	29.051	0.045000
24.896	29.023	0.045000
29.875	28.896	0.045000
34.854	28.711	0.045000
39.833	28.549	0.045000
44.812	28.361	0.045000
49.791	28.069	0.045000
54.771	27.710	0.045000
59.750	27.404	0.045000
64.729	27.095	0.045000
69.708	26.631	0.045000
74.687	26.354	0.045000
79.666	26.113	0.045000
84.645	25.779	0.045000
89.625	25.557	0.045000
94.604	25.376	0.045000
99.583	25.230	0.045000
104.562	25.195	0.045000
109.541	25.227	0.045000
114.520	25.191	0.045000
119.499	25.169	0.045000
124.479	25.297	0.045000
129.458	25.510	0.045000
134.437	25.583	0.045000
139.416	25.642	0.045000
144.395	25.733	0.045000
149.374	25.524	0.045000
154.353	25.258	0.045000
159.333	25.161	0.045000
161.000	24.900	0.045000
169.572	20.200	0.045000
173.070	20.000	0.045000
178.344	20.300	0.045000
181.572	24.200	0.045000
183.710	24.841	0.045000
188.430	26.682	0.045000
193.151	27.512	0.045000
197.871	27.577	0.045000
202.591	27.504	0.045000
207.311	27.503	0.045000
212.031	27.534	0.045000
216.751	27.535	0.045000
221.471	27.535	0.045000
226.192	27.530	0.045000
231.060	27.527	0.045000
235.929	27.498	0.045000
240.797	27.580	0.045000
245.666	27.689	0.045000
250.535	27.699	0.045000
255.403	27.683	0.045000
260.272	27.661	0.045000
265.140	27.630	0.045000
270.009	27.598	0.045000
274.878	27.578	0.045000
279.746	27.546	0.045000
284.615	27.525	0.045000
289.483	27.451	0.045000
294.352	27.436	0.045000
299.221	27.526	0.045000
304.089	27.553	0.045000
308.958	27.564	0.045000
313.826	27.550	0.045000
318.695	27.537	0.045000
323.564	27.524	0.045000
328.522	27.512	0.045000
333.481	27.501	0.045000
338.439	27.503	0.045000
343.397	27.478	0.045000
348.356	27.373	0.045000
353.314	27.348	0.045000
358.273	27.415	0.045000
363.231	27.359	0.045000
368.190	27.334	0.045000
373.148	27.361	0.045000
378.106	27.381	0.045000
383.065	27.391	0.045000
388.023	27.409	0.045000
392.982	27.429	0.045000
397.940	27.458	0.045000
402.899	27.436	0.045000
407.857	27.432	0.045000
412.815	27.515	0.045000
417.774	27.572	0.045000
422.732	27.655	0.045000
427.691	27.739	0.045000
432.649	27.818	0.045000
437.608	27.868	0.045000
442.566	27.890	0.045000

447.525	27.912	0.045000
452.483	27.933	0.045000
457.441	27.816	0.045000
462.400	27.764	0.045000
467.358	27.982	0.045000
472.317	27.931	0.045000
477.275	27.848	0.045000
482.234	27.764	0.045000
487.192	27.694	0.045000
492.150	27.700	0.045000
497.109	27.743	0.045000
502.067	27.785	0.045000
507.026	27.815	0.045000
511.984	27.797	0.045000
516.943	27.655	0.045000
521.901	27.612	0.045000
526.859	27.637	0.045000
531.818	27.677	0.045000
536.776	27.712	0.045000
541.735	27.740	0.045000
546.693	27.782	0.045000
551.652	27.812	0.045000
556.610	27.843	0.045000
561.568	27.886	0.045000
566.527	28.055	0.045000
571.485	28.141	0.045000

Name: A3 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	47.896	0.045000
4.982	46.764	0.045000
9.965	42.318	0.045000
14.947	36.976	0.045000
19.930	32.942	0.045000
24.912	29.545	0.045000
29.894	27.685	0.045000
34.877	27.293	0.045000
39.859	27.012	0.045000
44.842	26.757	0.045000
49.824	26.556	0.045000
54.806	26.362	0.045000
59.789	26.183	0.045000
64.771	25.961	0.045000
69.754	25.797	0.045000
74.736	25.561	0.045000
79.718	25.219	0.045000
84.701	24.268	0.045000
89.683	23.420	0.045000
94.666	22.201	0.045000
99.648	21.344	0.045000
104.630	22.451	0.045000
109.531	23.779	0.045000
114.432	25.375	0.045000
119.333	26.454	0.045000
124.234	27.037	0.045000
129.135	27.468	0.045000
134.036	27.733	0.045000
138.936	27.814	0.045000
143.837	27.884	0.045000
148.738	28.063	0.045000
153.639	28.120	0.045000
158.540	28.243	0.045000
163.441	28.315	0.045000
168.341	28.228	0.045000
173.242	28.248	0.045000
176.925	28.277	0.045000

Name: E Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	46.837	0.045000
4.945	47.344	0.045000
9.890	49.574	0.045000
14.835	47.989	0.045000
19.780	43.436	0.045000
24.725	38.399	0.045000
29.670	33.765	0.045000

34.615	31.163	0.045000
39.560	29.728	0.045000
44.504	28.299	0.045000
49.449	27.202	0.045000
54.394	26.965	0.045000
59.339	26.968	0.045000
64.284	26.914	0.045000
69.229	26.874	0.045000
74.174	26.747	0.045000
79.119	26.365	0.045000
84.064	25.926	0.045000
89.009	25.928	0.045000
93.954	25.141	0.045000
98.899	24.317	0.045000
103.844	23.795	0.045000
108.789	23.442	0.045000
113.734	22.541	0.045000
118.679	21.170	0.045000
122.572	20.400	0.045000
126.070	20.200	0.045000
131.344	20.500	0.045000
133.422	21.323	0.045000
138.276	22.992	0.045000
143.130	25.583	0.045000
147.984	27.456	0.045000
152.838	28.156	0.045000
157.691	28.317	0.045000
162.545	28.497	0.045000
167.399	28.546	0.045000
172.253	28.532	0.045000
177.107	28.581	0.045000
181.961	28.663	0.045000
186.814	28.642	0.045000
191.668	28.550	0.045000

Name: E1 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	36.997	0.045000
4.973	36.786	0.045000
9.947	36.590	0.045000
14.920	36.410	0.045000
19.893	36.192	0.045000
24.866	35.904	0.045000
29.840	35.684	0.045000
34.813	35.470	0.045000
39.786	35.423	0.045000
44.759	35.433	0.045000
49.733	34.346	0.045000
54.706	32.711	0.045000
59.679	30.968	0.045000
64.652	29.529	0.045000
69.626	29.266	0.045000
74.599	29.302	0.045000
79.572	29.293	0.045000
84.546	29.244	0.045000
89.519	28.885	0.045000
94.492	28.408	0.045000
99.465	28.106	0.045000
104.439	28.124	0.045000
109.412	28.247	0.045000
114.385	28.145	0.045000
119.358	28.097	0.045000
124.332	27.827	0.045000
129.305	27.909	0.045000
134.278	28.214	0.045000
139.252	28.217	0.045000
144.225	28.315	0.045000
149.198	28.576	0.045000
154.171	29.113	0.045000
159.145	28.977	0.045000
164.118	28.561	0.045000
169.091	28.182	0.045000
174.064	27.642	0.045000
179.038	26.919	0.045000
184.011	26.045	0.045000
188.016	21.700	0.045000
191.354	21.500	0.045000
195.417	21.600	0.045000
201.138	26.300	0.045000
203.896	27.057	0.045000
208.866	27.703	0.045000
213.835	26.862	0.045000

218.804	25.869	0.045000
223.774	25.828	0.045000
228.743	26.238	0.045000
233.712	26.758	0.045000
238.682	27.090	0.045000
243.651	27.157	0.045000
248.620	27.051	0.045000
253.590	26.984	0.045000
258.559	26.999	0.045000
263.528	26.994	0.045000
268.498	27.028	0.045000
273.467	27.112	0.045000
278.436	27.145	0.045000
283.406	27.077	0.045000
288.375	26.992	0.045000
293.345	26.992	0.045000
298.314	27.037	0.045000
303.283	27.082	0.045000
308.253	26.885	0.045000
313.222	27.044	0.045000
318.191	27.051	0.045000
323.161	27.306	0.045000
328.130	27.401	0.045000
333.099	27.297	0.045000
338.069	27.298	0.045000
343.038	27.396	0.045000
348.007	27.304	0.045000
352.977	27.324	0.045000
357.946	27.372	0.045000
362.915	27.427	0.045000
367.885	27.381	0.045000
372.854	27.301	0.045000
377.823	27.324	0.045000

Name: E2 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	30.891	0.045000
4.887	30.635	0.045000
9.775	30.601	0.045000
14.662	30.685	0.045000
19.549	30.696	0.045000
24.436	30.662	0.045000
29.324	30.718	0.045000
34.211	30.846	0.045000
39.098	30.930	0.045000
43.985	30.793	0.045000
48.873	30.764	0.045000
53.760	30.729	0.045000
58.647	30.519	0.045000
63.534	30.361	0.045000
68.422	30.288	0.045000
73.309	30.207	0.045000
78.196	30.014	0.045000
83.084	29.802	0.045000
87.971	29.628	0.045000
92.858	29.476	0.045000
97.745	29.419	0.045000
102.633	29.361	0.045000
107.520	29.215	0.045000
112.407	29.058	0.045000
117.294	28.902	0.045000
122.182	28.711	0.045000
127.069	28.703	0.045000
131.956	28.655	0.045000
136.844	28.663	0.045000
141.731	28.597	0.045000
146.618	28.481	0.045000
151.505	28.548	0.045000
156.393	28.558	0.045000
161.280	28.444	0.045000
166.167	28.305	0.045000
171.054	28.216	0.045000
175.942	28.382	0.045000
180.829	28.505	0.045000
185.716	28.540	0.045000
190.603	28.773	0.045000
195.491	28.949	0.045000
200.378	28.941	0.045000
205.255	28.923	0.045000
210.131	28.812	0.045000
215.008	28.652	0.045000
219.885	28.495	0.045000

224.762	28.420	0.045000
229.638	28.351	0.045000
234.515	28.241	0.045000
239.392	28.133	0.045000
244.268	28.092	0.045000
249.145	28.068	0.045000
254.022	28.297	0.045000
258.899	28.783	0.045000
263.775	29.524	0.045000
268.652	30.497	0.045000
273.529	30.804	0.045000
278.406	28.256	0.045000
283.282	25.169	0.045000
288.159	22.764	0.045000
293.078	23.910	0.045000
297.997	25.935	0.045000
302.915	29.069	0.045000
307.834	30.870	0.045000
312.753	30.309	0.045000
317.672	28.966	0.045000
322.591	27.760	0.045000
327.509	27.205	0.045000
332.428	27.015	0.045000
337.347	26.989	0.045000
342.266	26.932	0.045000
347.185	26.687	0.045000
352.103	26.390	0.045000
357.022	26.095	0.045000
361.941	26.172	0.045000
366.860	26.793	0.045000
371.779	27.456	0.045000
376.697	27.864	0.045000
381.616	27.958	0.045000
386.535	27.890	0.045000
391.454	27.957	0.045000
396.373	28.121	0.045000
401.292	28.318	0.045000
406.210	28.338	0.045000
411.129	28.279	0.045000
416.048	28.300	0.045000
420.967	28.245	0.045000
425.886	28.162	0.045000
430.804	27.931	0.045000
435.723	27.725	0.045000
440.642	27.789	0.045000
445.561	27.940	0.045000
450.480	28.156	0.045000
455.398	28.143	0.045000
460.317	27.903	0.045000
465.236	27.969	0.045000
470.155	28.062	0.045000

Name: E3 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	33.829	0.045000
4.942	33.834	0.045000
9.883	33.839	0.045000
14.825	33.840	0.045000
19.766	33.800	0.045000
24.708	33.725	0.045000
29.650	33.676	0.045000
34.591	33.689	0.045000
39.533	33.740	0.045000
44.475	33.767	0.045000
49.416	33.772	0.045000
54.358	33.775	0.045000
59.299	33.763	0.045000
64.241	33.723	0.045000
69.183	33.668	0.045000
74.124	33.607	0.045000
79.066	33.589	0.045000
84.007	33.605	0.045000
88.949	33.621	0.045000
93.891	33.638	0.045000
98.832	33.654	0.045000
103.774	33.670	0.045000
108.715	33.687	0.045000
113.657	33.703	0.045000
118.599	33.719	0.045000
123.540	33.736	0.045000
128.482	33.752	0.045000
133.424	33.769	0.045000

138.365	33.785	0.045000
143.307	33.801	0.045000
148.248	33.818	0.045000
153.190	33.813	0.045000
158.132	33.759	0.045000
163.073	33.695	0.045000
168.015	33.447	0.045000
172.956	32.989	0.045000
177.898	32.738	0.045000
182.840	32.480	0.045000
187.781	32.059	0.045000
192.294	30.700	0.045000
201.257	22.700	0.045000
205.355	21.500	0.045000
209.167	22.100	0.045000
211.324	26.100	0.045000
217.450	27.463	0.045000
222.411	28.178	0.045000
227.372	28.659	0.045000
232.333	28.797	0.045000
237.294	28.649	0.045000
242.255	28.533	0.045000
247.216	28.525	0.045000
252.177	28.477	0.045000
257.138	28.585	0.045000
262.099	28.638	0.045000
267.060	28.723	0.045000
272.021	28.997	0.045000
276.982	29.077	0.045000
281.943	29.385	0.045000
286.904	29.624	0.045000
291.866	29.768	0.045000
296.827	29.903	0.045000
301.788	30.053	0.045000
306.749	30.425	0.045000
311.710	30.669	0.045000
316.671	30.664	0.045000
321.632	30.381	0.045000
326.593	30.300	0.045000
331.554	30.304	0.045000
336.515	30.258	0.045000
341.476	30.234	0.045000
346.437	30.388	0.045000
351.398	30.548	0.045000
356.359	30.593	0.045000
361.320	30.582	0.045000
366.308	30.648	0.045000
371.296	30.654	0.045000
376.284	30.445	0.045000
381.272	30.286	0.045000
386.260	29.993	0.045000
391.248	30.073	0.045000
396.235	30.220	0.045000
401.223	30.222	0.045000
406.211	30.423	0.045000
411.199	30.316	0.045000
416.187	30.291	0.045000
421.175	30.238	0.045000
426.163	30.103	0.045000
431.151	30.159	0.045000
436.139	30.197	0.045000
441.127	30.169	0.045000
446.115	30.195	0.045000
451.103	30.127	0.045000
456.091	30.060	0.045000
461.079	30.036	0.045000
466.067	30.038	0.045000
471.055	30.072	0.045000
476.043	30.043	0.045000
481.031	29.980	0.045000
486.019	29.961	0.045000
491.007	30.079	0.045000
495.995	30.128	0.045000
500.983	30.043	0.045000
505.971	29.918	0.045000
510.959	29.875	0.045000
515.947	29.827	0.045000
520.935	29.781	0.045000
525.923	29.805	0.045000
530.911	30.039	0.045000
535.899	30.500	0.045000
540.887	31.070	0.045000
545.875	31.635	0.045000
550.863	32.150	0.045000
555.851	32.382	0.045000
560.838	32.339	0.045000
565.826	32.330	0.045000
570.814	32.288	0.045000

Name: E4 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	33.136	0.045000
4.964	33.101	0.045000
9.928	33.168	0.045000
14.893	33.221	0.045000
19.857	33.167	0.045000
24.821	33.218	0.045000
29.785	33.175	0.045000
34.749	33.148	0.045000
39.713	33.142	0.045000
44.678	33.161	0.045000
49.642	33.121	0.045000
54.606	33.126	0.045000
59.570	33.120	0.045000
64.534	33.126	0.045000
69.498	33.128	0.045000
74.463	33.133	0.045000
79.427	33.075	0.045000
84.391	32.983	0.045000
89.355	32.979	0.045000
94.319	33.021	0.045000
99.283	33.032	0.045000
104.248	33.053	0.045000
109.212	32.951	0.045000
114.176	32.952	0.045000
119.140	32.913	0.045000
124.104	32.865	0.045000
129.068	32.843	0.045000
134.033	32.847	0.045000
138.997	32.796	0.045000
143.961	32.763	0.045000
148.925	32.731	0.045000
153.889	32.640	0.045000
158.853	32.534	0.045000
163.818	32.422	0.045000
168.782	32.316	0.045000
173.746	32.273	0.045000
178.710	32.325	0.045000
183.674	32.313	0.045000
188.638	32.224	0.045000
193.603	32.108	0.045000
198.567	32.084	0.045000
203.531	32.161	0.045000
208.495	32.029	0.045000
213.459	31.904	0.045000
218.423	31.244	0.045000
223.388	30.447	0.045000
228.352	30.117	0.045000
233.316	30.200	0.045000
238.280	30.861	0.045000
243.244	31.836	0.045000
248.208	32.109	0.045000
253.173	31.054	0.045000
255.294	30.700	0.045000
264.257	22.700	0.045000
268.355	21.500	0.045000
272.167	22.100	0.045000
274.324	26.100	0.045000
277.993	27.763	0.045000
282.958	29.267	0.045000
287.922	30.799	0.045000
292.886	30.860	0.045000
297.850	30.585	0.045000
302.814	30.261	0.045000
307.778	30.154	0.045000
312.743	30.036	0.045000
317.707	29.758	0.045000
322.671	29.426	0.045000
327.635	29.110	0.045000
332.599	28.790	0.045000
337.563	28.289	0.045000
342.528	28.166	0.045000
347.492	28.201	0.045000
352.456	27.860	0.045000
357.420	28.063	0.045000
362.384	27.855	0.045000
367.349	27.743	0.045000
372.313	28.130	0.045000
377.277	28.479	0.045000
382.241	28.888	0.045000

387.205	29.238	0.045000
392.169	29.441	0.045000
397.134	29.428	0.045000
402.098	29.557	0.045000
407.062	29.829	0.045000
412.026	29.986	0.045000
416.990	30.013	0.045000
421.954	30.013	0.045000
426.919	30.227	0.045000
431.883	30.252	0.045000
436.847	30.237	0.045000
441.811	30.249	0.045000
446.775	30.183	0.045000
451.739	30.104	0.045000
456.704	30.025	0.045000
461.668	29.971	0.045000
466.632	29.901	0.045000
471.596	29.831	0.045000
476.560	29.817	0.045000
481.524	29.719	0.045000
486.489	29.644	0.045000
491.453	29.672	0.045000
496.417	29.766	0.045000
501.381	29.929	0.045000
506.345	29.941	0.045000
511.309	29.868	0.045000
516.274	29.999	0.045000
521.238	30.265	0.045000
526.202	30.532	0.045000
531.166	30.748	0.045000
536.130	31.053	0.045000
541.115	31.356	0.045000
546.099	31.602	0.045000
551.083	31.703	0.045000
556.068	31.642	0.045000
561.052	31.489	0.045000
566.036	31.561	0.045000
571.020	31.729	0.045000
576.005	31.703	0.045000
580.989	31.651	0.045000
585.973	31.666	0.045000
590.958	31.722	0.045000
595.942	31.733	0.045000
600.926	31.825	0.045000
605.911	31.844	0.045000
610.895	31.903	0.045000
615.879	31.991	0.045000
620.864	32.057	0.045000
625.848	32.147	0.045000
630.832	32.216	0.045000
635.816	32.216	0.045000
640.801	32.213	0.045000
645.785	32.243	0.045000
650.769	32.261	0.045000
655.754	32.289	0.045000
660.738	32.296	0.045000
665.722	32.287	0.045000
670.707	32.284	0.045000
675.691	32.263	0.045000
680.675	32.124	0.045000
685.660	32.032	0.045000
690.644	32.220	0.045000
695.628	32.135	0.045000
700.613	32.222	0.045000
705.597	32.368	0.045000
710.581	32.026	0.045000
715.565	31.956	0.045000
720.550	32.004	0.045000
725.534	31.871	0.045000
730.518	31.942	0.045000
735.503	31.855	0.045000
740.487	31.851	0.045000
745.471	31.882	0.045000
750.456	31.910	0.045000
755.440	32.048	0.045000
760.424	31.816	0.045000
765.409	31.656	0.045000
770.393	31.653	0.045000
775.377	31.731	0.045000
780.362	31.895	0.045000
785.346	32.079	0.045000
790.330	31.997	0.045000
795.314	31.867	0.045000
800.299	31.805	0.045000
805.283	31.860	0.045000
810.267	31.883	0.045000
815.252	31.924	0.045000
820.236	31.863	0.045000

825.220	31.742	0.045000
830.205	31.677	0.045000
835.189	31.741	0.045000
840.173	31.754	0.045000
845.158	31.749	0.045000
850.142	31.756	0.045000
855.126	31.757	0.045000

Name: F Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	27.649	0.045000
4.947	27.625	0.045000
9.895	27.671	0.045000
14.842	27.749	0.045000
19.789	27.836	0.045000
24.737	27.700	0.045000
29.684	27.567	0.045000
34.632	27.524	0.045000
39.579	27.474	0.045000
44.526	27.445	0.045000
49.474	27.544	0.045000
54.421	27.636	0.045000
59.368	27.598	0.045000
64.316	27.465	0.045000
69.263	27.290	0.045000
74.210	27.240	0.045000
79.158	27.283	0.045000
84.105	27.353	0.045000
89.053	27.425	0.045000
94.000	27.417	0.045000
98.947	27.321	0.045000
103.895	27.236	0.045000
108.842	27.275	0.045000
113.789	27.278	0.045000
118.737	27.172	0.045000
123.684	27.153	0.045000
128.632	27.170	0.045000
133.579	27.171	0.045000
138.526	27.226	0.045000
143.474	27.192	0.045000
148.421	27.143	0.045000
153.368	27.095	0.045000
158.316	27.050	0.045000
163.263	27.152	0.045000
168.210	27.228	0.045000
173.158	27.318	0.045000
178.105	27.277	0.045000
183.053	27.226	0.045000
188.000	27.155	0.045000
192.947	27.035	0.045000
197.895	27.084	0.045000
202.842	27.069	0.045000
207.789	27.109	0.045000
212.737	27.078	0.045000
217.684	26.930	0.045000
222.631	26.949	0.045000
227.579	27.074	0.045000
232.526	27.193	0.045000
237.474	27.193	0.045000
242.421	27.230	0.045000
247.368	27.117	0.045000
252.316	27.191	0.045000
257.263	27.275	0.045000
262.210	27.227	0.045000
267.158	27.241	0.045000
272.105	27.230	0.045000
277.053	27.283	0.045000
282.000	27.302	0.045000
286.947	27.369	0.045000
291.895	27.283	0.045000
296.842	27.153	0.045000
301.789	27.220	0.045000
306.737	26.832	0.045000
311.684	26.768	0.045000
316.631	27.005	0.045000
321.579	27.116	0.045000
326.526	27.079	0.045000
331.474	27.018	0.045000
336.421	26.994	0.045000
341.368	27.091	0.045000
346.316	27.098	0.045000
351.263	26.890	0.045000

356.210	26.670	0.045000
361.158	26.527	0.045000
366.105	26.508	0.045000
371.052	26.579	0.045000
376.000	26.711	0.045000
380.947	26.911	0.045000
385.895	27.166	0.045000
390.842	27.285	0.045000
395.555	27.169	0.045000
400.267	27.128	0.045000
404.980	27.235	0.045000
409.693	27.275	0.045000
414.406	27.164	0.045000
419.118	26.947	0.045000
423.831	26.628	0.045000
428.544	26.322	0.045000
433.256	25.669	0.045000
437.969	24.719	0.045000
442.682	23.744	0.045000
450.668	21.000	0.045000
454.970	19.700	0.045000
459.481	21.200	0.045000
461.562	22.153	0.045000
466.304	24.199	0.045000
471.045	26.735	0.045000
475.787	27.695	0.045000
480.529	28.524	0.045000
485.271	28.711	0.045000
490.013	28.805	0.045000
494.755	28.864	0.045000
499.496	28.905	0.045000
504.238	28.907	0.045000
508.980	28.862	0.045000
513.722	28.755	0.045000
518.464	28.648	0.045000
523.206	28.600	0.045000
527.947	28.573	0.045000

Name: F1 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	27.750	0.045000
4.975	27.789	0.045000
9.950	27.758	0.045000
14.926	27.674	0.045000
19.901	27.532	0.045000
24.876	27.704	0.045000
29.851	27.603	0.045000
34.826	27.552	0.045000
39.802	27.510	0.045000
44.777	27.506	0.045000
49.752	27.432	0.045000
54.727	27.491	0.045000
59.703	27.582	0.045000
64.678	27.453	0.045000
69.653	27.512	0.045000
74.628	27.540	0.045000
79.603	27.661	0.045000
84.579	27.736	0.045000
89.554	27.685	0.045000
94.529	27.407	0.045000
99.504	27.390	0.045000
104.479	27.551	0.045000
109.455	27.600	0.045000
114.430	27.503	0.045000
119.405	27.262	0.045000
124.380	27.020	0.045000
129.356	26.977	0.045000
134.331	27.062	0.045000
139.306	27.004	0.045000
144.281	26.987	0.045000
149.256	27.234	0.045000
154.232	27.262	0.045000
159.207	27.262	0.045000
164.182	27.313	0.045000
169.157	27.139	0.045000
174.132	26.891	0.045000
179.108	26.842	0.045000
184.083	26.916	0.045000
189.058	26.940	0.045000
194.033	27.000	0.045000
199.009	27.174	0.045000
203.984	27.288	0.045000

208.959	27.215	0.045000
213.934	27.158	0.045000
218.909	27.211	0.045000
223.885	27.339	0.045000
228.860	27.426	0.045000
233.835	27.454	0.045000
238.810	27.451	0.045000
243.785	27.628	0.045000
248.761	27.438	0.045000
253.736	27.147	0.045000
258.711	27.287	0.045000
263.686	27.284	0.045000
268.662	27.206	0.045000
273.637	26.329	0.045000
278.612	24.155	0.045000
281.454	23.500	0.045000
284.668	21.000	0.045000
288.970	19.700	0.045000
293.481	21.200	0.045000
298.228	24.137	0.045000
302.919	25.647	0.045000
307.610	26.896	0.045000
312.301	27.538	0.045000
316.992	27.949	0.045000
321.683	28.251	0.045000
326.373	28.592	0.045000
331.064	28.951	0.045000
335.755	29.221	0.045000
340.446	29.228	0.045000
345.137	29.176	0.045000
349.827	29.061	0.045000
354.787	29.010	0.045000
359.746	28.584	0.045000
364.705	28.346	0.045000
369.664	28.492	0.045000
374.623	28.520	0.045000
379.582	28.529	0.045000
384.541	28.531	0.045000
389.500	28.527	0.045000
394.459	28.516	0.045000
399.418	28.498	0.045000
404.377	28.480	0.045000
409.336	28.457	0.045000
414.295	28.427	0.045000
419.254	28.444	0.045000
424.213	28.487	0.045000
429.172	28.513	0.045000
434.131	28.546	0.045000
439.090	28.584	0.045000
444.050	28.619	0.045000
449.009	28.652	0.045000
453.968	28.678	0.045000
458.927	28.692	0.045000
463.886	28.705	0.045000
468.845	28.617	0.045000
473.804	28.619	0.045000
478.763	28.626	0.045000
483.722	28.637	0.045000
488.681	28.637	0.045000
493.640	28.632	0.045000
498.599	28.620	0.045000
503.558	28.666	0.045000
508.517	28.679	0.045000
513.476	28.676	0.045000
518.435	28.677	0.045000
523.394	28.694	0.045000
528.353	28.706	0.045000
533.312	28.711	0.045000
538.272	28.725	0.045000
543.231	28.746	0.045000
548.157	28.726	0.045000
553.084	28.730	0.045000
558.011	28.790	0.045000
562.938	28.809	0.045000
567.865	28.769	0.045000
572.791	28.692	0.045000
577.718	28.575	0.045000
582.645	28.525	0.045000
587.572	28.606	0.045000
592.499	28.659	0.045000
597.425	28.696	0.045000
602.352	28.718	0.045000
607.279	28.762	0.045000
612.206	28.834	0.045000
617.133	28.855	0.045000
622.059	28.875	0.045000
626.986	28.939	0.045000
631.913	29.008	0.045000

636.840	29.030	0.045000

Name: HWY 57 N Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	32.265	0.045000
4.920	32.150	0.045000
9.841	32.107	0.045000
14.761	32.013	0.045000
19.682	31.933	0.045000
24.602	31.884	0.045000
29.523	31.796	0.045000
34.443	31.758	0.045000
39.364	31.718	0.045000
44.284	31.721	0.045000
49.205	31.688	0.045000
54.125	31.654	0.045000
59.046	31.638	0.045000
63.966	31.590	0.045000
68.887	31.535	0.045000
73.807	31.473	0.045000
78.728	31.396	0.045000
83.648	31.415	0.045000
88.569	31.365	0.045000
93.489	31.322	0.045000
98.410	31.269	0.045000
103.330	31.227	0.045000
108.251	31.193	0.045000
113.171	31.149	0.045000
118.092	31.085	0.045000
123.012	31.102	0.045000
127.933	31.124	0.045000
132.853	31.139	0.045000
137.774	31.081	0.045000
142.694	31.012	0.045000
147.615	30.927	0.045000
152.535	30.875	0.045000
157.456	30.883	0.045000
162.376	30.841	0.045000
167.297	30.860	0.045000
172.217	30.794	0.045000
177.138	30.990	0.045000
182.058	31.030	0.045000
186.979	31.055	0.045000
191.899	31.055	0.045000
196.820	31.111	0.045000
201.740	31.146	0.045000
206.661	30.929	0.045000
211.581	30.558	0.045000
216.502	30.870	0.045000
221.422	30.973	0.045000
226.343	30.690	0.045000
231.263	30.542	0.045000
236.184	30.589	0.045000
241.104	30.492	0.045000
246.025	30.630	0.045000
250.945	31.083	0.045000
255.866	31.646	0.045000
260.786	31.766	0.045000
265.707	31.297	0.045000
270.627	30.645	0.045000
275.547	30.016	0.045000
280.282	29.342	0.045000
285.017	28.722	0.045000
289.752	28.124	0.045000
295.162	25.900	0.045000
296.327	25.500	0.045000
298.187	26.300	0.045000
304.070	27.300	0.045000
308.692	28.183	0.045000
313.427	28.579	0.045000
318.161	29.196	0.045000
322.896	29.899	0.045000
327.631	30.860	0.045000
332.366	31.537	0.045000
337.101	31.239	0.045000
341.836	30.772	0.045000
346.571	30.441	0.045000
351.306	30.184	0.045000
356.041	30.224	0.045000
360.949	30.169	0.045000
365.858	30.066	0.045000
370.767	30.062	0.045000

375.676	29.901	0.045000
380.584	29.746	0.045000
385.493	29.959	0.045000
390.402	29.964	0.045000
395.310	29.975	0.045000
400.219	29.992	0.045000
405.128	29.991	0.045000
410.037	29.856	0.045000
414.945	30.024	0.045000
419.854	30.198	0.045000
424.763	30.308	0.045000
429.672	30.294	0.045000
434.580	30.363	0.045000
439.489	30.361	0.045000
444.398	30.383	0.045000
449.306	30.397	0.045000
454.215	30.411	0.045000
459.124	30.559	0.045000
464.033	30.690	0.045000
468.941	30.758	0.045000
473.850	30.569	0.045000
478.759	30.381	0.045000
483.668	30.301	0.045000
488.576	30.229	0.045000
493.485	30.251	0.045000
498.394	30.263	0.045000
503.302	30.173	0.045000
508.211	30.196	0.045000
513.120	30.353	0.045000
518.029	30.687	0.045000
522.937	30.950	0.045000
527.846	31.172	0.045000
532.755	31.238	0.045000
537.663	31.248	0.045000

Name: HWY 57 S Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	33.676	0.045000
4.866	33.611	0.045000
9.732	33.525	0.045000
14.598	33.496	0.045000
19.464	33.513	0.045000
24.330	33.530	0.045000
29.196	33.545	0.045000
34.062	33.564	0.045000
38.928	33.578	0.045000
43.794	33.588	0.045000
48.660	33.602	0.045000
53.526	33.609	0.045000
58.392	33.618	0.045000
63.259	33.604	0.045000
68.125	33.303	0.045000
72.991	32.737	0.045000
77.857	32.140	0.045000
82.723	31.628	0.045000
90.000	31.500	0.045000
103.831	30.900	0.045000
109.264	27.400	0.045000
112.984	21.700	0.045000
116.540	21.100	0.045000
121.076	22.000	0.045000
124.320	28.300	0.045000
131.291	28.887	0.045000
136.147	29.394	0.045000
141.002	29.615	0.045000
145.905	29.791	0.045000
150.808	30.039	0.045000
155.711	30.349	0.045000
160.614	30.358	0.045000
165.517	30.355	0.045000
170.420	30.479	0.045000
175.323	30.668	0.045000
180.226	30.852	0.045000
185.129	30.951	0.045000
190.032	31.105	0.045000
194.935	31.187	0.045000
199.838	31.134	0.045000
204.741	31.153	0.045000
209.644	31.331	0.045000
214.547	31.538	0.045000
219.450	31.562	0.045000
224.353	31.615	0.045000

229.256	31.647	0.045000
234.159	31.539	0.045000
239.062	31.514	0.045000
243.965	31.567	0.045000
248.868	31.640	0.045000
253.771	31.628	0.045000
258.674	31.704	0.045000
263.577	31.798	0.045000
268.480	31.816	0.045000
273.383	31.750	0.045000
278.286	31.792	0.045000
283.189	31.965	0.045000
288.092	32.010	0.045000
292.995	31.930	0.045000
297.898	31.733	0.045000

Name: HWY 9 US Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	29.017	0.045000
4.924	29.029	0.045000
9.848	28.839	0.045000
14.772	28.220	0.045000
19.696	26.684	0.045000
24.621	25.496	0.045000
29.545	25.564	0.045000
34.469	25.861	0.045000
39.393	26.303	0.045000
44.317	26.704	0.045000
49.241	26.362	0.045000
54.165	25.060	0.045000
54.176	24.800	0.045000
60.206	21.500	0.045000
66.625	21.000	0.045000
67.978	18.700	0.045000
71.907	18.100	0.045000
75.475	20.000	0.045000
79.606	23.800	0.045000
83.390	24.400	0.045000
84.078	25.010	0.045000
89.076	25.514	0.045000
94.073	25.926	0.045000
99.071	25.831	0.045000
104.063	25.674	0.045000
109.056	25.666	0.045000
114.048	25.399	0.045000
119.041	24.940	0.045000
124.033	24.747	0.045000
129.026	24.447	0.045000
134.018	24.293	0.045000
139.011	24.581	0.045000
144.003	24.952	0.045000
148.996	24.712	0.045000
153.988	24.536	0.045000
158.981	24.550	0.045000
163.973	24.588	0.045000
168.966	24.667	0.045000
173.958	24.784	0.045000
178.950	25.133	0.045000
183.943	25.568	0.045000
188.935	25.725	0.045000
193.928	25.736	0.045000
198.920	25.806	0.045000
203.913	25.852	0.045000
208.905	25.838	0.045000
213.898	25.968	0.045000
218.890	26.075	0.045000
223.883	25.996	0.045000

Name: J Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	28.596	0.045000
4.904	28.574	0.045000
9.808	28.578	0.045000
14.712	28.624	0.045000
19.615	28.560	0.045000
24.519	28.356	0.045000

29.423	28.118	0.045000
34.327	27.988	0.045000
39.231	27.856	0.045000
44.135	28.056	0.045000
49.039	28.329	0.045000
53.942	28.173	0.045000
58.846	27.945	0.045000
63.750	28.060	0.045000
68.654	28.001	0.045000
73.558	28.118	0.045000
78.462	28.230	0.045000
83.365	28.267	0.045000
88.269	28.247	0.045000
93.173	28.191	0.045000
98.077	28.168	0.045000
102.981	28.125	0.045000
107.885	28.023	0.045000
112.789	28.012	0.045000
117.692	27.983	0.045000
122.596	28.179	0.045000
127.500	28.434	0.045000
132.404	28.402	0.045000
137.308	28.006	0.045000
142.212	27.870	0.045000
147.116	27.900	0.045000
152.019	27.945	0.045000
156.923	28.157	0.045000
161.827	28.327	0.045000
166.731	28.399	0.045000
171.635	28.534	0.045000
176.539	28.626	0.045000
181.443	28.594	0.045000
186.346	28.625	0.045000
191.250	28.509	0.045000
196.154	28.297	0.045000
201.058	28.296	0.045000
205.962	28.463	0.045000
210.866	28.657	0.045000
215.769	28.826	0.045000
220.673	28.880	0.045000
225.577	28.560	0.045000
230.481	28.446	0.045000
235.385	28.732	0.045000
240.289	29.200	0.045000
245.193	29.562	0.045000
250.096	29.815	0.045000
254.728	29.520	0.045000
259.360	28.872	0.045000
263.992	28.175	0.045000
268.624	27.159	0.045000
273.256	25.543	0.045000
277.888	23.915	0.045000
282.520	22.744	0.045000
287.343	23.152	0.045000
292.166	23.888	0.045000
296.989	26.317	0.045000
301.812	26.976	0.045000
306.634	27.012	0.045000
311.457	27.224	0.045000
316.280	27.391	0.045000
321.103	27.614	0.045000
325.926	27.879	0.045000
330.748	28.120	0.045000
335.571	28.307	0.045000
340.394	28.311	0.045000
345.217	28.288	0.045000
350.040	28.249	0.045000
354.863	28.352	0.045000
359.685	28.499	0.045000
364.508	28.574	0.045000
369.331	28.671	0.045000
374.154	28.794	0.045000
378.977	28.846	0.045000
383.799	28.861	0.045000
388.622	28.878	0.045000
393.445	28.892	0.045000
398.268	28.899	0.045000
403.175	28.920	0.045000
408.082	28.898	0.045000
412.989	28.871	0.045000
417.896	28.857	0.045000
422.803	28.793	0.045000
427.710	28.699	0.045000
432.617	28.625	0.045000
437.524	28.681	0.045000
442.431	28.846	0.045000
447.338	28.972	0.045000
452.245	29.053	0.045000

457.152	29.125	0.045000
462.059	29.162	0.045000
466.966	29.120	0.045000
471.873	28.971	0.045000
476.780	29.038	0.045000
481.687	28.900	0.045000
486.594	28.850	0.045000
491.501	28.858	0.045000
496.408	28.871	0.045000

Name: J1 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	29.299	0.045000
4.997	29.237	0.045000
9.995	29.271	0.045000
14.992	29.289	0.045000
19.989	29.289	0.045000
24.987	29.297	0.045000
29.984	29.224	0.045000
34.981	29.244	0.045000
39.979	29.223	0.045000
44.976	29.127	0.045000
49.973	29.000	0.045000
54.971	29.100	0.045000
59.968	29.218	0.045000
64.965	29.288	0.045000
69.963	29.354	0.045000
74.960	29.317	0.045000
79.957	29.182	0.045000
84.955	29.174	0.045000
89.952	29.307	0.045000
94.949	29.101	0.045000
99.947	28.984	0.045000
104.944	28.942	0.045000
109.941	28.963	0.045000
114.939	28.967	0.045000
119.936	28.782	0.045000
124.933	28.631	0.045000
129.931	28.796	0.045000
134.928	28.943	0.045000
139.925	28.929	0.045000
144.923	28.865	0.045000
149.920	28.922	0.045000
154.912	28.884	0.045000
159.903	28.805	0.045000
164.895	28.854	0.045000
169.886	28.746	0.045000
174.878	28.696	0.045000
179.870	28.726	0.045000
184.861	28.740	0.045000
189.853	28.727	0.045000
194.844	28.611	0.045000
199.836	28.460	0.045000
204.828	28.243	0.045000
209.819	28.210	0.045000
214.811	28.450	0.045000
219.802	28.627	0.045000
224.794	28.493	0.045000
229.785	28.451	0.045000
234.777	28.479	0.045000
239.769	28.538	0.045000
244.760	28.674	0.045000
249.752	28.605	0.045000
254.743	28.529	0.045000
259.735	28.622	0.045000
264.727	28.580	0.045000
269.718	28.583	0.045000
274.710	28.489	0.045000
279.701	28.668	0.045000
284.693	28.713	0.045000
289.685	28.544	0.045000
294.676	28.531	0.045000
299.668	28.538	0.045000
304.659	28.695	0.045000
309.651	28.900	0.045000
314.643	28.920	0.045000
319.634	28.912	0.045000
324.626	28.790	0.045000
329.617	28.792	0.045000
334.609	28.740	0.045000
339.601	28.532	0.045000
344.592	28.316	0.045000

349.584	28.210	0.045000
354.575	28.172	0.045000
359.567	28.091	0.045000
364.558	28.131	0.045000
369.550	28.215	0.045000
374.542	28.349	0.045000
379.533	28.843	0.045000
384.525	29.229	0.045000
389.516	29.319	0.045000
394.508	29.526	0.045000
399.500	29.735	0.045000
404.491	29.677	0.045000
409.483	29.184	0.045000
414.474	28.275	0.045000
417.257	27.300	0.045000
422.711	23.600	0.045000
425.192	23.400	0.045000
427.204	23.500	0.045000
431.148	27.600	0.045000
439.252	28.856	0.045000
444.183	29.149	0.045000
449.114	29.501	0.045000
454.045	29.548	0.045000
458.977	29.345	0.045000
463.908	29.155	0.045000
468.839	28.875	0.045000
473.771	28.706	0.045000
478.702	28.527	0.045000
483.633	28.558	0.045000
488.565	28.623	0.045000
493.496	28.442	0.045000
498.427	28.387	0.045000
503.358	28.536	0.045000
508.290	28.733	0.045000
513.221	28.810	0.045000
518.152	28.797	0.045000
523.084	28.747	0.045000
528.015	28.754	0.045000
532.946	28.803	0.045000
537.878	28.854	0.045000
542.809	28.949	0.045000
547.740	29.067	0.045000
552.672	29.192	0.045000
557.603	29.251	0.045000
562.534	29.193	0.045000
567.465	29.162	0.045000
572.397	29.199	0.045000
577.361	29.269	0.045000
582.325	29.311	0.045000
587.289	29.492	0.045000
592.254	29.771	0.045000
597.218	29.856	0.045000
602.182	29.965	0.045000
607.146	30.077	0.045000
612.110	30.106	0.045000
617.074	30.415	0.045000
622.039	31.316	0.045000
627.003	31.381	0.045000
631.967	30.986	0.045000
636.931	30.648	0.045000
641.895	30.561	0.045000
646.875	30.505	0.045000
651.854	30.460	0.045000
656.833	30.404	0.045000
661.812	30.315	0.045000
666.791	30.189	0.045000
671.770	30.143	0.045000
676.749	30.120	0.045000
681.728	30.204	0.045000
686.708	30.428	0.045000
691.687	30.475	0.045000
696.666	30.454	0.045000
701.645	30.440	0.045000
706.624	30.426	0.045000
711.603	30.410	0.045000
716.582	30.340	0.045000
721.562	30.215	0.045000
726.541	30.075	0.045000
731.520	29.937	0.045000
736.499	29.814	0.045000
741.478	29.791	0.045000
746.457	29.852	0.045000
751.436	29.961	0.045000
756.415	30.130	0.045000
761.395	30.171	0.045000
766.374	30.127	0.045000
771.353	30.144	0.045000
776.332	30.211	0.045000

781.311	30.209	0.045000
786.290	30.112	0.045000
791.269	30.122	0.045000
796.249	30.178	0.045000
801.228	30.267	0.045000
806.207	30.399	0.045000
811.186	30.606	0.045000
816.165	30.843	0.045000
821.144	30.990	0.045000

Name: K Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	34.136	0.045000
4.956	33.582	0.045000
9.912	33.641	0.045000
14.867	33.303	0.045000
19.823	32.724	0.045000
24.779	32.546	0.045000
29.735	32.601	0.045000
34.690	32.633	0.045000
39.646	32.652	0.045000
44.602	32.643	0.045000
49.558	32.575	0.045000
54.513	32.612	0.045000
59.469	32.593	0.045000
64.425	32.523	0.045000
69.381	32.527	0.045000
74.336	32.571	0.045000
79.292	32.634	0.045000
84.248	32.523	0.045000
89.204	32.430	0.045000
94.160	32.407	0.045000
99.115	32.397	0.045000
104.071	32.291	0.045000
109.027	32.278	0.045000
113.983	32.187	0.045000
118.938	32.111	0.045000
123.894	32.086	0.045000
128.850	32.013	0.045000
133.806	31.865	0.045000
138.761	31.765	0.045000
143.717	31.780	0.045000
148.673	31.743	0.045000
153.629	31.615	0.045000
158.585	31.438	0.045000
163.540	31.307	0.045000
168.496	31.164	0.045000
173.452	31.031	0.045000
178.408	30.933	0.045000
183.363	30.848	0.045000
188.319	30.733	0.045000
193.275	30.624	0.045000
198.231	30.680	0.045000
203.186	30.540	0.045000
208.142	30.409	0.045000
213.098	30.349	0.045000
218.054	30.435	0.045000
223.009	30.358	0.045000
227.965	30.227	0.045000
232.921	30.127	0.045000
237.877	30.068	0.045000
242.833	29.937	0.045000
247.788	29.763	0.045000
252.744	29.723	0.045000
257.700	29.683	0.045000
262.656	29.602	0.045000
267.611	29.535	0.045000
272.567	29.500	0.045000
277.523	29.412	0.045000
282.479	29.255	0.045000
287.434	29.080	0.045000
292.390	29.102	0.045000
297.346	29.264	0.045000
302.302	29.367	0.045000
307.258	29.369	0.045000
312.213	29.283	0.045000
317.169	29.287	0.045000
322.125	29.348	0.045000
327.081	29.247	0.045000
332.036	29.052	0.045000
336.992	28.875	0.045000
341.948	28.896	0.045000

346.904	29.076	0.045000
351.859	28.831	0.045000
356.815	28.770	0.045000
361.771	28.676	0.045000
366.727	28.682	0.045000
371.682	28.629	0.045000
376.638	28.647	0.045000
381.594	28.788	0.045000
386.550	28.944	0.045000
391.506	29.119	0.045000
396.461	29.177	0.045000
401.417	29.250	0.045000
406.373	29.493	0.045000
411.329	29.654	0.045000
441.063	30.462	0.045000
446.019	30.168	0.045000
450.975	29.507	0.045000
455.931	28.833	0.045000
460.886	27.712	0.045000
465.842	26.329	0.045000
470.816	26.615	0.045000
475.791	28.551	0.045000
480.765	29.355	0.045000
485.739	29.306	0.045000
490.713	29.644	0.045000
495.688	30.179	0.045000
500.662	30.471	0.045000
505.636	30.287	0.045000
510.610	29.875	0.045000
515.585	29.420	0.045000
520.559	29.183	0.045000
525.533	29.085	0.045000
530.507	29.067	0.045000
535.482	29.066	0.045000
540.456	28.990	0.045000
545.430	29.161	0.045000
550.404	29.417	0.045000
555.379	29.458	0.045000
560.353	29.331	0.045000
565.327	29.392	0.045000
570.302	29.333	0.045000
575.276	29.112	0.045000
580.250	29.027	0.045000
585.224	29.116	0.045000
590.199	29.182	0.045000
595.173	29.227	0.045000
600.147	29.410	0.045000
605.121	29.557	0.045000
610.096	29.416	0.045000
615.070	29.392	0.045000
620.044	29.545	0.045000
625.018	29.576	0.045000
629.993	29.566	0.045000
634.967	29.728	0.045000
639.941	29.845	0.045000
644.915	29.840	0.045000
649.890	29.918	0.045000
654.864	29.955	0.045000
659.838	29.948	0.045000
664.813	29.940	0.045000
669.787	29.863	0.045000
674.761	29.770	0.045000
679.735	29.815	0.045000
684.710	29.799	0.045000
689.684	29.729	0.045000
694.658	29.723	0.045000
699.632	29.751	0.045000
704.607	29.762	0.045000
709.581	29.833	0.045000
714.555	29.793	0.045000
719.529	29.739	0.045000
724.504	29.814	0.045000
729.478	30.189	0.045000
734.452	30.256	0.045000
739.426	30.337	0.045000
744.401	30.491	0.045000
749.375	30.517	0.045000
754.349	30.332	0.045000
759.324	30.226	0.045000
764.298	30.016	0.045000
769.272	29.863	0.045000
774.246	29.895	0.045000
779.221	30.078	0.045000
784.195	30.101	0.045000
789.169	29.954	0.045000
794.143	29.844	0.045000
799.118	30.010	0.045000
804.092	29.976	0.045000

809.066	29.857	0.045000
814.040	29.816	0.045000
819.015	29.940	0.045000
823.989	30.032	0.045000
828.963	30.079	0.045000
833.937	30.132	0.045000
838.912	30.208	0.045000
843.886	30.119	0.045000
848.860	30.024	0.045000
853.835	30.144	0.045000
858.809	30.189	0.045000
863.783	30.006	0.045000
868.757	29.754	0.045000
873.732	29.668	0.045000
878.706	29.633	0.045000
883.680	29.655	0.045000
888.654	29.807	0.045000
893.629	29.906	0.045000
898.603	29.959	0.045000
903.577	29.933	0.045000
908.551	29.820	0.045000
913.526	29.661	0.045000
918.500	29.598	0.045000
923.474	29.608	0.045000
928.448	29.820	0.045000
933.423	29.842	0.045000
938.397	29.855	0.045000
943.371	29.894	0.045000
948.345	29.938	0.045000
953.320	29.794	0.045000
958.294	29.659	0.045000
963.268	29.537	0.045000
968.243	29.357	0.045000
973.217	29.542	0.045000
978.191	29.431	0.045000
983.165	30.241	0.045000
988.140	29.981	0.045000
993.114	29.694	0.045000
998.088	29.665	0.045000
1003.062	29.735	0.045000
1008.037	29.526	0.045000
1013.011	29.640	0.045000
1017.985	29.585	0.045000
1022.959	30.118	0.045000
1027.934	30.378	0.045000
1032.908	30.167	0.045000
1037.882	29.915	0.045000
1042.856	29.635	0.045000
1047.831	29.841	0.045000
1052.805	30.076	0.045000
1057.779	30.374	0.045000
1062.754	30.896	0.045000
1067.728	29.827	0.045000
1072.702	29.837	0.045000
1077.676	30.289	0.045000
1082.651	30.523	0.045000
1087.625	30.624	0.045000
1092.599	30.545	0.045000
1097.573	30.766	0.045000
1102.548	30.627	0.045000
1107.522	30.557	0.045000
1112.496	31.005	0.045000
1117.470	31.053	0.045000
1122.445	31.109	0.045000
1127.419	31.151	0.045000
1132.393	30.994	0.045000
1137.367	30.924	0.045000
1142.342	30.895	0.045000
1147.316	31.095	0.045000
1152.290	31.109	0.045000
1157.265	31.022	0.045000
1162.239	31.156	0.045000
1167.213	31.252	0.045000
1172.187	31.368	0.045000
1177.162	31.528	0.045000
1182.136	31.836	0.045000

Name: X4 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	27.789	0.045000
4.963	27.834	0.045000
9.927	27.826	0.045000

14.890	27.878	0.045000
19.853	27.993	0.045000
24.817	28.026	0.045000
29.780	27.949	0.045000
34.744	27.794	0.045000
39.707	27.511	0.045000
44.670	27.162	0.045000
49.634	26.784	0.045000
54.597	26.537	0.045000
59.560	26.572	0.045000
64.524	26.660	0.045000
69.487	26.520	0.045000
74.450	26.356	0.045000
79.414	26.269	0.045000
84.377	26.130	0.045000
89.341	25.898	0.045000
94.304	25.657	0.045000
99.267	25.619	0.045000
104.231	25.686	0.045000
109.194	25.732	0.045000
114.157	25.608	0.045000
119.121	25.377	0.045000
124.084	25.261	0.045000
129.047	25.366	0.045000
134.011	25.187	0.045000
138.974	25.021	0.045000
143.937	25.129	0.045000
148.901	25.193	0.045000
153.864	25.151	0.045000
158.828	25.134	0.045000
163.791	25.082	0.045000
168.754	25.098	0.045000
173.718	25.131	0.045000
178.681	25.160	0.045000
183.644	25.087	0.045000
188.608	25.070	0.045000
193.571	25.189	0.045000
198.534	25.231	0.045000
203.498	25.226	0.045000
208.461	25.280	0.045000
213.425	25.108	0.045000
218.388	24.970	0.045000
223.351	24.972	0.045000
228.315	25.027	0.045000
233.278	24.888	0.045000
238.241	24.619	0.045000
243.205	24.410	0.045000
248.168	24.220	0.045000
253.131	24.086	0.045000
258.095	24.083	0.045000
263.058	24.119	0.045000
268.022	24.156	0.045000
272.985	23.984	0.045000
277.948	23.867	0.045000
282.912	23.764	0.045000
287.875	23.674	0.045000
292.838	23.648	0.045000
297.802	23.560	0.045000
302.765	23.437	0.045000
307.728	23.442	0.045000
312.692	23.292	0.045000
317.655	23.078	0.045000
322.619	23.079	0.045000
327.582	23.008	0.045000
332.545	23.112	0.045000
337.509	23.113	0.045000
342.472	23.126	0.045000
347.435	22.994	0.045000
352.399	23.038	0.045000
357.362	23.169	0.045000
362.325	23.299	0.045000
367.289	23.311	0.045000
372.252	23.302	0.045000
377.216	23.375	0.045000
382.179	23.448	0.045000
387.142	23.486	0.045000
392.106	23.416	0.045000
397.069	23.315	0.045000
402.032	23.309	0.045000
406.996	23.352	0.045000
411.959	23.284	0.045000
416.922	23.142	0.045000
421.886	23.063	0.045000
426.849	23.049	0.045000
431.812	23.237	0.045000
436.776	23.715	0.045000
441.739	23.846	0.045000
446.510	22.840	0.045000

451.686	19.000	0.045000
456.453	18.000	0.045000
461.327	19.100	0.045000
465.595	20.899	0.045000
470.367	22.721	0.045000
475.138	23.541	0.045000
479.909	23.554	0.045000
484.680	23.454	0.045000
489.452	23.713	0.045000
494.223	23.753	0.045000
498.994	23.357	0.045000
503.765	23.174	0.045000
508.537	23.000	0.045000
513.308	22.904	0.045000
518.079	22.782	0.045000
522.850	22.639	0.045000
527.622	22.512	0.045000
532.393	22.402	0.045000
537.381	22.369	0.045000
542.369	22.404	0.045000
547.357	22.317	0.045000
552.346	22.270	0.045000
557.334	22.345	0.045000
562.322	22.417	0.045000
567.310	22.502	0.045000
572.298	22.903	0.045000
577.286	23.386	0.045000
582.275	23.476	0.045000
587.263	23.346	0.045000
592.251	23.164	0.045000
597.239	23.158	0.045000
602.227	22.982	0.045000
607.216	23.045	0.045000
612.204	23.067	0.045000
617.192	23.086	0.045000
622.180	23.169	0.045000
627.168	23.198	0.045000
632.156	22.973	0.045000
637.145	22.956	0.045000
642.133	23.147	0.045000
647.121	23.293	0.045000
652.109	23.234	0.045000
657.097	23.058	0.045000
662.085	22.929	0.045000
667.074	23.106	0.045000
672.062	23.160	0.045000
677.050	23.033	0.045000
682.038	22.934	0.045000
687.026	22.882	0.045000
692.015	23.089	0.045000
697.003	23.202	0.045000
701.991	23.342	0.045000
706.979	23.545	0.045000
711.967	23.552	0.045000
716.955	23.669	0.045000
721.944	23.686	0.045000
726.932	23.665	0.045000
731.920	23.604	0.045000
736.908	23.537	0.045000
741.896	23.444	0.045000
746.885	23.476	0.045000
751.873	23.569	0.045000
756.861	23.590	0.045000
761.849	23.542	0.045000
766.837	23.514	0.045000
771.825	23.450	0.045000
776.814	23.529	0.045000
781.802	23.580	0.045000
786.790	23.568	0.045000
791.778	23.642	0.045000
796.766	23.726	0.045000
801.754	23.710	0.045000
806.743	23.612	0.045000
811.731	23.555	0.045000
816.719	23.622	0.045000
821.707	23.671	0.045000
826.695	23.701	0.045000
831.684	23.869	0.045000
836.672	23.977	0.045000
841.660	24.065	0.045000
846.648	24.176	0.045000
851.636	24.298	0.045000
856.624	24.386	0.045000
861.613	24.467	0.045000
866.601	24.448	0.045000
871.589	24.379	0.045000
876.577	24.367	0.045000
881.488	24.362	0.045000

886.398	24.355	0.045000
891.309	24.461	0.045000
896.219	24.734	0.045000
901.129	25.006	0.045000
906.040	25.059	0.045000
910.950	25.006	0.045000
915.861	25.052	0.045000
920.771	25.039	0.045000
925.682	25.052	0.045000
930.592	25.068	0.045000
935.503	25.145	0.045000
940.413	25.199	0.045000
945.324	25.137	0.045000
950.234	24.823	0.045000
955.145	24.957	0.045000
960.055	25.218	0.045000
964.966	25.390	0.045000
969.876	25.364	0.045000
974.786	25.431	0.045000
979.697	25.410	0.045000
984.607	25.364	0.045000
989.518	25.368	0.045000
994.428	25.450	0.045000
999.339	25.494	0.045000
1004.249	25.505	0.045000
1009.160	25.656	0.045000
1014.070	25.947	0.045000
1018.981	26.252	0.045000
1023.891	26.573	0.045000
1028.802	26.703	0.045000
1033.712	26.699	0.045000
1038.622	26.576	0.045000
1043.533	26.464	0.045000
1048.443	26.307	0.045000
1053.354	26.272	0.045000
1058.264	26.263	0.045000
1063.175	26.423	0.045000
1068.085	26.510	0.045000
1072.996	26.640	0.045000
1077.906	26.780	0.045000
1082.817	26.799	0.045000
1087.727	26.827	0.045000
1092.638	26.856	0.045000
1097.548	26.877	0.045000

Name: X7 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	26.426	0.045000
4.906	26.348	0.045000
9.812	26.204	0.045000
14.717	26.178	0.045000
19.623	26.127	0.045000
24.529	26.170	0.045000
29.435	25.987	0.045000
34.340	25.991	0.045000
39.246	26.256	0.045000
44.152	26.536	0.045000
49.058	26.542	0.045000
53.963	26.452	0.045000
58.869	26.385	0.045000
63.775	26.370	0.045000
68.681	26.494	0.045000
73.586	26.520	0.045000
78.492	26.418	0.045000
83.398	26.429	0.045000
88.304	26.587	0.045000
93.210	26.618	0.045000
98.115	26.517	0.045000
103.021	26.404	0.045000
107.927	26.358	0.045000
112.833	26.503	0.045000
117.738	26.499	0.045000
122.644	26.136	0.045000
127.550	26.256	0.045000
132.456	26.214	0.045000
137.361	26.148	0.045000
142.267	26.053	0.045000
147.173	26.013	0.045000
152.079	26.012	0.045000
156.984	26.007	0.045000
161.890	25.981	0.045000
166.796	26.024	0.045000

171.702	26.100	0.045000
176.700	26.129	0.045000
181.699	25.926	0.045000
186.697	25.605	0.045000
191.695	25.720	0.045000
196.694	25.756	0.045000
201.692	25.787	0.045000
206.691	25.743	0.045000
211.689	25.642	0.045000
216.688	25.416	0.045000
221.686	25.283	0.045000
226.684	25.096	0.045000
231.683	24.925	0.045000
236.681	24.669	0.045000
241.680	24.616	0.045000
246.678	24.471	0.045000
251.677	24.063	0.045000
256.675	23.596	0.045000
261.673	23.161	0.045000
266.672	23.017	0.045000
271.670	22.872	0.045000
276.669	22.610	0.045000
281.667	22.506	0.045000
286.666	22.449	0.045000
291.664	22.318	0.045000
296.662	22.161	0.045000
301.661	21.988	0.045000
306.659	21.890	0.045000
311.658	21.841	0.045000
316.656	21.638	0.045000
321.655	21.429	0.045000
326.653	21.284	0.045000
331.651	20.990	0.045000
336.650	20.708	0.045000
341.648	20.442	0.045000
346.647	20.216	0.045000
351.645	20.230	0.045000
356.644	20.229	0.045000
361.642	20.129	0.045000
366.640	20.025	0.045000
371.639	20.025	0.045000
376.637	20.069	0.045000
381.636	20.204	0.045000
386.634	20.276	0.045000
391.633	20.407	0.045000
396.631	20.557	0.045000
401.629	20.603	0.045000
406.628	20.584	0.045000
411.626	20.510	0.045000
416.625	20.524	0.045000
421.623	20.491	0.045000
426.622	20.411	0.045000
431.620	20.346	0.045000
436.618	20.387	0.045000
441.617	20.461	0.045000
446.615	20.369	0.045000
451.614	20.322	0.045000
456.612	20.297	0.045000
461.611	20.232	0.045000
466.609	20.292	0.045000
471.607	20.400	0.045000
476.606	20.526	0.045000
481.604	20.499	0.045000
486.603	20.433	0.045000
491.601	20.466	0.045000
496.600	20.439	0.045000
501.598	20.582	0.045000
506.596	20.845	0.045000
511.595	20.974	0.045000
516.593	20.982	0.045000
521.592	21.052	0.045000
526.590	21.144	0.045000
531.589	20.903	0.045000
536.587	20.608	0.045000
541.585	20.248	0.045000
546.584	19.941	0.045000
548.686	18.000	0.045000
553.453	17.000	0.045000
558.327	18.100	0.045000
561.579	20.098	0.045000
566.578	20.169	0.045000
571.550	20.998	0.045000
576.523	22.565	0.045000
581.496	23.072	0.045000
586.469	22.398	0.045000
591.441	22.282	0.045000
596.414	22.215	0.045000
601.387	22.131	0.045000

606.360	22.072	0.045000
611.332	22.023	0.045000
616.305	21.948	0.045000
621.278	21.887	0.045000
626.251	21.826	0.045000
631.223	21.765	0.045000
636.196	21.704	0.045000
641.169	21.643	0.045000
646.142	21.582	0.045000
651.115	21.521	0.045000
656.087	21.460	0.045000
661.060	21.399	0.045000
666.033	21.338	0.045000
671.006	21.278	0.045000
675.978	21.217	0.045000
680.951	21.156	0.045000
685.924	21.095	0.045000
690.897	21.034	0.045000
695.869	20.973	0.045000
700.842	20.912	0.045000
705.815	20.854	0.045000
710.788	20.800	0.045000
715.760	20.784	0.045000
720.733	20.804	0.045000
725.706	21.515	0.045000
730.679	22.217	0.045000
735.652	22.783	0.045000
740.624	23.296	0.045000
745.597	23.726	0.045000
750.570	24.056	0.045000
755.543	24.275	0.045000
760.515	24.552	0.045000
765.488	24.871	0.045000
770.461	25.111	0.045000
775.434	25.295	0.045000
780.406	25.420	0.045000
785.379	25.565	0.045000
790.352	25.667	0.045000
795.325	25.733	0.045000
800.297	25.805	0.045000
805.270	25.976	0.045000
810.243	26.087	0.045000
815.216	26.219	0.045000
820.188	26.295	0.045000
825.161	26.281	0.045000
830.134	26.290	0.045000
835.107	26.279	0.045000
840.080	26.319	0.045000
845.052	26.357	0.045000
850.025	26.349	0.045000
854.998	26.339	0.045000
859.971	26.308	0.045000
864.943	26.277	0.045000
869.916	26.292	0.045000

Name: X8 Group: BASE
Encroachment: No

Station(ft)	Elevation(ft)	Manning's N
0.000	22.801	0.045000
4.889	22.735	0.045000
9.778	22.811	0.045000
14.667	22.820	0.045000
19.556	23.023	0.045000
24.445	23.111	0.045000
29.334	23.120	0.045000
34.223	23.174	0.045000
39.112	23.222	0.045000
44.001	23.147	0.045000
48.891	23.155	0.045000
53.780	23.204	0.045000
58.669	23.304	0.045000
63.558	23.363	0.045000
68.447	23.360	0.045000
73.336	23.347	0.045000
78.225	23.351	0.045000
83.114	23.292	0.045000
88.003	23.389	0.045000
92.892	23.434	0.045000
97.781	23.307	0.045000
102.670	23.307	0.045000
107.559	23.391	0.045000
112.448	23.459	0.045000
117.337	23.423	0.045000

122.226	23.399	0.045000
127.115	23.310	0.045000
132.004	23.169	0.045000
136.862	23.145	0.045000
141.721	23.075	0.045000
146.579	23.011	0.045000
151.437	23.111	0.045000
156.295	23.214	0.045000
161.153	23.126	0.045000
166.011	23.122	0.045000
170.869	23.097	0.045000
175.727	23.036	0.045000
180.585	22.990	0.045000
185.443	22.945	0.045000
190.301	22.921	0.045000
195.159	22.863	0.045000
200.017	22.730	0.045000
204.876	22.788	0.045000
209.734	22.823	0.045000
214.592	22.826	0.045000
219.450	22.803	0.045000
224.308	22.775	0.045000
229.166	22.742	0.045000
234.024	22.756	0.045000
238.981	22.688	0.045000
243.939	22.558	0.045000
248.896	22.460	0.045000
253.854	22.568	0.045000
258.811	22.589	0.045000
263.768	22.630	0.045000
268.726	22.654	0.045000
273.683	22.441	0.045000
278.640	22.509	0.045000
283.598	22.310	0.045000
288.555	22.031	0.045000
293.512	21.909	0.045000
298.470	21.908	0.045000
303.427	21.869	0.045000
308.385	21.846	0.045000
313.342	21.786	0.045000
318.299	21.576	0.045000
323.257	21.348	0.045000
328.214	21.319	0.045000
333.171	21.158	0.045000
338.129	21.015	0.045000
343.086	21.003	0.045000
348.044	21.010	0.045000
353.001	20.956	0.045000
357.958	20.953	0.045000
362.916	20.853	0.045000
367.873	20.688	0.045000
372.830	20.553	0.045000
377.788	20.532	0.045000
382.745	20.387	0.045000
387.703	20.219	0.045000
392.660	20.127	0.045000
397.617	19.964	0.045000
402.575	19.968	0.045000
407.532	19.735	0.045000
412.489	19.291	0.045000
417.447	19.000	0.045000
422.404	18.966	0.045000
427.362	18.962	0.045000
432.319	18.861	0.045000
437.276	18.782	0.045000
442.234	18.693	0.045000
447.191	18.576	0.045000
452.148	18.379	0.045000
457.106	18.319	0.045000
462.063	18.306	0.045000
467.021	18.206	0.045000
471.978	18.155	0.045000
476.935	18.207	0.045000
481.893	18.193	0.045000
486.850	18.209	0.045000
491.807	18.234	0.045000
496.765	18.158	0.045000
501.722	18.032	0.045000
506.680	17.857	0.045000
511.637	17.794	0.045000
516.594	17.992	0.045000
521.552	17.963	0.045000
526.509	17.899	0.045000
531.466	17.877	0.045000
536.424	17.878	0.045000
541.381	17.906	0.045000
546.339	17.910	0.045000
551.296	17.953	0.045000

556.253	18.074	0.045000
561.211	18.110	0.045000
566.168	18.047	0.045000
571.125	18.098	0.045000
576.083	18.084	0.045000
581.040	18.189	0.045000
585.998	18.202	0.045000
590.955	18.089	0.045000
595.912	17.995	0.045000
600.870	18.031	0.045000
605.827	17.918	0.045000
610.784	17.832	0.045000
615.742	17.815	0.045000
620.699	17.843	0.045000
625.657	17.875	0.045000
630.614	17.894	0.045000
635.571	17.874	0.045000
640.529	17.828	0.045000
645.486	17.863	0.045000
650.443	17.847	0.045000
654.686	17.000	0.045000
659.453	16.000	0.045000
664.327	17.100	0.045000
670.273	17.923	0.045000
675.230	18.029	0.045000
680.188	18.113	0.045000
685.145	18.165	0.045000
690.102	18.332	0.045000
695.060	18.585	0.045000
699.991	18.679	0.045000
704.923	18.808	0.045000
709.855	19.096	0.045000
714.787	19.304	0.045000
719.718	19.499	0.045000
724.650	19.772	0.045000
729.582	20.119	0.045000
734.513	20.385	0.045000
739.445	20.518	0.045000
744.377	20.372	0.045000
749.309	20.342	0.045000
754.240	20.597	0.045000
759.172	20.821	0.045000
764.104	21.152	0.045000
769.035	21.307	0.045000
773.967	21.451	0.045000
778.899	21.567	0.045000
783.830	21.747	0.045000
788.762	21.995	0.045000
793.694	22.262	0.045000
798.626	22.555	0.045000
803.557	22.813	0.045000
808.489	23.127	0.045000
813.421	23.567	0.045000
818.352	23.618	0.045000
823.284	23.449	0.045000
828.216	23.522	0.045000
833.147	23.579	0.045000
838.079	23.642	0.045000
843.011	23.861	0.045000
847.943	23.953	0.045000
852.874	24.124	0.045000
857.806	24.337	0.045000
862.738	24.509	0.045000
867.669	24.592	0.045000
872.601	24.681	0.045000
877.533	24.797	0.045000
882.464	24.858	0.045000
887.396	24.816	0.045000
892.328	24.792	0.045000
897.260	24.810	0.045000
902.191	24.828	0.045000
907.123	24.846	0.045000
912.055	24.864	0.045000
916.986	24.882	0.045000
921.918	24.905	0.045000
926.850	24.984	0.045000
931.781	25.038	0.045000
936.713	25.043	0.045000
941.645	24.962	0.045000
946.577	24.839	0.045000
951.508	24.878	0.045000
956.440	24.857	0.045000
961.372	24.735	0.045000
966.303	24.684	0.045000
971.235	24.451	0.045000
976.167	24.270	0.045000
981.098	24.099	0.045000
986.030	23.848	0.045000

990.962	23.559	0.045000
995.894	23.353	0.045000
1000.825	23.315	0.045000
1005.757	23.433	0.045000
1010.689	23.583	0.045000
1015.620	23.703	0.045000
1020.552	23.845	0.045000
1025.484	23.977	0.045000
1030.415	24.007	0.045000
1035.347	24.119	0.045000
1040.279	23.926	0.045000
1045.211	23.762	0.045000
1050.142	23.673	0.045000
1055.074	23.493	0.045000

==========
==== Operating Tables ==========
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Name: Group: BASE
Type: Rating Curve
Function: Head vs. Discharge

Head(ft)	Discharge(cfs)

==========
==== Pipes ==========
==========

```
         Name: A                   From Node: A_up              Length(ft): 134.00
        Group: BASE                  To Node: A_dn                   Count: 2
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Rectangular    Rectangular                               Flow: Both
     Span(in): 72.00          72.00                       Entrance Loss Coef: 0.50
     Rise(in): 72.00          72.00                           Exit Loss Coef: 0.50
   Invert(ft): 20.110         19.600                          Bend Loss Coef: 0.00
  Manning's N: 0.040000       0.040000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares

Downstream FHWA Inlet Edge Description:
Rectangular Box: 30° to 75° wingwall flares


-----------------------------------------------------------------------------------------------
         Name: B                   From Node: B_up              Length(ft): 55.00
        Group: BASE                  To Node: B_dn                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 36.00          36.00                       Entrance Loss Coef: 0.20
     Rise(in): 36.00          36.00                           Exit Loss Coef: 0.50
   Invert(ft): 21.200         21.000                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: G                   From Node: G_up              Length(ft): 115.00
        Group: BASE                  To Node: G_dn                   Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                  Flow: Both
     Span(in): 18.00          18.00                       Entrance Loss Coef: 0.50
     Rise(in): 18.00          18.00                           Exit Loss Coef: 0.50
   Invert(ft): 25.000         24.430                          Bend Loss Coef: 0.00
  Manning's N: 0.040000       0.040000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
```

```
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: H-I                 From Node: H                  Length(ft): 170.00
        Group: BASE                  To Node: I                       Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 36.00          36.00                       Entrance Loss Coef: 0.50
     Rise(in): 36.00          36.00                           Exit Loss Coef: 0.50
   Invert(ft): 21.810         20.750                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: JB-Out              From Node: JB                 Length(ft): 263.00
        Group: BASE                  To Node: BNDRY_Off               Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 30.00          30.00                       Entrance Loss Coef: 0.00
     Rise(in): 30.00          30.00                           Exit Loss Coef: 1.00
   Invert(ft): 24.130         23.280                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


-----------------------------------------------------------------------------------------------
         Name: Pond C              From Node: C_up               Length(ft): 90.00
        Group: BASE                  To Node: C_dn                    Count: 1
                                                          Friction Equation: Automatic
               UPSTREAM       DOWNSTREAM                  Solution Algorithm: Most Restrictive
     Geometry: Circular       Circular                                Flow: Both
     Span(in): 36.00          36.00                       Entrance Loss Coef: 0.20
     Rise(in): 36.00          36.00                           Exit Loss Coef: 0.50
   Invert(ft): 23.450         23.000                          Bend Loss Coef: 0.00
  Manning's N: 0.013000       0.013000                      Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                           Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                       Stabilizer Option: None


Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


===============================================================================================
==== Channels ================================================================================
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          Name: A-Out               From Node: A_dn               Length(ft): 615.00
         Group: BASE                  To Node: X3                      Count: 1
```

```
                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 19.600         18.000                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: 1              0                          Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                       Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-------------------------------------------------------------------------------------------------
          Name: A1                  From Node: A1                 Length(ft): 244.00
         Group: BASE                  To Node: A_up                    Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 20.000         20.110                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: A1             HWY 9 US                   Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                       Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-------------------------------------------------------------------------------------------------
          Name: A2                  From Node: A2                 Length(ft): 375.00
         Group: BASE                  To Node: A1                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 20.000         20.000                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: A2             A1                         Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                       Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-------------------------------------------------------------------------------------------------
          Name: A3                  From Node: A3                 Length(ft): 170.00
         Group: BASE                  To Node: A2                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 20.100         20.000                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: A3             A2                         Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                       Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
```

```
  RtSdSlp(h/v):


-----------------------------------------------------------------------------------------------
          Name: B-A                 From Node: B_dn               Length(ft): 346.00
         Group: BASE                  To Node: A_up                    Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 20.800         20.110                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.035000       0.035000                        Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 4.000          4.000
  LtSdSlp(h/v): 2.00           2.00
  RtSdSlp(h/v): 2.00           2.00


-----------------------------------------------------------------------------------------------
          Name: C-B                 From Node: C_dn               Length(ft): 846.00
         Group: BASE                  To Node: B_up                    Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 23.000         21.200                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.035000       0.035000                        Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 4.000          4.000
  LtSdSlp(h/v): 2.00           2.00
  RtSdSlp(h/v): 2.00           2.00


-----------------------------------------------------------------------------------------------
          Name: D-E                 From Node: D                  Length(ft): 236.00
         Group: BASE                  To Node: E                       Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 22.800         20.200                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N: 0.035000       0.035000                        Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                          Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                             Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 6.000          6.000
  LtSdSlp(h/v): 2.00           2.00
  RtSdSlp(h/v): 2.00           2.00


-----------------------------------------------------------------------------------------------
          Name: E                   From Node: E                  Length(ft): 97.00
         Group: BASE                  To Node: A3                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 20.200         20.100                                   Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N:                                                Expansion Coef: 0.300
  Top Clip(ft):                                              Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                  Exit Loss Coef: 0.000
     Main XSec: E              A3                            Outlet Ctrl Spec: Use dc or tw
```

```
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: E1                  From Node: E1                 Length(ft): 354.00
         Group: BASE                  To Node: E                       Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 21.000         20.200                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N:                                                 Expansion Coef: 0.300
  Top Clip(ft):                                             Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                 Exit Loss Coef: 0.000
     Main XSec: E1             E                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: E2                  From Node: E2                 Length(ft): 350.00
         Group: BASE                  To Node: E1                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 21.500         21.000                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N:                                                 Expansion Coef: 0.300
  Top Clip(ft):                                             Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                 Exit Loss Coef: 0.000
     Main XSec: E2             E1                           Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: E3                  From Node: E3                 Length(ft): 500.00
         Group: BASE                  To Node: E2                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 22.500         21.500                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                     Contraction Coef: 0.100
   Manning's N:                                                 Expansion Coef: 0.300
  Top Clip(ft):                                             Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                 Exit Loss Coef: 0.000
     Main XSec: E3             E2                           Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: E4                  From Node: E4                 Length(ft): 255.00
         Group: BASE                  To Node: E3                      Count: 1
```

```
                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 23.000         22.500                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: E4             E3                          Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-----------------------------------------------------------------------------------------------
          Name: E5                  From Node: HWY57_S            Length(ft): 570.00
         Group: BASE                  To Node: E4                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 24.200         23.000                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: HWY 57 S       E4                          Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-----------------------------------------------------------------------------------------------
          Name: F                   From Node: F                  Length(ft): 103.00
         Group: BASE                  To Node: E                       Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 19.070         20.200                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: F              E                           Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-----------------------------------------------------------------------------------------------
          Name: F1                  From Node: F1                 Length(ft): 293.00
         Group: BASE                  To Node: F                       Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 19.700         19.070                               Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                   Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                          Entrance Loss Coef: 0.000
  Bot Clip(ft):                                              Exit Loss Coef: 0.000
     Main XSec: F1             F                           Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
```

```
  RtSdSlp(h/v):


-----------------------------------------------------------------------------------------------
          Name: G-F1                From Node: G_dn               Length(ft): 285.00
         Group: BASE                  To Node: F1                     Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal               Solution Algorithm: Automatic
    Invert(ft): 24.430         22.740                                 Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N: 0.035000       0.035000                       Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                     Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                         Exit Loss Coef: 0.000
     Main XSec:                                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                              Inlet Ctrl Spec: Use dc
     Aux XSec1:                                            Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 4.000          4.000
  LtSdSlp(h/v): 3.00           3.00
  RtSdSlp(h/v): 3.00           3.00


-----------------------------------------------------------------------------------------------
          Name: I-J                 From Node: I                  Length(ft): 296.00
         Group: BASE                  To Node: J                     Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Trapezoidal    Irregular                 Solution Algorithm: Automatic
    Invert(ft): 20.750         22.500                                 Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N: 0.045000                                       Expansion Coef: 0.300
  Top Clip(ft): 0.000                                      Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000                                          Exit Loss Coef: 0.000
     Main XSec:                J                             Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                0.000                          Inlet Ctrl Spec: Use dc
     Aux XSec1:                                            Stabilizer Option: None
  AuxElev2(ft):                0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 6.000
  LtSdSlp(h/v): 2.00
  RtSdSlp(h/v): 2.00


-----------------------------------------------------------------------------------------------
          Name: J                   From Node: J                  Length(ft): 558.00
         Group: BASE                  To Node: F1                    Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 22.500         19.700                                 Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N:                                                Expansion Coef: 0.300
  Top Clip(ft):                                            Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                Exit Loss Coef: 0.000
     Main XSec: J               F1                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000           0.000                          Inlet Ctrl Spec: Use dc
     Aux XSec1:                                            Stabilizer Option: None
  AuxElev2(ft): 0.000           0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


-----------------------------------------------------------------------------------------------
          Name: J1                  From Node: J1                 Length(ft): 622.00
         Group: BASE                  To Node: J                     Count: 1

                UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
      Geometry: Irregular      Irregular                 Solution Algorithm: Automatic
    Invert(ft): 23.500         22.500                                 Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N:                                                Expansion Coef: 0.300
  Top Clip(ft):                                            Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                Exit Loss Coef: 0.000
     Main XSec: J1              J                             Outlet Ctrl Spec: Use dc or tw
```

```
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: K                   From Node: K                  Length(ft): 700.00
         Group: BASE                  To Node: J1                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 26.320         23.500                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N:                                                Expansion Coef: 0.300
  Top Clip(ft):                                             Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                 Exit Loss Coef: 0.000
     Main XSec: K              J1                           Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                         Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: K1                  From Node: HWY57_N            Length(ft): 647.00
         Group: BASE                  To Node: K                       Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 25.500         26.320                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N:                                                Expansion Coef: 0.300
  Top Clip(ft):                                             Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                 Exit Loss Coef: 0.000
     Main XSec: HWY 57 N       K                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                         Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: Out-X7              From Node: X3                 Length(ft): 2057.00
         Group: BASE                  To Node: X7                      Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 18.000         17.000                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N:                                                Expansion Coef: 0.300
  Top Clip(ft):                                             Entrance Loss Coef: 0.000
  Bot Clip(ft):                                                 Exit Loss Coef: 0.000
     Main XSec: X4             X7                           Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                         Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):



-------------------------------------------------------------------------------------------------
          Name: X2-Out              From Node: X2                 Length(ft): 750.00
         Group: BASE                  To Node: X3                      Count: 1
```

```
                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Trapezoidal    Trapezoidal                Solution Algorithm: Automatic
    Invert(ft): 18.500         18.000                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N: 0.045000       0.045000                      Expansion Coef: 0.300
  Top Clip(ft): 0.000          0.000                     Entrance Loss Coef: 0.000
  Bot Clip(ft): 0.000          0.000                         Exit Loss Coef: 0.000
     Main XSec:                                            Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft):                                             Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft):
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft): 5.000          5.000
  LtSdSlp(h/v): 2.00           2.00
  RtSdSlp(h/v): 2.00           2.00


-----------------------------------------------------------------------------------------------------
          Name: X7-X8               From Node: X7                 Length(ft): 2100.00
         Group: BASE                  To Node: BNDRY                   Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Irregular      Irregular                  Solution Algorithm: Automatic
    Invert(ft): 17.000         16.000                                Flow: Both
 TClpInitZ(ft): 9999.000       9999.000                    Contraction Coef: 0.100
   Manning's N:                                              Expansion Coef: 0.300
  Top Clip(ft):                                           Entrance Loss Coef: 0.000
  Bot Clip(ft):                                               Exit Loss Coef: 0.000
     Main XSec: X7             X8                          Outlet Ctrl Spec: Use dc or tw
  AuxElev1(ft): 0.000          0.000                        Inlet Ctrl Spec: Use dc
     Aux XSec1:                                           Stabilizer Option: None
  AuxElev2(ft): 0.000          0.000
     Aux XSec2:
 Top Width(ft):
     Depth(ft):
 Bot Width(ft):
  LtSdSlp(h/v):
  RtSdSlp(h/v):


=================================================================================
==== Drop Structures ============================================================
=================================================================================

          Name: Pond A_Out          From Node: Pond A             Length(ft): 295.00
         Group: BASE                  To Node: Pond C                  Count: 1

                UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
      Geometry: Circular       Circular                   Solution Algorithm: Most Restrictive
      Span(in): 48.00          48.00                                 Flow: Both
      Rise(in): 48.00          48.00                     Entrance Loss Coef: 0.200
    Invert(ft): 21.460         19.380                        Exit Loss Coef: 1.000
   Manning's N: 0.013000       0.013000                    Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 3 for Drop Structure Pond A_Out ***
                                                                                    TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular            Orifice Disc Coef: 0.600

               Span(in): 18.00                        Invert(ft): 25.100
               Rise(in): 16.80                   Control Elev(ft): 25.100

*** Weir 2 of 3 for Drop Structure Pond A_Out ***
                                                                                    TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Circular               Orifice Disc Coef: 0.600

               Span(in): 8.00                         Invert(ft): 23.390
               Rise(in): 8.00                    Control Elev(ft): 23.390
```

```
*** Weir 3 of 3 for Drop Structure Pond A_Out ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
             Geometry: Rectangular           Orifice Disc Coef: 0.600

             Span(in): 164.00                       Invert(ft): 26.500
             Rise(in): 99999.00               Control Elev(ft): 26.500


-----------------------------------------------------------------------------------------------
         Name: Pond B_Out1         From Node: Pond B             Length(ft): 115.00
        Group: BASE                  To Node: JB                      Count: 1

              UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                  Solution Algorithm: Most Restrictive
     Span(in): 15.00          15.00                                  Flow: Both
     Rise(in): 15.00          15.00                     Entrance Loss Coef: 0.200
   Invert(ft): 24.500         24.130                        Exit Loss Coef: 0.500
  Manning's N: 0.013000       0.013000                    Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                        Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                          Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall



*** Weir 1 of 2 for Drop Structure Pond B_Out1 ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
             Geometry: Rectangular           Orifice Disc Coef: 0.600

             Span(in): 24.00                        Invert(ft): 24.620
             Rise(in): 32.76                  Control Elev(ft): 24.620

*** Weir 2 of 2 for Drop Structure Pond B_Out1 ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Horizontal                Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
             Geometry: Rectangular           Orifice Disc Coef: 0.600

             Span(in): 48.00                        Invert(ft): 27.350
             Rise(in): 24.00                  Control Elev(ft): 27.350


-----------------------------------------------------------------------------------------------
         Name: Pond B_Out2         From Node: Pond B             Length(ft): 224.00
        Group: BASE                  To Node: H                       Count: 1

              UPSTREAM       DOWNSTREAM                  Friction Equation: Automatic
     Geometry: Circular       Circular                  Solution Algorithm: Most Restrictive
     Span(in): 24.00          24.00                                  Flow: Both
     Rise(in): 24.00          24.00                     Entrance Loss Coef: 0.200
   Invert(ft): 22.250         21.870                        Exit Loss Coef: 0.500
  Manning's N: 0.013000       0.013000                    Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                        Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                          Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall



*** Weir 1 of 1 for Drop Structure Pond B_Out2 ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
             Geometry: Rectangular           Orifice Disc Coef: 0.600

             Span(in): 24.00                        Invert(ft): 24.620
             Rise(in): 6.00                   Control Elev(ft): 24.620


-----------------------------------------------------------------------------------------------
         Name: Pond C_Out          From Node: Pond C             Length(ft): 12.00
        Group: BASE                  To Node: F                       Count: 1
```

```
              UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
     Span(in): 48.00          48.00                                Flow: Both
     Rise(in): 48.00          48.00                    Entrance Loss Coef: 0.200
   Invert(ft): 20.010         19.070                       Exit Loss Coef: 0.500
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 2 for Drop Structure Pond C_Out ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 48.00                       Invert(ft): 23.550
              Rise(in): 26.00                  Control Elev(ft): 23.550

*** Weir 2 of 2 for Drop Structure Pond C_Out ***
                                                                                    TABLE
                 Count: 3                      Bottom Clip(in): 0.000
                  Type: Horizontal                Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 48.00                       Invert(ft): 25.710
              Rise(in): 48.00                  Control Elev(ft): 25.710


-----------------------------------------------------------------------------------------------
         Name: X5-X2               From Node: X5                 Length(ft): 250.00
        Group: BASE                  To Node: X2                      Count: 1

              UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                Flow: Both
     Rise(in): 36.00          36.00                    Entrance Loss Coef: 0.000
   Invert(ft): 19.000         18.500                       Exit Loss Coef: 1.000
  Manning's N: 0.013000       0.013000                   Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                       Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                         Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall


*** Weir 1 of 2 for Drop Structure X5-X2 ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Horizontal                Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 48.00                       Invert(ft): 23.000
              Rise(in): 48.00                  Control Elev(ft): 23.000

*** Weir 2 of 2 for Drop Structure X5-X2 ***
                                                                                    TABLE
                 Count: 1                      Bottom Clip(in): 0.000
                  Type: Vertical: Mavis           Top Clip(in): 0.000
                  Flow: Both                    Weir Disc Coef: 3.200
              Geometry: Rectangular           Orifice Disc Coef: 0.600

              Span(in): 48.00                       Invert(ft): 22.000
              Rise(in): 6.00                   Control Elev(ft): 22.000


-----------------------------------------------------------------------------------------------
         Name: X6-X7               From Node: X6                 Length(ft): 100.00
        Group: BASE                  To Node: X7                      Count: 1

              UPSTREAM       DOWNSTREAM                 Friction Equation: Automatic
     Geometry: Circular       Circular                 Solution Algorithm: Most Restrictive
     Span(in): 36.00          36.00                                Flow: Both
```

```
     Rise(in): 36.00          36.00                      Entrance Loss Coef: 0.000
   Invert(ft): 18.000         17.000                         Exit Loss Coef: 1.000
  Manning's N: 0.013000       0.013000                     Outlet Ctrl Spec: Use dc or tw
 Top Clip(in): 0.000          0.000                         Inlet Ctrl Spec: Use dc
 Bot Clip(in): 0.000          0.000                           Solution Incs: 10

Upstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall

Downstream FHWA Inlet Edge Description:
Circular Concrete: Square edge w/ headwall



*** Weir 1 of 2 for Drop Structure X6-X7 ***
                                                                                    TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Horizontal                 Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular            Orifice Disc Coef: 0.600

               Span(in): 48.00                        Invert(ft): 22.000
               Rise(in): 48.00                   Control Elev(ft): 22.000

*** Weir 2 of 2 for Drop Structure X6-X7 ***
                                                                                    TABLE
                  Count: 1                       Bottom Clip(in): 0.000
                   Type: Vertical: Mavis            Top Clip(in): 0.000
                   Flow: Both                     Weir Disc Coef: 3.200
               Geometry: Rectangular            Orifice Disc Coef: 0.600

               Span(in): 48.00                        Invert(ft): 21.000
               Rise(in): 6.00                    Control Elev(ft): 21.000


==========================================================================================
==== Weirs ===============================================================================
==========================================================================================

         Name: A_Over              From Node: Pond A
        Group: BASE                  To Node: Pond C
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 20.00
       Right Side Slope(h/v): 20.00
                  Invert(ft): 29.400
       Control Elevation(ft): 29.400
      Struct Opening Dim(ft): 9999.00
                                          TABLE
              Bottom Clip(ft): 0.000
                 Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



------------------------------------------------------------------------------------------------
         Name: B_Over              From Node: B_up
        Group: BASE                  To Node: B_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 50.00
        Left Side Slope(h/v): 100.00
       Right Side Slope(h/v): 50.00
                  Invert(ft): 27.300
       Control Elevation(ft): 27.300
      Struct Opening Dim(ft): 9999.00
                                          TABLE
              Bottom Clip(ft): 0.000
                 Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



------------------------------------------------------------------------------------------------
         Name: C_Over              From Node: C_up
        Group: BASE                  To Node: C_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 40.00
       Right Side Slope(h/v): 40.00
                  Invert(ft): 27.000
```

```
       Control Elevation(ft): 27.000
      Struct Opening Dim(ft): 9999.00
                                                TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------------
         Name: G_Over              From Node: G_up
        Group: BASE                  To Node: G_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 40.00
       Right Side Slope(h/v): 40.00
                  Invert(ft): 28.500
       Control Elevation(ft): 28.500
      Struct Opening Dim(ft): 9999.00
                                                TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------------
         Name: H_Over              From Node: H
        Group: BASE                  To Node: I
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 40.00
       Right Side Slope(h/v): 40.00
                  Invert(ft): 28.500
       Control Elevation(ft): 28.500
      Struct Opening Dim(ft): 9999.00
                                                TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------------
         Name: Pond A_Over2        From Node: A_up
        Group: BASE                  To Node: A_dn
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 25.00
        Left Side Slope(h/v): 500.00
       Right Side Slope(h/v): 500.00
                  Invert(ft): 27.800
       Control Elevation(ft): 27.800
      Struct Opening Dim(ft): 9999.00
                                                TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600



-----------------------------------------------------------------------------------------------------
         Name: Pond B_Over         From Node: Pond B
        Group: BASE                  To Node: H
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 50.00
        Left Side Slope(h/v): 50.00
       Right Side Slope(h/v): 50.00
                  Invert(ft): 28.500
       Control Elevation(ft): 28.500
      Struct Opening Dim(ft): 9999.00
                                                TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600
```

```
-----------------------------------------------------------------------------------------------
         Name: Pond C_Over         From Node: Pond C
        Group: BASE                  To Node: F
         Flow: Both                    Count: 1
         Type: Vertical: Fread      Geometry: Trapezoidal

            Bottom Width(ft): 10.00
        Left Side Slope(h/v): 5.00
       Right Side Slope(h/v): 5.00
                  Invert(ft): 26.000
       Control Elevation(ft): 26.000
      Struct Opening Dim(ft): 9999.00
                                              TABLE
             Bottom Clip(ft): 0.000
                Top Clip(ft): 0.000
         Weir Discharge Coef: 3.200
      Orifice Discharge Coef: 0.600


=================================================================================
==== Hydrology Simulations ======================================================
=================================================================================

         Name: 002-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\002-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 4.50

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

-----------------------------------------------------------------------------------------------
         Name: 010-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\010-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 6.70

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

-----------------------------------------------------------------------------------------------
         Name: 025-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\025-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 7.60

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

-----------------------------------------------------------------------------------------------
         Name: 050-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\050-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 8.60

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

-----------------------------------------------------------------------------------------------
         Name: 100-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\100-yr.R32

      Override Defaults: Yes
    Storm Duration(hrs): 24.00
          Rainfall File: Scsiii
    Rainfall Amount(in): 9.70

Time(hrs)       Print Inc(min)
--------------- ---------------
```

```
48.000          5.00

-----------------------------------------------------------------------------------------------
         Name: OCT-2015
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\OCT-2015.R32

      Override Defaults: Yes
    Storm Duration(hrs): 120.00
          Rainfall File: OCT2015
    Rainfall Amount(in): 17.91

Time(hrs)       Print Inc(min)
--------------- ---------------
120.000         5.00

-----------------------------------------------------------------------------------------------
         Name: OCT-2016
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 57 Culverts\OCT-2016.R32

      Override Defaults: Yes
    Storm Duration(hrs): 47.00
          Rainfall File: OCT2016
    Rainfall Amount(in): 10.68

Time(hrs)       Print Inc(min)
--------------- ---------------
48.000          5.00

===============================================================================================
==== Routing Simulations ======================================================================
===============================================================================================

         Name: 002-yr              Hydrology Sim: 002-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\002-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 10.0000
        Boundary Stages: 002-year                 Boundary Flows: 002-year


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-----------------------------------------------------------------------------------------------
         Name: 010-yr              Hydrology Sim: 010-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\010-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000               Max Calc Time(sec): 10.0000
        Boundary Stages: 010-year                 Boundary Flows: 010-year


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        5.000

Group           Run
--------------- -----
BASE            Yes


-----------------------------------------------------------------------------------------------
         Name: 025-yr              Hydrology Sim: 025-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\025-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
```

```
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: 025-year                Boundary Flows: 025-year


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-----------------------------------------------------------------------------------------------
         Name: 050-yr              Hydrology Sim: 050-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\050-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: 050-year                Boundary Flows: 050-year


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-----------------------------------------------------------------------------------------------
         Name: 100-yr              Hydrology Sim: 100-yr
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\100-yr.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: 100-year                Boundary Flows: 100-year


Time(hrs)       Print Inc(min)
--------------- ---------------
9999.000        15.000

Group           Run
--------------- -----
BASE            Yes


-----------------------------------------------------------------------------------------------
         Name: OCT-2015            Hydrology Sim: OCT-2015
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\OCT-2015.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                    Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                    End Time(hrs): 144.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: OCT-2015                Boundary Flows: OCT-2015


Time(hrs)       Print Inc(min)
--------------- ---------------
999.000         15.000

Group           Run
--------------- -----
BASE            Yes


-----------------------------------------------------------------------------------------------
```

```
         Name: OCT-2016            Hydrology Sim: OCT-2016
     Filename: Z:\26146\26146.0000\Engineering\Calculations\Storm Water\ICPR\EX\HWY 9 Culvert\OCT-2016.I32

      Execute: Yes         Restart: No            Patch: No
  Alternative: No

        Max Delta Z(ft): 1.00                     Delta Z Factor: 0.00500
    Time Step Optimizer: 10.000
        Start Time(hrs): 0.000                     End Time(hrs): 72.00
     Min Calc Time(sec): 0.5000              Max Calc Time(sec): 10.0000
        Boundary Stages: OCT-2016                Boundary Flows: OCT-2016


Time(hrs)       Print Inc(min)
--------------- ---------------
999.000         15.000

Group           Run
--------------- -----
BASE            Yes


==================================================================================
==== Boundary Conditions ========================================================
==================================================================================

      Name: 010-year              Node: HWY57_N               Type: Flow

      Time(hrs)       Flow(cfs)
--------------- ---------------
          0.000           0.000
          0.250           0.000
          0.500           0.000
          0.750           0.000
          1.000           0.000
          1.250           0.000
          1.500           0.000
          1.750           0.000
          2.000           0.000
          2.250           0.000
          2.500           0.000
          2.750           0.000
          3.000           0.000
          3.250           0.000
          3.500           0.000
          3.750           0.000
          4.000           0.000
          4.250           0.000
          4.500           0.000
          4.750           0.000
          5.000           0.000
          5.250           0.000
          5.500           0.000
          5.750           0.000
          6.000           0.000
          6.250           0.000
          6.500           0.000
          6.750           0.000
          7.000           0.000
          7.250           0.000
          7.500           0.000
          7.750           0.000
          8.000           0.000
          8.250           0.000
          8.500           0.000
          8.750           0.000
          9.000           0.000
          9.250           0.000
          9.500           0.000
          9.750           0.000
         10.000           0.000
         10.250           0.000
         10.500           0.000
         10.750           0.000
         11.000           0.190
         11.250           0.840
         11.500           1.630
         11.750           2.270
         12.000           2.240
         12.250           5.390
         12.500          20.730
         12.750          37.840
         13.000          45.880
         13.250          50.010
         13.500          95.160
         13.750         116.490
         14.000         127.050
```

14.250	137.120
14.500	147.220
14.750	156.990
15.000	165.830
15.250	173.000
15.500	178.590
15.750	182.550
16.000	185.180
16.250	187.020
16.500	188.550
16.750	189.930
17.000	191.360
17.250	192.500
17.500	193.030
17.750	192.870
18.000	192.040
18.250	190.710
18.500	188.750
18.750	186.190
19.000	183.090
19.250	179.720
19.500	176.070
19.750	172.100
20.000	168.050
20.250	163.870
20.500	159.670
20.750	155.420
21.000	151.310
21.250	147.220
21.500	143.280
21.750	139.480
22.000	135.740
22.250	132.090
22.500	128.420
22.750	124.880
23.000	121.450
23.250	118.160
23.500	115.030
23.750	111.980
24.000	109.150
24.250	106.270
24.500	103.240
24.750	99.990
25.000	96.720
25.250	93.550
25.500	90.530
25.750	87.660
26.000	84.820
26.250	82.200
26.500	79.550
26.750	76.960
27.000	76.040
27.250	72.730
27.500	70.040
27.750	67.760
28.000	70.380
28.250	65.380
28.500	62.530
28.750	60.450
29.000	58.620
29.250	56.940
29.500	55.370
29.750	53.930
30.000	52.580
30.250	51.410
30.500	50.480
30.750	50.180
31.000	49.960
31.250	49.680
31.500	49.390
31.750	49.010
32.000	48.570
32.250	48.090
32.500	47.560
32.750	47.020
33.000	46.670
33.250	45.960
33.500	44.980
33.750	43.780
34.000	42.290
34.250	40.270
34.500	38.250
34.750	36.390
35.000	34.700
35.250	33.210
35.500	31.830
35.750	30.500
36.000	29.100

36.250	27.630
36.500	26.130
36.750	24.630
37.000	23.220
37.250	21.860
37.500	20.660
37.750	19.550
38.000	18.580
38.250	17.750
38.500	17.000
38.750	16.470
39.000	16.000
39.250	15.620
39.500	15.270
39.750	14.980
40.000	14.750
40.250	14.470
40.500	14.240
40.750	13.950
41.000	13.680
41.250	13.450
41.500	13.200
41.750	13.010
42.000	12.780
42.250	12.580
42.500	12.390
42.750	12.210
43.000	12.040
43.250	11.880
43.500	11.730
43.750	11.580
44.000	11.430
44.250	11.290
44.500	11.110
44.750	10.990
45.000	10.860
45.250	10.740
45.500	10.610
45.750	10.480
46.000	10.300
46.250	10.190
46.500	10.070
46.750	9.950
47.000	9.830
47.250	9.700
47.500	9.530
47.750	9.420
48.000	9.310
48.250	9.190
48.500	9.070
48.750	8.950
49.000	8.780
49.250	8.670
49.500	8.560
49.750	8.450
50.000	8.330
50.250	8.210
50.500	8.050
50.750	7.950
51.000	7.840
51.250	7.740
51.500	7.630
51.750	7.510
52.000	7.350
52.250	7.260
52.500	7.160
52.750	7.060
53.000	6.960
53.250	6.860
53.500	6.700
53.750	6.620
54.000	6.530
54.250	6.430
54.500	6.340
54.750	6.180
55.000	6.110
55.250	6.070
55.500	6.010
55.750	5.930
56.000	5.740
56.250	5.700
56.500	5.640
56.750	5.570
57.000	5.370
57.250	5.340
57.500	5.280
57.750	5.200
58.000	5.000

58.250	4.980
58.500	4.920
58.750	4.730
59.000	4.720
59.250	4.670
59.500	4.610
59.750	4.540
60.000	4.340
60.250	4.330
60.500	4.270
60.750	4.200
61.000	4.130
61.250	3.970
61.500	3.960
61.750	3.920
62.000	3.860
62.250	3.710
62.500	3.710
62.750	3.670
63.000	3.620
63.250	3.470
63.500	3.490
63.750	3.450
64.000	3.310
64.250	3.330
64.500	3.290
64.750	3.160
65.000	3.180
65.250	3.150
65.500	3.010
65.750	3.040
66.000	3.010
66.250	2.880
66.500	2.900
66.750	2.780
67.000	2.820
67.250	2.790
67.500	2.660
67.750	2.700
68.000	2.580
68.250	2.620
68.500	2.600
68.750	2.470
69.000	2.510
69.250	2.390
69.500	2.440
69.750	2.320
70.000	2.370
70.250	2.260
70.500	2.300
70.750	2.190
71.000	2.240
71.250	2.130
71.500	2.180
71.750	2.070
72.000	2.120

Name: 025-year Node: HWY57_N Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000

6.500	0.000
6.750	0.000
7.000	0.000
7.250	0.000
7.500	0.000
7.750	0.000
8.000	0.000
8.250	0.000
8.500	0.000
8.750	0.000
9.000	0.000
9.250	0.000
9.500	0.000
9.750	0.000
10.000	0.000
10.250	0.100
10.500	0.230
10.750	0.880
11.000	1.390
11.250	2.160
11.500	3.030
11.750	3.690
12.000	5.450
12.250	12.400
12.500	30.090
12.750	44.730
13.000	51.250
13.250	128.230
13.500	149.690
13.750	161.060
14.000	172.470
14.250	184.960
14.500	197.590
14.750	209.260
15.000	219.300
15.250	226.910
15.500	232.940
15.750	238.370
16.000	243.720
16.250	249.050
16.500	253.660
16.750	257.040
17.000	259.080
17.250	259.640
17.500	258.560
17.750	256.210
18.000	252.780
18.250	248.740
18.500	244.050
18.750	238.650
19.000	232.820
19.250	226.880
19.500	220.650
19.750	214.330
20.000	208.050
20.250	201.710
20.500	195.490
20.750	189.390
21.000	183.490
21.250	177.790
21.500	172.330
21.750	167.030
22.000	161.980
22.250	157.070
22.500	152.190
22.750	147.490
23.000	142.940
23.250	138.650
23.500	134.540
23.750	130.560
24.000	126.800
24.250	122.930
24.500	119.000
24.750	114.850
25.000	110.640
25.250	106.680
25.500	102.880
25.750	99.290
26.000	95.720
26.250	92.260
26.500	89.100
26.750	86.050
27.000	83.020
27.250	80.290
27.500	77.440
27.750	75.940
28.000	73.030
28.250	70.140

28.500	67.760
28.750	70.320
29.000	65.260
29.250	62.380
29.500	60.230
29.750	58.370
30.000	56.670
30.250	55.090
30.500	53.630
30.750	52.280
31.000	51.140
31.250	50.310
31.500	50.120
31.750	49.870
32.000	49.600
32.250	49.250
32.500	48.880
32.750	48.410
33.000	47.890
33.250	47.360
33.500	46.800
33.750	46.460
34.000	45.590
34.250	44.520
34.500	43.190
34.750	41.480
35.000	39.320
35.250	37.330
35.500	35.540
35.750	33.920
36.000	32.490
36.250	31.120
36.500	29.730
36.750	28.210
37.000	26.710
37.250	25.160
37.500	23.720
37.750	22.310
38.000	21.050
38.250	19.920
38.500	18.880
38.750	17.960
39.000	17.210
39.250	16.610
39.500	16.120
39.750	15.720
40.000	15.390
40.250	15.060
40.500	14.780
40.750	14.550
41.000	14.270
41.250	14.040
41.500	13.740
41.750	13.520
42.000	13.250
42.250	13.020
42.500	12.800
42.750	12.640
43.000	12.440
43.250	12.260
43.500	12.080
43.750	11.920
44.000	11.760
44.250	11.610
44.500	11.460
44.750	11.270
45.000	11.150
45.250	11.020
45.500	10.890
45.750	10.760
46.000	10.630
46.250	10.500
46.500	10.320
46.750	10.210
47.000	10.090
47.250	9.970
47.500	9.850
47.750	9.670
48.000	9.570
48.250	9.450
48.500	9.330
48.750	9.210
49.000	9.090
49.250	8.970
49.500	8.790
49.750	8.690
50.000	8.580
50.250	8.460

50.500	8.350
50.750	8.230
51.000	8.060
51.250	7.960
51.500	7.860
51.750	7.750
52.000	7.640
52.250	7.470
52.500	7.380
52.750	7.290
53.000	7.180
53.250	7.080
53.500	6.980
53.750	6.810
54.000	6.730
54.250	6.640
54.500	6.550
54.750	6.450
55.000	6.350
55.250	6.200
55.500	6.120
55.750	6.080
56.000	6.020
56.250	5.840
56.500	5.800
56.750	5.740
57.000	5.660
57.250	5.580
57.500	5.390
57.750	5.350
58.000	5.290
58.250	5.100
58.500	5.070
58.750	5.010
59.000	4.950
59.250	4.750
59.500	4.730
59.750	4.680
60.000	4.620
60.250	4.550
60.500	4.350
60.750	4.340
61.000	4.280
61.250	4.210
61.500	4.140
61.750	3.970
62.000	3.970
62.250	3.920
62.500	3.870
62.750	3.710
63.000	3.720
63.250	3.680
63.500	3.630
63.750	3.480
64.000	3.490
64.250	3.460
64.500	3.310
64.750	3.330
65.000	3.300
65.250	3.160
65.500	3.180
65.750	3.150
66.000	3.020
66.250	3.040
66.500	3.010
66.750	2.880
67.000	2.910
67.250	2.790
67.500	2.820
67.750	2.800
68.000	2.670
68.250	2.700
68.500	2.580
68.750	2.620
69.000	2.600
69.250	2.470
69.500	2.510
69.750	2.400
70.000	2.440
70.250	2.330
70.500	2.370
70.750	2.260
71.000	2.310
71.250	2.190
71.500	2.240
71.750	2.130
72.000	2.180

Name: 050-year Node: HWY57_N Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000
6.500	0.000
6.750	0.000
7.000	0.000
7.250	0.000
7.500	0.000
7.750	0.000
8.000	0.000
8.250	0.000
8.500	0.000
8.750	0.000
9.000	0.000
9.250	0.000
9.500	0.000
9.750	0.100
10.000	0.320
10.250	0.830
10.500	1.450
10.750	2.080
11.000	2.730
11.250	3.580
11.500	4.800
11.750	7.200
12.000	11.250
12.250	21.060
12.500	40.440
12.750	44.380
13.000	150.040
13.250	185.850
13.500	198.610
13.750	211.970
14.000	227.350
14.250	243.560
14.500	258.720
14.750	272.140
15.000	284.380
15.250	296.220
15.500	307.950
15.750	318.400
16.000	326.790
16.250	332.950
16.500	336.640
16.750	337.850
17.000	337.110
17.250	334.470
17.500	330.000
17.750	324.150
18.000	317.310
18.250	309.960
18.500	302.040
18.750	293.580
19.000	284.740
19.250	275.980
19.500	267.050
19.750	258.190
20.000	249.460
20.250	240.910
20.500	232.550

20.750	224.440
21.000	216.750
21.250	209.350
21.500	202.280
21.750	195.570
22.000	189.110
22.250	182.900
22.500	176.830
22.750	170.920
23.000	165.320
23.250	159.970
23.500	154.850
23.750	149.990
24.000	145.270
24.250	140.590
24.500	135.690
24.750	130.530
25.000	125.380
25.250	120.430
25.500	115.800
25.750	111.360
26.000	107.120
26.250	103.050
26.500	99.210
26.750	95.450
27.000	91.780
27.250	88.360
27.500	85.140
27.750	82.150
28.000	79.240
28.250	76.480
28.500	75.600
28.750	71.740
29.000	69.040
29.250	66.690
29.500	66.900
29.750	63.460
30.000	61.090
30.250	59.160
30.500	57.380
30.750	55.710
31.000	54.160
31.250	52.770
31.500	51.530
31.750	50.530
32.000	50.200
32.250	49.970
32.500	49.680
32.750	49.380
33.000	48.990
33.250	48.540
33.500	48.040
33.750	47.520
34.000	46.920
34.250	46.610
34.500	45.820
34.750	44.790
35.000	43.520
35.250	41.890
35.500	39.730
35.750	37.700
36.000	35.850
36.250	34.180
36.500	32.680
36.750	31.270
37.000	29.880
37.250	28.380
37.500	26.820
37.750	25.290
38.000	23.810
38.250	22.380
38.500	21.100
38.750	19.950
39.000	18.900
39.250	17.970
39.500	17.210
39.750	16.610
40.000	16.110
40.250	15.710
40.500	15.380
40.750	15.060
41.000	14.770
41.250	14.540
41.500	14.260
41.750	14.020
42.000	13.730
42.250	13.500
42.500	13.240

42.750	13.010
43.000	12.830
43.250	12.620
43.500	12.420
43.750	12.240
44.000	12.060
44.250	11.900
44.500	11.740
44.750	11.590
45.000	11.450
45.250	11.260
45.500	11.140
45.750	11.010
46.000	10.880
46.250	10.750
46.500	10.620
46.750	10.490
47.000	10.310
47.250	10.200
47.500	10.080
47.750	9.960
48.000	9.830
48.250	9.710
48.500	9.530
48.750	9.430
49.000	9.310
49.250	9.190
49.500	9.070
49.750	8.950
50.000	8.780
50.250	8.670
50.500	8.560
50.750	8.450
51.000	8.330
51.250	8.210
51.500	8.050
51.750	7.950
52.000	7.840
52.250	7.730
52.500	7.620
52.750	7.510
53.000	7.350
53.250	7.260
53.500	7.160
53.750	7.060
54.000	6.960
54.250	6.850
54.500	6.690
54.750	6.610
55.000	6.520
55.250	6.430
55.500	6.340
55.750	6.180
56.000	6.110
56.250	6.070
56.500	6.000
56.750	5.930
57.000	5.740
57.250	5.700
57.500	5.640
57.750	5.560
58.000	5.370
58.250	5.330
58.500	5.270
58.750	5.200
59.000	5.000
59.250	4.970
59.500	4.920
59.750	4.730
60.000	4.720
60.250	4.670
60.500	4.610
60.750	4.540
61.000	4.340
61.250	4.330
61.500	4.270
61.750	4.200
62.000	4.130
62.250	3.960
62.500	3.960
62.750	3.910
63.000	3.860
63.250	3.700
63.500	3.710
63.750	3.670
64.000	3.620
64.250	3.470
64.500	3.480

64.750	3.450
65.000	3.310
65.250	3.320
65.500	3.290
65.750	3.150
66.000	3.170
66.250	3.140
66.500	3.010
66.750	3.030
67.000	3.010
67.250	2.870
67.500	2.900
67.750	2.870
68.000	2.740
68.250	2.770
68.500	2.660
68.750	2.690
69.000	2.580
69.250	2.620
69.500	2.590
69.750	2.470
70.000	2.510
70.250	2.390
70.500	2.430
70.750	2.320
71.000	2.370
71.250	2.250
71.500	2.300
71.750	2.190
72.000	2.240

Name: 100-year Node: HWY57_N Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000
6.500	0.000
6.750	0.000
7.000	0.000
7.250	0.000
7.500	0.000
7.750	0.000
8.000	0.000
8.250	0.000
8.500	0.000
8.750	0.000
9.000	0.000
9.250	0.000
9.500	0.400
9.750	0.800
10.000	1.400
10.250	2.130
10.500	2.690
10.750	3.550
11.000	4.350
11.250	6.280
11.500	9.080
11.750	12.940
12.000	18.710
12.250	31.120
12.500	45.700
12.750	129.120

13.000	219.550
13.250	240.530
13.500	255.350
13.750	273.620
14.000	293.810
14.250	313.580
14.500	331.950
14.750	351.130
15.000	371.440
15.250	390.420
15.500	406.200
15.750	417.630
16.000	424.760
16.250	428.320
16.500	428.610
16.750	426.060
17.000	421.360
17.250	414.740
17.500	406.190
17.750	396.330
18.000	385.590
18.250	374.450
18.500	363.020
18.750	351.090
19.000	339.040
19.250	327.220
19.500	315.520
19.750	303.980
20.000	292.820
20.250	281.930
20.500	271.350
20.750	261.240
21.000	251.590
21.250	242.400
21.500	233.700
21.750	225.400
22.000	217.530
22.250	209.970
22.500	202.570
22.750	195.480
23.000	188.750
23.250	182.340
23.500	176.260
23.750	170.420
24.000	164.850
24.250	159.240
24.500	153.390
24.750	147.180
25.000	141.020
25.250	135.160
25.500	129.530
25.750	124.230
26.000	119.160
26.250	114.310
26.500	109.700
26.750	105.280
27.000	101.120
27.250	97.130
27.500	93.240
27.750	89.580
28.000	86.160
28.250	83.030
28.500	80.100
28.750	77.160
29.000	75.700
29.250	72.450
29.500	69.570
29.750	67.130
30.000	68.180
30.250	64.140
30.500	61.500
30.750	59.430
31.000	57.600
31.250	55.910
31.500	54.310
31.750	52.890
32.000	51.630
32.250	50.600
32.500	50.210
32.750	49.980
33.000	49.690
33.250	49.370
33.500	49.010
33.750	48.550
34.000	48.050
34.250	47.530
34.500	46.920
34.750	46.600

35.000	45.810
35.250	44.770
35.500	43.480
35.750	41.820
36.000	39.680
36.250	37.590
36.500	35.730
36.750	34.050
37.000	32.570
37.250	31.150
37.500	29.700
37.750	28.160
38.000	26.580
38.250	25.030
38.500	23.520
38.750	22.140
39.000	20.870
39.250	19.740
39.500	18.710
39.750	17.810
40.000	17.080
40.250	16.520
40.500	16.030
40.750	15.640
41.000	15.280
41.250	14.970
41.500	14.740
41.750	14.450
42.000	14.220
42.250	13.930
42.500	13.690
42.750	13.410
43.000	13.170
43.250	12.980
43.500	12.760
43.750	12.550
44.000	12.360
44.250	12.190
44.500	12.020
44.750	11.860
45.000	11.700
45.250	11.550
45.500	11.400
45.750	11.260
46.000	11.120
46.250	10.940
46.500	10.820
46.750	10.700
47.000	10.570
47.250	10.440
47.500	10.310
47.750	10.180
48.000	10.010
48.250	9.900
48.500	9.780
48.750	9.660
49.000	9.540
49.250	9.410
49.500	9.240
49.750	9.130
50.000	9.020
50.250	8.900
50.500	8.780
50.750	8.660
51.000	8.490
51.250	8.390
51.500	8.280
51.750	8.170
52.000	8.050
52.250	7.940
52.500	7.770
52.750	7.680
53.000	7.570
53.250	7.470
53.500	7.360
53.750	7.250
54.000	7.090
54.250	7.000
54.500	6.910
54.750	6.810
55.000	6.710
55.250	6.550
55.500	6.470
55.750	6.390
56.000	6.300
56.250	6.200
56.500	6.050
56.750	6.020

57.000	5.960
57.250	5.890
57.500	5.810
57.750	5.620
58.000	5.580
58.250	5.520
58.500	5.440
58.750	5.240
59.000	5.210
59.250	5.150
59.500	4.960
59.750	4.940
60.000	4.890
60.250	4.820
60.500	4.750
60.750	4.550
61.000	4.540
61.250	4.490
61.500	4.420
61.750	4.330
62.000	4.150
62.250	4.140
62.500	4.090
62.750	4.030
63.000	3.970
63.250	3.810
63.500	3.810
63.750	3.770
64.000	3.620
64.250	3.630
64.500	3.590
64.750	3.540
65.000	3.400
65.250	3.410
65.500	3.380
65.750	3.240
66.000	3.250
66.250	3.220
66.500	3.090
66.750	3.110
67.000	3.080
67.250	2.950
67.500	2.970
67.750	2.850
68.000	2.880
68.250	2.860
68.500	2.730
68.750	2.760
69.000	2.640
69.250	2.680
69.500	2.660
69.750	2.530
70.000	2.570
70.250	2.450
70.500	2.490
70.750	2.380
71.000	2.420
71.250	2.310
71.500	2.350
71.750	2.340
72.000	2.210
72.000	2.210

Name: 010-year Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000

5.000	0.020
5.250	0.050
5.500	0.110
5.750	0.190
6.000	0.290
6.250	0.390
6.500	0.480
6.750	0.560
7.000	0.650
7.250	0.760
7.500	0.870
7.750	1.010
8.000	1.190
8.250	1.440
8.500	1.760
8.750	2.170
9.000	2.750
9.250	3.420
9.500	4.230
9.750	5.220
10.000	6.420
10.250	7.860
10.500	9.600
10.750	11.680
11.000	14.100
11.250	16.970
11.500	20.480
11.750	24.600
12.000	31.190
12.250	46.190
12.500	59.170
12.750	73.390
13.000	105.000
13.250	139.410
13.500	149.970
13.750	147.060
14.000	137.530
14.250	126.530
14.500	125.600
14.750	120.230
15.000	119.890
15.250	122.560
15.500	122.770
15.750	118.610
16.000	113.410
16.250	108.140
16.500	103.090
16.750	99.680
17.000	97.580
17.250	95.870
17.500	94.560
17.750	93.950
18.000	92.170
18.250	90.340
18.500	87.550
18.750	83.970
19.000	81.030
19.250	77.920
19.500	74.400
19.750	71.790
20.000	68.500
20.250	65.670
20.500	63.030
20.750	60.230
21.000	58.390
21.250	56.440
21.500	54.380
21.750	53.090
22.000	52.070
22.250	50.770
22.500	49.710
22.750	48.900
23.000	47.980
23.250	47.010
23.500	46.190
23.750	45.430
24.000	45.110
24.250	44.640
24.500	44.090
24.750	43.410
25.000	42.510
25.250	41.840
25.500	40.950
25.750	40.250
26.000	39.570
26.250	39.050
26.500	38.600
26.750	38.130

27.000	37.770
27.250	37.390
27.500	37.160
27.750	36.840
28.000	36.610
28.250	36.480
28.500	36.310
28.750	36.090
29.000	35.960
29.250	35.810
29.500	35.690
29.750	35.570
30.000	35.450
30.250	35.300
30.500	35.240
30.750	35.080
31.000	35.030
31.250	34.920
31.500	34.750
31.750	34.690
32.000	34.580
32.250	34.480
32.500	34.460
32.750	34.260
33.000	34.130
33.250	33.970
33.500	33.890
33.750	33.780
34.000	33.660
34.250	33.500
34.500	33.420
34.750	33.250
35.000	33.160
35.250	33.030
35.500	32.940
35.750	32.810
36.000	32.660
36.250	32.560
36.500	32.420
36.750	32.310
37.000	32.160
37.250	32.050
37.500	31.910
37.750	31.790
38.000	31.640
38.250	31.540
38.500	31.390
38.750	31.230
39.000	31.100
39.250	30.930
39.500	30.800
39.750	30.640
40.000	30.460
40.250	30.270
40.500	30.110
40.750	29.920
41.000	29.730
41.250	29.520
41.500	29.300
41.750	29.120
42.000	28.920
42.250	28.720
42.500	28.530
42.750	28.330
43.000	28.130
43.250	27.970
43.500	27.790
43.750	27.620
44.000	27.430
44.250	27.250
44.500	27.100
44.750	26.930
45.000	26.760
45.250	26.620
45.500	26.460
45.750	26.290
46.000	26.160
46.250	26.000
46.500	25.840
46.750	25.720
47.000	25.570
47.250	25.420
47.500	25.290
47.750	25.150
48.000	25.000
48.250	24.880
48.500	24.740
48.750	24.610

49.000	24.480
49.250	24.370
49.500	24.230
49.750	24.100
50.000	23.980
50.250	23.850
50.500	23.730
50.750	23.610
51.000	23.490
51.250	23.370
51.500	23.250
51.750	23.130
52.000	23.010
52.250	22.890
52.500	22.790
52.750	22.660
53.000	22.530
53.250	22.400
53.500	22.260
53.750	22.130
54.000	21.980
54.250	21.820
54.500	21.680
54.750	21.510
55.000	21.330
55.250	21.140
55.500	20.960
55.750	20.760
56.000	20.550
56.250	20.330
56.500	20.110
56.750	19.880
57.000	19.640
57.250	19.400
57.500	19.160
57.750	18.920
58.000	18.680
58.250	18.420
58.500	18.180
58.750	17.930
59.000	17.700
59.250	17.460
59.500	17.230
59.750	17.010
60.000	16.790
60.250	16.580
60.500	16.380
60.750	16.180
61.000	15.990
61.250	15.810
61.500	15.640
61.750	15.480
62.000	15.320
62.250	15.170
62.500	15.030
62.750	14.900
63.000	14.770
63.250	14.650
63.500	14.530
63.750	14.420
64.000	14.310
64.250	14.210
64.500	14.110
64.750	14.010
65.000	13.930
65.250	13.850
65.500	13.760
65.750	13.670
66.000	13.590
66.250	13.500
66.500	13.430
66.750	13.350
67.000	13.280
67.250	13.210
67.500	13.140
67.750	13.070
68.000	13.010
68.250	12.950
68.500	12.890
68.750	12.830
69.000	12.770
69.250	12.710
69.500	12.660
69.750	12.610
70.000	12.560
70.250	12.500
70.500	12.450
70.750	12.400

71.000	12.350
71.250	12.300
71.500	12.260
71.750	12.210
72.000	12.160

Name: 025-year Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.010
4.750	0.040
5.000	0.100
5.250	0.190
5.500	0.290
5.750	0.400
6.000	0.490
6.250	0.590
6.500	0.690
6.750	0.810
7.000	0.940
7.250	1.080
7.500	1.240
7.750	1.430
8.000	1.700
8.250	2.100
8.500	2.680
8.750	3.360
9.000	4.190
9.250	5.210
9.500	6.460
9.750	7.970
10.000	9.670
10.250	11.660
10.500	13.860
10.750	16.370
11.000	19.330
11.250	22.690
11.500	26.350
11.750	31.180
12.000	39.640
12.250	54.520
12.500	59.330
12.750	76.400
13.000	125.990
13.250	166.820
13.500	178.100
13.750	173.050
14.000	172.050
14.250	157.510
14.500	172.330
14.750	184.930
15.000	181.600
15.250	175.190
15.500	165.740
15.750	156.970
16.000	148.520
16.250	141.290
16.500	137.720
16.750	134.940
17.000	132.060
17.250	129.440
17.500	125.310
17.750	120.810
18.000	115.390
18.250	110.110
18.500	104.950
18.750	99.750
19.000	95.610

19.250	90.360
19.500	85.390
19.750	82.310
20.000	78.190
20.250	75.020
20.500	72.480
20.750	69.140
21.000	67.350
21.250	64.790
21.500	63.330
21.750	61.630
22.000	59.440
22.250	58.280
22.500	56.740
22.750	55.190
23.000	53.480
23.250	52.250
23.500	51.190
23.750	50.320
24.000	49.290
24.250	48.670
24.500	48.050
24.750	46.570
25.000	45.830
25.250	44.680
25.500	43.230
25.750	42.050
26.000	41.270
26.250	40.440
26.500	39.990
26.750	39.550
27.000	39.060
27.250	38.700
27.500	38.390
27.750	38.030
28.000	37.760
28.250	37.460
28.500	37.260
28.750	37.170
29.000	36.960
29.250	36.830
29.500	36.780
29.750	36.530
30.000	36.490
30.250	36.390
30.500	36.280
30.750	36.170
31.000	36.000
31.250	35.960
31.500	35.790
31.750	35.750
32.000	35.640
32.250	35.490
32.500	35.430
32.750	35.330
33.000	35.230
33.250	35.180
33.500	35.070
33.750	34.910
34.000	34.750
34.250	34.680
34.500	34.570
34.750	34.430
35.000	34.350
35.250	34.240
35.500	34.090
35.750	34.020
36.000	33.860
36.250	33.790
36.500	33.630
36.750	33.560
37.000	33.400
37.250	33.330
37.500	33.170
37.750	33.090
38.000	32.930
38.250	32.850
38.500	32.690
38.750	32.600
39.000	32.430
39.250	32.340
39.500	32.200
39.750	32.020
40.000	31.910
40.250	31.720
40.500	31.600
40.750	31.440
41.000	31.270

41.250	31.040
41.500	30.900
41.750	30.710
42.000	30.520
42.250	30.280
42.500	30.130
42.750	29.940
43.000	29.760
43.250	29.580
43.500	29.360
43.750	29.220
44.000	29.060
44.250	28.890
44.500	28.690
44.750	28.560
45.000	28.410
45.250	28.220
45.500	28.100
45.750	27.950
46.000	27.770
46.250	27.660
46.500	27.520
46.750	27.350
47.000	27.240
47.250	27.070
47.500	26.970
47.750	26.810
48.000	26.710
48.250	26.580
48.500	26.430
48.750	26.330
49.000	26.180
49.250	26.090
49.500	25.940
49.750	25.850
50.000	25.710
50.250	25.620
50.500	25.480
50.750	25.390
51.000	25.260
51.250	25.170
51.500	25.040
51.750	24.950
52.000	24.820
52.250	24.730
52.500	24.600
52.750	24.520
53.000	24.390
53.250	24.310
53.500	24.170
53.750	24.090
54.000	23.950
54.250	23.850
54.500	23.700
54.750	23.590
55.000	23.430
55.250	23.310
55.500	23.160
55.750	22.970
56.000	22.820
56.250	22.640
56.500	22.460
56.750	22.260
57.000	22.060
57.250	21.850
57.500	21.630
57.750	21.410
58.000	21.190
58.250	20.960
58.500	20.730
58.750	20.500
59.000	20.270
59.250	20.040
59.500	19.810
59.750	19.590
60.000	19.370
60.250	19.150
60.500	18.940
60.750	18.740
61.000	18.550
61.250	18.340
61.500	18.180
61.750	18.000
62.000	17.840
62.250	17.670
62.500	17.530
62.750	17.390
63.000	17.240

63.250	17.120
63.500	16.990
63.750	16.890
64.000	16.770
64.250	16.680
64.500	16.570
64.750	16.490
65.000	16.390
65.250	16.320
65.500	16.230
65.750	16.150
66.000	16.090
66.250	16.010
66.500	15.950
66.750	15.880
67.000	15.830
67.250	15.770
67.500	15.710
67.750	15.660
68.000	15.610
68.250	15.550
68.500	15.500
68.750	15.460
69.000	15.420
69.250	15.370
69.500	15.320
69.750	15.280
70.000	15.240
70.250	15.210
70.500	15.160
70.750	15.120
71.000	15.080
71.250	15.040
71.500	15.010
71.750	14.980
72.000	14.930

Name: 050-year Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.020
4.500	0.070
4.750	0.160
5.000	0.280
5.250	0.410
5.500	0.510
5.750	0.610
6.000	0.720
6.250	0.850
6.500	0.990
6.750	1.150
7.000	1.320
7.250	1.520
7.500	1.760
7.750	2.110
8.000	2.580
8.250	3.210
8.500	4.060
8.750	5.110
9.000	6.370
9.250	7.880
9.500	9.670
9.750	11.690
10.000	13.860
10.250	16.240
10.500	18.920
10.750	21.850
11.000	24.990
11.250	28.600

11.500	33.180
11.750	39.010
12.000	48.030
12.250	62.640
12.500	67.580
12.750	78.750
13.000	146.320
13.250	193.550
13.500	213.410
13.750	196.430
14.000	99.760
14.250	199.480
14.500	244.850
14.750	250.700
15.000	255.330
15.250	239.610
15.500	247.380
15.750	228.210
16.000	211.710
16.250	193.700
16.500	184.320
16.750	174.250
17.000	166.120
17.250	158.380
17.500	150.850
17.750	141.990
18.000	135.980
18.250	128.380
18.500	122.900
18.750	115.590
19.000	108.410
19.250	103.850
19.500	98.080
19.750	92.550
20.000	88.360
20.250	84.550
20.500	80.140
20.750	77.650
21.000	74.770
21.250	72.880
21.500	70.490
21.750	67.410
22.000	64.830
22.250	63.840
22.500	62.570
22.750	61.160
23.000	59.780
23.250	59.060
23.500	57.370
23.750	56.560
24.000	55.450
24.250	53.750
24.500	52.420
24.750	50.760
25.000	49.050
25.250	46.900
25.500	45.460
25.750	44.570
26.000	43.480
26.250	43.130
26.500	42.040
26.750	41.140
27.000	40.360
27.250	39.890
27.500	39.520
27.750	39.190
28.000	38.820
28.250	38.470
28.500	38.330
28.750	38.070
29.000	37.820
29.250	37.680
29.500	37.550
29.750	37.440
30.000	37.340
30.250	37.290
30.500	37.120
30.750	37.000
31.000	36.830
31.250	36.790
31.500	36.690
31.750	36.530
32.000	36.480
32.250	36.380
32.500	36.220
32.750	36.170
33.000	36.020
33.250	35.970

33.500	35.870
33.750	35.770
34.000	35.660
34.250	35.680
34.500	35.470
34.750	35.350
35.000	35.190
35.250	35.130
35.500	35.010
35.750	34.880
36.000	34.790
36.250	34.650
36.500	34.580
36.750	34.430
37.000	34.360
37.250	34.210
37.500	34.130
37.750	33.980
38.000	33.900
38.250	33.750
38.500	33.670
38.750	33.510
39.000	33.430
39.250	33.270
39.500	33.180
39.750	33.010
40.000	32.920
40.250	32.770
40.500	32.590
40.750	32.480
41.000	32.290
41.250	32.160
41.500	31.990
41.750	31.810
42.000	31.590
42.250	31.440
42.500	31.250
42.750	31.060
43.000	30.870
43.250	30.650
43.500	30.510
43.750	30.330
44.000	30.160
44.250	29.960
44.500	29.820
44.750	29.660
45.000	29.470
45.250	29.350
45.500	29.190
45.750	29.010
46.000	28.900
46.250	28.750
46.500	28.580
46.750	28.470
47.000	28.310
47.250	28.200
47.500	28.070
47.750	27.910
48.000	27.810
48.250	27.660
48.500	27.560
48.750	27.410
49.000	27.310
49.250	27.170
49.500	27.080
49.750	26.940
50.000	26.850
50.250	26.710
50.500	26.630
50.750	26.490
51.000	26.410
51.250	26.280
51.500	26.190
51.750	26.070
52.000	25.980
52.250	25.860
52.500	25.750
52.750	25.670
53.000	25.550
53.250	25.470
53.500	25.350
53.750	25.270
54.000	25.150
54.250	25.070
54.500	24.940
54.750	24.850
55.000	24.720
55.250	24.610

55.500	24.470
55.750	24.350
56.000	24.190
56.250	24.060
56.500	23.900
56.750	23.730
57.000	23.530
57.250	23.360
57.500	23.170
57.750	22.980
58.000	22.770
58.250	22.560
58.500	22.350
58.750	22.130
59.000	21.910
59.250	21.690
59.500	21.470
59.750	21.250
60.000	21.040
60.250	20.820
60.500	20.620
60.750	20.410
61.000	20.200
61.250	20.020
61.500	19.830
61.750	19.660
62.000	19.480
62.250	19.310
62.500	19.160
62.750	19.010
63.000	18.860
63.250	18.740
63.500	18.610
63.750	18.480
64.000	18.380
64.250	18.270
64.500	18.170
64.750	18.090
65.000	17.990
65.250	17.920
65.500	17.830
65.750	17.760
66.000	17.700
66.250	17.620
66.500	17.560
66.750	17.510
67.000	17.460
67.250	17.400
67.500	17.350
67.750	17.300
68.000	17.260
68.250	17.230
68.500	17.180
68.750	17.140
69.000	17.100
69.250	17.070
69.500	17.030
69.750	17.010
70.000	16.970
70.250	16.940
70.500	16.910
70.750	16.880
71.000	16.850
71.250	16.830
71.500	16.810
71.750	16.780
72.000	16.750

Name: 100-year Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000

3.750	0.010
4.000	0.040
4.250	0.110
4.500	0.230
4.750	0.370
5.000	0.500
5.250	0.620
5.500	0.730
5.750	0.870
6.000	1.020
6.250	1.190
6.500	1.390
6.750	1.610
7.000	1.870
7.250	2.240
7.500	2.660
7.750	3.170
8.000	3.870
8.250	4.850
8.500	6.130
8.750	7.670
9.000	9.450
9.250	11.500
9.500	13.740
9.750	16.140
10.000	18.740
10.250	21.570
10.500	24.340
10.750	27.470
11.000	31.150
11.250	35.830
11.500	41.160
11.750	47.120
12.000	56.990
12.250	67.630
12.500	68.280
12.750	83.130
13.000	158.050
13.250	142.110
13.500	186.310
13.750	216.730
14.000	286.700
14.250	317.440
14.500	328.090
14.750	322.610
15.000	305.720
15.250	290.240
15.500	274.070
15.750	261.520
16.000	247.420
16.250	236.180
16.500	239.790
16.750	224.460
17.000	229.880
17.250	217.600
17.500	187.940
17.750	176.400
18.000	168.310
18.250	159.850
18.500	151.360
18.750	145.000
19.000	136.970
19.250	129.180
19.500	121.850
19.750	114.950
20.000	109.510
20.250	103.640
20.500	98.990
20.750	95.700
21.000	90.180
21.250	87.420
21.500	84.320
21.750	80.670
22.000	79.060
22.250	77.040
22.500	75.740
22.750	73.200
23.000	71.840
23.250	69.510
23.500	67.980
23.750	66.790
24.000	66.280
24.250	65.030
24.500	63.350
24.750	61.610
25.000	59.070
25.250	56.040
25.500	53.500

25.750	51.910
26.000	49.650
26.250	48.030
26.500	47.100
26.750	46.320
27.000	45.450
27.250	44.890
27.500	43.440
27.750	42.630
28.000	42.070
28.250	41.580
28.500	41.030
28.750	40.550
29.000	40.210
29.250	39.850
29.500	39.660
29.750	39.340
30.000	39.030
30.250	38.810
30.500	38.620
30.750	38.510
31.000	38.280
31.250	38.180
31.500	37.960
31.750	37.790
32.000	37.580
32.250	37.500
32.500	37.370
32.750	37.220
33.000	37.030
33.250	36.960
33.500	36.830
33.750	36.640
34.000	36.570
34.250	36.450
34.500	36.340
34.750	36.270
35.000	36.150
35.250	35.970
35.500	35.840
35.750	35.710
36.000	35.590
36.250	35.420
36.500	35.330
36.750	35.210
37.000	35.040
37.250	34.960
37.500	34.790
37.750	34.710
38.000	34.540
38.250	34.460
38.500	34.330
38.750	34.170
39.000	34.070
39.250	33.900
39.500	33.810
39.750	33.640
40.000	33.540
40.250	33.390
40.500	33.210
40.750	33.090
41.000	32.900
41.250	32.780
41.500	32.610
41.750	32.430
42.000	32.220
42.250	32.060
42.500	31.870
42.750	31.680
43.000	31.470
43.250	31.240
43.500	31.080
43.750	30.890
44.000	30.710
44.250	30.520
44.500	30.310
44.750	30.170
45.000	30.000
45.250	29.830
45.500	29.630
45.750	29.500
46.000	29.340
46.250	29.160
46.500	29.040
46.750	28.890
47.000	28.720
47.250	28.600
47.500	28.430

47.750	28.330
48.000	28.200
48.250	28.040
48.500	27.940
48.750	27.790
49.000	27.700
49.250	27.550
49.500	27.460
49.750	27.320
50.000	27.230
50.250	27.100
50.500	27.010
50.750	26.880
51.000	26.790
51.250	26.660
51.500	26.550
51.750	26.470
52.000	26.350
52.250	26.270
52.500	26.150
52.750	26.070
53.000	25.950
53.250	25.870
53.500	25.740
53.750	25.650
54.000	25.570
54.250	25.460
54.500	25.380
54.750	25.260
55.000	25.170
55.250	25.050
55.500	24.950
55.750	24.810
56.000	24.710
56.250	24.560
56.500	24.440
56.750	24.280
57.000	24.100
57.250	23.960
57.500	23.780
57.750	23.600
58.000	23.410
58.250	23.220
58.500	23.010
58.750	22.790
59.000	22.590
59.250	22.380
59.500	22.170
59.750	21.950
60.000	21.740
60.250	21.520
60.500	21.310
60.750	21.100
61.000	20.900
61.250	20.700
61.500	20.500
61.750	20.310
62.000	20.120
62.250	19.960
62.500	19.790
62.750	19.630
63.000	19.470
63.250	19.340
63.500	19.190
63.750	19.070
64.000	18.940
64.250	18.840
64.500	18.720
64.750	18.630
65.000	18.520
65.250	18.450
65.500	18.350
65.750	18.280
66.000	18.210
66.250	18.130
66.500	18.070
66.750	18.020
67.000	17.950
67.250	17.900
67.500	17.850
67.750	17.800
68.000	17.770
68.250	17.720
68.500	17.680
68.750	17.640
69.000	17.600
69.250	17.570
69.500	17.550

69.750	17.500
70.000	17.470
70.250	17.450
70.500	17.420
70.750	17.390
71.000	17.370
71.250	17.340
71.500	17.330
71.750	17.300
72.000	17.270

Name: 002-year Node: HWY57_N Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000
6.500	0.000
6.750	0.000
7.000	0.000
7.250	0.000
7.500	0.000
7.750	0.000
8.000	0.000
8.250	0.000
8.500	0.000
8.750	0.000
9.000	0.000
9.250	0.000
9.500	0.000
9.750	0.000
10.000	0.000
10.250	0.000
10.500	0.000
10.750	0.000
11.000	0.000
11.250	0.000
11.500	0.000
11.750	0.000
12.000	0.000
12.250	0.000
12.500	3.660
12.750	12.620
13.000	19.520
13.250	25.020
13.500	30.220
13.750	35.600
14.000	39.550
14.250	42.060
14.500	43.660
14.750	45.040
15.000	46.380
15.250	47.670
15.500	48.910
15.750	50.060
16.000	54.110
16.250	66.050
16.500	73.080
16.750	76.490
17.000	78.080
17.250	78.310
17.500	80.260
17.750	80.470

18.000	81.100
18.250	81.230
18.500	81.270
18.750	80.950
19.000	80.580
19.250	79.850
19.500	79.410
19.750	78.510
20.000	77.610
20.250	76.620
20.500	75.510
20.750	74.470
21.000	73.420
21.250	72.390
21.500	71.410
21.750	70.410
22.000	69.420
22.250	68.440
22.500	67.450
22.750	71.150
23.000	66.930
23.250	65.140
23.500	63.810
23.750	62.740
24.000	61.750
24.250	60.730
24.500	59.660
24.750	58.460
25.000	57.140
25.250	55.880
25.500	54.620
25.750	53.440
26.000	52.320
26.250	51.270
26.500	50.450
26.750	50.190
27.000	49.970
27.250	49.730
27.500	49.420
27.750	49.050
28.000	48.620
28.250	48.140
28.500	47.650
28.750	47.070
29.000	46.760
29.250	46.030
29.500	45.010
29.750	43.800
30.000	42.260
30.250	40.250
30.500	38.150
30.750	36.260
31.000	34.550
31.250	33.020
31.500	31.650
31.750	30.230
32.000	28.760
32.250	27.200
32.500	25.660
32.750	24.130
33.000	22.710
33.250	21.390
33.500	20.190
33.750	19.110
34.000	18.180
34.250	17.370
34.500	16.710
34.750	16.200
35.000	15.780
35.250	15.430
35.500	15.100
35.750	14.810
36.000	14.570
36.250	14.280
36.500	14.040
36.750	13.750
37.000	13.520
37.250	13.250
37.500	13.010
37.750	12.840
38.000	12.620
38.250	12.420
38.500	12.230
38.750	12.060
39.000	11.890
39.250	11.730
39.500	11.580
39.750	11.430

40.000	11.280
40.250	11.140
40.500	10.960
40.750	10.840
41.000	10.710
41.250	10.580
41.500	10.450
41.750	10.320
42.000	10.190
42.250	10.010
42.500	9.900
42.750	9.780
43.000	9.660
43.250	9.530
43.500	9.410
43.750	9.230
44.000	9.120
44.250	9.010
44.500	8.890
44.750	8.770
45.000	8.650
45.250	8.530
45.500	8.360
45.750	8.250
46.000	8.150
46.250	8.030
46.500	7.920
46.750	7.800
47.000	7.640
47.250	7.540
47.500	7.440
47.750	7.340
48.000	7.230
48.250	7.120
48.500	6.960
48.750	6.870
49.000	6.780
49.250	6.680
49.500	6.590
49.750	6.430
50.000	6.350
50.250	6.270
50.500	6.180
50.750	6.120
51.000	5.950
51.250	5.910
51.500	5.850
51.750	5.780
52.000	5.700
52.250	5.500
52.500	5.460
52.750	5.400
53.000	5.320
53.250	5.130
53.500	5.100
53.750	5.040
54.000	4.850
54.250	4.830
54.500	4.780
54.750	4.720
55.000	4.640
55.250	4.440
55.500	4.440
55.750	4.380
56.000	4.310
56.250	4.230
56.500	4.050
56.750	4.050
57.000	4.000
57.250	3.940
57.500	3.790
57.750	3.790
58.000	3.750
58.250	3.690
58.500	3.540
58.750	3.550
59.000	3.520
59.250	3.470
59.500	3.320
59.750	3.340
60.000	3.310
60.250	3.170
60.500	3.190
60.750	3.160
61.000	3.020
61.250	3.050
61.500	2.920
61.750	2.950

62.000	2.930
62.250	2.800
62.500	2.830
62.750	2.800
63.000	2.670
63.250	2.700
63.500	2.590
63.750	2.620
64.000	2.510
64.250	2.550
64.500	2.530
64.750	2.400
65.000	2.440
65.250	2.330
65.500	2.370
65.750	2.260
66.000	2.310
66.250	2.200
66.500	2.240
66.750	2.130
67.000	2.180
67.250	2.070
67.500	2.120
67.750	2.010
68.000	2.070
68.250	1.960
68.500	2.010
68.750	1.900
69.000	1.960
69.250	1.850
69.500	1.810
69.750	1.880
70.000	1.770
70.250	1.830
70.500	1.730
70.750	1.690
71.000	1.760
71.250	1.660
71.500	1.720
71.750	1.610
72.000	1.580

Name: 002-year Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000
6.500	0.010
6.750	0.030
7.000	0.070
7.250	0.120
7.500	0.190
7.750	0.270
8.000	0.360
8.250	0.460
8.500	0.580
8.750	0.710
9.000	0.850
9.250	1.020
9.500	1.210
9.750	1.440
10.000	1.710

10.250	2.040
10.500	2.560
10.750	3.170
11.000	3.980
11.250	5.070
11.500	6.570
11.750	8.710
12.000	12.560
12.250	21.750
12.500	37.960
12.750	50.460
13.000	62.570
13.250	76.230
13.500	82.580
13.750	81.640
14.000	78.300
14.250	74.590
14.500	70.810
14.750	67.540
15.000	64.660
15.250	62.180
15.500	59.790
15.750	57.450
16.000	55.110
16.250	53.280
16.500	51.170
16.750	49.590
17.000	47.880
17.250	46.340
17.500	44.920
17.750	43.530
18.000	42.360
18.250	41.480
18.500	40.640
18.750	39.780
19.000	39.070
19.250	38.340
19.500	37.840
19.750	37.420
20.000	36.980
20.250	36.700
20.500	36.290
20.750	35.970
21.000	35.770
21.250	35.460
21.500	35.250
21.750	35.010
22.000	34.920
22.250	34.780
22.500	34.600
22.750	34.400
23.000	34.270
23.250	34.100
23.500	33.880
23.750	33.670
24.000	33.570
24.250	33.380
24.500	33.110
24.750	32.610
25.000	32.030
25.250	31.510
25.500	30.970
25.750	30.440
26.000	30.000
26.250	29.660
26.500	29.260
26.750	28.920
27.000	28.600
27.250	28.340
27.500	28.030
27.750	27.770
28.000	27.500
28.250	27.280
28.500	27.090
28.750	26.850
29.000	26.650
29.250	26.440
29.500	26.240
29.750	26.040
30.000	25.830
30.250	25.620
30.500	25.400
30.750	25.180
31.000	24.960
31.250	24.740
31.500	24.510
31.750	24.290
32.000	24.070

32.250	23.860
32.500	23.650
32.750	23.430
33.000	23.220
33.250	23.040
33.500	22.840
33.750	22.650
34.000	22.470
34.250	22.280
34.500	22.100
34.750	21.910
35.000	21.750
35.250	21.580
35.500	21.410
35.750	21.230
36.000	21.080
36.250	20.920
36.500	20.750
36.750	20.610
37.000	20.450
37.250	20.290
37.500	20.160
37.750	20.010
38.000	19.850
38.250	19.730
38.500	19.580
38.750	19.440
39.000	19.310
39.250	19.180
39.500	19.030
39.750	18.910
40.000	18.770
40.250	18.650
40.500	18.510
40.750	18.400
41.000	18.270
41.250	18.140
41.500	18.020
41.750	17.880
42.000	17.760
42.250	17.620
42.500	17.460
42.750	17.330
43.000	17.170
43.250	17.000
43.500	16.850
43.750	16.680
44.000	16.500
44.250	16.320
44.500	16.130
44.750	15.930
45.000	15.730
45.250	15.510
45.500	15.290
45.750	15.090
46.000	14.890
46.250	14.660
46.500	14.430
46.750	14.190
47.000	13.950
47.250	13.700
47.500	13.440
47.750	13.180
48.000	12.910
48.250	12.650
48.500	12.380
48.750	12.120
49.000	11.870
49.250	11.620
49.500	11.380
49.750	11.150
50.000	10.930
50.250	10.720
50.500	10.530
50.750	10.350
51.000	10.180
51.250	10.030
51.500	9.880
51.750	9.740
52.000	9.610
52.250	9.490
52.500	9.380
52.750	9.270
53.000	9.170
53.250	9.070
53.500	8.980
53.750	8.890
54.000	8.810

54.250	8.730
54.500	8.650
54.750	8.580
55.000	8.510
55.250	8.440
55.500	8.380
55.750	8.320
56.000	8.260
56.250	8.200
56.500	8.150
56.750	8.090
57.000	8.040
57.250	7.980
57.500	7.930
57.750	7.890
58.000	7.840
58.250	7.790
58.500	7.750
58.750	7.700
59.000	7.660
59.250	7.620
59.500	7.570
59.750	7.530
60.000	7.490
60.250	7.450
60.500	7.410
60.750	7.380
61.000	7.340
61.250	7.300
61.500	7.270
61.750	7.230
62.000	7.190
62.250	7.160
62.500	7.130
62.750	7.090
63.000	7.060
63.250	7.030
63.500	6.990
63.750	6.960
64.000	6.930
64.250	6.900
64.500	6.870
64.750	6.840
65.000	6.810
65.250	6.780
65.500	6.750
65.750	6.720
66.000	6.690
66.250	6.660
66.500	6.630
66.750	6.600
67.000	6.570
67.250	6.550
67.500	6.520
67.750	6.490
68.000	6.460
68.250	6.430
68.500	6.410
68.750	6.380
69.000	6.350
69.250	6.330
69.500	6.300
69.750	6.270
70.000	6.250
70.250	6.220
70.500	6.190
70.750	6.170
71.000	6.140
71.250	6.120
71.500	6.090
71.750	6.070
72.000	6.040

Name: OCT-2016 Node: HWY57_N Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000

2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	1.670
6.250	4.780
6.500	8.070
6.750	10.650
7.000	12.380
7.250	13.760
7.500	14.920
7.750	15.750
8.000	16.370
8.250	16.700
8.500	16.900
8.750	16.960
9.000	16.890
9.250	16.790
9.500	16.650
9.750	16.520
10.000	16.380
10.250	16.260
10.500	16.190
10.750	16.220
11.000	16.310
11.250	16.370
11.500	16.450
11.750	16.470
12.000	16.420
12.250	16.320
12.500	16.200
12.750	16.020
13.000	15.820
13.250	15.620
13.500	15.440
13.750	15.290
14.000	15.140
14.250	14.990
14.500	14.840
14.750	14.640
15.000	14.490
15.250	14.320
15.500	14.130
15.750	13.960
16.000	13.720
16.250	13.490
16.500	13.270
16.750	13.110
17.000	12.900
17.250	12.710
17.500	12.530
17.750	12.370
18.000	12.210
18.250	12.040
18.500	12.010
18.750	12.240
19.000	12.800
19.250	13.550
19.500	14.330
19.750	14.930
20.000	15.170
20.250	15.240
20.500	15.190
20.750	15.160
21.000	15.270
21.250	15.540
21.500	15.880
21.750	16.210
22.000	16.400
22.250	16.600
22.500	16.720
22.750	17.010
23.000	17.660
23.250	18.640
23.500	19.800
23.750	20.900
24.000	22.120
24.250	23.490

24.500	25.090
24.750	26.790
25.000	28.580
25.250	30.360
25.500	31.960
25.750	33.420
26.000	34.760
26.250	36.000
26.500	37.150
26.750	38.390
27.000	40.540
27.250	42.820
27.500	44.980
27.750	46.950
28.000	48.600
28.250	50.070
28.500	62.230
28.750	74.090
29.000	80.770
29.250	84.280
29.500	90.180
29.750	96.380
30.000	110.360
30.250	137.130
30.500	164.130
30.750	176.420
31.000	182.790
31.250	190.690
31.500	199.450
31.750	205.660
32.000	210.980
32.250	216.880
32.500	222.110
32.750	225.830
33.000	229.090
33.250	231.720
33.500	232.540
33.750	231.160
34.000	228.180
34.250	224.200
34.500	219.260
34.750	213.590
35.000	207.540
35.250	201.440
35.500	199.170
35.750	208.360
36.000	229.660
36.250	253.740
36.500	272.640
36.750	286.110
37.000	301.070
37.250	316.760
37.500	326.800
37.750	328.910
38.000	329.140
38.250	330.040
38.500	332.660
38.750	337.880
39.000	344.490
39.250	350.880
39.500	353.080
39.750	350.400
40.000	347.000
40.250	343.010
40.500	336.530
40.750	326.890
41.000	316.360
41.250	305.740
41.500	295.000
41.750	284.080
42.000	272.930
42.250	261.600
42.500	250.100
42.750	238.580
43.000	227.210
43.250	216.020
43.500	205.180
43.750	194.780
44.000	184.830
44.250	175.350
44.500	166.370
44.750	157.880
45.000	149.940
45.250	142.470
45.500	135.530
45.750	129.070
46.000	122.980
46.250	117.340

46.500	112.080
46.750	107.200
47.000	102.600
47.250	98.300
47.500	94.220
47.750	90.380
48.000	86.770
48.250	83.400
48.500	80.340
48.750	77.120
49.000	75.410
49.250	71.840
49.500	68.690
49.750	66.020
50.000	66.010
50.250	62.410
50.500	59.890
50.750	57.800
51.000	55.900
51.250	54.160
51.500	52.640
51.750	51.320
52.000	50.350
52.250	50.120
52.500	49.850
52.750	49.540
53.000	49.170
53.250	48.750
53.500	48.230
53.750	47.680
54.000	47.080
54.250	46.620
54.500	46.020
54.750	45.000
55.000	43.730
55.250	42.100
55.500	39.890
55.750	37.710
56.000	35.770
56.250	34.000
56.500	32.400
56.750	30.920
57.000	29.340
57.250	27.710
57.500	26.100
57.750	24.530
58.000	23.030
58.250	21.610
58.500	20.380
58.750	19.290
59.000	18.320
59.250	17.470
59.500	16.770
59.750	16.290
60.000	15.840
60.250	15.440
60.500	15.150
60.750	14.840
61.000	14.600
61.250	14.310
61.500	14.030
61.750	13.790
62.000	13.510
62.250	13.300
62.500	13.050
62.750	12.820
63.000	12.660
63.250	12.450
63.500	12.260
63.750	12.080
64.000	11.920
64.250	11.760
64.500	11.600
64.750	11.450
65.000	11.260
65.250	11.140
65.500	11.010
65.750	10.880
66.000	10.750
66.250	10.620
66.500	10.480
66.750	10.310
67.000	10.190
67.250	10.070
67.500	9.950
67.750	9.830
68.000	9.700
68.250	9.530

68.500	9.420
68.750	9.300
69.000	9.180
69.250	9.060
69.500	8.940
69.750	8.820
70.000	8.640
70.250	8.540
70.500	8.430
70.750	8.320
71.000	8.200
71.250	8.080
71.500	7.910
71.750	7.820
72.000	7.710

Name: OCT-2016 Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.050
4.500	0.470
4.750	1.270
5.000	2.330
5.250	4.390
5.500	9.710
5.750	17.900
6.000	27.960
6.250	37.480
6.500	44.280
6.750	48.510
7.000	49.340
7.250	47.530
7.500	44.310
7.750	40.840
8.000	37.620
8.250	35.030
8.500	32.730
8.750	30.570
9.000	28.560
9.250	26.770
9.500	25.160
9.750	23.730
10.000	22.450
10.250	21.360
10.500	20.400
10.750	19.570
11.000	18.900
11.250	18.350
11.500	17.870
11.750	17.440
12.000	17.040
12.250	16.660
12.500	16.320
12.750	16.000
13.000	15.720
13.250	15.480
13.500	15.290
13.750	15.120
14.000	14.960
14.250	14.800
14.500	14.620
14.750	14.440
15.000	14.260
15.250	14.080
15.500	13.910
15.750	13.720
16.000	13.540
16.250	13.340
16.500	13.140

16.750	12.930
17.000	12.700
17.250	12.460
17.500	12.210
17.750	11.940
18.000	11.650
18.250	11.410
18.500	11.610
18.750	12.720
19.000	14.450
19.250	16.260
19.500	17.640
19.750	18.200
20.000	18.080
20.250	17.660
20.500	17.210
20.750	17.050
21.000	17.390
21.250	18.110
21.500	18.820
21.750	19.260
22.000	19.450
22.250	19.510
22.500	19.640
22.750	20.380
23.000	22.090
23.250	24.360
23.500	26.310
23.750	27.200
24.000	27.540
24.250	27.610
24.500	27.670
24.750	27.970
25.000	28.560
25.250	29.420
25.500	30.300
25.750	31.110
26.000	31.930
26.250	32.620
26.500	33.200
26.750	34.810
27.000	39.550
27.250	46.720
27.500	54.050
27.750	59.560
28.000	62.990
28.250	63.720
28.500	62.430
28.750	60.480
29.000	59.140
29.250	58.970
29.500	59.530
29.750	60.990
30.000	66.800
30.250	76.250
30.500	86.430
30.750	106.780
31.000	119.270
31.250	121.530
31.500	116.040
31.750	115.770
32.000	115.600
32.250	115.010
32.500	120.170
32.750	124.520
33.000	122.000
33.250	118.190
33.500	111.850
33.750	106.360
34.000	99.900
34.250	94.650
34.500	89.280
34.750	83.550
35.000	76.940
35.250	71.770
35.500	69.800
35.750	73.670
36.000	88.750
36.250	95.880
36.500	114.880
36.750	146.670
37.000	89.350
37.250	172.010
37.500	230.910
37.750	253.210
38.000	257.850
38.250	252.320
38.500	255.170

38.750	254.740
39.000	234.840
39.250	194.030
39.500	183.770
39.750	181.370
40.000	179.920
40.250	179.060
40.500	177.840
40.750	172.920
41.000	166.760
41.250	156.060
41.500	144.740
41.750	133.250
42.000	122.330
42.250	110.420
42.500	101.150
42.750	92.040
43.000	83.720
43.250	76.270
43.500	72.180
43.750	66.440
44.000	62.260
44.250	58.100
44.500	55.620
44.750	52.510
45.000	50.230
45.250	48.700
45.500	47.720
45.750	47.160
46.000	46.400
46.250	45.350
46.500	44.360
46.750	43.890
47.000	43.460
47.250	42.740
47.500	42.630
47.750	41.650
48.000	40.970
48.250	40.500
48.500	40.300
48.750	39.970
49.000	39.660
49.250	39.370
49.500	39.190
49.750	39.020
50.000	38.870
50.250	38.640
50.500	38.490
50.750	38.350
51.000	38.300
51.250	38.100
51.500	37.960
51.750	37.830
52.000	37.640
52.250	37.580
52.500	37.450
52.750	37.270
53.000	37.210
53.250	37.090
53.500	36.900
53.750	36.850
54.000	36.730
54.250	36.610
54.500	36.500
54.750	36.440
55.000	36.310
55.250	36.140
55.500	36.010
55.750	35.890
56.000	35.710
56.250	35.640
56.500	35.510
56.750	35.340
57.000	35.260
57.250	35.090
57.500	35.000
57.750	34.840
58.000	34.750
58.250	34.620
58.500	34.440
58.750	34.340
59.000	34.160
59.250	34.060
59.500	33.910
59.750	33.710
60.000	33.600
60.250	33.430
60.500	33.220

60.750	33.070
61.000	32.890
61.250	32.700
61.500	32.500
61.750	32.260
62.000	32.100
62.250	31.900
62.500	31.710
62.750	31.520
63.000	31.300
63.250	31.150
63.500	30.970
63.750	30.800
64.000	30.590
64.250	30.460
64.500	30.290
64.750	30.100
65.000	29.970
65.250	29.820
65.500	29.630
65.750	29.510
66.000	29.360
66.250	29.190
66.500	29.070
66.750	28.910
67.000	28.800
67.250	28.660
67.500	28.500
67.750	28.390
68.000	28.240
68.250	28.130
68.500	27.980
68.750	27.880
69.000	27.730
69.250	27.640
69.500	27.520
69.750	27.370
70.000	27.280
70.250	27.140
70.500	27.050
70.750	26.910
71.000	26.820
71.250	26.680
71.500	26.570
71.750	26.480
72.000	26.350

Name: OCT-2015 Node: HWY57_N Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000
6.500	0.000
6.750	0.000
7.000	0.000
7.250	0.000
7.500	0.000
7.750	0.000
8.000	0.000
8.250	0.000
8.500	0.000
8.750	0.000

9.000	0.000
9.250	0.000
9.500	0.000
9.750	0.000
10.000	0.000
10.250	0.000
10.500	0.000
10.750	0.000
11.000	0.000
11.250	0.000
11.500	0.000
11.750	0.000
12.000	0.000
12.250	0.000
12.500	0.000
12.750	0.000
13.000	0.000
13.250	0.000
13.500	0.000
13.750	0.000
14.000	0.000
14.250	0.000
14.500	0.000
14.750	0.000
15.000	0.000
15.250	0.000
15.500	0.000
15.750	0.000
16.000	0.000
16.250	0.000
16.500	0.000
16.750	0.000
17.000	0.000
17.250	0.000
17.500	0.000
17.750	0.000
18.000	0.000
18.250	0.000
18.500	0.000
18.750	0.000
19.000	0.000
19.250	0.000
19.500	0.000
19.750	0.000
20.000	0.000
20.250	0.000
20.500	0.000
20.750	0.000
21.000	0.000
21.250	0.000
21.500	0.000
21.750	0.000
22.000	0.000
22.250	0.000
22.500	0.000
22.750	0.000
23.000	0.000
23.250	0.000
23.500	0.000
23.750	0.000
24.000	0.000
24.250	0.000
24.500	0.000
24.750	0.000
25.000	0.000
25.250	0.000
25.500	0.000
25.750	0.000
26.000	0.000
26.250	0.000
26.500	0.000
26.750	0.000
27.000	0.000
27.250	0.000
27.500	0.000
27.750	0.000
28.000	0.000
28.250	0.160
28.500	0.910
28.750	1.280
29.000	1.580
29.250	1.520
29.500	0.760
29.750	2.420
30.000	4.640
30.250	8.300
30.500	12.610
30.750	16.020

31.000	18.300
31.250	19.910
31.500	21.080
31.750	21.840
32.000	22.370
32.250	23.030
32.500	24.120
32.750	25.620
33.000	27.140
33.250	28.390
33.500	29.320
33.750	30.000
34.000	30.440
34.250	30.660
34.500	30.750
34.750	30.720
35.000	30.610
35.250	30.390
35.500	30.130
35.750	29.800
36.000	29.440
36.250	28.960
36.500	28.380
36.750	27.640
37.000	26.760
37.250	25.820
37.500	24.830
37.750	23.830
38.000	22.830
38.250	21.880
38.500	21.190
38.750	21.030
39.000	21.540
39.250	22.770
39.500	25.580
39.750	31.720
40.000	39.540
40.250	44.460
40.500	48.080
40.750	69.940
41.000	116.200
41.250	142.030
41.500	160.900
41.750	175.350
42.000	188.720
42.250	201.840
42.500	212.170
42.750	218.250
43.000	222.280
43.250	226.350
43.500	231.970
43.750	239.140
44.000	246.370
44.250	256.040
44.500	278.670
44.750	318.980
45.000	365.620
45.250	408.790
45.500	435.020
45.750	442.200
46.000	445.370
46.250	449.300
46.500	452.980
46.750	454.160
47.000	452.570
47.250	447.850
47.500	439.630
47.750	428.200
48.000	413.980
48.250	397.830
48.500	380.540
48.750	362.830
49.000	345.020
49.250	327.530
49.500	310.570
49.750	294.260
50.000	278.660
50.250	263.630
50.500	249.250
50.750	235.510
51.000	222.590
51.250	210.440
51.500	199.230
51.750	188.880
52.000	179.360
52.250	170.420
52.500	162.340
52.750	155.140

53.000	148.690
53.250	142.700
53.500	136.820
53.750	130.760
54.000	124.920
54.250	119.460
54.500	114.400
54.750	109.650
55.000	105.180
55.250	101.020
55.500	97.050
55.750	93.190
56.000	89.570
56.250	86.100
56.500	82.890
56.750	79.940
57.000	76.960
57.250	75.970
57.500	74.100
57.750	75.130
58.000	77.850
58.250	80.040
58.500	81.540
58.750	80.640
59.000	78.760
59.250	76.740
59.500	74.170
59.750	72.160
60.000	70.370
60.250	68.680
60.500	67.060
60.750	68.140
61.000	64.920
61.250	62.750
61.500	60.930
61.750	59.260
62.000	57.620
62.250	56.060
62.500	54.580
62.750	53.240
63.000	52.000
63.250	50.910
63.500	50.260
63.750	50.070
64.000	49.850
64.250	49.560
64.500	49.210
64.750	48.790
65.000	48.340
65.250	47.810
65.500	47.260
65.750	46.830
66.000	46.320
66.250	45.390
66.500	44.330
66.750	43.350
67.000	42.550
67.250	42.010
67.500	41.620
67.750	41.170
68.000	40.480
68.250	39.650
68.500	38.760
68.750	37.850
69.000	36.960
69.250	36.080
69.500	35.220
69.750	34.380
70.000	33.550
70.250	32.770
70.500	31.910
70.750	31.060
71.000	30.180
71.250	29.160
71.500	28.000
71.750	26.750
72.000	25.510
72.250	24.280
72.500	23.080
72.750	21.900
73.000	20.820
73.250	19.840
73.500	18.950
73.750	18.130
74.000	17.420
74.250	16.790
74.500	16.300
74.750	15.900

75.000	15.570
75.250	15.350
75.500	15.680
75.750	17.230
76.000	20.160
76.250	23.690
76.500	27.200
76.750	30.090
77.000	32.510
77.250	34.450
77.500	35.840
77.750	36.830
78.000	37.620
78.250	38.200
78.500	38.650
78.750	38.920
79.000	39.010
79.250	38.930
79.500	38.820
79.750	38.690
80.000	38.600
80.250	38.520
80.500	38.420
80.750	38.160
81.000	37.740
81.250	37.270
81.500	36.820
81.750	36.590
82.000	36.600
82.250	36.840
82.500	37.340
82.750	38.280
83.000	39.570
83.250	41.110
83.500	42.700
83.750	44.470
84.000	46.590
84.250	48.870
84.500	62.130
84.750	88.870
85.000	98.060
85.250	108.670
85.500	133.280
85.750	180.840
86.000	237.670
86.250	289.600
86.500	320.650
86.750	328.770
87.000	332.220
87.250	338.300
87.500	347.920
87.750	359.520
88.000	371.480
88.250	381.600
88.500	387.180
88.750	387.440
89.000	383.090
89.250	375.390
89.500	365.460
89.750	354.170
90.000	341.790
90.250	328.940
90.500	316.250
90.750	304.230
91.000	292.470
91.250	280.670
91.500	268.340
91.750	255.490
92.000	242.990
92.250	231.060
92.500	219.680
92.750	208.770
93.000	198.390
93.250	188.480
93.500	179.300
93.750	170.690
94.000	162.600
94.250	155.170
94.500	148.660
94.750	143.380
95.000	138.780
95.250	134.470
95.500	130.050
95.750	125.270
96.000	120.590
96.250	116.230
96.500	111.990
96.750	107.760

97.000	103.680
97.250	99.900
97.500	96.350
97.750	93.260
98.000	90.340
98.250	87.740
98.500	85.570
98.750	83.930
99.000	82.640
99.250	81.560
99.500	81.660
99.750	83.360
100.000	85.970
100.250	88.540
100.500	90.220
100.750	90.720
101.000	90.670
101.250	90.980
101.500	93.060
101.750	97.730
102.000	103.680
102.250	109.300
102.500	113.740
102.750	116.190
103.000	117.820
103.250	119.380
103.500	120.750
103.750	121.790
104.000	122.700
104.250	123.730
104.500	125.310
104.750	127.480
105.000	129.830
105.250	131.720
105.500	132.120
105.750	130.540
106.000	128.240
106.250	125.830
106.500	123.250
106.750	120.310
107.000	117.180
107.250	113.990
107.500	110.890
107.750	107.720
108.000	104.600
108.250	101.460
108.500	98.380
108.750	95.360
109.000	92.440
109.250	89.360
109.500	86.560
109.750	83.790
110.000	81.270
110.250	78.690
110.500	76.560
110.750	75.540
111.000	72.180
111.250	69.810
111.500	67.920
111.750	71.180
112.000	66.710
112.250	64.760
112.500	63.260
112.750	61.990
113.000	60.790
113.250	59.640
113.500	58.440
113.750	57.120
114.000	55.770
114.250	54.460
114.500	53.210
114.750	52.090
115.000	51.100
115.250	50.340
115.500	50.160
115.750	49.970
116.000	49.770
116.250	49.530
116.500	49.240
116.750	48.890
117.000	48.480
117.250	48.070
117.500	47.570
117.750	47.210
118.000	46.790
118.250	46.040
118.500	45.080
118.750	43.940

119.000	42.560
119.250	40.730
119.500	38.750
119.750	36.940
120.000	35.290
120.250	33.810
120.500	32.450
120.750	31.190
121.000	29.930
121.250	28.500
121.500	27.010
121.750	25.540
122.000	24.080
122.250	22.650
122.500	21.370
122.750	20.160
123.000	19.140
123.250	18.190
123.500	17.390
123.750	16.720
124.000	16.260
124.250	15.830
124.500	15.440
124.750	15.160
125.000	14.860
125.250	14.590
125.500	14.360
125.750	14.080
126.000	13.840
126.250	13.560
126.500	13.340
126.750	13.090
127.000	12.870
127.250	12.660
127.500	12.470
127.750	12.290
128.000	12.120
128.250	11.950
128.500	11.800
128.750	11.640
129.000	11.500
129.250	11.350
129.500	11.210
129.750	11.080
130.000	10.940
130.250	10.810
130.500	10.630
130.750	10.510
131.000	10.390
131.250	10.270
131.500	10.140
131.750	10.010
132.000	9.840
132.250	9.730
132.500	9.620
132.750	9.500
133.000	9.370
133.250	9.250
133.500	9.080
133.750	8.970
134.000	8.860
134.250	8.740
134.500	8.630
134.750	8.510
135.000	8.340
135.250	8.240
135.500	8.130
135.750	8.020
136.000	7.910
136.250	7.790
136.500	7.620
136.750	7.530
137.000	7.430
137.250	7.330
137.500	7.220
137.750	7.120
138.000	6.950
138.250	6.870
138.500	6.780
138.750	6.680
139.000	6.580
139.250	6.420
139.500	6.350
139.750	6.260
140.000	6.180
140.250	6.120
140.500	5.950
140.750	5.910

141.000	5.850
141.250	5.780
141.500	5.700
141.750	5.510
142.000	5.470
142.250	5.400
142.500	5.220
142.750	5.190
143.000	5.130
143.250	5.060
143.500	4.860
143.750	4.840
144.000	4.790

Name: OCT-2015 Node: HWY57_S Type: Flow

Time(hrs)	Flow(cfs)
0.000	0.000
0.250	0.000
0.500	0.000
0.750	0.000
1.000	0.000
1.250	0.000
1.500	0.000
1.750	0.000
2.000	0.000
2.250	0.000
2.500	0.000
2.750	0.000
3.000	0.000
3.250	0.000
3.500	0.000
3.750	0.000
4.000	0.000
4.250	0.000
4.500	0.000
4.750	0.000
5.000	0.000
5.250	0.000
5.500	0.000
5.750	0.000
6.000	0.000
6.250	0.000
6.500	0.000
6.750	0.000
7.000	0.000
7.250	0.000
7.500	0.000
7.750	0.000
8.000	0.000
8.250	0.000
8.500	0.000
8.750	0.000
9.000	0.000
9.250	0.000
9.500	0.000
9.750	0.000
10.000	0.000
10.250	0.000
10.500	0.000
10.750	0.000
11.000	0.000
11.250	0.000
11.500	0.000
11.750	0.000
12.000	0.000
12.250	0.000
12.500	0.000
12.750	0.000
13.000	0.000
13.250	0.000
13.500	0.000
13.750	0.000
14.000	0.000
14.250	0.000
14.500	0.000
14.750	0.000
15.000	0.000
15.250	0.000
15.500	0.000
15.750	0.000
16.000	0.000
16.250	0.000
16.500	0.000
16.750	0.000
17.000	0.000

17.250	0.000
17.500	0.000
17.750	0.000
18.000	0.000
18.250	0.000
18.500	0.000
18.750	0.000
19.000	0.000
19.250	0.000
19.500	0.000
19.750	0.000
20.000	0.000
20.250	0.000
20.500	0.000
20.750	0.000
21.000	0.000
21.250	0.000
21.500	0.000
21.750	0.000
22.000	0.000
22.250	0.000
22.500	0.000
22.750	0.000
23.000	0.000
23.250	0.000
23.500	0.000
23.750	0.000
24.000	0.000
24.250	0.000
24.500	0.020
24.750	0.110
25.000	0.310
25.250	0.550
25.500	0.780
25.750	1.050
26.000	1.420
26.250	1.850
26.500	2.350
26.750	2.970
27.000	3.820
27.250	4.700
27.500	5.870
27.750	7.540
28.000	9.810
28.250	12.430
28.500	14.850
28.750	16.710
29.000	18.070
29.250	19.520
29.500	22.180
29.750	27.160
30.000	34.440
30.250	42.440
30.500	48.170
30.750	51.750
31.000	52.190
31.250	50.290
31.500	47.300
31.750	44.040
32.000	40.700
32.250	37.690
32.500	35.240
32.750	33.260
33.000	31.350
33.250	29.750
33.500	28.310
33.750	26.980
34.000	25.730
34.250	24.580
34.500	23.550
34.750	22.670
35.000	21.910
35.250	21.270
35.500	20.730
35.750	20.250
36.000	19.800
36.250	19.360
36.500	18.950
36.750	18.560
37.000	18.210
37.250	17.890
37.500	17.600
37.750	17.320
38.000	17.040
38.250	16.880
38.500	17.370
38.750	19.050
39.000	21.510

39.250	24.970
39.500	31.470
39.750	43.100
40.000	55.550
40.250	68.240
40.500	83.590
40.750	100.030
41.000	111.670
41.250	119.970
41.500	128.540
41.750	133.040
42.000	132.730
42.250	136.540
42.500	134.330
42.750	138.700
43.000	150.630
43.250	153.750
43.500	148.130
43.750	139.560
44.000	134.350
44.250	132.160
44.500	133.170
44.750	136.990
45.000	47.930
45.250	131.380
45.500	228.030
45.750	307.600
46.000	331.670
46.250	339.610
46.500	339.470
46.750	327.200
47.000	307.610
47.250	282.000
47.500	263.990
47.750	265.260
48.000	215.690
48.250	175.890
48.500	153.260
48.750	137.420
49.000	123.500
49.250	112.140
49.500	101.320
49.750	93.450
50.000	85.730
50.250	79.500
50.500	73.060
50.750	67.110
51.000	62.530
51.250	60.210
51.500	57.190
51.750	54.150
52.000	52.290
52.250	50.460
52.500	49.690
52.750	49.200
53.000	49.480
53.250	49.710
53.500	50.050
53.750	49.440
54.000	48.560
54.250	47.670
54.500	46.190
54.750	45.720
55.000	44.960
55.250	44.430
55.500	43.900
55.750	42.990
56.000	42.010
56.250	41.400
56.500	41.080
56.750	40.680
57.000	40.150
57.250	40.000
57.500	40.890
57.750	43.360
58.000	46.880
58.250	50.610
58.500	54.030
58.750	55.720
59.000	55.460
59.250	54.230
59.500	52.550
59.750	50.990
60.000	49.380
60.250	48.280
60.500	47.060
60.750	46.030
61.000	44.970

61.250	44.080
61.500	43.290
61.750	42.580
62.000	41.940
62.250	41.350
62.500	40.750
62.750	40.270
63.000	39.840
63.250	39.410
63.500	39.140
63.750	38.780
64.000	38.490
64.250	38.210
64.500	37.950
64.750	37.730
65.000	37.560
65.250	37.320
65.500	37.130
65.750	36.950
66.000	36.840
66.250	36.780
66.500	37.030
66.750	38.260
67.000	40.000
67.250	41.850
67.500	43.180
67.750	43.710
68.000	43.380
68.250	42.810
68.500	42.030
68.750	41.290
69.000	40.630
69.250	39.960
69.500	39.480
69.750	38.920
70.000	38.420
70.250	37.960
70.500	37.520
70.750	37.090
71.000	36.740
71.250	36.360
71.500	36.050
71.750	35.720
72.000	35.450
72.250	35.210
72.500	34.980
72.750	34.760
73.000	34.540
73.250	34.320
73.500	34.100
73.750	33.890
74.000	33.680
74.250	33.460
74.500	33.230
74.750	33.040
75.000	32.830
75.250	32.750
75.500	33.920
75.750	37.050
76.000	41.500
76.250	46.120
76.500	50.400
76.750	52.410
77.000	52.950
77.250	52.330
77.500	51.500
77.750	50.360
78.000	49.330
78.250	48.440
78.500	47.540
78.750	46.530
79.000	45.460
79.250	44.340
79.500	43.410
79.750	42.690
80.000	42.310
80.250	41.950
80.500	41.590
80.750	40.940
81.000	40.200
81.250	39.470
81.500	39.020
81.750	39.080
82.000	39.480
82.250	40.150
82.500	41.320
82.750	43.030
83.000	45.290

83.250	48.200
83.500	52.510
83.750	58.540
84.000	66.630
84.250	77.510
84.500	84.940
84.750	93.200
85.000	97.630
85.250	100.860
85.500	106.380
85.750	108.020
86.000	121.500
86.250	152.570
86.500	-16.310
86.750	244.830
87.000	336.150
87.250	374.660
87.500	375.680
87.750	370.700
88.000	360.450
88.250	347.920
88.500	325.250
88.750	298.170
89.000	267.040
89.250	258.350
89.500	265.450
89.750	202.980
90.000	171.330
90.250	150.610
90.500	135.750
90.750	125.410
91.000	116.860
91.250	109.240
91.500	103.240
91.750	97.620
92.000	91.810
92.250	84.370
92.500	78.880
92.750	73.220
93.000	69.850
93.250	65.050
93.500	61.040
93.750	57.690
94.000	56.110
94.250	54.060
94.500	53.030
94.750	53.060
95.000	53.500
95.250	53.940
95.500	54.330
95.750	54.540
96.000	54.050
96.250	53.410
96.500	52.840
96.750	52.150
97.000	51.200
97.250	50.490
97.500	49.910
97.750	48.780
98.000	48.130
98.250	47.960
98.500	48.120
98.750	48.350
99.000	48.790
99.250	49.600
99.500	51.080
99.750	53.340
100.000	56.350
100.250	60.150
100.500	63.180
100.750	65.470
101.000	66.750
101.250	67.230
101.500	68.640
101.750	70.460
102.000	74.510
102.250	78.640
102.500	82.800
102.750	85.290
103.000	88.670
103.250	92.480
103.500	94.590
103.750	97.940
104.000	99.260
104.250	100.660
104.500	103.410
104.750	105.060
105.000	106.040

105.250	107.910
105.500	108.790
105.750	108.760
106.000	106.750
106.250	103.160
106.500	98.870
106.750	93.620
107.000	88.170
107.250	82.800
107.500	77.810
107.750	72.180
108.000	67.150
108.250	62.730
108.500	58.800
108.750	55.660
109.000	52.970
109.250	51.210
109.500	49.820
109.750	48.790
110.000	48.050
110.250	47.430
110.500	46.770
110.750	46.260
111.000	45.820
111.250	45.470
111.500	45.210
111.750	45.210
112.000	45.490
112.250	45.710
112.500	45.970
112.750	46.160
113.000	46.410
113.250	46.500
113.500	46.450
113.750	46.310
114.000	46.070
114.250	45.590
114.500	45.290
114.750	44.850
115.000	44.570
115.250	44.180
115.500	43.960
115.750	43.790
116.000	43.790
116.250	43.800
116.500	43.750
116.750	43.660
117.000	43.420
117.250	43.150
117.500	42.870
117.750	42.610
118.000	42.360
118.250	42.140
118.500	41.930
118.750	41.720
119.000	41.610
119.250	41.420
119.500	41.170
119.750	40.990
120.000	40.820
120.250	40.620
120.500	40.450
120.750	40.240
121.000	40.140
121.250	39.950
121.500	39.870
121.750	39.730
122.000	39.550
122.250	39.460
122.500	39.280
122.750	39.190
123.000	39.020
123.250	38.940
123.500	38.800
123.750	38.620
124.000	38.520
124.250	38.340
124.500	38.240
124.750	38.050
125.000	37.950
125.250	37.790
125.500	37.590
125.750	37.470
126.000	37.290
126.250	37.070
126.500	36.930
126.750	36.740
127.000	36.550

127.250	36.340
127.500	36.100
127.750	35.950
128.000	35.770
128.250	35.570
128.500	35.350
128.750	35.210
129.000	35.040
129.250	34.860
129.500	34.660
129.750	34.540
130.000	34.370
130.250	34.180
130.500	34.050
130.750	33.870
131.000	33.760
131.250	33.610
131.500	33.430
131.750	33.320
132.000	33.150
132.250	33.050
132.500	32.910
132.750	32.750
133.000	32.640
133.250	32.490
133.500	32.380
133.750	32.230
134.000	32.140
134.250	31.990
134.500	31.890
134.750	31.750
135.000	31.660
135.250	31.510
135.500	31.420
135.750	31.290
136.000	31.200
136.250	31.060
136.500	30.980
136.750	30.840
137.000	30.760
137.250	30.620
137.500	30.520
137.750	30.440
138.000	30.310
138.250	30.230
138.500	30.100
138.750	30.020
139.000	29.890
139.250	29.810
139.500	29.680
139.750	29.580
140.000	29.500
140.250	29.370
140.500	29.280
140.750	29.150
141.000	29.050
141.250	28.910
141.500	28.740
141.750	28.610
142.000	28.440
142.250	28.240
142.500	28.090
142.750	27.910
143.000	27.720
143.250	27.530
143.500	27.320
143.750	27.100
144.000	26.910

Name: 002-year Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000
2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000

3.500	16.000
3.750	16.000
4.000	16.000
4.250	16.000
4.500	16.000
4.750	16.000
5.000	16.000
5.250	16.000
5.500	16.000
5.750	16.000
6.000	16.000
6.250	16.000
6.500	16.000
6.750	16.001
7.000	16.001
7.250	16.001
7.500	16.002
7.750	16.002
8.000	16.003
8.250	16.005
8.500	16.006
8.750	16.009
9.000	16.012
9.250	16.018
9.500	16.028
9.750	16.048
10.000	16.070
10.250	16.093
10.500	16.118
10.750	16.148
11.000	16.183
11.250	16.227
11.500	16.282
11.750	16.357
12.000	16.354
12.250	16.521
12.500	16.906
12.750	17.363
13.000	17.820
13.250	18.291
13.500	18.687
13.750	18.950
14.000	19.094
14.250	19.108
14.500	19.105
14.750	19.067
15.000	18.979
15.250	18.877
15.500	18.774
15.750	18.675
16.000	18.575
16.250	18.473
16.500	18.372
16.750	18.277
17.000	18.189
17.250	18.109
17.500	18.037
17.750	17.972
18.000	17.920
18.250	17.881
18.500	17.843
18.750	17.807
19.000	17.774
19.250	17.745
19.500	17.719
19.750	17.693
20.000	17.669
20.250	17.646
20.500	17.624
20.750	17.603
21.000	17.582
21.250	17.562
21.500	17.543
21.750	17.524
22.000	17.505
22.250	17.486
22.500	17.466
22.750	17.448
23.000	17.436
23.250	17.427
23.500	17.415
23.750	17.401
24.000	17.386
24.250	17.368
24.500	17.346
24.750	17.322
25.000	17.296
25.250	17.268

25.500	17.245
25.750	17.225
26.000	17.219
26.250	17.224
26.500	17.228
26.750	17.218
27.000	17.194
27.250	17.171
27.500	17.150
27.750	17.136
28.000	17.107
28.250	17.075
28.500	17.044
28.750	17.015
29.000	16.988
29.250	16.964
29.500	16.941
29.750	16.918
30.000	16.895
30.250	16.870
30.500	16.845
30.750	16.821
31.000	16.799
31.250	16.779
31.500	16.762
31.750	16.765
32.000	16.792
32.250	16.795
32.500	16.776
32.750	16.756
33.000	16.727
33.250	16.686
33.500	16.649
33.750	16.621
34.000	16.590
34.250	16.562
34.500	16.537
34.750	16.514
35.000	16.494
35.250	16.479
35.500	16.466
35.750	16.454
36.000	16.443
36.250	16.435
36.500	16.429
36.750	16.422
37.000	16.416
37.250	16.409
37.500	16.402
37.750	16.396
38.000	16.390
38.250	16.385
38.500	16.379
38.750	16.374
39.000	16.369
39.250	16.364
39.500	16.360
39.750	16.355
40.000	16.351
40.250	16.348
40.500	16.347
40.750	16.347
41.000	16.345
41.250	16.342
41.500	16.339
41.750	16.335
42.000	16.331
42.250	16.326
42.500	16.322
42.750	16.319
43.000	16.315
43.250	16.311
43.500	16.309
43.750	16.307
44.000	16.307
44.250	16.306
44.500	16.305
44.750	16.303
45.000	16.299
45.250	16.294
45.500	16.290
45.750	16.285
46.000	16.282
46.250	16.278
46.500	16.275
46.750	16.272
47.000	16.270
47.250	16.268

47.500	16.265
47.750	16.260
48.000	16.256
48.250	16.254
48.500	16.251
48.750	16.247
49.000	16.244
49.250	16.241
49.500	16.240
49.750	16.260
50.000	16.257
50.250	16.268
50.500	16.341
50.750	16.293
51.000	16.260
51.250	16.238
51.500	16.221
51.750	16.208
52.000	16.198
52.250	16.190
52.500	16.183
52.750	16.178
53.000	16.174
53.250	16.170
53.500	16.166
53.750	16.164
54.000	16.161
54.250	16.158
54.500	16.156
54.750	16.154
55.000	16.152
55.250	16.150
55.500	16.148
55.750	16.146
56.000	16.145
56.250	16.143
56.500	16.141
56.750	16.140
57.000	16.138
57.250	16.137
57.500	16.136
57.750	16.134
58.000	16.133
58.250	16.131
58.500	16.130
58.750	16.129
59.000	16.128
59.250	16.126
59.500	16.125
59.750	16.124
60.000	16.123
60.250	16.122
60.500	16.121
60.750	16.120
61.000	16.119
61.250	16.118
61.500	16.117
61.750	16.115
62.000	16.115
62.250	16.114
62.500	16.113
62.750	16.112
63.000	16.111
63.250	16.110
63.500	16.109
63.750	16.108
64.000	16.107
64.250	16.107
64.500	16.106
64.750	16.105
65.000	16.104
65.250	16.103
65.500	16.103
65.750	16.102
66.000	16.101
66.250	16.100
66.500	16.100
66.750	16.099
67.000	16.098
67.250	16.097
67.500	16.097
67.750	16.096
68.000	16.095
68.250	16.095
68.500	16.094
68.750	16.093
69.000	16.093
69.250	16.092

69.500	16.092
69.750	16.091
70.000	16.090
70.250	16.090
70.500	16.089
70.750	16.089
71.000	16.088
71.250	16.087
71.500	16.087
71.750	16.086
72.000	16.086

Name: 010-year Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000
2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000
3.500	16.000
3.750	16.000
4.000	16.000
4.250	16.000
4.500	16.000
4.750	16.000
5.000	16.000
5.250	16.001
5.500	16.001
5.750	16.002
6.000	16.002
6.250	16.003
6.500	16.005
6.750	16.006
7.000	16.008
7.250	16.011
7.500	16.015
7.750	16.021
8.000	16.035
8.250	16.054
8.500	16.075
8.750	16.099
9.000	16.127
9.250	16.158
9.500	16.193
9.750	16.232
10.000	16.275
10.250	16.325
10.500	16.384
10.750	16.317
11.000	16.334
11.250	16.402
11.500	16.522
11.750	16.706
12.000	16.929
12.250	17.377
12.500	18.137
12.750	19.108
13.000	19.308
13.250	19.469
13.500	19.553
13.750	19.569
14.000	19.557
14.250	19.529
14.500	19.496
14.750	19.463
15.000	19.431
15.250	19.402
15.500	19.378
15.750	19.357
16.000	19.339
16.250	19.323
16.500	19.310
16.750	19.298
17.000	19.287
17.250	19.277
17.500	19.266

17.750	19.257
18.000	19.248
18.250	19.241
18.500	19.233
18.750	19.226
19.000	19.218
19.250	19.212
19.500	19.205
19.750	19.199
20.000	19.193
20.250	19.186
20.500	19.179
20.750	19.171
21.000	19.163
21.250	19.155
21.500	19.148
21.750	19.143
22.000	19.138
22.250	19.132
22.500	19.123
22.750	19.110
23.000	19.077
23.250	19.006
23.500	18.930
23.750	18.851
24.000	18.774
24.250	18.694
24.500	18.604
24.750	18.509
25.000	18.420
25.250	18.341
25.500	18.266
25.750	18.184
26.000	18.093
26.250	18.000
26.500	17.911
26.750	17.830
27.000	17.760
27.250	17.695
27.500	17.628
27.750	17.567
28.000	17.511
28.250	17.458
28.500	17.411
28.750	17.373
29.000	17.338
29.250	17.305
29.500	17.277
29.750	17.249
30.000	17.224
30.250	17.206
30.500	17.193
30.750	17.195
31.000	17.205
31.250	17.210
31.500	17.202
31.750	17.182
32.000	17.159
32.250	17.140
32.500	17.135
32.750	17.119
33.000	17.099
33.250	17.077
33.500	17.053
33.750	17.027
34.000	16.999
34.250	16.972
34.500	16.946
34.750	16.920
35.000	16.895
35.250	16.871
35.500	16.849
35.750	16.827
36.000	16.807
36.250	16.790
36.500	16.774
36.750	16.762
37.000	16.756
37.250	16.762
37.500	16.789
37.750	16.788
38.000	16.769
38.250	16.753
38.500	16.722
38.750	16.685
39.000	16.651
39.250	16.621
39.500	16.602

39.750	16.580
40.000	16.561
40.250	16.545
40.500	16.532
40.750	16.521
41.000	16.515
41.250	16.509
41.500	16.504
41.750	16.498
42.000	16.492
42.250	16.485
42.500	16.480
42.750	16.474
43.000	16.468
43.250	16.463
43.500	16.458
43.750	16.453
44.000	16.448
44.250	16.444
44.500	16.440
44.750	16.437
45.000	16.434
45.250	16.431
45.500	16.428
45.750	16.424
46.000	16.421
46.250	16.418
46.500	16.414
46.750	16.410
47.000	16.406
47.250	16.403
47.500	16.400
47.750	16.396
48.000	16.393
48.250	16.390
48.500	16.387
48.750	16.383
49.000	16.380
49.250	16.377
49.500	16.374
49.750	16.371
50.000	16.368
50.250	16.365
50.500	16.362
50.750	16.360
51.000	16.357
51.250	16.354
51.500	16.351
51.750	16.349
52.000	16.348
52.250	16.347
52.500	16.346
52.750	16.346
53.000	16.343
53.250	16.340
53.500	16.337
53.750	16.334
54.000	16.331
54.250	16.327
54.500	16.324
54.750	16.321
55.000	16.318
55.250	16.315
55.500	16.312
55.750	16.309
56.000	16.308
56.250	16.307
56.500	16.306
56.750	16.305
57.000	16.305
57.250	16.302
57.500	16.297
57.750	16.293
58.000	16.288
58.250	16.284
58.500	16.281
58.750	16.277
59.000	16.274
59.250	16.271
59.500	16.270
59.750	16.268
60.000	16.265
60.250	16.260
60.500	16.256
60.750	16.254
61.000	16.252
61.250	16.248
61.500	16.245

61.750	16.243
62.000	16.241
62.250	16.239
62.500	16.260
62.750	16.256
63.000	16.264
63.250	16.292
63.500	16.316
63.750	16.280
64.000	16.256
64.250	16.238
64.500	16.225
64.750	16.215
65.000	16.208
65.250	16.202
65.500	16.197
65.750	16.194
66.000	16.191
66.250	16.188
66.500	16.186
66.750	16.184
67.000	16.182
67.250	16.180
67.500	16.179
67.750	16.177
68.000	16.176
68.250	16.175
68.500	16.173
68.750	16.172
69.000	16.171
69.250	16.170
69.500	16.168
69.750	16.167
70.000	16.166
70.250	16.165
70.500	16.164
70.750	16.163
71.000	16.162
71.250	16.161
71.500	16.160
71.750	16.159
72.000	16.158

Name: 025-year Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000
2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000
3.500	16.000
3.750	16.000
4.000	16.000
4.250	16.000
4.500	16.000
4.750	16.001
5.000	16.001
5.250	16.001
5.500	16.002
5.750	16.003
6.000	16.005
6.250	16.006
6.500	16.009
6.750	16.012
7.000	16.017
7.250	16.024
7.500	16.039
7.750	16.056
8.000	16.075
8.250	16.098
8.500	16.125
8.750	16.156
9.000	16.191
9.250	16.231
9.500	16.276
9.750	16.327

10.000	16.385
10.250	16.315
10.500	16.329
10.750	16.389
11.000	16.490
11.250	16.639
11.500	16.810
11.750	16.941
12.000	17.220
12.250	17.745
12.500	18.732
12.750	19.282
13.000	19.533
13.250	19.675
13.500	19.726
13.750	19.722
14.000	19.693
14.250	19.658
14.500	19.622
14.750	19.592
15.000	19.566
15.250	19.541
15.500	19.519
15.750	19.503
16.000	19.491
16.250	19.485
16.500	19.482
16.750	19.482
17.000	19.483
17.250	19.482
17.500	19.480
17.750	19.475
18.000	19.468
18.250	19.459
18.500	19.447
18.750	19.432
19.000	19.415
19.250	19.399
19.500	19.382
19.750	19.365
20.000	19.349
20.250	19.334
20.500	19.319
20.750	19.306
21.000	19.295
21.250	19.284
21.500	19.275
21.750	19.266
22.000	19.257
22.250	19.247
22.500	19.237
22.750	19.225
23.000	19.213
23.250	19.201
23.500	19.189
23.750	19.177
24.000	19.164
24.250	19.152
24.500	19.141
24.750	19.128
25.000	19.109
25.250	19.038
25.500	18.925
25.750	18.810
26.000	18.701
26.250	18.589
26.500	18.479
26.750	18.373
27.000	18.270
27.250	18.161
27.500	18.047
27.750	17.939
28.000	17.841
28.250	17.761
28.500	17.683
28.750	17.608
29.000	17.542
29.250	17.480
29.500	17.428
29.750	17.385
30.000	17.346
30.250	17.310
30.500	17.278
30.750	17.248
31.000	17.225
31.250	17.206
31.500	17.197
31.750	17.202

32.000	17.212
32.250	17.214
32.500	17.201
32.750	17.180
33.000	17.156
33.250	17.139
33.500	17.135
33.750	17.117
34.000	17.095
34.250	17.070
34.500	17.042
34.750	17.013
35.000	16.983
35.250	16.955
35.500	16.928
35.750	16.902
36.000	16.877
36.250	16.854
36.500	16.833
36.750	16.812
37.000	16.794
37.250	16.778
37.500	16.764
37.750	16.757
38.000	16.762
38.250	16.790
38.500	16.791
38.750	16.772
39.000	16.755
39.250	16.726
39.500	16.689
39.750	16.655
40.000	16.626
40.250	16.606
40.500	16.585
40.750	16.567
41.000	16.552
41.250	16.539
41.500	16.528
41.750	16.520
42.000	16.516
42.250	16.511
42.500	16.506
42.750	16.500
43.000	16.494
43.250	16.488
43.500	16.482
43.750	16.477
44.000	16.472
44.250	16.467
44.500	16.462
44.750	16.457
45.000	16.453
45.250	16.449
45.500	16.445
45.750	16.441
46.000	16.438
46.250	16.435
46.500	16.433
46.750	16.430
47.000	16.427
47.250	16.424
47.500	16.421
47.750	16.418
48.000	16.415
48.250	16.411
48.500	16.408
48.750	16.405
49.000	16.402
49.250	16.398
49.500	16.395
49.750	16.392
50.000	16.390
50.250	16.387
50.500	16.384
50.750	16.381
51.000	16.378
51.250	16.375
51.500	16.372
51.750	16.370
52.000	16.367
52.250	16.364
52.500	16.362
52.750	16.359
53.000	16.357
53.250	16.354
53.500	16.352
53.750	16.349

54.000	16.348
54.250	16.347
54.500	16.347
54.750	16.346
55.000	16.345
55.250	16.342
55.500	16.339
55.750	16.336
56.000	16.333
56.250	16.329
56.500	16.326
56.750	16.323
57.000	16.320
57.250	16.316
57.500	16.313
57.750	16.310
58.000	16.308
58.250	16.307
58.500	16.306
58.750	16.306
59.000	16.305
59.250	16.303
59.500	16.298
59.750	16.293
60.000	16.289
60.250	16.285
60.500	16.281
60.750	16.278
61.000	16.275
61.250	16.272
61.500	16.270
61.750	16.268
62.000	16.267
62.250	16.262
62.500	16.258
62.750	16.255
63.000	16.254
63.250	16.252
63.500	16.248
63.750	16.245
64.000	16.244
64.250	16.242
64.500	16.241
64.750	16.240
65.000	16.262
65.250	16.255
65.500	16.259
65.750	16.269
66.000	16.344
66.250	16.302
66.500	16.273
66.750	16.254
67.000	16.239
67.250	16.229
67.500	16.221
67.750	16.215
68.000	16.211
68.250	16.207
68.500	16.204
68.750	16.202
69.000	16.200
69.250	16.199
69.500	16.197
69.750	16.196
70.000	16.195
70.250	16.194
70.500	16.192
70.750	16.192
71.000	16.191
71.250	16.190
71.500	16.189
71.750	16.188
72.000	16.187

Name: 050-year Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000

2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000
3.500	16.000
3.750	16.000
4.000	16.000
4.250	16.000
4.500	16.001
4.750	16.001
5.000	16.002
5.250	16.003
5.500	16.005
5.750	16.006
6.000	16.009
6.250	16.012
6.500	16.017
6.750	16.026
7.000	16.043
7.250	16.061
7.500	16.079
7.750	16.099
8.000	16.122
8.250	16.151
8.500	16.186
8.750	16.226
9.000	16.271
9.250	16.323
9.500	16.384
9.750	16.316
10.000	16.327
10.250	16.386
10.500	16.479
10.750	16.613
11.000	16.768
11.250	16.904
11.500	17.024
11.750	17.231
12.000	17.526
12.250	18.191
12.500	19.169
12.750	19.496
13.000	19.745
13.250	19.864
13.500	19.890
13.750	19.863
14.000	19.822
14.250	19.784
14.500	19.763
14.750	19.768
15.000	19.776
15.250	19.775
15.500	19.785
15.750	19.795
16.000	19.800
16.250	19.797
16.500	19.789
16.750	19.779
17.000	19.766
17.250	19.752
17.500	19.737
17.750	19.721
18.000	19.700
18.250	19.678
18.500	19.655
18.750	19.628
19.000	19.600
19.250	19.573
19.500	19.543
19.750	19.512
20.000	19.487
20.250	19.463
20.500	19.437
20.750	19.408
21.000	19.382
21.250	19.362
21.500	19.367
21.750	19.365
22.000	19.354
22.250	19.338
22.500	19.320
22.750	19.304
23.000	19.289
23.250	19.277
23.500	19.265
23.750	19.254
24.000	19.242

24.250	19.229
24.500	19.214
24.750	19.197
25.000	19.179
25.250	19.160
25.500	19.143
25.750	19.128
26.000	19.113
26.250	19.074
26.500	18.968
26.750	18.857
27.000	18.749
27.250	18.644
27.500	18.533
27.750	18.416
28.000	18.303
28.250	18.183
28.500	18.059
28.750	17.942
29.000	17.837
29.250	17.752
29.500	17.668
29.750	17.588
30.000	17.519
30.250	17.459
30.500	17.409
30.750	17.366
31.000	17.326
31.250	17.292
31.500	17.260
31.750	17.234
32.000	17.214
32.250	17.200
32.500	17.201
32.750	17.209
33.000	17.216
33.250	17.209
33.500	17.190
33.750	17.166
34.000	17.145
34.250	17.137
34.500	17.125
34.750	17.102
35.000	17.075
35.250	17.044
35.500	17.013
35.750	16.981
36.000	16.952
36.250	16.924
36.500	16.898
36.750	16.873
37.000	16.850
37.250	16.828
37.500	16.808
37.750	16.790
38.000	16.774
38.250	16.761
38.500	16.759
38.750	16.779
39.000	16.795
39.250	16.785
39.500	16.763
39.750	16.748
40.000	16.710
40.250	16.674
40.500	16.643
40.750	16.623
41.000	16.599
41.250	16.579
41.500	16.563
41.750	16.550
42.000	16.538
42.250	16.529
42.500	16.521
42.750	16.517
43.000	16.513
43.250	16.508
43.500	16.502
43.750	16.496
44.000	16.490
44.250	16.485
44.500	16.480
44.750	16.475
45.000	16.470
45.250	16.465
45.500	16.461
45.750	16.456
46.000	16.452

46.250	16.449
46.500	16.445
46.750	16.441
47.000	16.438
47.250	16.436
47.500	16.433
47.750	16.431
48.000	16.428
48.250	16.425
48.500	16.422
48.750	16.420
49.000	16.416
49.250	16.413
49.500	16.410
49.750	16.407
50.000	16.404
50.250	16.401
50.500	16.398
50.750	16.395
51.000	16.392
51.250	16.389
51.500	16.387
51.750	16.384
52.000	16.381
52.250	16.378
52.500	16.376
52.750	16.373
53.000	16.371
53.250	16.368
53.500	16.366
53.750	16.363
54.000	16.361
54.250	16.358
54.500	16.356
54.750	16.353
55.000	16.351
55.250	16.349
55.500	16.348
55.750	16.347
56.000	16.347
56.250	16.346
56.500	16.345
56.750	16.342
57.000	16.339
57.250	16.336
57.500	16.332
57.750	16.329
58.000	16.325
58.250	16.322
58.500	16.319
58.750	16.315
59.000	16.312
59.250	16.309
59.500	16.308
59.750	16.307
60.000	16.306
60.250	16.305
60.500	16.304
60.750	16.300
61.000	16.296
61.250	16.291
61.500	16.287
61.750	16.283
62.000	16.280
62.250	16.277
62.500	16.274
62.750	16.272
63.000	16.270
63.250	16.268
63.500	16.267
63.750	16.263
64.000	16.260
64.250	16.256
64.500	16.255
64.750	16.253
65.000	16.252
65.250	16.249
65.500	16.246
65.750	16.244
66.000	16.243
66.250	16.242
66.500	16.241
66.750	16.240
67.000	16.261
67.250	16.258
67.500	16.256
67.750	16.260
68.000	16.269

68.250	16.343
68.500	16.304
68.750	16.277
69.000	16.258
69.250	16.245
69.500	16.235
69.750	16.228
70.000	16.223
70.250	16.219
70.500	16.216
70.750	16.213
71.000	16.211
71.250	16.210
71.500	16.208
71.750	16.207
72.000	16.206

Name: 100-year Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000
2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000
3.500	16.000
3.750	16.000
4.000	16.001
4.250	16.001
4.500	16.002
4.750	16.003
5.000	16.004
5.250	16.006
5.500	16.008
5.750	16.012
6.000	16.017
6.250	16.027
6.500	16.045
6.750	16.064
7.000	16.084
7.250	16.104
7.500	16.125
7.750	16.150
8.000	16.180
8.250	16.217
8.500	16.262
8.750	16.314
9.000	16.374
9.250	16.322
9.500	16.323
9.750	16.384
10.000	16.468
10.250	16.596
10.500	16.741
10.750	16.889
11.000	16.976
11.250	17.127
11.500	17.330
11.750	17.517
12.000	17.863
12.250	18.733
12.500	19.339
12.750	19.715
13.000	19.950
13.250	20.049
13.500	20.047
13.750	20.011
14.000	19.996
14.250	20.000
14.500	20.046
14.750	20.094
15.000	20.122
15.250	20.130
15.500	20.126
15.750	20.115
16.000	20.102
16.250	20.088

16.500	20.073
16.750	20.054
17.000	20.032
17.250	20.008
17.500	19.979
17.750	19.949
18.000	19.918
18.250	19.886
18.500	19.851
18.750	19.815
19.000	19.779
19.250	19.743
19.500	19.707
19.750	19.671
20.000	19.637
20.250	19.603
20.500	19.570
20.750	19.535
21.000	19.504
21.250	19.477
21.500	19.451
21.750	19.423
22.000	19.396
22.250	19.374
22.500	19.368
22.750	19.370
23.000	19.363
23.250	19.348
23.500	19.331
23.750	19.314
24.000	19.299
24.250	19.285
24.500	19.270
24.750	19.254
25.000	19.236
25.250	19.218
25.500	19.200
25.750	19.183
26.000	19.166
26.250	19.149
26.500	19.133
26.750	19.119
27.000	19.105
27.250	19.027
27.500	18.922
27.750	18.813
28.000	18.710
28.250	18.607
28.500	18.488
28.750	18.366
29.000	18.243
29.250	18.114
29.500	17.989
29.750	17.876
30.000	17.782
30.250	17.693
30.500	17.608
30.750	17.534
31.000	17.470
31.250	17.418
31.500	17.374
31.750	17.333
32.000	17.298
32.250	17.265
32.500	17.237
32.750	17.218
33.000	17.201
33.250	17.199
33.500	17.206
33.750	17.215
34.000	17.213
34.250	17.197
34.500	17.173
34.750	17.151
35.000	17.139
35.250	17.130
35.500	17.104
35.750	17.073
36.000	17.040
36.250	17.006
36.500	16.973
36.750	16.943
37.000	16.915
37.250	16.888
37.500	16.864
37.750	16.841
38.000	16.819
38.250	16.800

38.500	16.782
38.750	16.767
39.000	16.759
39.250	16.768
39.500	16.795
39.750	16.792
40.000	16.771
40.250	16.753
40.500	16.723
40.750	16.686
41.000	16.653
41.250	16.625
41.500	16.607
41.750	16.587
42.000	16.570
42.250	16.556
42.500	16.544
42.750	16.534
43.000	16.525
43.250	16.520
43.500	16.516
43.750	16.511
44.000	16.506
44.250	16.500
44.500	16.494
44.750	16.489
45.000	16.483
45.250	16.478
45.500	16.473
45.750	16.468
46.000	16.464
46.250	16.459
46.500	16.455
46.750	16.451
47.000	16.447
47.250	16.444
47.500	16.440
47.750	16.437
48.000	16.435
48.250	16.433
48.500	16.430
48.750	16.427
49.000	16.424
49.250	16.422
49.500	16.419
49.750	16.415
50.000	16.412
50.250	16.409
50.500	16.406
50.750	16.403
51.000	16.400
51.250	16.397
51.500	16.395
51.750	16.392
52.000	16.389
52.250	16.386
52.500	16.384
52.750	16.381
53.000	16.378
53.250	16.376
53.500	16.373
53.750	16.371
54.000	16.368
54.250	16.366
54.500	16.363
54.750	16.361
55.000	16.359
55.250	16.356
55.500	16.354
55.750	16.352
56.000	16.350
56.250	16.348
56.500	16.348
56.750	16.347
57.000	16.346
57.250	16.345
57.500	16.342
57.750	16.340
58.000	16.336
58.250	16.333
58.500	16.329
58.750	16.326
59.000	16.322
59.250	16.319
59.500	16.316
59.750	16.312
60.000	16.309
60.250	16.308

60.500	16.307
60.750	16.306
61.000	16.305
61.250	16.304
61.500	16.301
61.750	16.296
62.000	16.292
62.250	16.288
62.500	16.284
62.750	16.281
63.000	16.277
63.250	16.275
63.500	16.272
63.750	16.270
64.000	16.269
64.250	16.268
64.500	16.265
64.750	16.262
65.000	16.258
65.250	16.256
65.500	16.254
65.750	16.253
66.000	16.251
66.250	16.249
66.500	16.247
66.750	16.245
67.000	16.244
67.250	16.242
67.500	16.241
67.750	16.241
68.000	16.240
68.250	16.263
68.500	16.258
68.750	16.256
69.000	16.260
69.250	16.269
69.500	16.346
69.750	16.308
70.000	16.281
70.250	16.262
70.500	16.248
70.750	16.239
71.000	16.231
71.250	16.226
71.500	16.222
71.750	16.219
72.000	16.217

Name: OCT-2015 Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000
2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000
3.500	16.000
3.750	16.000
4.000	16.000
4.250	16.000
4.500	16.000
4.750	16.000
5.000	16.000
5.250	16.000
5.500	16.000
5.750	16.000
6.000	16.000
6.250	16.000
6.500	16.000
6.750	16.000
7.000	16.000
7.250	16.000
7.500	16.000
7.750	16.000
8.000	16.000
8.250	16.000
8.500	16.000

8.750	16.000
9.000	16.000
9.250	16.000
9.500	16.000
9.750	16.000
10.000	16.000
10.250	16.000
10.500	16.000
10.750	16.000
11.000	16.000
11.250	16.000
11.500	16.000
11.750	16.000
12.000	16.000
12.250	16.000
12.500	16.000
12.750	16.000
13.000	16.000
13.250	16.000
13.500	16.000
13.750	16.000
14.000	16.000
14.250	16.000
14.500	16.000
14.750	16.000
15.000	16.000
15.250	16.000
15.500	16.000
15.750	16.000
16.000	16.000
16.250	16.000
16.500	16.000
16.750	16.000
17.000	16.000
17.250	16.000
17.500	16.000
17.750	16.000
18.000	16.000
18.250	16.000
18.500	16.000
18.750	16.000
19.000	16.000
19.250	16.000
19.500	16.000
19.750	16.000
20.000	16.000
20.250	16.000
20.500	16.000
20.750	16.000
21.000	16.000
21.250	16.000
21.500	16.000
21.750	16.000
22.000	16.000
22.250	16.000
22.500	16.000
22.750	16.000
23.000	16.000
23.250	16.000
23.500	16.000
23.750	16.000
24.000	16.000
24.250	16.000
24.500	16.000
24.750	16.001
25.000	16.002
25.250	16.003
25.500	16.006
25.750	16.012
26.000	16.022
26.250	16.049
26.500	16.085
26.750	16.125
27.000	16.166
27.250	16.209
27.500	16.259
27.750	16.324
28.000	16.402
28.250	16.310
28.500	16.358
28.750	16.418
29.000	16.495
29.250	16.593
29.500	16.721
29.750	16.902
30.000	17.060
30.250	17.304
30.500	17.465

30.750	17.571
31.000	17.646
31.250	17.685
31.500	17.687
31.750	17.658
32.000	17.608
32.250	17.545
32.500	17.478
32.750	17.423
33.000	17.390
33.250	17.375
33.500	17.324
33.750	17.244
34.000	17.159
34.250	17.088
34.500	17.011
34.750	16.947
35.000	16.894
35.250	16.852
35.500	16.853
35.750	16.860
36.000	16.838
36.250	16.801
36.500	16.762
36.750	16.735
37.000	16.691
37.250	16.653
37.500	16.620
37.750	16.598
38.000	16.573
38.250	16.555
38.500	16.557
38.750	16.589
39.000	16.651
39.250	16.753
39.500	16.940
39.750	17.237
40.000	17.607
40.250	18.104
40.500	18.739
40.750	19.162
41.000	19.298
41.250	19.419
41.500	19.507
41.750	19.553
42.000	19.567
42.250	19.568
42.500	19.556
42.750	19.529
43.000	19.496
43.250	19.464
43.500	19.441
43.750	19.430
44.000	19.427
44.250	19.439
44.500	19.507
44.750	19.638
45.000	19.818
45.250	20.010
45.500	20.194
45.750	20.321
46.000	20.378
46.250	20.390
46.500	20.367
46.750	20.323
47.000	20.266
47.250	20.206
47.500	20.142
47.750	20.074
48.000	20.004
48.250	19.938
48.500	19.877
48.750	19.820
49.000	19.764
49.250	19.709
49.500	19.653
49.750	19.600
50.000	19.547
50.250	19.493
50.500	19.448
50.750	19.405
51.000	19.362
51.250	19.326
51.500	19.316
51.750	19.310
52.000	19.298
52.250	19.282
52.500	19.267

52.750	19.255
53.000	19.245
53.250	19.235
53.500	19.224
53.750	19.209
54.000	19.192
54.250	19.175
54.500	19.158
54.750	19.140
55.000	19.126
55.250	19.112
55.500	19.070
55.750	18.965
56.000	18.856
56.250	18.750
56.500	18.646
56.750	18.528
57.000	18.403
57.250	18.287
57.500	18.200
57.750	18.166
58.000	18.176
58.250	18.208
58.500	18.229
58.750	18.216
59.000	18.178
59.250	18.127
59.500	18.067
59.750	18.004
60.000	17.938
60.250	17.873
60.500	17.809
60.750	17.752
61.000	17.687
61.250	17.621
61.500	17.560
61.750	17.502
62.000	17.449
62.250	17.405
62.500	17.368
62.750	17.333
63.000	17.301
63.250	17.271
63.500	17.244
63.750	17.223
64.000	17.205
64.250	17.193
64.500	17.196
64.750	17.205
65.000	17.211
65.250	17.203
65.500	17.184
65.750	17.160
66.000	17.141
66.250	17.139
66.500	17.139
66.750	17.151
67.000	17.176
67.250	17.199
67.500	17.220
67.750	17.228
68.000	17.224
68.250	17.209
68.500	17.187
68.750	17.160
69.000	17.140
69.250	17.104
69.500	17.069
69.750	17.035
70.000	17.004
70.250	16.974
70.500	16.947
70.750	16.921
71.000	16.896
71.250	16.872
71.500	16.850
71.750	16.829
72.000	16.809
72.250	16.792
72.500	16.776
72.750	16.762
73.000	16.759
73.250	16.779
73.500	16.796
73.750	16.787
74.000	16.764
74.250	16.749
74.500	16.713

74.750	16.678
75.000	16.647
75.250	16.629
75.500	16.653
75.750	16.720
76.000	16.844
76.250	16.940
76.500	17.024
76.750	17.113
77.000	17.194
77.250	17.243
77.500	17.288
77.750	17.314
78.000	17.326
78.250	17.329
78.500	17.322
78.750	17.307
79.000	17.284
79.250	17.257
79.500	17.231
79.750	17.209
80.000	17.191
80.250	17.174
80.500	17.164
80.750	17.141
81.000	17.112
81.250	17.085
81.500	17.066
81.750	17.059
82.000	17.062
82.250	17.075
82.500	17.105
82.750	17.159
83.000	17.229
83.250	17.312
83.500	17.440
83.750	17.579
84.000	17.786
84.250	18.073
84.500	18.396
84.750	18.680
85.000	18.929
85.250	19.118
85.500	19.214
85.750	19.382
86.000	19.605
86.250	19.797
86.500	19.921
86.750	19.948
87.000	19.937
87.250	19.936
87.500	19.980
87.750	20.038
88.000	20.073
88.250	20.081
88.500	20.067
88.750	20.040
89.000	20.004
89.250	19.959
89.500	19.911
89.750	19.862
90.000	19.813
90.250	19.764
90.500	19.717
90.750	19.671
91.000	19.631
91.250	19.593
91.500	19.556
91.750	19.511
92.000	19.470
92.250	19.433
92.500	19.392
92.750	19.353
93.000	19.326
93.250	19.320
93.500	19.309
93.750	19.291
94.000	19.273
94.250	19.256
94.500	19.244
94.750	19.235
95.000	19.227
95.250	19.220
95.500	19.211
95.750	19.198
96.000	19.183
96.250	19.168
96.500	19.151

96.750	19.136
97.000	19.122
97.250	19.106
97.500	19.028
97.750	18.931
98.000	18.834
98.250	18.748
98.500	18.669
98.750	18.587
99.000	18.500
99.250	18.425
99.500	18.378
99.750	18.368
100.000	18.385
100.250	18.417
100.500	18.448
100.750	18.467
101.000	18.478
101.250	18.493
101.500	18.534
101.750	18.623
102.000	18.746
102.250	18.878
102.500	18.994
102.750	19.081
103.000	19.110
103.250	19.120
103.500	19.127
103.750	19.131
104.000	19.133
104.250	19.134
104.500	19.137
104.750	19.142
105.000	19.149
105.250	19.154
105.500	19.155
105.750	19.151
106.000	19.144
106.250	19.134
106.500	19.123
106.750	19.110
107.000	19.080
107.250	19.002
107.500	18.930
107.750	18.860
108.000	18.786
108.250	18.707
108.500	18.619
108.750	18.517
109.000	18.410
109.250	18.309
109.500	18.212
109.750	18.113
110.000	18.016
110.250	17.926
110.500	17.846
110.750	17.777
111.000	17.719
111.250	17.665
111.500	17.614
111.750	17.573
112.000	17.540
112.250	17.510
112.500	17.484
112.750	17.460
113.000	17.439
113.250	17.419
113.500	17.399
113.750	17.377
114.000	17.356
114.250	17.340
114.500	17.324
114.750	17.307
115.000	17.288
115.250	17.269
115.500	17.252
115.750	17.237
116.000	17.224
116.250	17.213
116.500	17.203
116.750	17.196
117.000	17.188
117.250	17.180
117.500	17.182
117.750	17.191
118.000	17.203
118.250	17.206
118.500	17.193

118.750	17.171
119.000	17.152
119.250	17.138
119.500	17.117
119.750	17.084
120.000	17.049
120.250	17.015
120.500	16.983
120.750	16.954
121.000	16.928
121.250	16.904
121.500	16.881
121.750	16.859
122.000	16.839
122.250	16.820
122.500	16.801
122.750	16.785
123.000	16.769
123.250	16.759
123.500	16.755
123.750	16.764
124.000	16.789
124.250	16.786
124.500	16.768
124.750	16.754
125.000	16.728
125.250	16.696
125.500	16.669
125.750	16.645
126.000	16.626
126.250	16.615
126.500	16.601
126.750	16.589
127.000	16.579
127.250	16.570
127.500	16.562
127.750	16.556
128.000	16.550
128.250	16.544
128.500	16.539
128.750	16.535
129.000	16.532
129.250	16.528
129.500	16.525
129.750	16.522
130.000	16.518
130.250	16.513
130.500	16.509
130.750	16.504
131.000	16.500
131.250	16.496
131.500	16.492
131.750	16.488
132.000	16.484
132.250	16.481
132.500	16.477
132.750	16.474
133.000	16.471
133.250	16.468
133.500	16.465
133.750	16.462
134.000	16.459
134.250	16.456
134.500	16.453
134.750	16.450
135.000	16.448
135.250	16.445
135.500	16.442
135.750	16.440
136.000	16.437
136.250	16.435
136.500	16.433
136.750	16.431
137.000	16.429
137.250	16.427
137.500	16.425
137.750	16.422
138.000	16.420
138.250	16.417
138.500	16.414
138.750	16.412
139.000	16.409
139.250	16.406
139.500	16.404
139.750	16.401
140.000	16.399
140.250	16.397
140.500	16.394

140.750	16.392
141.000	16.390
141.250	16.387
141.500	16.385
141.750	16.382
142.000	16.380
142.250	16.378
142.500	16.375
142.750	16.373
143.000	16.370
143.250	16.367
143.500	16.365
143.750	16.362
144.000	16.359

Name: OCT-2016 Node: BNDRY Type: Stage

Time(hrs)	Stage(ft)
0.000	16.000
0.250	16.000
0.500	16.000
0.750	16.000
1.000	16.000
1.250	16.000
1.500	16.000
1.750	16.000
2.000	16.000
2.250	16.000
2.500	16.000
2.750	16.000
3.000	16.000
3.250	16.000
3.500	16.000
3.750	16.000
4.000	16.000
4.250	16.001
4.500	16.003
4.750	16.013
5.000	16.047
5.250	16.160
5.500	16.375
5.750	16.431
6.000	16.616
6.250	16.923
6.500	17.180
6.750	17.396
7.000	17.556
7.250	17.639
7.500	17.653
7.750	17.622
8.000	17.565
8.250	17.499
8.500	17.438
8.750	17.401
9.000	17.372
9.250	17.291
9.500	17.189
9.750	17.097
10.000	17.001
10.250	16.959
10.500	16.933
10.750	16.873
11.000	16.803
11.250	16.750
11.500	16.679
11.750	16.623
12.000	16.572
12.250	16.529
12.500	16.493
12.750	16.463
13.000	16.441
13.250	16.429
13.500	16.419
13.750	16.408
14.000	16.398
14.250	16.389
14.500	16.380
14.750	16.372
15.000	16.365
15.250	16.359
15.500	16.353
15.750	16.348
16.000	16.347
16.250	16.345
16.500	16.341
16.750	16.336

17.000	16.330
17.250	16.324
17.500	16.318
17.750	16.312
18.000	16.308
18.250	16.309
18.500	16.319
18.750	16.338
19.000	16.376
19.250	16.411
19.500	16.464
19.750	16.502
20.000	16.539
20.250	16.560
20.500	16.567
20.750	16.573
21.000	16.584
21.250	16.599
21.500	16.615
21.750	16.629
22.000	16.640
22.250	16.648
22.500	16.658
22.750	16.678
23.000	16.727
23.250	16.793
23.500	16.845
23.750	16.889
24.000	16.930
24.250	16.961
24.500	16.984
24.750	17.005
25.000	17.030
25.250	17.060
25.500	17.093
25.750	17.098
26.000	17.069
26.250	17.082
26.500	17.121
26.750	17.202
27.000	17.364
27.250	17.551
27.500	17.742
27.750	17.931
28.000	18.103
28.250	18.254
28.500	18.363
28.750	18.435
29.000	18.494
29.250	18.549
29.500	18.597
29.750	18.674
30.000	18.934
30.250	19.169
30.500	19.290
30.750	19.383
31.000	19.438
31.250	19.465
31.500	19.470
31.750	19.459
32.000	19.444
32.250	19.430
32.500	19.414
32.750	19.395
33.000	19.377
33.250	19.360
33.500	19.343
33.750	19.324
34.000	19.305
34.250	19.287
34.500	19.271
34.750	19.257
35.000	19.244
35.250	19.235
35.500	19.243
35.750	19.294
36.000	19.395
36.250	19.523
36.500	19.623
36.750	19.699
37.000	19.772
37.250	19.846
37.500	19.906
37.750	19.950
38.000	19.970
38.250	19.965
38.500	19.948
38.750	19.933

39.000	19.925
39.250	19.925
39.500	19.924
39.750	19.916
40.000	19.906
40.250	19.895
40.500	19.874
40.750	19.843
41.000	19.804
41.250	19.759
41.500	19.712
41.750	19.661
42.000	19.610
42.250	19.561
42.500	19.507
42.750	19.462
43.000	19.420
43.250	19.376
43.500	19.338
43.750	19.324
44.000	19.315
44.250	19.299
44.500	19.279
44.750	19.259
45.000	19.242
45.250	19.226
45.500	19.210
45.750	19.195
46.000	19.180
46.250	19.165
46.500	19.149
46.750	19.133
47.000	19.119
47.250	19.105
47.500	19.039
47.750	18.936
48.000	18.828
48.250	18.723
48.500	18.617
48.750	18.494
49.000	18.365
49.250	18.235
49.500	18.100
49.750	17.970
50.000	17.854
50.250	17.757
50.500	17.662
50.750	17.575
51.000	17.504
51.250	17.444
51.500	17.393
51.750	17.346
52.000	17.307
52.250	17.272
52.500	17.242
52.750	17.221
53.000	17.205
53.250	17.203
53.500	17.210
53.750	17.218
54.000	17.213
54.250	17.194
54.500	17.169
54.750	17.150
55.000	17.138
55.250	17.117
55.500	17.084
55.750	17.048
56.000	17.011
56.250	16.976
56.500	16.944
56.750	16.914
57.000	16.886
57.250	16.860
57.500	16.835
57.750	16.813
58.000	16.793
58.250	16.776
58.500	16.761
58.750	16.768
59.000	16.796
59.250	16.796
59.500	16.777
59.750	16.756
60.000	16.730
60.250	16.693
60.500	16.660
60.750	16.631

61.000	16.612
61.250	16.591
61.500	16.574
61.750	16.559
62.000	16.547
62.250	16.537
62.500	16.528
62.750	16.521
63.000	16.517
63.250	16.513
63.500	16.508
63.750	16.502
64.000	16.496
64.250	16.491
64.500	16.485
64.750	16.480
65.000	16.475
65.250	16.470
65.500	16.466
65.750	16.462
66.000	16.458
66.250	16.454
66.500	16.450
66.750	16.446
67.000	16.443
67.250	16.440
67.500	16.437
67.750	16.435
68.000	16.432
68.250	16.430
68.500	16.427
68.750	16.424
69.000	16.421
69.250	16.418
69.500	16.415
69.750	16.412
70.000	16.409
70.250	16.406
70.500	16.403
70.750	16.400
71.000	16.397
71.250	16.394
71.500	16.391
71.750	16.389
72.000	16.386

Highway 9 & 57
Drainage Study

Appendix D

Existing Condtions
ICPR Model Results

J – 26146.0000

Prepared by:

THOMAS & HUTTON

Savannah, GA | Charleston, SC | Myrtle Beach, SC | Brunswick, GA | Wilmington, NC

Highway 57
Node Maximum Comparison Report

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
57N_a_dn	002-yr	29.84	30.00	0.0049	4	81.31	0.00
57N_a_dn	010-yr	30.59	30.00	0.0046	4	193.05	0.00
57N_a_dn	025-yr	30.74	30.00	0.0048	4	259.66	0.00
57N_a_dn	050-yr	30.88	30.00	0.0038	4	337.88	0.00
57N_a_dn	100-yr	31.01	30.00	0.0031	4	428.86	0.00
57N_a_dn	OCT-2015	31.05	30.00	0.0030	4	454.17	0.00
57N_a_dn	OCT-2016	30.90	30.00	0.0053	4	353.18	0.00
57N_a_up	002-yr	32.19	32.00	0.0034	186831	81.45	81.31
57N_a_up	010-yr	32.41	32.00	0.0043	215667	193.09	193.05
57N_a_up	025-yr	32.50	32.00	0.0050	226618	259.73	259.66
57N_a_up	050-yr	32.58	32.00	0.0050	237282	337.95	337.88
57N_a_up	100-yr	32.66	32.00	0.0050	247837	428.94	428.86
57N_a_up	OCT-2015	32.68	32.00	0.0048	250523	454.25	454.17
57N_a_up	OCT-2016	32.59	32.00	0.0049	239109	353.39	353.18
57N_b	002-yr	34.14	33.50	0.0024	50811	78.04	77.97
57N_b	010-yr	35.15	33.50	0.0022	63003	184.42	184.33
57N_b	025-yr	35.58	33.50	0.0023	68061	247.09	246.93
57N_b	050-yr	36.00	33.50	0.0021	73063	320.16	319.99
57N_b	100-yr	36.43	33.50	0.0020	78101	404.67	404.44
57N_b	OCT-2015	36.55	33.50	0.0023	79503	429.94	429.62
57N_b	OCT-2016	36.04	33.50	0.0016	73411	326.92	326.45
57N_c_dn	002-yr	35.43	35.00	0.0020	26850	74.92	74.89
57N_c_dn	010-yr	36.86	35.00	0.0031	35167	177.93	177.86
57N_c_dn	025-yr	37.44	35.00	0.0031	38570	237.98	237.89
57N_c_dn	050-yr	38.00	35.00	0.0031	41883	307.43	307.35
57N_c_dn	100-yr	38.56	35.00	0.0030	45158	387.15	387.06
57N_c_dn	OCT-2015	38.72	35.00	0.0024	46100	413.07	412.89
57N_c_dn	OCT-2016	37.99	35.00	0.0023	41890	304.06	304.07
57N_c_up	002-yr	35.44	34.00	0.0019	175332	77.83	74.92
57N_c_up	010-yr	36.87	34.00	0.0024	229821	181.74	177.93
57N_c_up	025-yr	37.45	34.00	0.0027	252011	244.26	237.98
57N_c_up	050-yr	38.01	34.00	0.0028	273506	315.33	307.43
57N_c_up	100-yr	38.56	34.00	0.0029	294617	397.13	387.15
57N_c_up	OCT-2015	38.73	34.00	0.0027	300758	426.22	413.07
57N_c_up	OCT-2016	38.00	34.00	0.0021	273062	308.37	304.06
57N_d/e	002-yr	35.74	34.50	0.0041	56392	75.52	74.17
57N_d/e	010-yr	37.35	34.50	0.0031	71698	177.11	175.65
57N_d/e	025-yr	38.00	34.50	0.0037	77912	238.65	235.86
57N_d/e	050-yr	38.63	34.50	0.0033	83910	308.14	304.45
57N_d/e	100-yr	39.24	34.50	0.0032	89794	387.15	382.65
57N_d/e	OCT-2015	39.43	34.50	0.0040	91559	414.71	409.91
57N_d/e	OCT-2016	38.58	34.50	0.0050	83559	301.61	294.78
57N_f_dn	002-yr	35.77	33.00	0.0050	13885	220.37	53.01
57N_f_dn	010-yr	37.40	33.00	0.0066	17632	544.74	129.60
57N_f_dn	025-yr	38.06	33.00	0.0067	19146	723.99	170.63
57N_f_dn	050-yr	38.69	33.00	0.0064	20607	958.46	215.89
57N_f_dn	100-yr	39.31	33.00	0.0064	22040	1052.40	268.78
57N_f_dn	OCT-2015	39.51	33.00	0.0068	22487	1139.32	307.74
57N_f_dn	OCT-2016	38.64	33.00	0.0067	20502	907.96	217.79
57N_f_up	002-yr	35.78	34.00	0.0023	221172	50.66	220.37
57N_f_up	010-yr	37.40	34.00	0.0023	291542	129.77	544.74
57N_f_up	025-yr	38.06	34.00	0.0021	319914	176.13	723.99
57N_f_up	050-yr	38.69	34.00	0.0022	347271	228.95	958.46
57N_f_up	100-yr	39.31	34.00	0.0023	374124	289.87	1052.40
57N_f_up	OCT-2015	39.51	34.00	0.0022	382636	310.46	1139.32
57N_f_up	OCT-2016	38.64	34.00	0.0031	344971	223.36	907.96
57N_g	002-yr	35.79	33.00	0.0018	157734	41.53	21.62
57N_g	010-yr	37.42	33.00	0.0026	202191	79.02	47.98
57N_g	025-yr	38.07	33.00	0.0026	220166	95.13	58.92
57N_g	050-yr	38.71	33.00	0.0024	237509	113.31	70.98
57N_g	100-yr	39.33	33.00	0.0023	254526	133.51	87.62
57N_g	OCT-2015	39.53	33.00	0.0024	259931	117.43	98.84
57N_g	OCT-2016	38.65	33.00	0.0024	236021	83.23	68.31
57N_h_dn	002-yr	35.86	45.00	0.0019	43944	22.31	23.14
57N_h_dn	010-yr	37.54	45.00	0.0013	61716	71.58	70.31
57N_h_dn	025-yr	38.20	45.00	0.0015	68669	103.71	99.03
57N_h_dn	050-yr	38.83	45.00	0.0030	75370	142.17	133.39
57N_h_dn	100-yr	39.45	45.00	0.0029	81965	185.51	172.44
57N_h_dn	OCT-2015	39.67	45.00	0.0028	84303	182.49	176.92
57N_h_dn	OCT-2016	38.78	45.00	0.0020	74850	129.92	126.02
57N_h_up	002-yr	35.86	45.00	0.0030	11245	22.10	22.31
57N_h_up	010-yr	37.54	45.00	0.0030	17198	72.05	71.58
57N_h_up	025-yr	38.20	45.00	0.0030	19515	105.28	103.71
57N_h_up	050-yr	38.83	45.00	0.0030	21746	145.05	142.17
57N_h_up	100-yr	39.45	45.00	0.0036	23944	189.88	185.51

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
57N_h_up	OCT-2015	39.68	45.00	0.0033	24740	184.63	182.49
57N_h_up	OCT-2016	38.78	45.00	0.0026	21583	131.43	129.92
57N_h_Wet	002-yr	39.34	45.00	0.0013	542676	76.87	22.10
57N_h_Wet	010-yr	40.21	45.00	0.0006	592919	143.61	72.05
57N_h_Wet	025-yr	40.29	45.00	0.0007	597658	171.95	105.28
57N_h_Wet	050-yr	40.37	45.00	0.0009	602164	203.93	145.05
57N_h_Wet	100-yr	40.45	45.00	0.0010	606664	239.40	189.88
57N_h_Wet	OCT-2015	40.45	45.00	0.0011	606696	203.35	184.63
57N_h_Wet	OCT-2016	40.35	45.00	0.0011	600887	136.75	131.43
57S_a_dn	002-yr	28.09	33.00	0.0036	336	83.45	0.00
57S_a_dn	010-yr	29.47	33.00	0.0033	336	151.36	0.00
57S_a_dn	025-yr	30.02	33.00	0.0041	336	185.72	0.00
57S_a_dn	050-yr	31.33	33.00	0.0036	336	257.21	0.00
57S_a_dn	100-yr	32.04	33.00	0.0030	336	329.01	0.00
57S_a_dn	OCT-2015	32.31	33.00	0.0036	256	381.01	0.00
57S_a_dn	OCT-2016	31.39	33.00	0.0027	336	261.68	0.00
57S_a_Pond	002-yr	28.80	30.00	0.0015	29394	22.40	18.94
57S_a_Pond	010-yr	29.70	30.00	0.0016	34287	48.93	41.34
57S_a_Pond	025-yr	30.21	30.00	0.0018	37053	60.69	47.79
57S_a_Pond	050-yr	31.47	30.00	0.0016	43922	74.13	58.81
57S_a_Pond	100-yr	32.22	30.00	0.0016	48051	89.35	68.70
57S_a_Pond	OCT-2015	32.55	30.00	0.0024	49843	82.55	58.59
57S_a_Pond	OCT-2016	31.56	30.00	0.0014	44411	41.95	35.30
57S_a_up	002-yr	28.15	33.00	0.0027	7370	82.91	83.45
57S_a_up	010-yr	29.55	33.00	0.0032	11143	149.93	151.36
57S_a_up	025-yr	30.12	33.00	0.0040	14506	184.47	185.72
57S_a_up	050-yr	31.41	33.00	0.0035	38306	250.42	257.21
57S_a_up	100-yr	32.17	33.00	0.0030	52197	321.72	329.01
57S_a_up	OCT-2015	32.49	33.00	0.0035	57948	372.33	381.01
57S_a_up	OCT-2016	31.50	33.00	0.0027	39861	257.20	261.68
57S_b_dn	002-yr	28.25	31.00	0.0022	12319	69.72	70.30
57S_b_dn	010-yr	29.62	31.00	0.0022	16800	142.35	143.93
57S_b_dn	025-yr	30.18	31.00	0.0023	18694	178.77	179.84
57S_b_dn	050-yr	31.44	31.00	0.0025	22854	242.17	246.40
57S_b_dn	100-yr	32.20	31.00	0.0024	25365	324.09	317.91
57S_b_dn	OCT-2015	32.53	31.00	0.0023	26509	633.38	368.66
57S_b_dn	OCT-2016	31.53	31.00	0.0023	23169	250.99	253.52
57S_b_up	002-yr	29.80	31.50	0.0026	465	33.86	33.86
57S_b_up	010-yr	31.32	31.50	-0.0052	452	55.26	55.24
57S_b_up	025-yr	31.60	31.50	-0.0056	452	64.01	64.01
57S_b_up	050-yr	31.72	31.50	-0.0050	438	73.71	73.69
57S_b_up	100-yr	32.22	31.50	0.0050	438	84.34	84.32
57S_b_up	OCT-2015	32.62	31.50	0.0069	438	61.74	305.15
57S_b_up	OCT-2016	31.69	31.50	0.0059	438	36.77	36.73
57S_c	002-yr	28.39	32.00	0.0025	32446	36.80	39.04
57S_c	010-yr	29.68	32.00	0.0017	58019	84.72	84.12
57S_c	025-yr	30.35	32.00	0.0019	87894	127.85	126.78
57S_c	050-yr	31.54	32.00	0.0018	162973	175.68	178.71
57S_c	100-yr	32.29	32.00	0.0019	210247	224.84	230.07
57S_c	OCT-2015	32.68	32.00	0.0019	234571	296.81	300.20
57S_c	OCT-2016	31.65	32.00	0.0031	170083	186.91	196.19
57S_d	002-yr	30.94	32.00	0.0026	34677	21.35	18.52
57S_d	010-yr	32.53	32.00	0.0030	43922	55.90	55.86
57S_d	025-yr	32.66	32.00	0.0031	44657	95.64	95.42
57S_d	050-yr	32.77	32.00	0.0031	45289	142.61	142.31
57S_d	100-yr	32.86	32.00	0.0029	45850	192.26	191.99
57S_d	OCT-2015	32.90	32.00	0.0029	46139	217.45	217.36
57S_d	OCT-2016	32.79	32.00	0.0033	45460	152.88	152.82
57S_d_dn	002-yr	30.94	33.00	0.0022	61899	12.50	14.83
57S_d_dn	010-yr	32.53	33.00	0.0028	79332	22.68	23.04
57S_d_dn	025-yr	32.66	33.00	0.0029	80689	33.31	33.74
57S_d_dn	050-yr	32.77	33.00	0.0030	81904	47.50	48.32
57S_d_dn	100-yr	32.87	33.00	0.0028	83010	65.34	66.28
57S_d_dn	OCT-2015	32.94	33.00	0.0028	83750	98.19	99.30
57S_d_dn	OCT-2016	32.81	33.00	0.0030	82360	70.96	71.74
57S_d_up	002-yr	32.42	33.00	0.0027	55677	34.24	13.33
57S_d_up	010-yr	32.85	33.00	0.0025	61416	57.49	51.15
57S_d_up	025-yr	32.89	33.00	0.0032	62248	66.64	65.86
57S_d_up	050-yr	32.92	33.00	0.0033	63055	81.89	81.20
57S_d_up	100-yr	32.95	33.00	0.0034	63778	97.67	97.29
57S_d_up	OCT-2015	32.97	33.00	0.0035	63066	77.94	77.01
57S_d_up	OCT-2016	32.86	33.00	0.0035	61348	47.43	47.38
57S_e_dn	002-yr	28.54	33.00	0.0015	15638	11.08	11.20
57S_e_dn	010-yr	29.70	33.00	0.0016	22738	15.42	16.18

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
57S_e_dn	025-yr	30.36	33.00	0.0017	26658	16.18	17.45
57S_e_dn	050-yr	31.54	33.00	0.0016	33737	16.85	18.73
57S_e_dn	100-yr	32.29	33.00	0.0017	38221	28.94	31.15
57S_e_dn	OCT-2015	32.72	33.00	0.0015	40684	69.64	72.12
57S_e_dn	OCT-2016	31.66	33.00	0.0016	34417	34.04	37.19
57S_e_up	002-yr	30.65	33.00	0.0016	47334	17.16	11.08
57S_e_up	010-yr	32.11	33.00	0.0019	340651	28.14	15.42
57S_e_up	025-yr	32.42	33.00	0.0019	610833	33.46	16.18
57S_e_up	050-yr	32.70	33.00	0.0019	857628	39.29	16.85
57S_e_up	100-yr	32.77	33.00	0.0019	917691	48.76	28.94
57S_e_up	OCT-2015	32.90	33.00	0.0022	1033313	86.08	69.64
57S_e_up	OCT-2016	32.79	33.00	0.0017	936026	48.44	34.04
57S_f	002-yr	30.75	34.00	0.0007	4754	2.61	2.64
57S_f	010-yr	32.12	34.00	0.0013	8158	4.19	4.19
57S_f	025-yr	32.42	34.00	0.0013	8906	4.72	4.72
57S_f	050-yr	32.70	34.00	0.0013	9590	5.27	5.26
57S_f	100-yr	32.77	34.00	0.0014	9758	5.83	5.85
57S_f	OCT-2015	32.91	34.00	0.0010	10082	8.07	8.10
57S_f	OCT-2016	32.79	34.00	0.0006	9810	6.27	6.31
57S_f_Wet	002-yr	34.74	33.00	0.0011	261360	63.56	2.61
57S_f_Wet	010-yr	37.40	33.00	0.0007	261360	127.81	4.19
57S_f_Wet	025-yr	38.59	33.00	0.0009	261360	155.63	4.72
57S_f_Wet	050-yr	39.96	33.00	0.0010	261360	187.13	5.27
57S_f_Wet	100-yr	41.50	33.00	0.0012	261360	222.50	5.83
57S_f_Wet	OCT-2015	49.25	33.00	0.0011	261360	196.17	8.07
57S_f_Wet	OCT-2016	42.82	33.00	0.0008	261360	106.38	6.27
57S_g	002-yr	30.90	38.00	0.0008	52293	6.32	6.56
57S_g	010-yr	32.17	38.00	0.0005	81636	9.35	9.67
57S_g	025-yr	32.47	38.00	0.0005	88296	10.21	10.33
57S_g	050-yr	32.74	38.00	0.0005	94462	11.03	11.07
57S_g	100-yr	32.80	38.00	0.0005	95826	11.84	11.97
57S_g	OCT-2015	32.94	38.00	0.0005	99139	14.92	15.12
57S_g	OCT-2016	32.83	38.00	0.0005	96520	12.34	12.54
57S_g_Wet	002-yr	37.52	40.00	0.0011	811145	49.44	1.38
57S_g_Wet	010-yr	38.59	40.00	0.0004	1138378	99.08	2.50
57S_g_Wet	025-yr	38.98	40.00	0.0006	1257463	120.77	2.79
57S_g_Wet	050-yr	39.39	40.00	0.0007	1381485	145.42	3.07
57S_g_Wet	100-yr	39.81	40.00	0.0008	1509287	172.98	3.33
57S_g_Wet	OCT-2015	42.01	40.00	0.0010	2181922	159.05	4.47
57S_g_Wet	OCT-2016	40.15	40.00	0.0010	1613194	108.00	3.53
57S_h	002-yr	34.92	38.70	0.0004	38216	4.96	4.95
57S_h	010-yr	35.12	38.70	0.0004	47519	6.86	6.86
57S_h	025-yr	35.18	38.70	0.0004	49985	7.43	7.42
57S_h	050-yr	35.24	38.70	0.0003	52314	7.98	7.96
57S_h	100-yr	35.28	38.70	0.0003	53244	8.51	8.51
57S_h	OCT-2015	35.40	38.70	0.0004	55942	10.46	10.46
57S_h	OCT-2016	35.30	38.70	0.0005	53713	8.82	8.82
57S_h_Wet	002-yr	40.57	40.00	0.0012	408480	51.14	3.49
57S_h_Wet	010-yr	41.88	40.00	0.0009	545460	88.36	4.18
57S_h_Wet	025-yr	42.35	40.00	0.0010	594293	103.81	4.40
57S_h_Wet	050-yr	42.84	40.00	0.0011	644954	121.00	4.61
57S_h_Wet	100-yr	43.33	40.00	0.0012	697062	139.92	4.83
57S_h_Wet	OCT-2015	45.28	40.00	0.0011	900930	109.18	5.58
57S_h_Wet	OCT-2016	43.48	40.00	0.0011	712811	71.19	4.89
57S_i_dn	002-yr	38.81	40.00	0.0002	10381	1.47	1.47
57S_i_dn	010-yr	38.94	40.00	0.0002	11786	2.68	2.68
57S_i_dn	025-yr	38.97	40.00	0.0001	12162	3.03	3.03
57S_i_dn	050-yr	39.00	40.00	0.0001	12514	3.36	3.36
57S_i_dn	100-yr	39.03	40.00	0.0001	12794	3.68	3.68
57S_i_dn	OCT-2015	39.12	40.00	0.0001	13713	4.88	4.88
57S_i_dn	OCT-2016	39.05	40.00	0.0002	12981	3.93	3.93
57S_i_up	002-yr	39.32	40.50	0.0009	149	1.47	1.47
57S_i_up	010-yr	39.58	40.50	0.0014	150	2.68	2.68
57S_i_up	025-yr	39.64	40.50	0.0014	150	3.03	3.03
57S_i_up	050-yr	39.70	40.50	0.0014	149	3.36	3.36
57S_i_up	100-yr	39.76	40.50	0.0015	148	3.68	3.68
57S_i_up	OCT-2015	39.97	40.50	0.0012	142	4.88	4.88
57S_i_up	OCT-2016	39.80	40.50	0.0015	147	3.93	3.93
57S_i_Wet	002-yr	40.58	40.00	0.0008	382309	44.89	1.47
57S_i_Wet	010-yr	41.83	40.00	0.0005	454902	82.80	2.68
57S_i_Wet	025-yr	42.33	40.00	0.0006	483554	98.81	3.03
57S_i_Wet	050-yr	42.86	40.00	0.0007	514309	116.75	3.36
57S_i_Wet	100-yr	43.41	40.00	0.0007	546815	136.58	3.68
57S_i_Wet	OCT-2015	45.96	40.00	0.0007	694701	113.16	4.88
57S_i_Wet	OCT-2016	43.89	40.00	0.0006	574310	68.80	3.93

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
57S_j	002-yr	30.94	34.00	0.0022	28783	8.70	9.82
57S_j	010-yr	32.53	34.00	0.0028	36969	10.91	12.24
57S_j	025-yr	32.65	34.00	0.0029	37570	10.91	12.25
57S_j	050-yr	32.76	34.00	0.0030	38146	14.51	15.00
57S_j	100-yr	32.86	34.00	0.0028	38676	19.43	20.00
57S_j	OCT-2015	32.94	34.00	0.0028	39078	29.40	31.09
57S_j	OCT-2016	32.82	34.00	0.0030	38412	25.23	25.78
57S_j_pond	002-yr	30.95	35.00	0.0013	247975	49.54	8.70
57S_j_pond	010-yr	32.56	35.00	0.0014	271121	81.64	10.91
57S_j_pond	025-yr	32.67	35.00	0.0014	273158	95.78	10.91
57S_j_pond	050-yr	32.81	35.00	0.0015	275567	110.83	14.51
57S_j_pond	100-yr	32.99	35.00	0.0013	278653	127.30	19.43
57S_j_pond	OCT-2015	33.45	35.00	0.0009	290438	95.20	29.40
57S_j_pond	OCT-2016	33.16	35.00	0.0007	283075	55.41	25.23
57S_k	002-yr	36.39	34.00	0.0050	151	28.51	28.49
57S_k	010-yr	36.86	34.00	0.0055	150	51.72	51.72
57S_k	025-yr	36.88	34.00	0.0050	150	61.44	61.44
57S_k	050-yr	36.90	34.00	0.0052	150	72.29	72.29
57S_k	100-yr	36.91	34.00	0.0061	150	84.25	84.25
57S_k	OCT-2015	36.89	34.00	0.0057	150	65.48	65.48
57S_k	OCT-2016	36.83	34.00	-0.0045	120	35.14	35.14
57S_l_dn	002-yr	33.68	35.00	0.0011	30517	37.82	34.24
57S_l_dn	010-yr	34.49	35.00	0.0011	42138	65.64	57.49
57S_l_dn	025-yr	34.73	35.00	0.0012	43986	78.72	66.64
57S_l_dn	050-yr	34.95	35.00	0.0011	45659	90.92	81.89
57S_l_dn	100-yr	35.15	35.00	0.0011	47185	105.82	97.67
57S_l_dn	OCT-2015	34.90	35.00	0.0023	45315	80.35	77.94
57S_l_dn	OCT-2016	34.42	35.00	0.0022	41636	48.35	47.43
57S_l_up	002-yr	37.56	35.00	0.0051	120	36.35	37.82
57S_l_up	010-yr	37.63	35.00	-0.0058	120	63.89	65.64
57S_l_up	025-yr	37.65	35.00	-0.0057	120	75.33	78.72
57S_l_up	050-yr	37.67	35.00	0.0055	120	88.07	90.92
57S_l_up	100-yr	37.69	35.00	0.0050	120	102.10	105.82
57S_l_up	OCT-2015	37.66	35.00	0.0059	120	80.35	80.35
57S_l_up	OCT-2016	37.59	35.00	0.0036	120	48.35	48.35

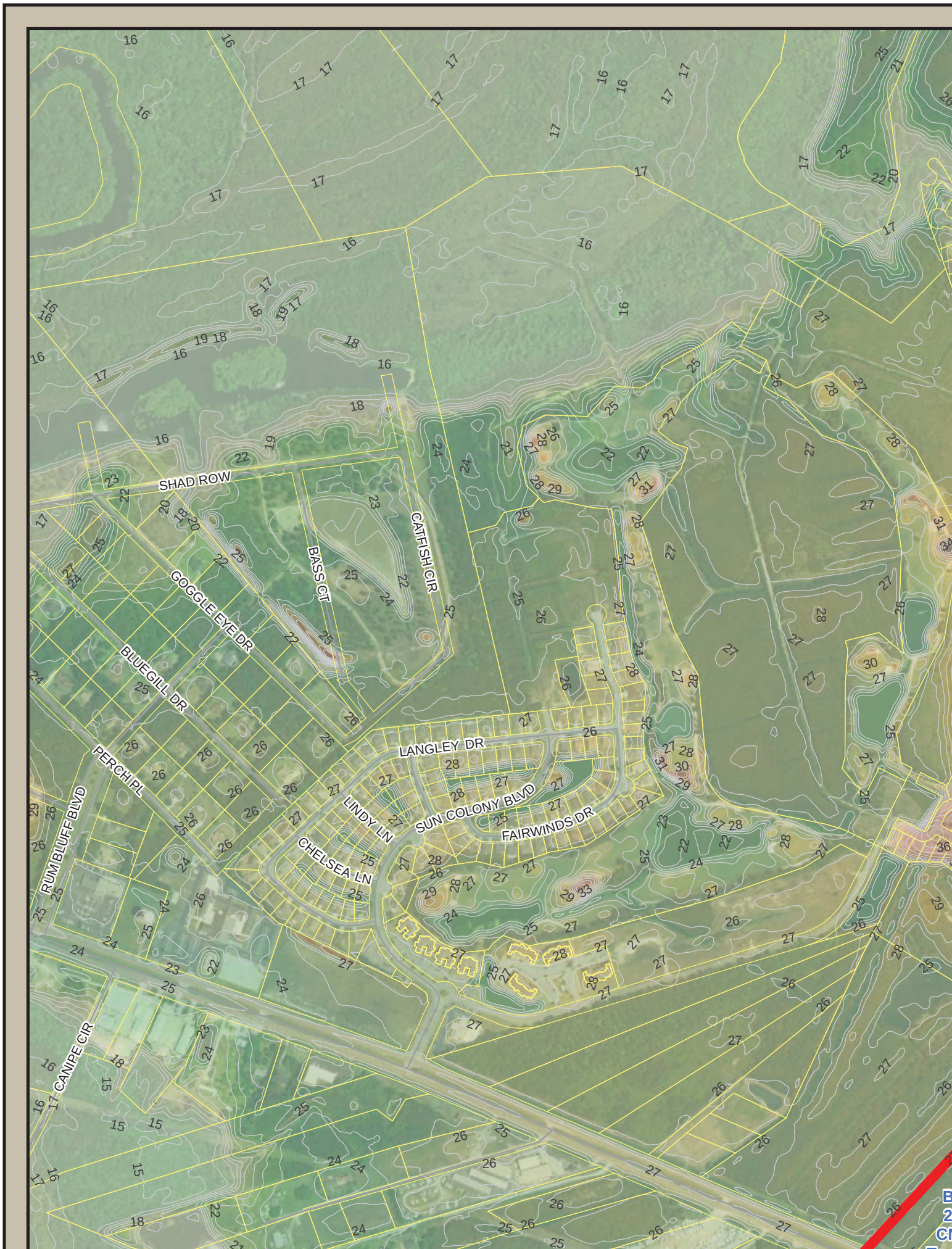
Highway 9
Existing Conditions - Node Maximum Comparison Report

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
A1	002-yr	25.61	26.00	0.0030	85242	170.05	167.53
A1	010-yr	27.22	26.00	0.0028	125171	301.21	301.05
A1	025-yr	28.12	26.00	0.0030	169176	401.60	400.89
A1	050-yr	28.42	26.00	0.0029	193104	543.80	543.23
A1	100-yr	28.56	26.00	0.0024	196232	708.26	708.32
A1	OCT-2015	28.65	26.00	0.0028	196938	829.90	830.02
A1	OCT-2016	28.49	26.00	0.0031	195737	625.36	624.76
A2	002-yr	25.71	26.00	0.0031	38099	171.59	170.05
A2	010-yr	27.23	26.00	0.0034	53095	301.23	301.21
A2	025-yr	28.13	26.00	0.0029	138126	402.00	401.60
A2	050-yr	28.43	26.00	0.0029	144160	544.20	543.80
A2	100-yr	28.58	26.00	0.0024	145563	708.26	708.26
A2	OCT-2015	28.68	26.00	0.0035	146268	830.13	829.90
A2	OCT-2016	28.51	26.00	0.0029	145081	625.99	625.36
A3	002-yr	25.82	26.00	0.0030	11437	172.06	171.59
A3	010-yr	27.28	26.00	0.0029	18994	303.39	301.23
A3	025-yr	28.16	26.00	0.0029	27710	407.35	402.00
A3	050-yr	28.47	26.00	0.0031	28025	541.03	544.20
A3	100-yr	28.62	26.00	0.0024	28477	709.02	708.26
A3	OCT-2015	28.73	26.00	0.0031	28581	829.45	830.13
A3	OCT-2016	28.55	26.00	0.0029	28271	627.07	625.99
A_dn	002-yr	24.94	25.60	0.0034	20371	187.28	187.21
A_dn	010-yr	25.76	25.60	0.0027	26059	314.57	309.75
A_dn	025-yr	26.21	25.60	0.0021	27460	411.56	411.47
A_dn	050-yr	27.53	25.60	-0.0027	60811	563.36	563.85
A_dn	100-yr	27.71	25.60	-0.0027	63773	732.32	732.16
A_dn	OCT-2015	27.85	25.60	0.0036	66386	853.96	853.88
A_dn	OCT-2016	27.61	25.60	0.0036	62485	650.65	651.05
A_up	002-yr	25.41	26.11	0.0031	17699	184.77	184.67
A_up	010-yr	27.12	26.11	0.0029	29317	304.34	310.49
A_up	025-yr	28.08	26.11	0.0028	41607	382.50	410.56
A_up	050-yr	28.36	26.11	0.0030	45460	555.44	561.60
A_up	100-yr	28.47	26.11	0.0028	46210	730.18	730.17
A_up	OCT-2015	28.54	26.11	0.0030	46512	851.62	851.61
A_up	OCT-2016	28.42	26.11	0.0030	45982	647.81	647.81
B_dn	002-yr	25.41	24.00	0.0031	4117	15.25	15.10
B_dn	010-yr	27.12	24.00	-0.0039	5303	19.35	33.42
B_dn	025-yr	28.08	24.00	-0.0048	5963	23.21	46.03
B_dn	050-yr	28.36	24.00	-0.0048	6158	35.86	52.02
B_dn	100-yr	28.47	24.00	0.0048	6235	52.75	54.12
B_dn	OCT-2015	28.54	24.00	-0.0050	6282	43.42	59.51
B_dn	OCT-2016	28.42	24.00	-0.0043	6200	24.26	56.26
B_up	002-yr	25.51	24.20	0.0031	8351	19.07	15.25
B_up	010-yr	27.14	24.20	0.0029	11103	21.10	19.35
B_up	025-yr	28.08	24.20	0.0030	12686	23.66	23.21
B_up	050-yr	28.36	24.20	0.0029	13165	36.67	35.86
B_up	100-yr	28.47	24.20	0.0025	13353	53.47	52.75
B_up	OCT-2015	28.54	24.20	0.0033	13467	44.57	43.42
B_up	OCT-2016	28.42	24.20	0.0031	13265	25.37	24.26
BNDRY	002-yr	19.11	23.00	0.0014	312398	320.28	0.00
BNDRY	010-yr	19.57	23.00	0.0035	335921	526.57	0.00
BNDRY	025-yr	19.73	23.00	0.0036	343271	623.28	0.00
BNDRY	050-yr	19.89	23.00	0.0028	353363	726.59	0.00
BNDRY	100-yr	20.13	23.00	0.0025	372007	871.34	0.00
BNDRY	OCT-2015	20.39	23.00	0.0017	394593	997.93	0.00
BNDRY	OCT-2016	19.97	23.00	0.0014	361023	770.84	0.00
BNDRY_Off	002-yr	23.28	27.21	0.0000	16	3.64	0.00
BNDRY_Off	010-yr	23.28	27.21	0.0000	16	6.62	0.00
BNDRY_Off	025-yr	23.28	27.21	0.0000	16	7.26	0.00
BNDRY_Off	050-yr	23.28	27.21	0.0000	16	8.88	0.00
BNDRY_Off	100-yr	23.28	27.21	0.0000	16	9.17	0.00
BNDRY_Off	OCT-2015	23.28	27.21	0.0000	16	9.26	0.00
BNDRY_Off	OCT-2016	23.28	27.21	0.0000	16	9.03	0.00
C_dn	002-yr	25.53	27.00	0.0026	6948	10.31	10.71
C_dn	010-yr	27.14	27.00	0.0025	9584	11.87	11.75
C_dn	025-yr	28.08	27.00	0.0029	11166	15.27	14.94
C_dn	050-yr	28.36	27.00	0.0028	11645	22.76	22.09
C_dn	100-yr	28.47	27.00	0.0023	11834	33.96	33.35
C_dn	OCT-2015	28.54	27.00	0.0028	11949	27.38	26.29
C_dn	OCT-2016	28.42	27.00	0.0017	11746	15.53	15.77
C_up	002-yr	25.57	27.00	0.0008	52091	17.85	10.31
C_up	010-yr	27.15	27.00	0.0023	90833	32.16	11.87
C_up	025-yr	28.08	27.00	0.0026	113640	38.15	15.27
C_up	050-yr	28.36	27.00	0.0024	120625	44.83	22.76
C_up	100-yr	28.48	27.00	0.0020	123381	52.19	33.96

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
C_up	OCT-2015	28.55	27.00	0.0013	125052	41.05	27.38
C_up	OCT-2016	28.42	27.00	0.0009	122083	22.84	15.53
D	002-yr	25.85	27.00	0.0022	2567	39.97	38.77
D	010-yr	27.30	27.00	-0.0049	3251	62.61	60.74
D	025-yr	28.17	27.00	0.0050	3665	71.84	70.89
D	050-yr	28.49	27.00	-0.0050	3812	82.06	80.44
D	100-yr	28.66	27.00	-0.0049	3892	93.25	91.56
D	OCT-2015	28.77	27.00	-0.0061	3944	56.40	99.64
D	OCT-2016	28.57	27.00	-0.0052	3853	37.70	77.35
E	002-yr	25.85	27.00	0.0040	17871	212.67	172.06
E	010-yr	27.30	27.00	0.0038	41732	323.58	303.39
E	025-yr	28.18	27.00	0.0032	47704	372.05	407.35
E	050-yr	28.48	27.00	0.0039	50684	587.24	541.03
E	100-yr	28.66	27.00	0.0034	56973	677.95	709.02
E	OCT-2015	28.77	27.00	0.0032	58228	860.28	829.45
E	OCT-2016	28.57	27.00	0.0035	54240	596.34	627.07
E1	002-yr	25.95	28.00	0.0030	14655	81.20	80.87
E1	010-yr	27.33	28.00	0.0029	70403	143.63	138.80
E1	025-yr	28.19	28.00	0.0026	92607	170.43	161.17
E1	050-yr	28.51	28.00	0.0027	96654	239.13	232.69
E1	100-yr	28.69	28.00	0.0023	100138	314.54	309.61
E1	OCT-2015	28.81	28.00	0.0028	104860	363.10	359.12
E1	OCT-2016	28.60	28.00	0.0031	98975	253.22	251.83
E2	002-yr	26.17	30.00	0.0029	23742	81.83	81.20
E2	010-yr	27.37	30.00	0.0028	95206	147.84	143.63
E2	025-yr	28.20	30.00	0.0025	125538	181.71	170.43
E2	050-yr	28.53	30.00	0.0026	131030	251.22	239.13
E2	100-yr	28.71	30.00	0.0020	133672	323.54	314.54
E2	OCT-2015	28.85	30.00	0.0027	139036	370.50	363.10
E2	OCT-2016	28.62	30.00	0.0028	132494	256.01	253.22
E3	002-yr	26.63	32.00	0.0028	8403	82.08	81.83
E3	010-yr	27.76	32.00	0.0024	20076	148.96	147.84
E3	025-yr	28.41	32.00	0.0021	28629	183.84	181.71
E3	050-yr	28.99	32.00	0.0021	32121	253.87	251.22
E3	100-yr	29.36	32.00	0.0017	33984	326.21	323.54
E3	OCT-2015	29.92	32.00	0.0026	47974	374.26	370.50
E3	OCT-2016	29.12	32.00	0.0024	32824	256.96	256.01
E4	002-yr	27.02	32.00	0.0023	5357	82.34	82.08
E4	010-yr	28.25	32.00	0.0022	6578	149.51	148.96
E4	025-yr	28.80	32.00	0.0023	7285	184.44	183.84
E4	050-yr	29.83	32.00	0.0024	20649	255.00	253.87
E4	100-yr	30.29	32.00	0.0022	25182	327.64	326.21
E4	OCT-2015	30.79	32.00	0.0024	32270	376.32	374.26
E4	OCT-2016	29.92	32.00	0.0022	21448	257.58	256.96
F	002-yr	25.85	27.00	-0.0049	8485	86.16	99.65
F	010-yr	27.32	27.00	0.0050	79911	200.62	200.93
F	025-yr	28.19	27.00	0.0047	88757	268.14	267.50
F	050-yr	28.50	27.00	-0.0050	94635	350.74	352.17
F	100-yr	28.68	27.00	-0.0050	100713	451.56	451.67
F	OCT-2015	28.79	27.00	-0.0050	101942	480.76	482.32
F	OCT-2016	28.59	27.00	0.0050	96641	388.20	388.49
F1	002-yr	25.87	27.00	0.0035	15677	83.51	83.66
F1	010-yr	27.48	27.00	0.0030	105078	192.22	196.94
F1	025-yr	28.23	27.00	0.0027	151028	257.88	263.58
F1	050-yr	28.53	27.00	0.0028	183528	339.47	344.89
F1	100-yr	28.74	27.00	0.0030	235778	436.49	443.00
F1	OCT-2015	28.84	27.00	0.0041	245968	472.09	467.36
F1	OCT-2016	28.63	27.00	0.0043	200587	370.04	376.88
G_dn	002-yr	25.87	27.00	0.0011	2451	4.72	4.37
G_dn	010-yr	27.48	27.00	0.0026	4062	8.43	6.88
G_dn	025-yr	28.23	27.00	0.0026	4827	9.86	7.86
G_dn	050-yr	28.53	27.00	0.0028	5140	11.47	9.58
G_dn	100-yr	28.74	27.00	0.0027	5350	13.25	11.32
G_dn	OCT-2015	28.84	27.00	0.0018	5457	8.38	7.52
G_dn	OCT-2016	28.63	27.00	-0.0010	5241	5.42	9.15
G_up	002-yr	28.54	27.66	0.0049	539	4.88	4.72
G_up	010-yr	28.67	27.66	0.0050	557	8.42	8.43
G_up	025-yr	28.70	27.66	0.0050	541	9.87	9.86
G_up	050-yr	28.74	27.66	0.0050	547	11.49	11.47
G_up	100-yr	28.77	27.66	0.0050	552	13.26	13.25
G_up	OCT-2015	28.84	27.66	0.0045	562	8.38	8.38
G_up	OCT-2016	28.64	27.66	0.0031	533	5.44	5.42
H	002-yr	25.98	27.59	-0.0067	126	10.11	9.98
H	010-yr	28.12	27.59	-0.0066	126	11.00	10.95

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
H	025-yr	28.51	27.59	-0.0065	126	13.31	13.25
H	050-yr	28.80	27.59	0.0086	126	15.77	15.72
H	100-yr	29.08	27.59	0.0150	126	18.69	41.01
H	OCT-2015	29.26	27.59	-0.1681	126	12.19	86.11
H	OCT-2016	28.94	27.59	0.0106	126	7.17	28.73
HWY57_N	002-yr	29.84	32.00	0.0016	26222	81.27	81.24
HWY57_N	010-yr	30.59	32.00	0.0024	107230	193.03	192.94
HWY57_N	025-yr	30.74	32.00	0.0026	119545	259.64	259.65
HWY57_N	050-yr	30.88	32.00	0.0025	133231	337.85	337.83
HWY57_N	100-yr	31.01	32.00	0.0025	144875	428.61	428.75
HWY57_N	OCT-2015	31.05	32.00	0.0018	148364	454.16	453.74
HWY57_N	OCT-2016	30.90	32.00	0.0030	136486	353.08	352.70
HWY57_S	002-yr	28.02	32.00	-0.0036	3532	82.58	82.34
HWY57_S	010-yr	29.37	32.00	0.0024	4090	149.97	149.51
HWY57_S	025-yr	29.95	32.00	0.0029	4362	184.93	184.44
HWY57_S	050-yr	31.30	32.00	0.0029	7855	255.33	255.00
HWY57_S	100-yr	31.99	32.00	0.0030	10450	328.09	327.64
HWY57_S	OCT-2015	32.29	32.00	-0.0043	11654	375.68	376.32
HWY57_S	OCT-2016	31.33	32.00	0.0020	8040	257.85	257.58
I	002-yr	25.98	27.00	0.0027	4056	9.98	7.53
I	010-yr	28.13	27.00	0.0030	12804	10.95	13.37
I	025-yr	28.52	27.00	0.0027	17426	13.25	20.47
I	050-yr	28.79	27.00	0.0028	21276	15.72	33.54
I	100-yr	29.01	27.00	0.0038	22252	41.01	16.88
I	OCT-2015	29.08	27.00	0.0039	22338	86.11	24.53
I	OCT-2016	28.88	27.00	0.0050	21725	28.73	18.07
J	002-yr	25.98	27.00	0.0026	18137	88.03	83.29
J	010-yr	28.13	27.00	0.0030	177662	194.90	194.81
J	025-yr	28.52	27.00	0.0027	255593	262.70	262.45
J	050-yr	28.79	27.00	0.0028	324010	338.60	343.00
J	100-yr	29.01	27.00	0.0027	350640	422.54	440.52
J	OCT-2015	29.08	27.00	0.0023	354106	453.28	466.12
J	OCT-2016	28.88	27.00	0.0020	334848	357.04	373.16
J1	002-yr	27.01	29.00	0.0023	23178	82.85	82.88
J1	010-yr	29.13	29.00	0.0031	271296	195.99	195.90
J1	025-yr	29.28	29.00	0.0027	308905	263.34	262.82
J1	050-yr	29.46	29.00	0.0031	377959	343.63	343.25
J1	100-yr	29.59	29.00	0.0028	389641	435.85	435.38
J1	OCT-2015	29.63	29.00	0.0017	393154	458.84	456.90
J1	OCT-2016	29.49	29.00	0.0019	381188	361.81	361.76
JB	002-yr	24.98	27.21	0.0005	419	3.64	3.64
JB	010-yr	25.31	27.21	0.0007	438	6.62	6.62
JB	025-yr	25.37	27.21	0.0009	439	7.26	7.26
JB	050-yr	25.52	27.21	0.0009	439	8.88	8.88
JB	100-yr	25.55	27.21	0.0009	439	9.17	9.17
JB	OCT-2015	25.56	27.21	0.0005	439	9.26	9.26
JB	OCT-2016	25.54	27.21	0.0004	439	9.03	9.03
K	002-yr	29.25	30.00	0.0019	91032	82.92	82.85
K	010-yr	29.94	30.00	0.0024	373622	196.23	195.99
K	025-yr	30.06	30.00	0.0021	413180	263.98	263.34
K	050-yr	30.18	30.00	0.0025	460666	344.05	343.63
K	100-yr	30.29	30.00	0.0029	483285	436.38	435.85
K	OCT-2015	30.32	30.00	0.0016	488075	460.45	458.84
K	OCT-2016	30.21	30.00	0.0013	466418	362.25	361.81
Pond A	002-yr	25.97	27.00	0.0014	30004	13.73	2.63
Pond A	010-yr	27.32	27.00	0.0027	36363	23.50	7.15
Pond A	025-yr	28.19	27.00	0.0030	40463	27.51	10.22
Pond A	050-yr	28.51	27.00	0.0028	41937	31.97	13.75
Pond A	100-yr	28.69	27.00	0.0027	42794	36.86	17.97
Pond A	OCT-2015	28.79	27.00	0.0015	43285	23.92	15.05
Pond A	OCT-2016	28.61	27.00	0.0012	42420	15.12	8.28
Pond B	002-yr	25.83	29.00	0.0007	81127	25.51	4.41
Pond B	010-yr	26.92	29.00	0.0015	83199	44.34	5.87
Pond B	025-yr	27.32	29.00	0.0018	83936	52.11	7.10
Pond B	050-yr	28.75	29.00	0.0019	86655	60.75	9.30
Pond B	100-yr	28.99	29.00	0.0019	87108	70.22	9.33
Pond B	OCT-2015	29.07	29.00	0.0011	87246	43.79	9.72
Pond B	OCT-2016	28.88	29.00	0.0008	86888	29.05	9.68
Pond C	002-yr	25.86	28.00	0.0024	18556	12.56	7.67
Pond C	010-yr	27.32	28.00	0.0031	19269	20.22	15.53
Pond C	025-yr	28.19	28.00	0.0031	19695	27.53	22.62
Pond C	050-yr	28.50	28.00	0.0031	19847	37.67	30.74
Pond C	100-yr	28.68	28.00	0.0026	19935	48.47	40.11
Pond C	OCT-2015	28.79	28.00	0.0028	19989	36.07	32.67
Pond C	OCT-2016	28.59	28.00	0.0015	19893	21.04	18.34

Name	Simulation	Max Stage ft	Warning Stage ft	Max Delta Stage ft	Max Surf Area ft2	Max Inflow cfs	Max Outflow cfs
X2	002-yr	23.56	25.00	0.0032	9763	22.98	14.81
X2	010-yr	23.88	25.00	0.0020	10239	30.69	27.09
X2	025-yr	23.96	25.00	0.0017	10360	46.67	43.06
X2	050-yr	24.13	25.00	0.0016	10626	58.32	54.73
X2	100-yr	24.32	25.00	0.0016	10912	69.59	66.05
X2	OCT-2015	24.44	25.00	0.0025	11087	47.75	46.62
X2	OCT-2016	24.25	25.00	0.0044	10807	32.16	30.67
X3	002-yr	23.56	25.00	0.0031	468340	230.85	229.51
X3	010-yr	23.87	25.00	0.0021	588296	389.84	388.73
X3	025-yr	23.95	25.00	0.0017	597994	452.41	449.67
X3	050-yr	24.13	25.00	0.0016	645729	592.45	589.79
X3	100-yr	24.32	25.00	0.0016	673911	772.62	773.61
X3	OCT-2015	24.44	25.00	0.0026	710038	891.37	884.17
X3	OCT-2016	24.25	25.00	0.0044	663904	700.31	695.92
X5	002-yr	23.57	25.00	0.0008	65075	19.67	3.04
X5	010-yr	23.90	25.00	0.0017	69172	35.48	5.25
X5	025-yr	23.99	25.00	0.0015	70300	42.08	6.95
X5	050-yr	24.14	25.00	0.0017	72171	49.42	11.99
X5	100-yr	24.34	25.00	0.0016	74589	57.50	16.70
X5	OCT-2015	24.46	25.00	0.0012	76091	30.45	16.82
X5	OCT-2016	24.28	25.00	0.0010	73837	25.30	11.47
X6	002-yr	21.56	23.00	0.0005	192016	39.42	4.93
X6	010-yr	22.03	23.00	0.0008	207621	69.68	7.74
X6	025-yr	22.17	23.00	0.0009	212266	82.22	9.85
X6	050-yr	22.32	23.00	0.0011	216935	96.15	15.43
X6	100-yr	22.47	23.00	0.0013	222061	111.49	22.21
X6	OCT-2015	22.58	23.00	0.0006	225614	61.66	24.45
X6	OCT-2016	22.32	23.00	0.0004	217023	47.60	14.78
X7	002-yr	21.37	23.00	0.0023	671464	281.44	292.86
X7	010-yr	21.66	23.00	0.0017	761048	500.30	469.84
X7	025-yr	21.79	23.00	0.0016	786962	590.24	549.64
X7	050-yr	21.94	23.00	0.0017	829246	689.78	634.64
X7	100-yr	22.21	23.00	0.0018	890392	847.84	837.56
X7	OCT-2015	22.36	23.00	0.0029	926583	973.90	959.84
X7	OCT-2016	22.09	23.00	0.0038	864368	752.25	739.74


SHAD ROW
GOGGLE EYE DR
BLUEGILL DR
BASS CT
CATFISH CIR
PERCH PL
RUM BLUFF BLVD
LANGLEY DR
LINDY LN
SUN COLONY BLVD
FAIRWINDS DR
CHELSEA LN
CANIPE CIR