

Appendix A: Plan sets

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
2	MD	US UGS (349(I))	8	20

No.	STATION	PIPE SIZE	TYPE	TOP ELEVATION	REMARKS
29	64+00	24" RT	3" COMB. INLET	307.76	S.R.C. STD.
30	58+10	24" RT	3" COMB. INLET	299.76	S.R.C. STD.
W-5				Inv. 279.00	See detail, sheet 13
31	64+29	24" LT	3" COMB. INLET	286.50	S.R.C. STD.
108	65+02	10" RT	4" W.I.S.C. TYPE 3 MA	TOP 287.82	S.R.C. TYPE A FRAME COVER
34	64+29	24" RT	3" COMB. INLET	286.50	S.R.C. STD.
W-4				Inv. 268.80	See detail, sheet 14

FOR DRAINAGE PROFILES SEE SHEETS 11, 12 OF 20

CONSTRUCT SOD SIDE DITCH LEFT STA. 55+ TO STA. 58+ SEE DETAIL SHEET 12 OF 20

ENCASE 12" SEWER BETWEEN MANHOLES. SEE ENCASUREMENT DETAIL W.S.C. STD. DETAIL SHEET No. 46713-L

CONSTRUCT 4" CONCRETE SIDEWALK STA. 52+00 TO STA. 65+02 LEFT & RIGHT HALPINE RD.

B.M. EL. 278.65
NAIL & WASHER IN 15" POPLAR
30" LT STA. 64+25

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED 3-17-62
FOR STREET GRADE ONLY
E. J. JG
SENIOR DESIGNING ENGINEER

REMOVE AND RESET EXISTING GUARD FENCE STA. 0+ TO STA. 3+89 WIERS MILL RD. LT. AS DIRECTED BY ENGINEER

MARYLAND - NATIONAL CAPITAL PARK AND PLANNING COMMISSION
APPROVED Nov. 14, 1962
DATE
FOR STREET GRADE ONLY
LAND PLANNING ENGINEER
M.R.C.P. & P.C. RECORD FILE NO. 7183

CONSTRUCT SOD SIDE DITCH LEFT STA. 62+ TO STA. 64+ SEE DETAIL SHEET 12 OF 20

THE ADJUSTMENT OF EXIST. SEWER MANHOLE TO ELEV. 286.62 TO BE DONE BY OTHERS

CONSTRUCT ADDITIONAL 10' CONCRETE LANES STA. 1+01.80 TO STA. 3+89 LT. WIERS MILL ROAD LT. & STA. 1+02.48 TO STA. 2+57 RT. WIERS MILL ROAD RT. SEE TYPICAL SECTION V SHEET 3 OF 20 CONSTRUCT FLEXIBLE TAPERING LANES AT EACH END OF 10' CONCRETE LANES AS SHOWN. SEE TYPICAL SECTION V SHEET 3 OF 20

CONSTRUCT INTERSECTION OF HALPINE ROAD & WIERS MILL ROAD TO MEET EXISTING CONCRETE PAVING AS SHOWN FROM STA. 65+22.10 TO STA. 65+07.17 MAIN LINE USING PAVING TYPE FROM TYPICAL SECTION V FOR RIGHT TURN ROADWAY. SEE TYPICAL SECTION J SHEET 3 OF 20

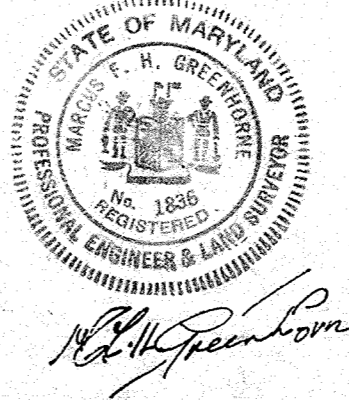
CONSTRUCT MONOLITHIC CONC. MEDIANS AS SHOWN. SEE DETAIL SHEET 3 OF 20

TWINBROOK PKWY.

CONSTRUCT LEFT TURN STORAGE LANE STA. 2+57 TO STA. 0+00 & 5' CONCRETE SIDEWALK BETWEEN PROPOSED CURB AND EXISTING CURB STA. 0+00 TO STA. 2+00 WIERS MILL RD. RT. SEE TYPICAL SECTION N SHEET 3 OF 20

B.M. EL. 259.75
CUT ON WALK & N.E. COR. BRIDGE OVER ROCK CREEK, WIERS MILL RD.

SD# D-28, 62065-7
WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED May 4, 1962
FOR STORM DRAINS ONLY
SUBJECT TO PRIOR INSTALLATION OF WATER & SEWER AND PAYMENT FOR MOVING ANY W.S.C. STRUCTURES AFFECTED.
THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS, OR TO OWNERS DOWNSTREAM, BY REASON OF THE INSTALLATION OF THE DRAINAGE STRUCTURES SHOWN HEREON.
Everett A. Hoffman
SENIOR DESIGNING ENGINEER



NUMBER	REVISION	DATE	CONTRACT	PROJ.	FILE	DWG.
				1166		8 OF 20

GREENHORNE & O'MARA CONSULTING ENGINEERS
RIVERDALE, MARYLAND

MONTGOMERY COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS
ROCKVILLE, MD.

RELOCATED HALPINE ROAD
ROCKVILLE PIKE TO WIERS MILL ROAD

APPROVED:
S.R.C. CONT. NO. M-611-315

SCALE
PLAN: 1" = 50'

FOR MAIN LINE SEE TYPICAL SECTIONS A1B SHEET 2 OF 20

FOR MAIN LINE PROFILE SEE SHEET 9 OF 20

FOR BOX CULVERT DETAILS, CHANNEL RELOCATION TYPICAL SECTION AND PROFILES SEE SHEETS 12, 13, 14, 15 OF 20

ENCASE 12" SEWER TO LIMITS SHOWN. SEE ENCASUREMENT DETAIL, W.S.C. STD. DETAIL SHEET No. 46713-L

THE ADJUSTMENT OF EXIST. SEWER MANHOLE TO ELEV. 286.62 TO BE DONE BY OTHERS

CONSTRUCT OLD HALPINE ROAD CONNECTION STA. 53+00 RT. TO STA. 0+54 USING PAVING TYPE FROM TYPICAL SECTION B. CONSTRUCT CONNECTION STA. 0+54 TO STA. 1+60. SEE TYPICAL SECTION A-A SHEET 3 OF 20 FOR PROFILE SEE SHEET 10 OF 20

CURVE DATA (1) of 2
Δ = 90°00'00"
R = 30.00
T = 30.00
L = 47.12

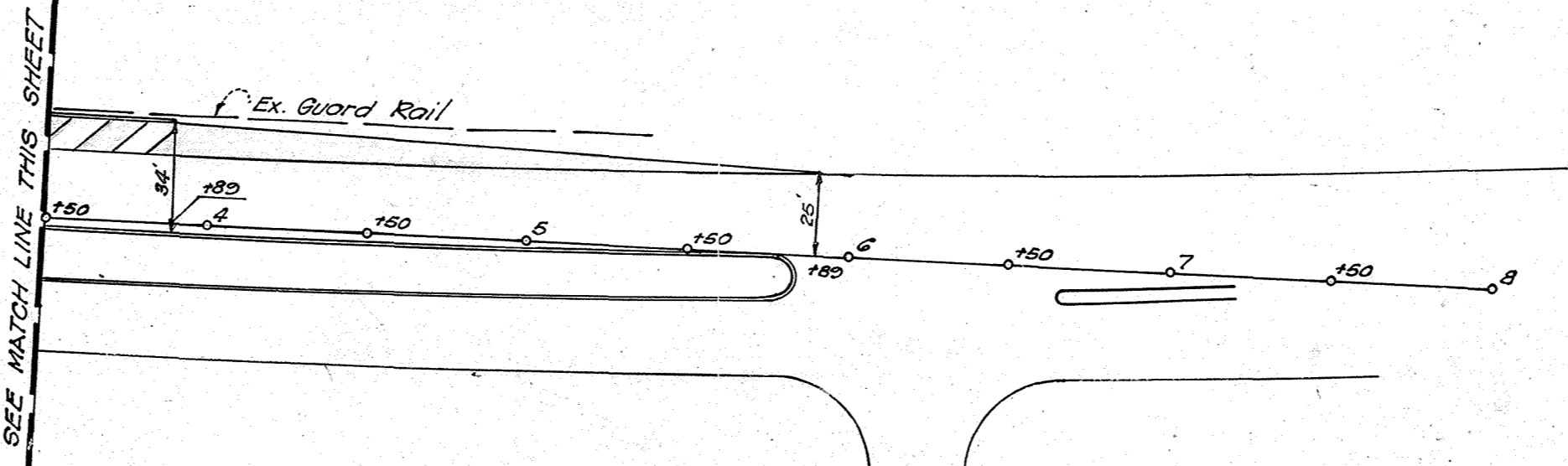
PIPE SIZE	SHEET	SHEET	SHEET	SHEET	TOTAL
15" ROCP	162	693	392	770	2954
18" ROCP	---	143	91	632	871
21" ROCP	90	---	105	---	255
24" ROCPK	232	---	81	---	613
27" ROCPK	224	---	103	---	41
30" ROCPK	---	---	---	153	153
36" ROCPK	84	---	---	---	84

PIPE SIZE	STATION	CENTER LINE	24" RIGHT
15" ROCP	52+00	326.35	325.95
18" ROCP	58+50	325.27	324.77
21" ROCP	53+00	323.78	323.28
24" ROCPK	53+44.22	322.14	321.64
27" ROCPK	53+50	321.30	321.37
30" ROCPK	54+00	319.63	318.96
36" ROCPK	54+50	318.26	316.35
30" ROCPK	54+55.28	318.97	318.39
30" ROCPK	54+58.25 TO STA. 59+04.25	FULL S.E. RATE 1.045	
30" ROCPK	58+04.25	299.05	298.01
30" ROCPK	59+00	298.88	297.87
30" ROCPK	59+50	298.15	297.38
30" ROCPK	60+00	297.24	296.71
30" ROCPK	60+05.84	297.12	296.22
30" ROCPK	60+50	296.10	295.60
30" ROCPK	61+00	294.75	294.25
30" ROCPK	61+50	293.73	292.73
30" ROCPK	62+00	291.40	290.90
30" ROCPK	62+13.25	290.86	290.86

CUT	FILL	TOP SOIL		ROOF MAT		CLASS 2 EXCAV.	NET ADJUSTED	
		CUT	FILL	CUT	FILL		CUT	FILL
ROCKVILLE PIKE	320	120					320	120
1+7+	2771						2771	
1+11+		18518	85				18518	
CHAPMAN AVE LT.	306					306		
CHAPMAN AVE RT.	268	298				268	298	
ROLLING AVE	2295	49		475		2433	48	
BRIDGE					1850	1850		
13+ TO 21+		41,554	900		1180	1850	42614	
WORCESTER AVE	240					240		
80+ TO 85+	14167		1422	1080		11693		
DORCHESTER AVE LT.	38					38		
DORCHESTER AVE RT.	142					142		
FISHER LANE LT.	11	48				11	48	
FISHER LANE RT.	185					185		
27+ TO 33+		379		180		379		180
ARDENNES AVE	25					25		
34+ TO 38+		3081		466		3547		
37+ TO 46+	11783		717			11066		
OLD HALPINE RD RT.	2800					2800		
43+ TO 49+		4057	30	437		4424		
46+ TO 55+	25195		30	1475		23630		180
ATLANTIC AVE					18/3	80	80	26888
50+ TO 62+	6085			670		5415		
62+ TO 65+	14031			20	1245	100	60	15220
WIERS MILL RD	785	75				785	75	
TOTALS	68302	12454	2281	2069	3770	4222	1580	63891

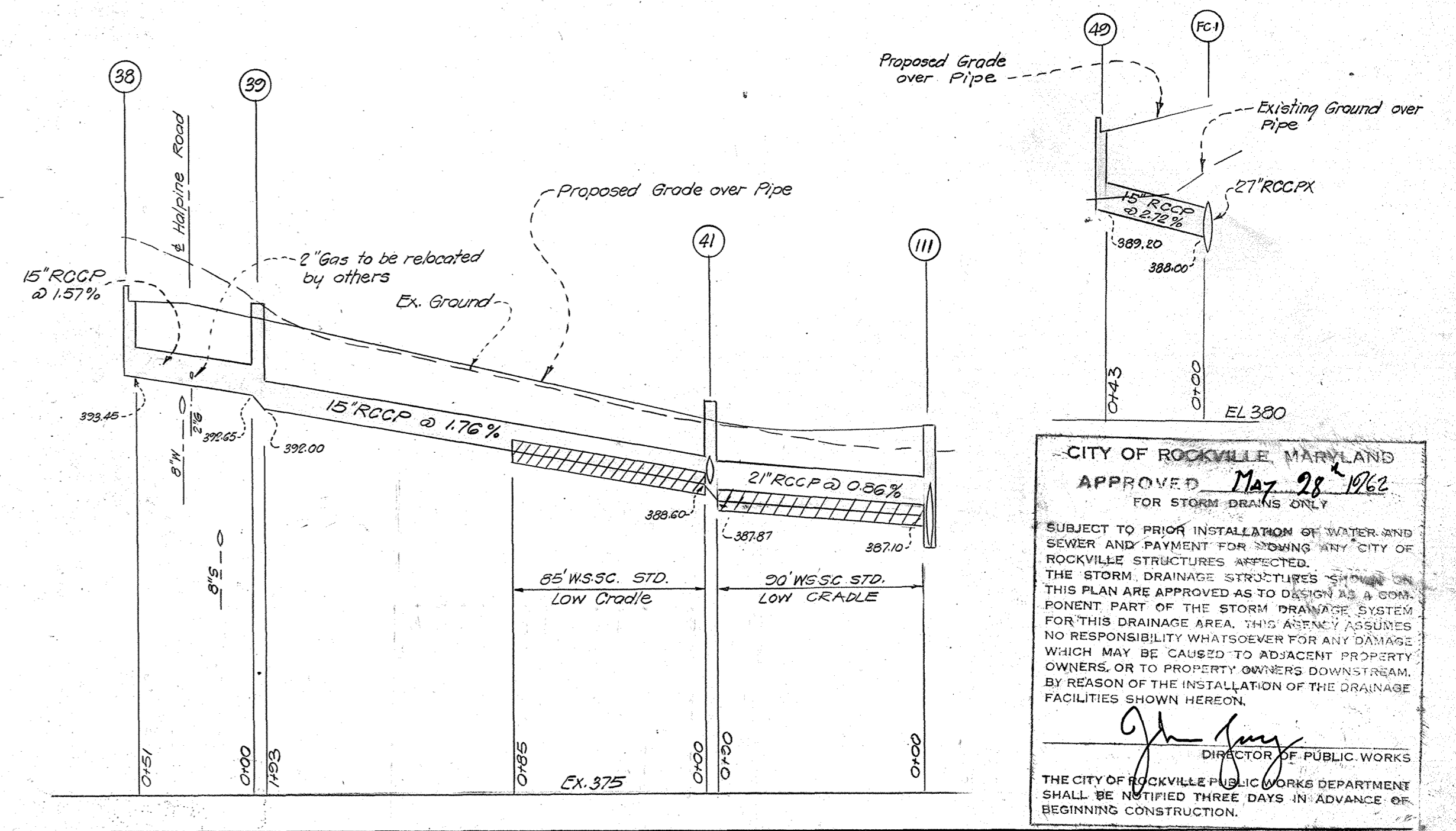
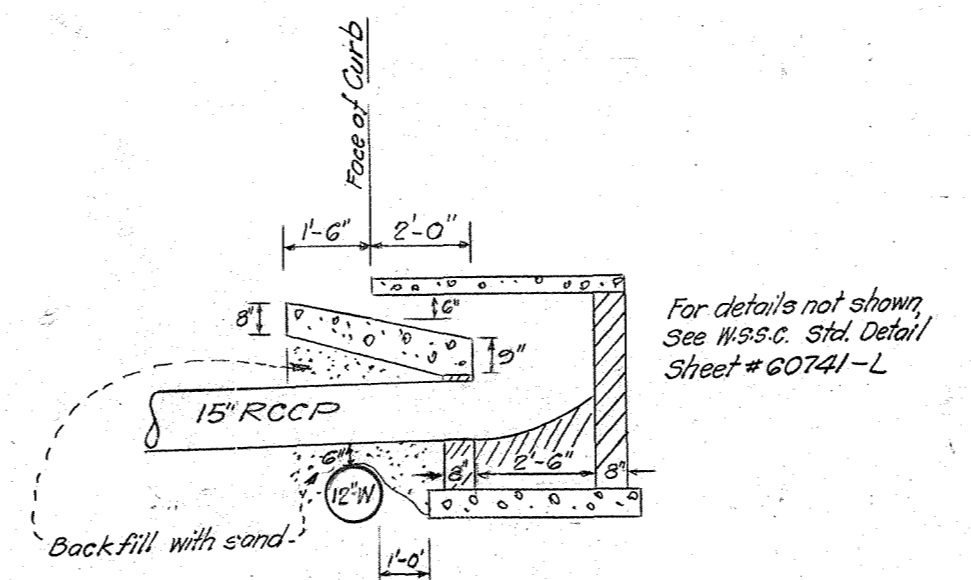
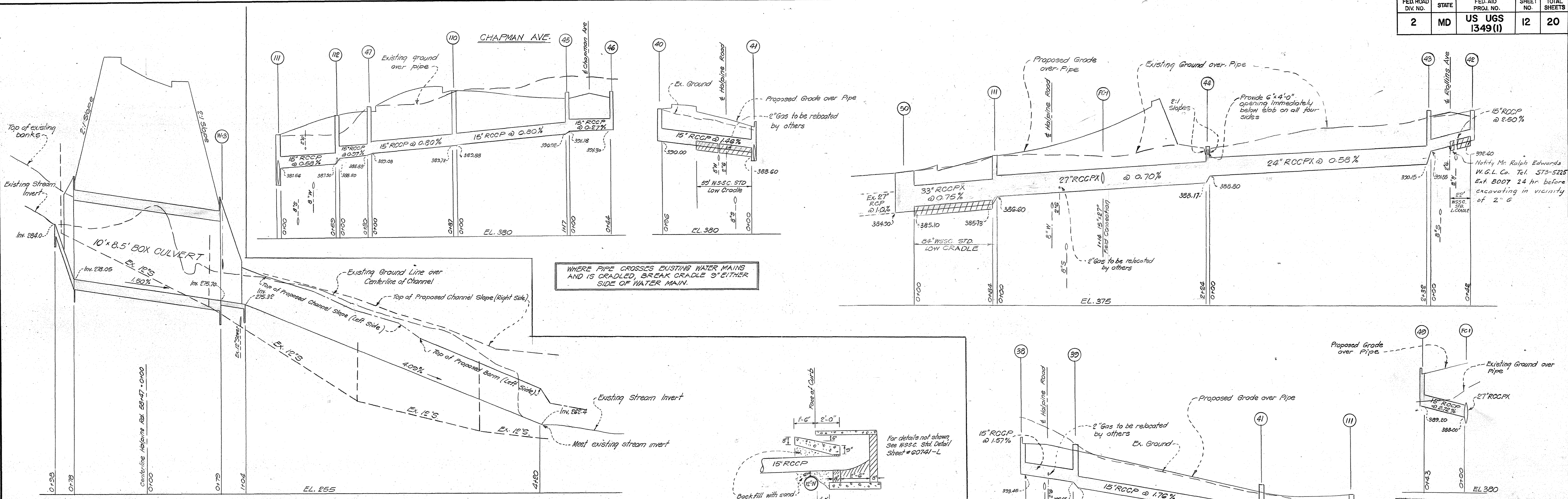
FILL ADJUSTED 118,744 cu. yd.
TYPE "A" BORROW CAPPING IN CUT 8,882
FILL 127,626
+ 22% 28,078
TOTAL FILL REQUIRED 155,704
CUT ADJUSTED 63,881
TOTAL BORROW REQUIRED 91,823
TOTAL TYPE "A" BORROW 13,900
TOTAL TYPE "B" BORROW 77,923 cu. yd.

CUT TOP SOIL IN FILL 68,302 cu. yd.
ROOF MAT IN FILL 2,088
TOTAL CLASS 1 EXCAVATION 74,392 cu. yd.



MONTGOMERY COUNTY MARYLAND DEPARTMENT OF PUBLIC WORKS

MEASUREMENTS IN FEET

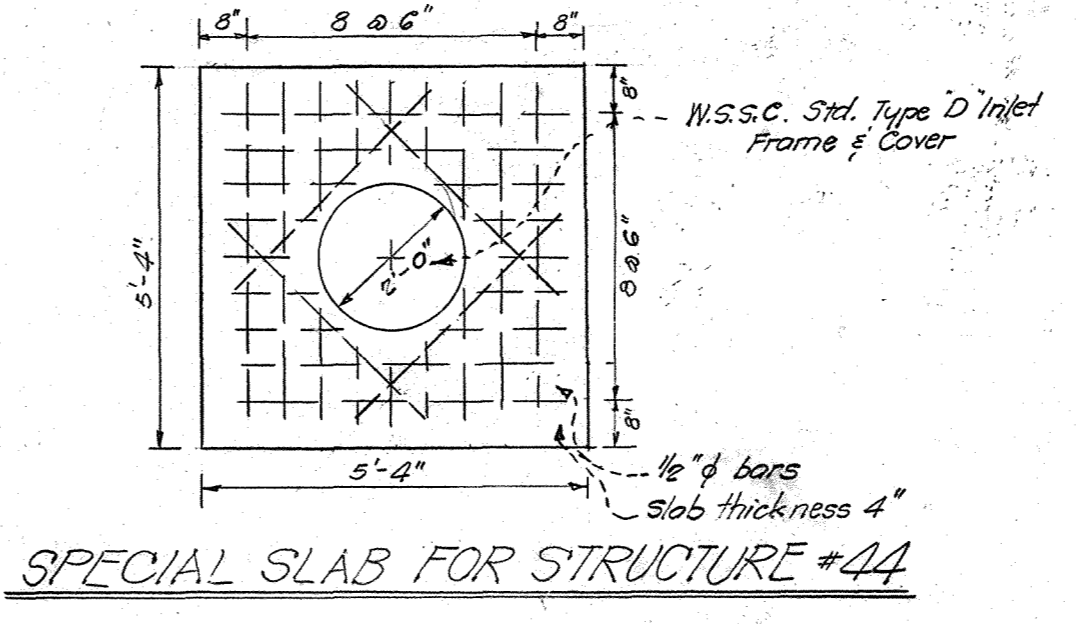
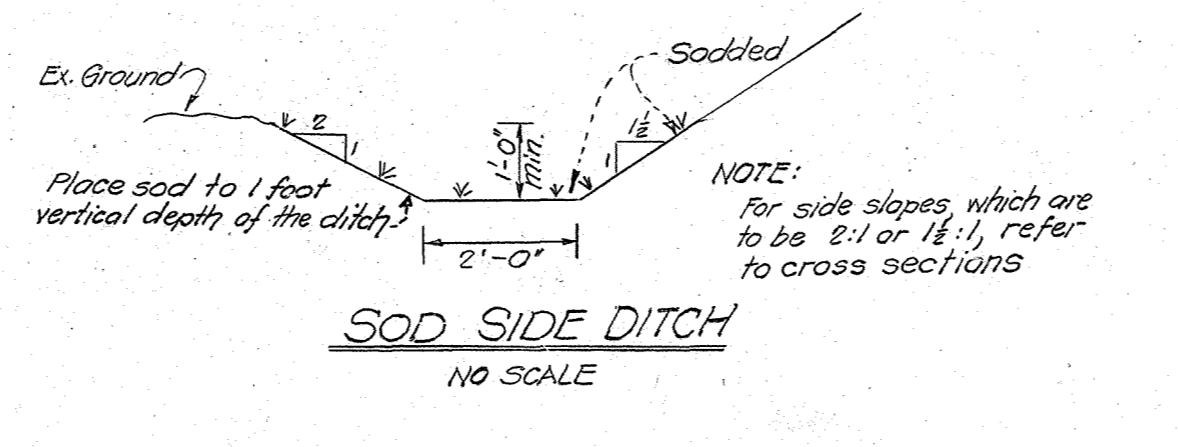
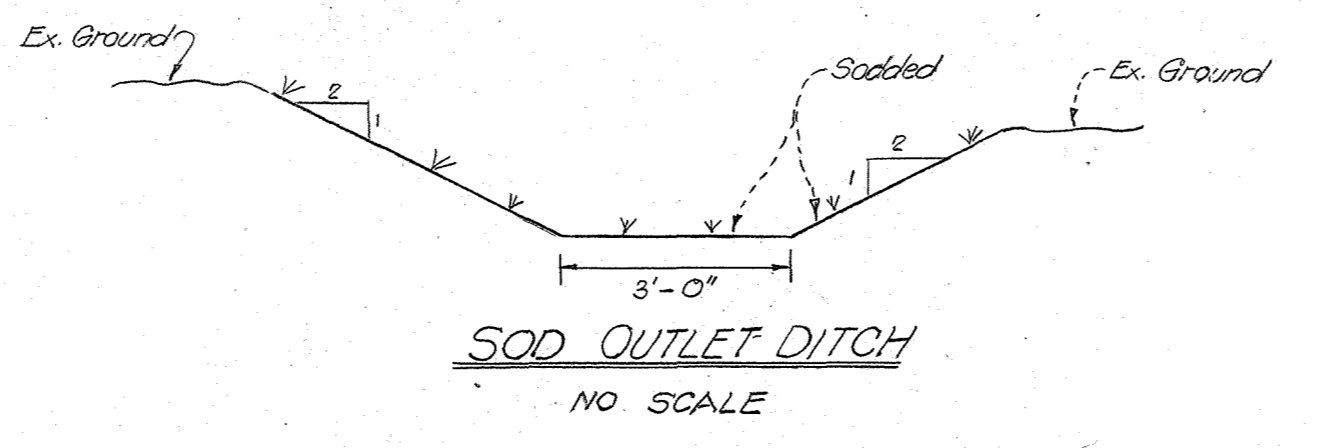
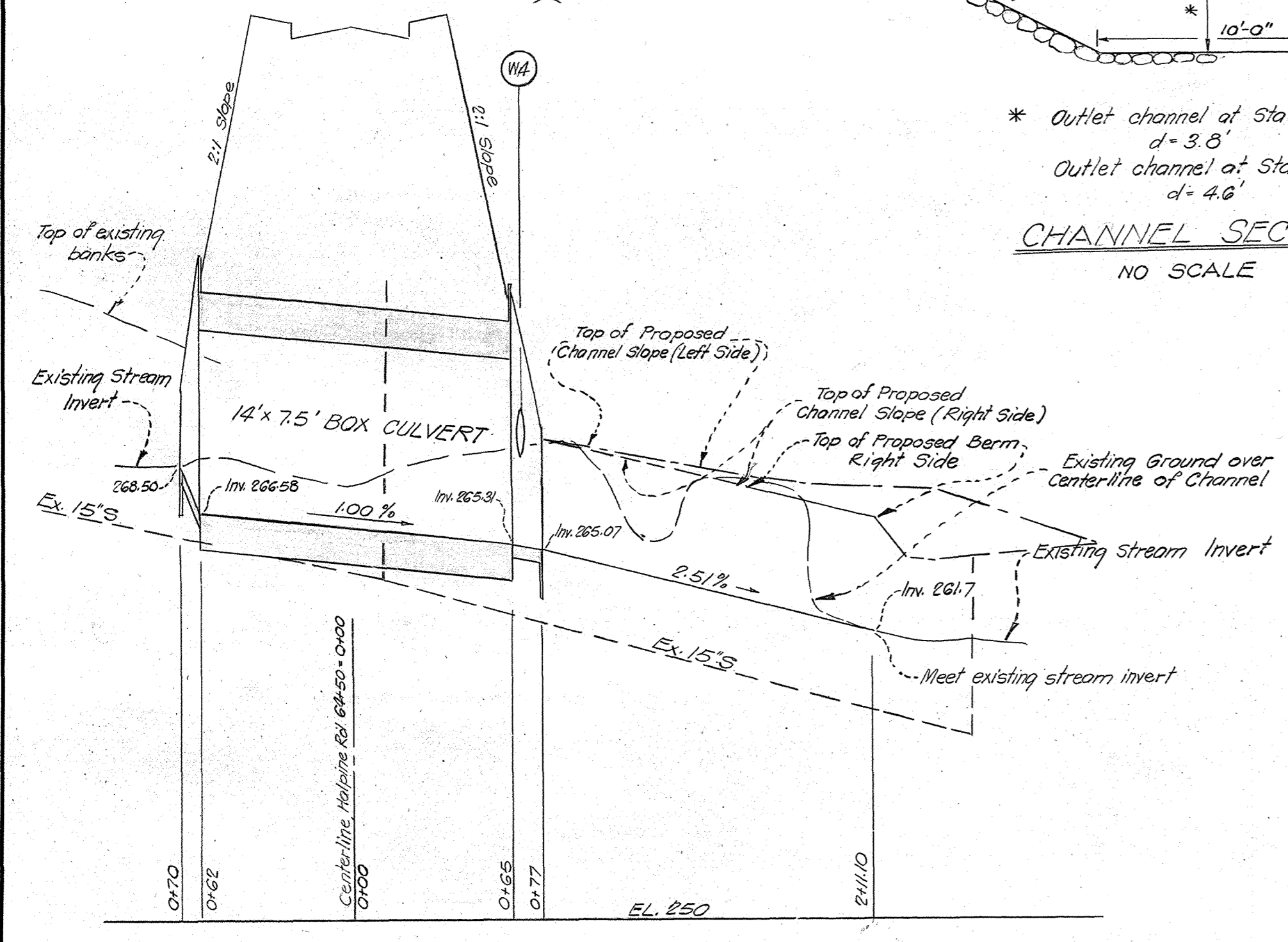
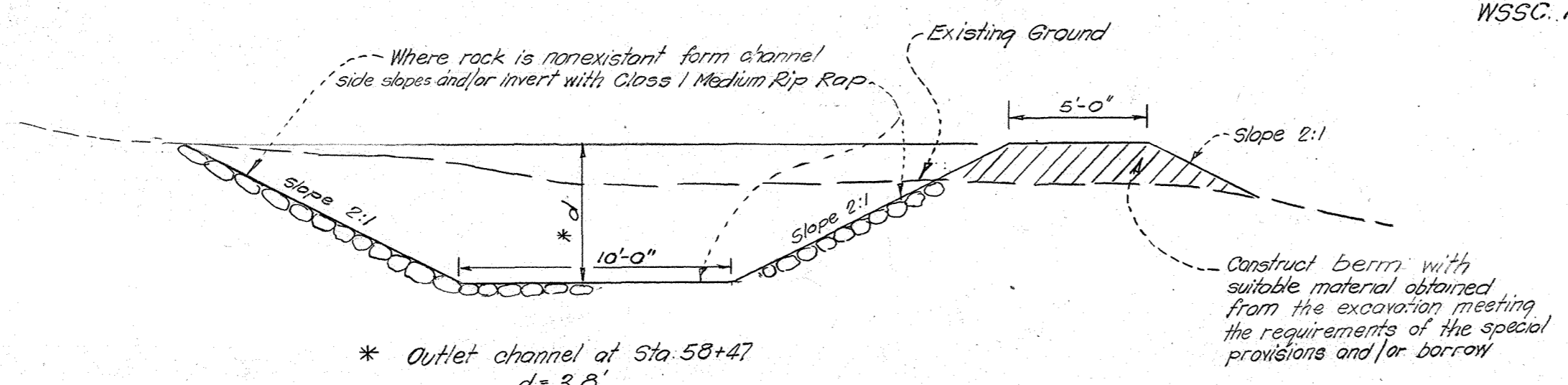


CITY OF ROCKVILLE, MARYLAND
APPROVED May 28 1962
FOR STORM DRAINS ONLY

SUBJECT TO PRIOR INSTALLATION OF WATER AND SEWER AND PAYMENT FOR MOVING ANY CITY OF ROCKVILLE STRUCTURES AFFECTED. THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS AGENCY ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS, OR TO PROPERTY OWNERS DOWNSTREAM, BY REASON OF THE INSTALLATION OF THE DRAINAGE FACILITIES SHOWN HEREON.

John J. ...
DIRECTOR OF PUBLIC WORKS

THE CITY OF ROCKVILLE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED THREE DAYS IN ADVANCE OF BEGINNING CONSTRUCTION.



PROFILE SCALES
HOR. 1" = 50'
VERT. 1" = 5'

APPROVED BY MAYOR AND COUNCIL
ROCKVILLE, MARYLAND
DATE: May 28 1962
John J. ...
DIRECTOR OF PUBLIC WORKS.

SD# D-28, 62065-Y
WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED May 5, 1962
FOR STORM DRAINS ONLY

SUBJECT TO PRIOR INSTALLATION OF WATER & SEWER AND PAYMENT FOR MOVING ANY W.S.S.C. STRUCTURES AFFECTED. THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS, OR TO OWNERS DOWNSTREAM, BY REASON OF THE INSTALLATION OF THE DRAINAGE STRUCTURES SHOWN HEREON.

Everett A. Hoffman
SENIOR DESIGNING ENGINEER

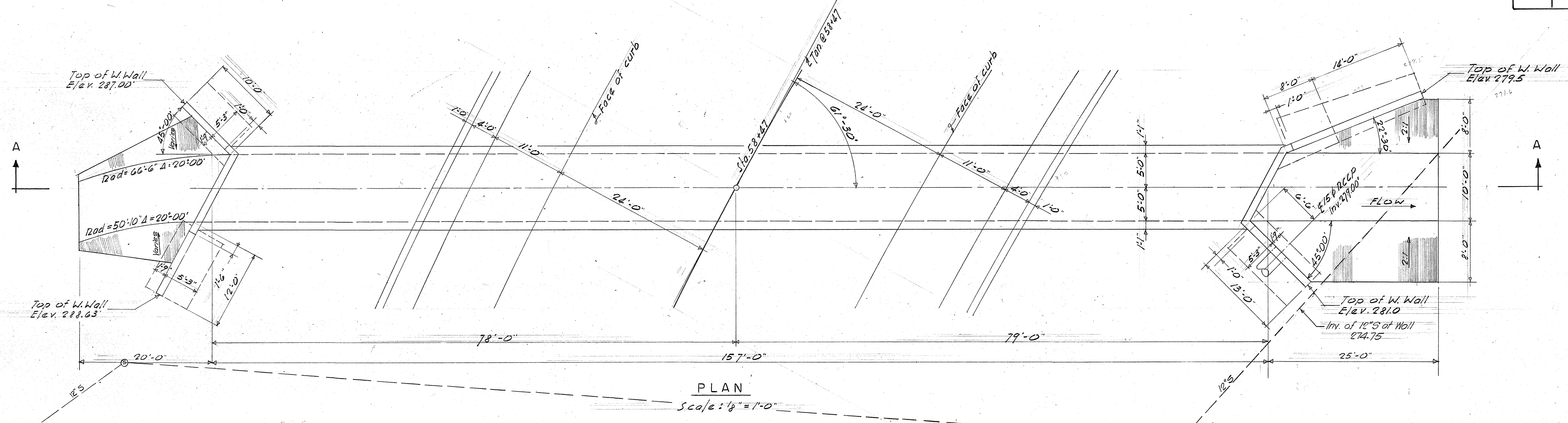
*Except Work in City of Rockville.

GREENHORNE & O'MARA
CONSULTING ENGINEERS
RIVERDALE, MARYLAND

DES. RBT	MONTGOMERY COUNTY MARYLAND		
CHK.	DEPARTMENT OF PUBLIC WORKS		
DR. E.B.	ROCKVILLE, MD.		
CODE REG.			
STORM DRAINS			
RIGHT OF WAY			
UTILITIES			
CONTRACT			
CHIEF, HIGHWAY ENG. DIV.	DIRECTOR, DEPT. OF PUB. WORKS.		
PROJ.	FILE	DWG.	
1166			12 OF 20

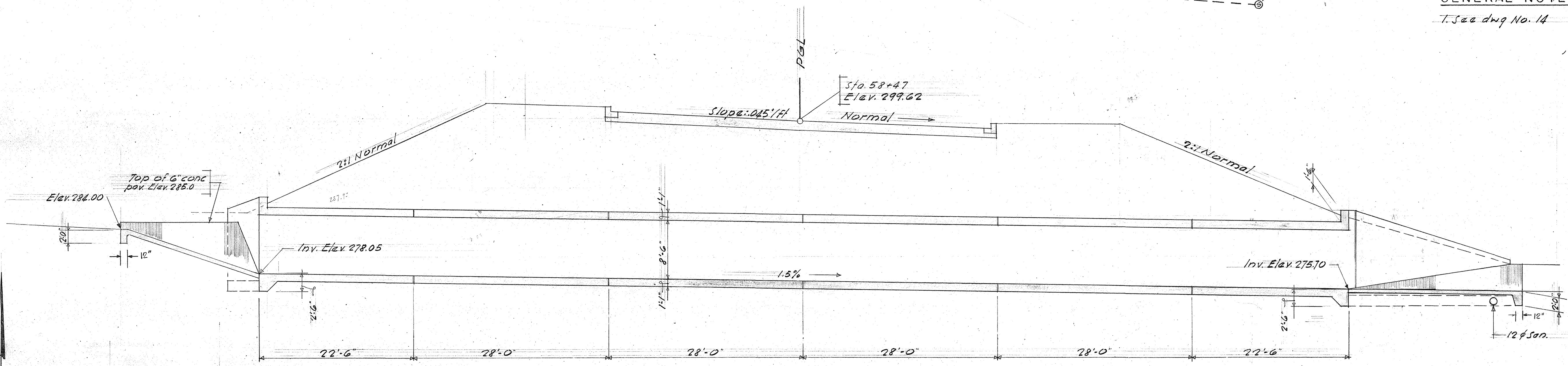
MSA CE 189 670-7

1
2
3
4
5
6
 Maryland State Archives



PLAN
Scale: 1/8" = 1'-0"

GENERAL NOTES
1. See dwg No. 14

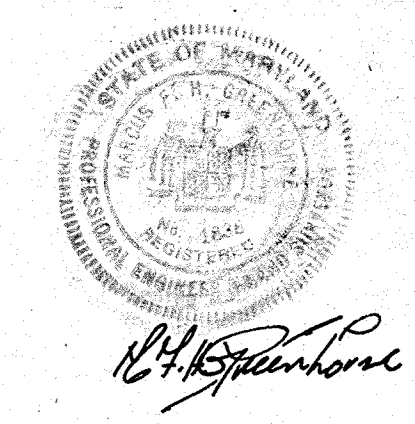


SECTION A-A
Scale: 1/8" = 1'-0"

SD # D-28, 62065-4
 WASHINGTON SUBURBAN SANITARY COMMISSION
 APPROVED May 4, 1962
 FOR STORM DRAINS ONLY

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Everett A. Hoffman
 SENIOR DESIGNER ENGINEER



GREENHORNE & O'MARA
 CONSULTING ENGINEERS
 RIVERDALE, MARYLAND

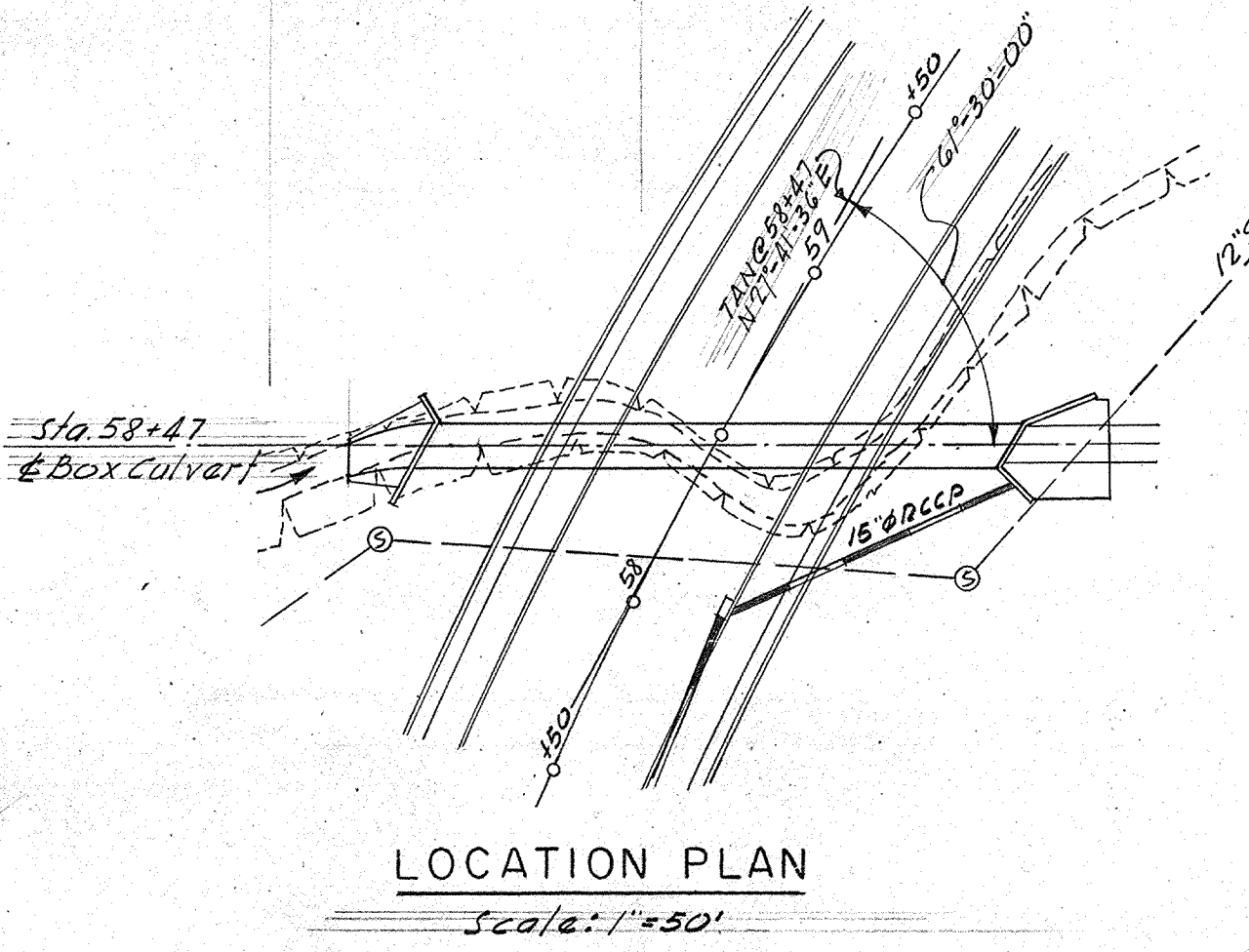
MONTGOMERY COUNTY MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 ROCKVILLE, MD.

RELOCATED
 HALPINE ROAD
 BOX CULVERT STA. 58+47

APPROVED:
 CHIEF, HIGHWAY ENG. DIV. DIRECTOR, DEPT. OF PUB. WORKS
 FILE DWG.
 1166 13 OF 20

HYDRAULIC DATA
 DRAINAGE AREA = .40 SQ. MI. = 254.5 ACRES
 STORMWATER DISCHARGE C.F.S. = 8520
 TIDAL FLOW PER HOUR C.F.S. = 0
 TOTAL MAXIMUM DISCHARGE C.F.S. = 852.0
 MAXIMUM FLOW DEPTH AT H.W. FEET = 9.78 Inlet
 OPENING BY TALBOT FEET = 8.00 Outlet
 OPENING TO H.W. SQ. FT. = 85.0 sq
 VELOCITY AT OUTLET FT. PER SEC. = 10.65 1/6

EXISTING STRUCTURE NONE
 UTILITIES SANITARY SEWERS

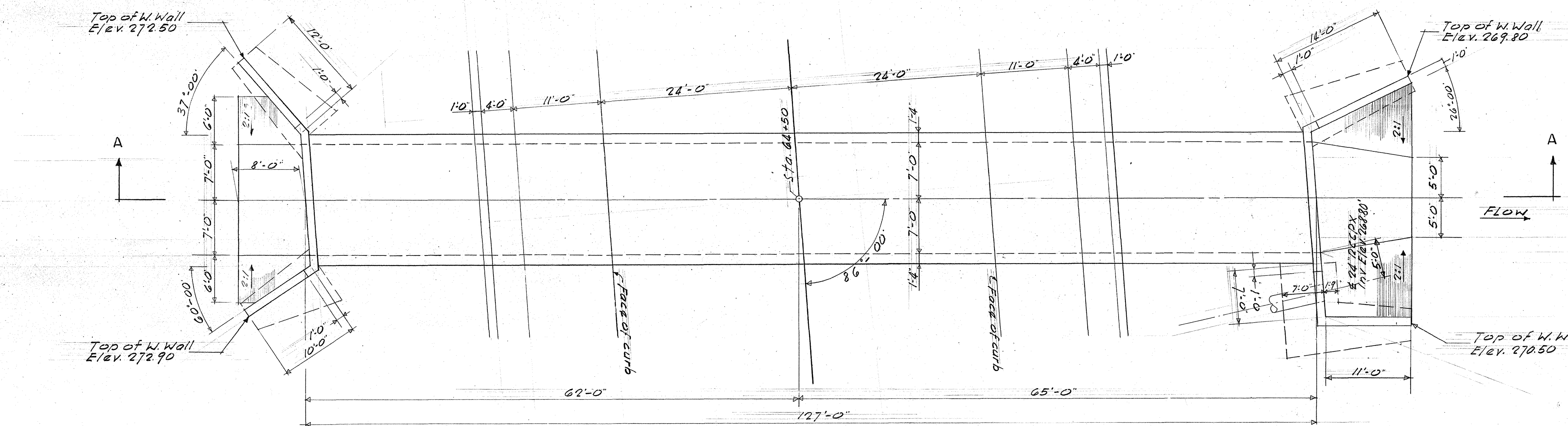


LOCATION PLAN
Scale: 1" = 50'

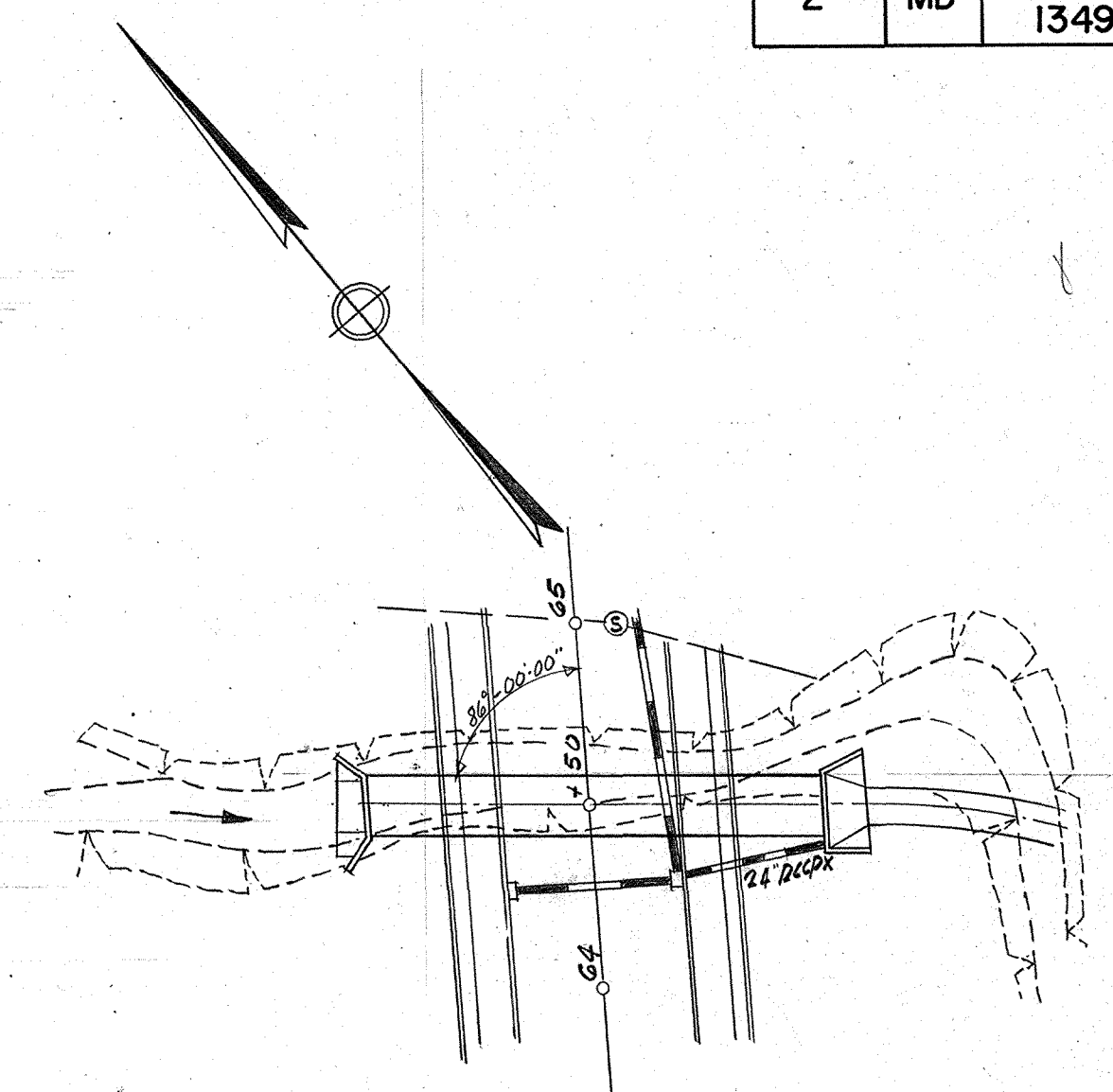
NUMBER	REVISION	DATE

MSA CE 189 670-13

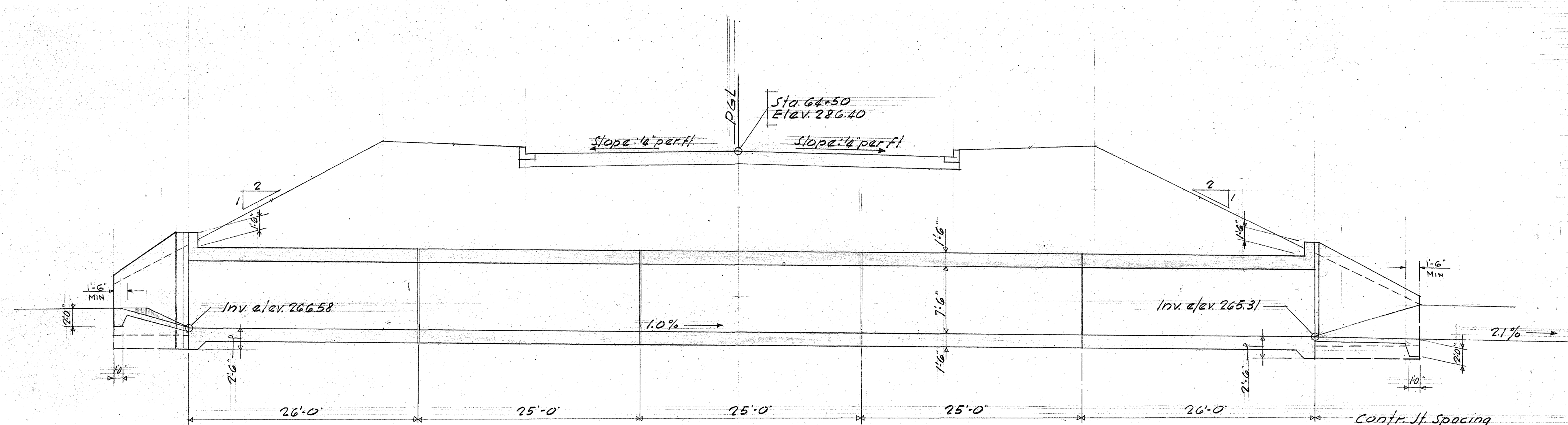
Manning State Archives



PLAN
Scale: 1/8" = 1'-0"



LOCATION PLAN
Scale: 1" = 50'



SECTION A-A
Scale: 1/8" = 1'-0"

GENERAL NOTES

- Specifications:** Maryland State Roads Commission Specifications and Special Provisions for Materials and Construction A.A.S.H.O. for Highway Bridges dated 1961.
- Loading:** Concrete: All concrete shall be Class "A" Mix using type "1" cement. Subfoundations, if required, under wing wall footings shall be Class "C" Mix.
- Reinforcing:** Reinforcing bars shall be Structural Grade $f_y = 18,000$ psi. Laps shall be 30 diameters.
- Damp proofing:** Damp proofing shall be applied to those portions of the outside surface of sidewalls and wing walls that are in contact with earth and full face of all contraction joints.
- Chamfer:** All exposed edges of concrete to be chamfered 1"x1".
- Soil sodding:** A three foot strip shall be laid adjacent to and in back of all headwalls, slope walls and wing walls.
- Measurement & Payment:** Reinforced Concrete Box Culvert to be paid on Lump Sum Basis. Sum shall include all Class "A" concrete, reinforcing, forming, finishing, curing, damp proofing, membrane waterproofing and incidental work.

HYDRAULIC DATA
 DRAINAGE AREA = 0.74 SQ. MI. = 473 ACRES
 STORMWATER DISCHARGE C.F.S. = 1031
 TIDAL FLOW PER HOUR C.F.S. = 0
 TOTAL MAXIMUM DISCHARGE C.F.S. = 1031
 MAXIMUM FLOW RATE AT H.W. FEET = 8.93 Inlet
 OPENING BY TALBOT = 6.00 Outlet
 OPENING TO H.W. SQ. FT. = 105.0
 VELOCITY AT OUTLET FT. PER SEC. = 12.27 1/5

EXISTING STRUCTURE
NONE

UTILITIES
NONE

SD # D-28, 62065-1
 WASHINGTON SUBURBAN SANITARY COMMISSION
 APPROVED May 4, 1962
 FOR STORM DRAINS ONLY

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Edward A. Fullmer
 SENIOR DESIGNING ENGINEER

STATE OF MARYLAND
 PROFESSIONAL ENGINEER & ARCHITECT
 1962

R. H. Greenhorne

GREENHORNE & O'MARA
 CONSULTING ENGINEERS
 RIVERDALE, MARYLAND

DES. 1265
 CHK.
 DR. 1265

STORM DRAINS
 RIGHT OF WAY
 UTILITIES

MONTGOMERY COUNTY MARYLAND
 DEPARTMENT OF PUBLIC WORKS
 ROCKVILLE, MD.

RELOCATED HALPINE ROAD
 BOX CULVERT STA. 64+50

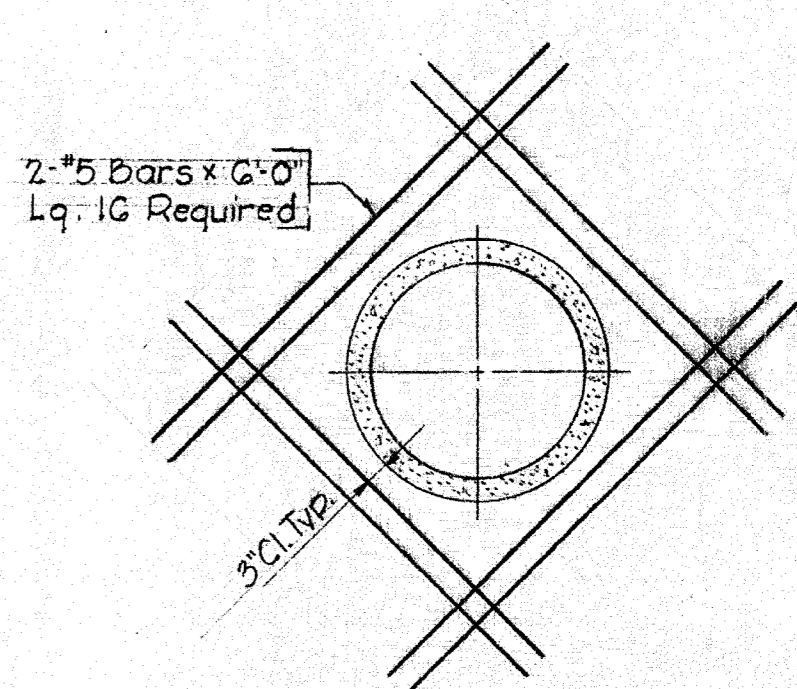
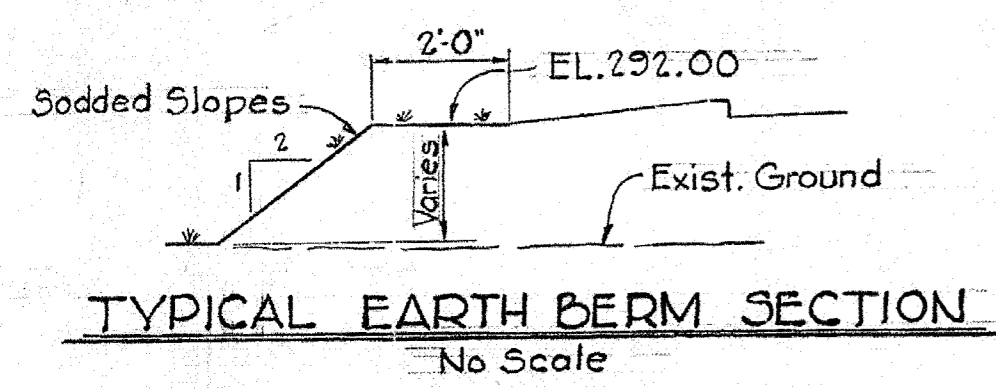
APPROVED:

CHIEF, HIGHWAY ENG. DIV. DIRECTOR, DEPT. OF PUB. WORKS

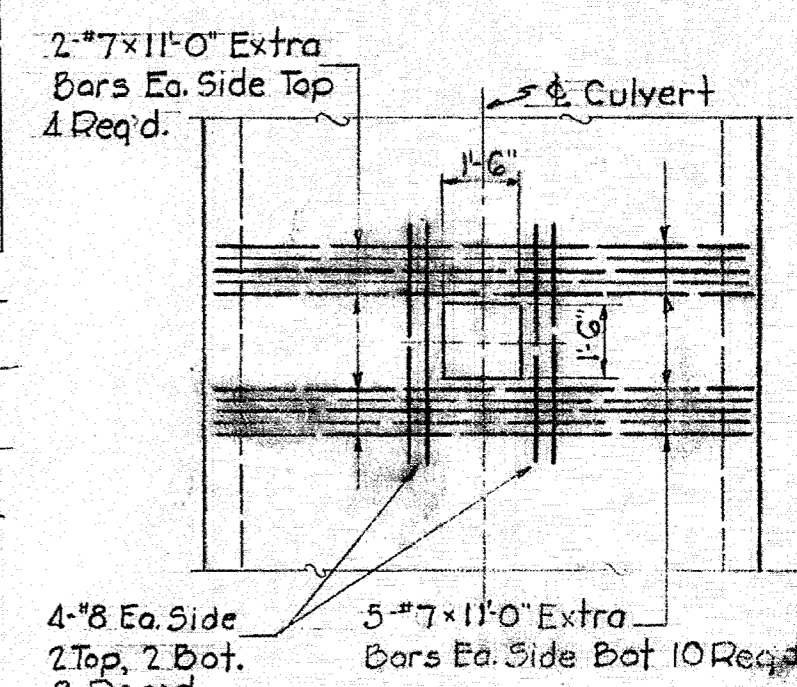
PROJ. FILE DWG.
 1166 14 OF 20

NUMBER	REVISION	DATE

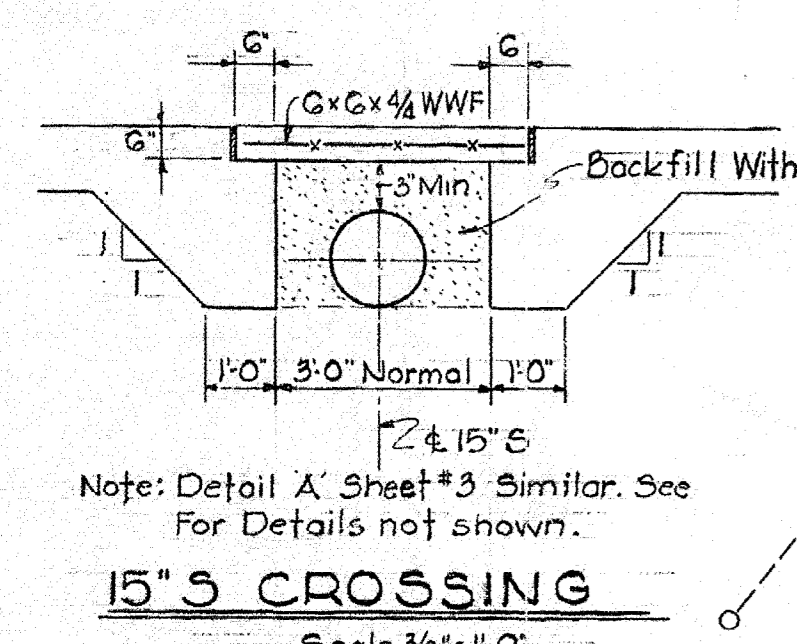
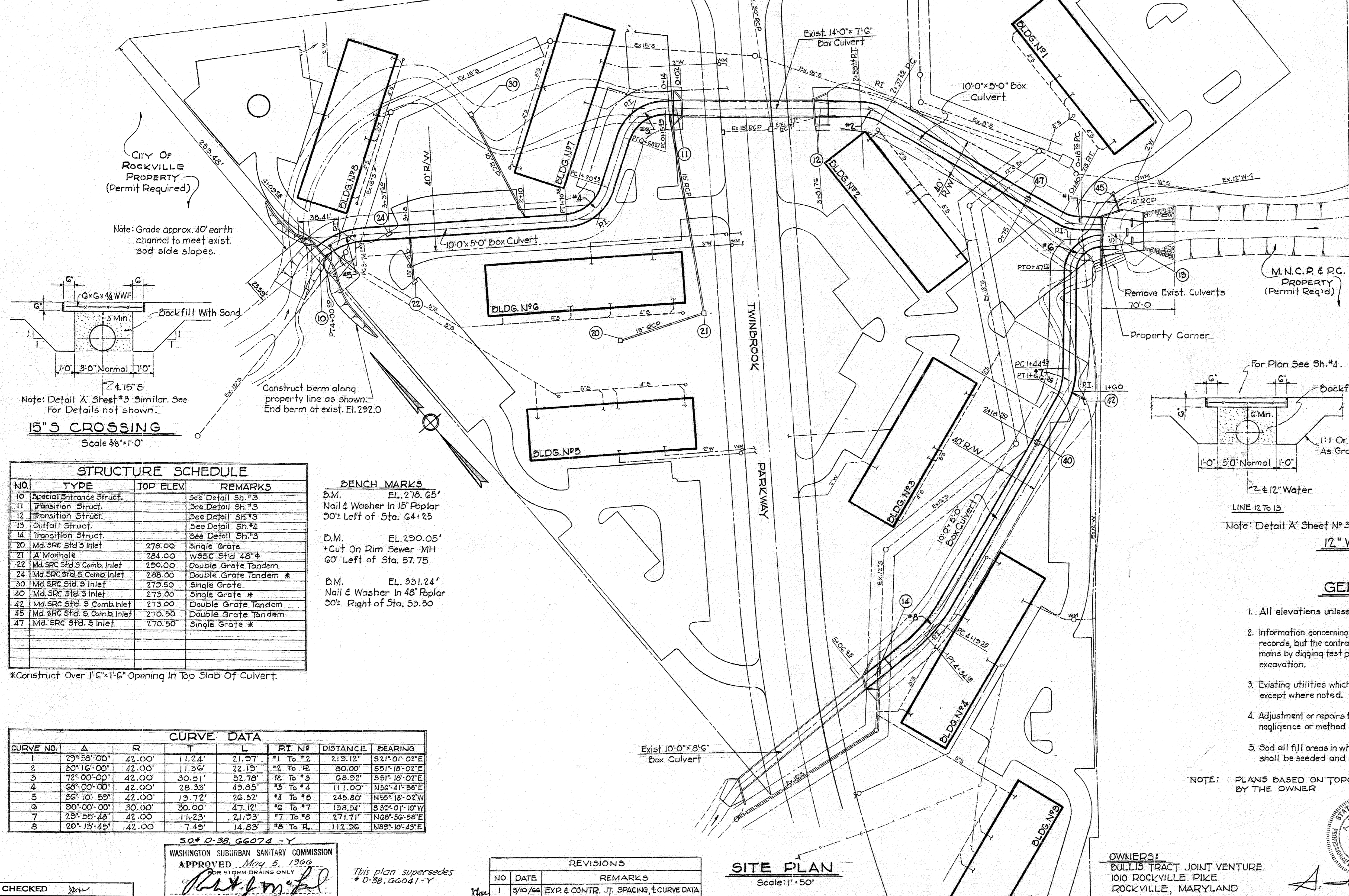
MSA CE 189 620-14



EXTRA REINFORCING FOR 15, 18, 27\"/>



EXTRA REINFORCING AT STRUCT. NO 24, 40, 47
Scale: 1/4\"/>



STRUCTURE SCHEDULE			
NO.	TYPE	TOP ELEV.	REMARKS
10	Special Entrance Struct.		See Detail Sh. #3
11	Transition Struct.		See Detail Sh. #3
12	Transition Struct.		See Detail Sh. #3
13	Outfall Struct.		See Detail Sh. #1
14	Transition Struct.		See Detail Sh. #3
20	Md. SRC Std. S Inlet	278.00	Single Grate
21	A' Manhole	284.00	WSSC Std. 48\"/>
22	Md. SRC Std. S Comb. Inlet	290.00	Double Grate Tandem
24	Md. SRC Std. S Comb. Inlet	288.00	Double Grate Tandem *
30	Md. SRC Std. S Inlet	279.50	Single Grate
40	Md. SRC Std. S Inlet	273.00	Single Grate *
42	Md. SRC Std. S Comb. Inlet	273.00	Double Grate Tandem
45	Md. SRC Std. S Comb. Inlet	270.50	Double Grate Tandem
47	Md. SRC Std. S Inlet	270.50	Single Grate *

BENCH MARKS	
B.M.	EL. 278.65' Nail & Washer In 15' Poplar 30' Left of Sta. 64+25
B.M.	EL. 290.05' Cut On Rim Sewer MH 60' Left of Sta. 57.75
B.M.	EL. 331.24' Nail & Washer In 48' Poplar 30' Right of Sta. 53.50

CURVE DATA						
CURVE NO.	Δ	R	T	L	PT. NO.	DISTANCE BEARING
1	29° 58' 00"	42.00'	11.24'	21.97'	#1 To #2	219.12' S21° 01' 02" E
2	30° 16' 00"	42.00'	11.36'	22.15'	#2 To #3	80.00' S51° 18' 02" E
3	72° 00' 00"	42.00'	30.51'	52.78'	#3 To #4	68.92' S51° 18' 02" E
4	68° 00' 00"	42.00'	28.33'	49.85'	#4 To #5	111.00' N56° 41' 38" E
5	56° 10' 59"	42.00'	13.72'	26.52'	#5 To #6	245.80' N55° 18' 02" W
6	90° 00' 00"	30.00'	30.00'	47.12'	#6 To #7	138.54' S32° 01' 10" W
7	23° 55' 48"	42.00'	11.23'	21.53'	#7 To #8	271.71' N68° 56' 58" E
8	20° 13' 45"	42.00'	7.45'	14.83'	#8 To P.L.	112.56' N69° 10' 43" E

50* 0-38, 66074 - Y
 WASHINGTON SUBURBAN SANITARY COMMISSION
 APPROVED May 5, 1966
 FOR STORM DRAINS ONLY
[Signature]
 CHIEF ENGINEER

This plan supersedes # 0-38, 66041 - Y

REVISIONS		
NO.	DATE	REMARKS
1	5/10/66	EXP. & CONTR. JT. SPACING & CURVE DATA
2	5/13/66	TOP ELEV. CORRECT. NO. 30

SITE PLAN
Scale: 1" = 50'

OWNERS:
 BULLIS TRACT JOINT VENTURE
 1010 ROCKVILLE PIKE
 ROCKVILLE, MARYLAND

[Signature]
 JAMES O'MARA
 ENGINEER & LAND SURVEYOR

- GENERAL NOTES**
- All elevations unless otherwise shown are invert elevations.
 - Information concerning underground utilities was obtained from available records, but the contractor must determine the exact location and elevation of mains by digging test pits by hand at all utility crossings well in advance of excavation.
 - Existing utilities which conflict with proposed work will be moved by others except where noted.
 - Adjustment or repairs to utilities damaged as the result of the Contractor's negligence or method of operation must be made at his own expense.
 - Sod all fill areas in which the slope is 3:1 or greater. All other filled areas shall be seeded and mulched, except where otherwise shown.
- NOTE: PLANS BASED ON TOPOGRAPHICAL SURVEY & SITE PLAN FURNISHED BY THE OWNER

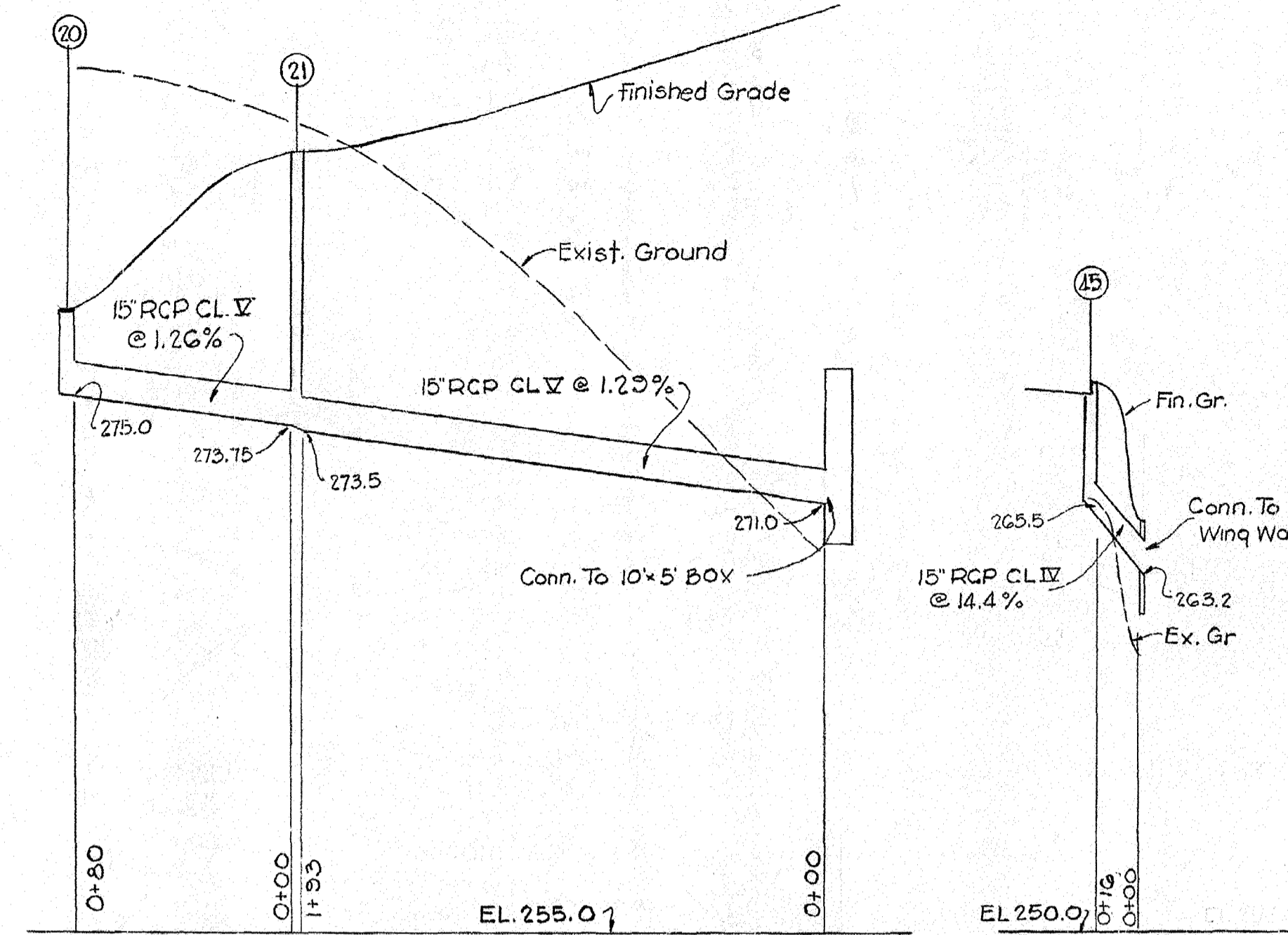
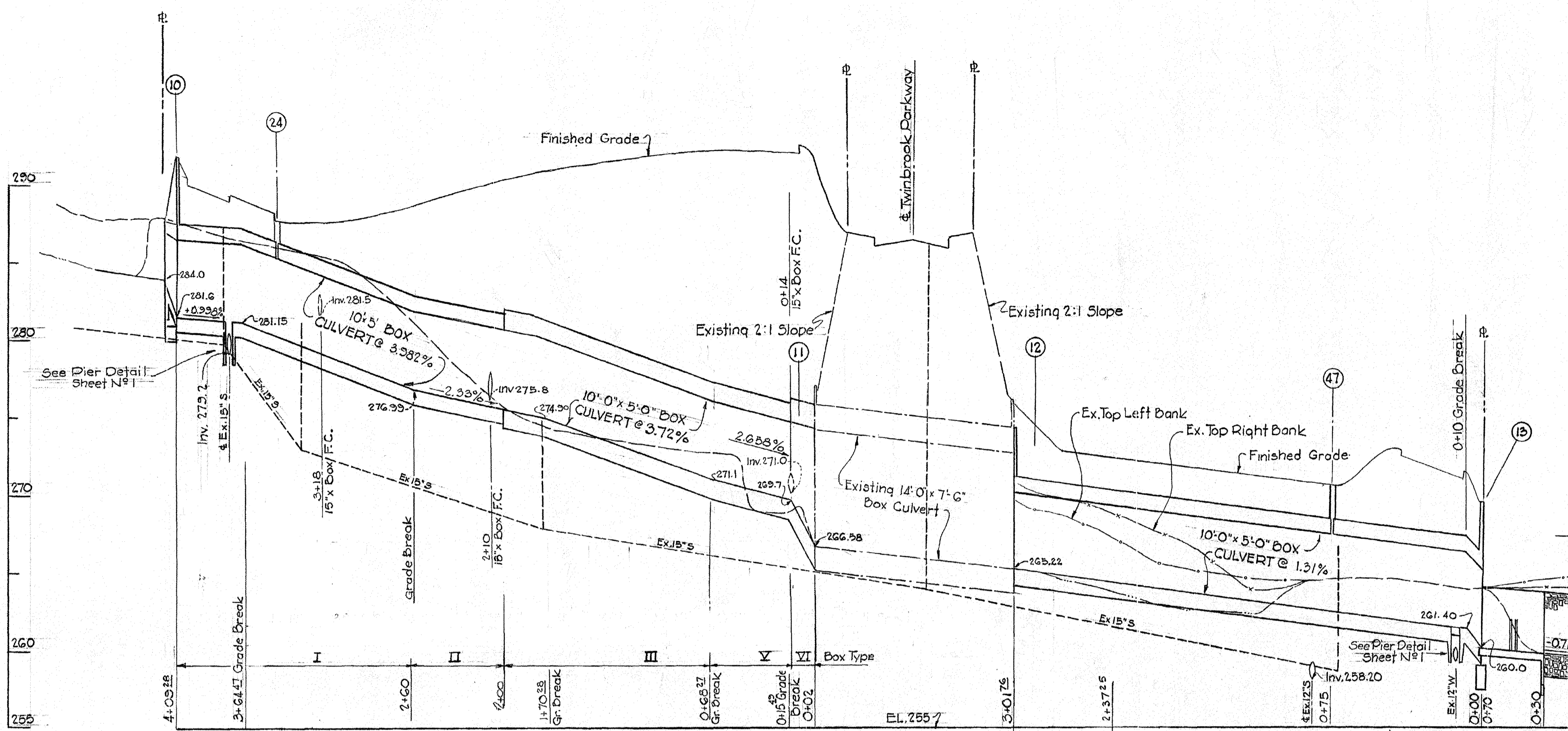
Released 5-13-66

RES

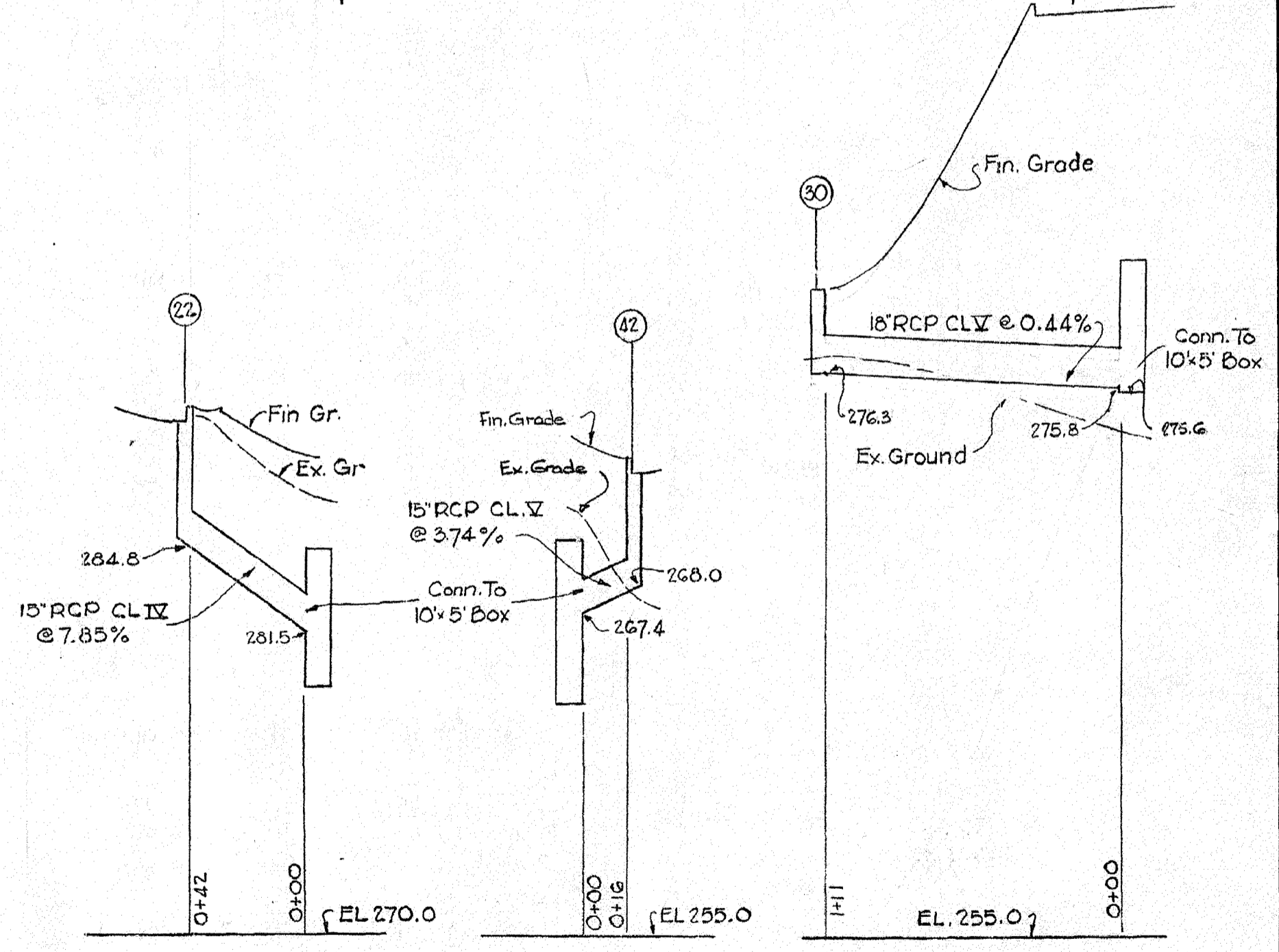
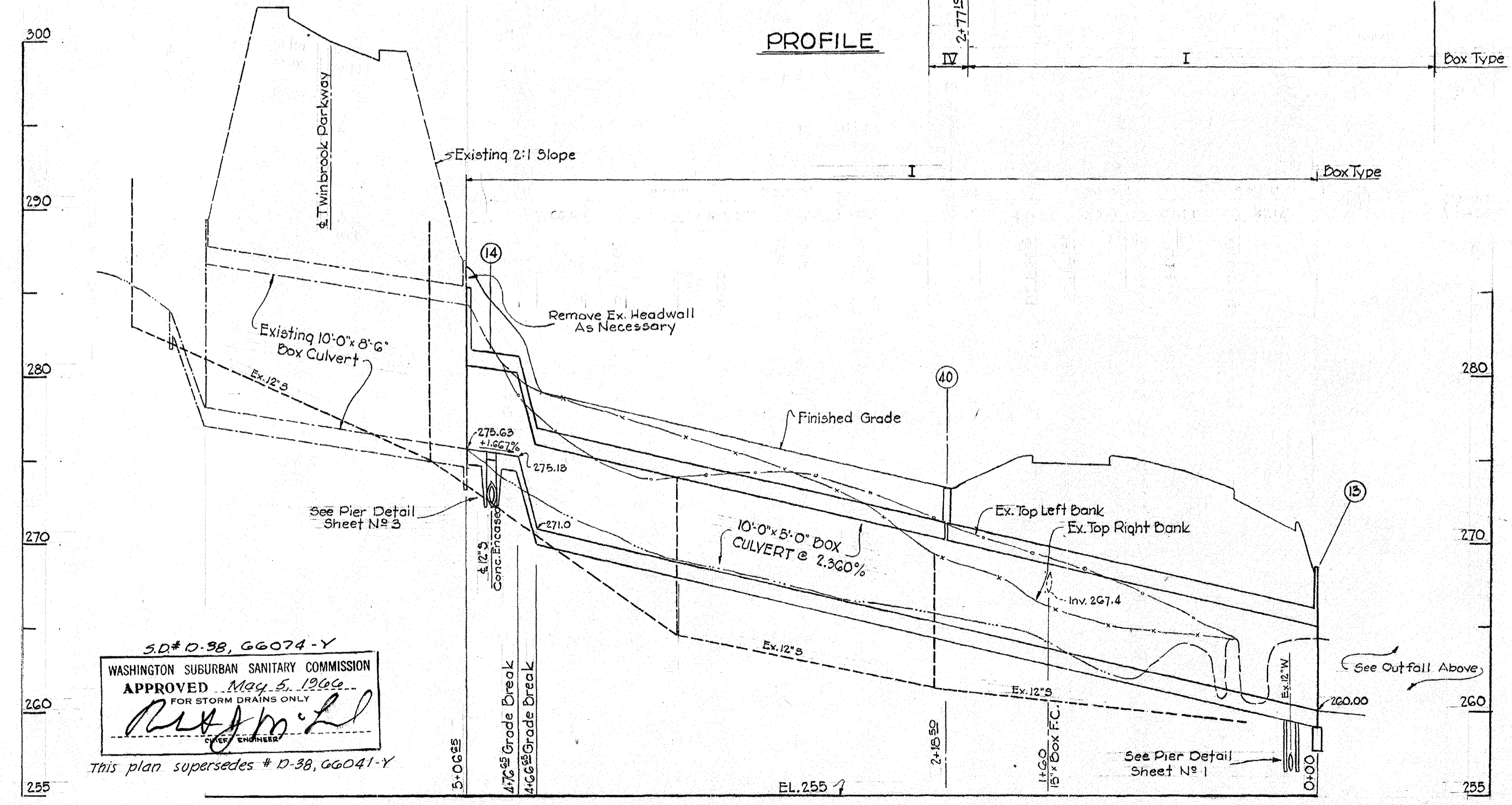
CHECKED EXAMINED	APPROVED DATE	STORM SEWER AUTHOR JOB NO. G6DW 0020 A	SUPERVISION FOR MAIN LINES ONLY NOT REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR STORM SEWERS R/W REQ'D. OTHER UTILITIES	GREENHORNE & O'MARA ENGINEERS 6715 KENILWORTH AVENUE RIVERDALE, MARYLAND	WINDHAM DISTRICT STORM DRAIN BULLIS SCHOOL PROPERTY MONTGOMERY COUNTY, MARYLAND	DRAWING NO. 1 OF 4	SCALE AS SHOWN	G6DW 0020X Y
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CE481-1279-1

30 FILE NO. 1300

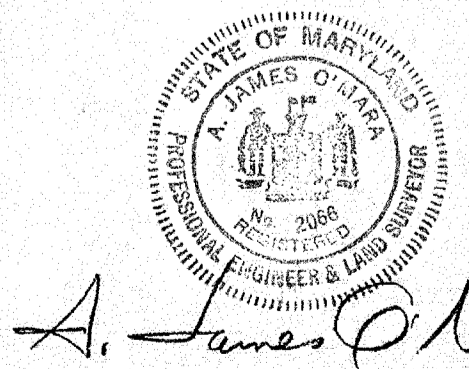


EXPANSION AND CONTRACTION JOINTS
 Maximum contraction joint spacing shall be 25 feet; maximum expansion joint spacing shall be 75 feet. Joint spacings less than the limits given will be allowed at the contractor's option, to accommodate construction operations. The final locations of all joints shall be recorded by the Contractor and shall be submitted to Greenhorn and O'Mara for the proper incorporation into the "As Built Plans".



3.D# D-38, 66074-Y
 WASHINGTON SUBURBAN SANITARY COMMISSION
 APPROVED May 5, 1966
 FOR STORM DRAINS ONLY
[Signature]
 This plan supersedes # D-38, 66041-Y

REVISIONS		
NO	DATE	REMARKS
3	6/16/66	EXPANSION & CONTR. JOINT SPACING
1	5/10/66	EXP. & CONTR. JT. SPACING, & CURVE DAT
2	5/12/66	CULVERT SLOPE CHG 3.74% TO 2.40% LINE 11 TO 10



CHECKED
 EXAMINED

APPROVED _____ DATE _____
 CHIEF ENGINEER

STORM SEWER
 AUTHOR
 JOB NO.
 GGDW0020A

SUPERVISION
 FOR MAIN LINES ONLY
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 DEPT. OF STATE FORESTS & PARKS
 BALTIMORE, MD.

EXAMINED FOR
 STORM SEWERS
 R/W REQ'D.
 OTHER UTILITIES

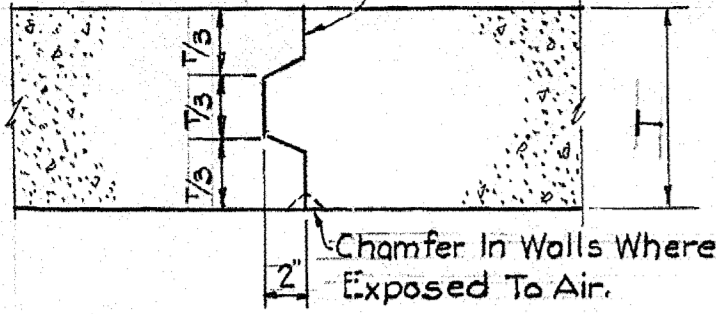
GREENHORNE & O'MARA
 ENGINEERS
 6715 KENILWORTH AVENUE
 RIVERDALE, MARYLAND

WINDHAM DISTRICT
 STORM DRAIN
 BULLIS SCHOOL PROPERTY
 MONTGOMERY COUNTY, MARYLAND

DRAWING NO. 2
 OF 4
 SCALE 1"=5' VERT.
 1"=50' HORIZ.

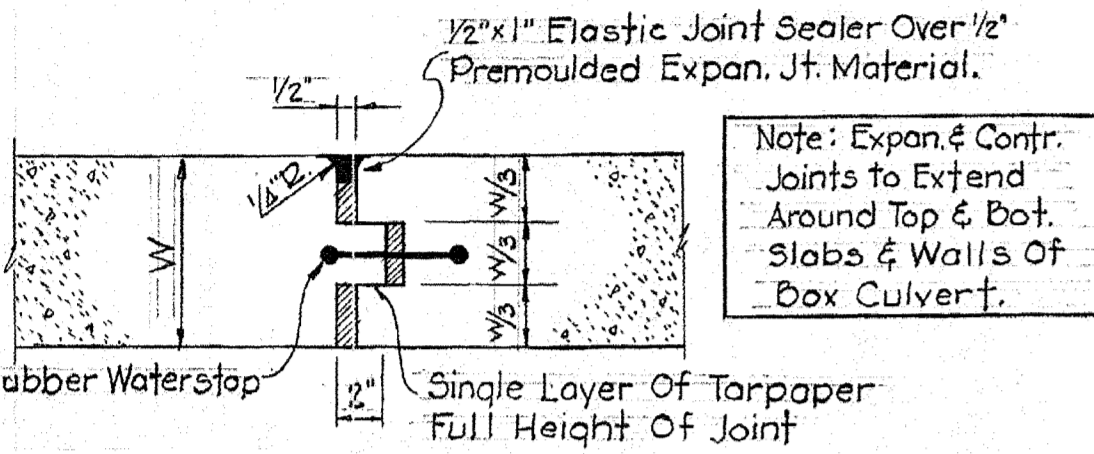
CE487-1279-2

Note: Stop reinf 2" Cl. each side of joint.
Reinf. not shown for clarity.
3" Stop Key 1'-0" Below Top Of Wing Wall

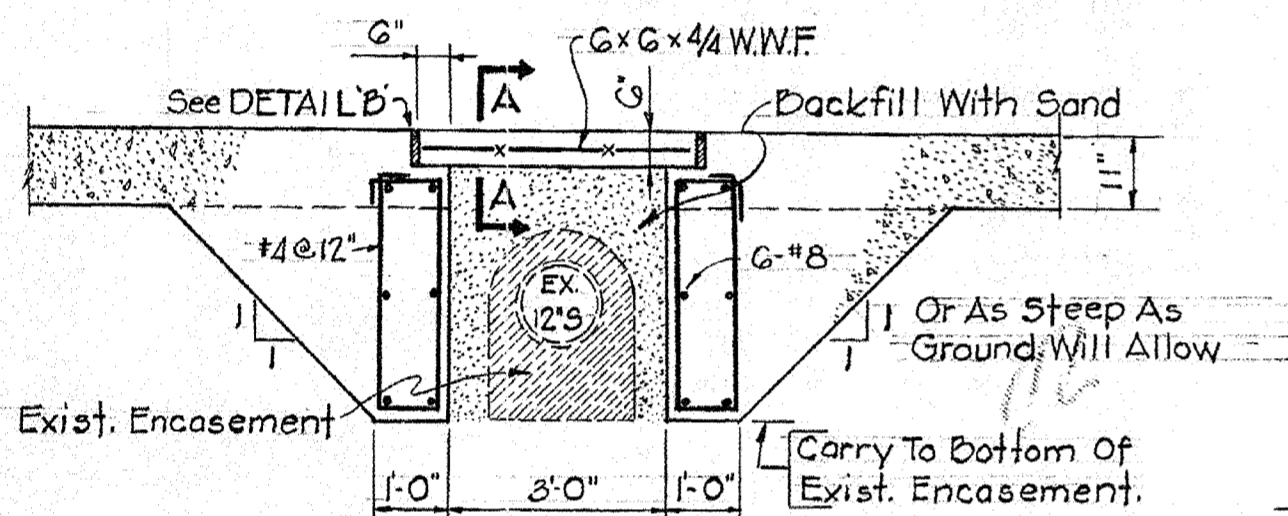


CONTRACTION JOINT
No Scale

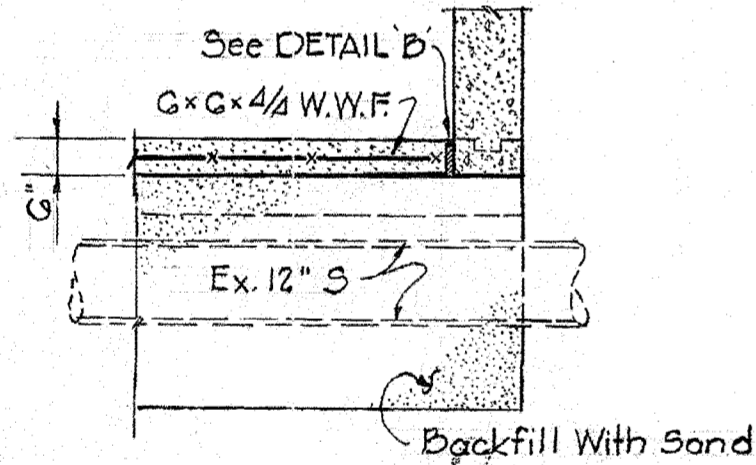
Note: Stop reinf. 2" Cl. each side of joint.
Reinf. not shown for clarity.



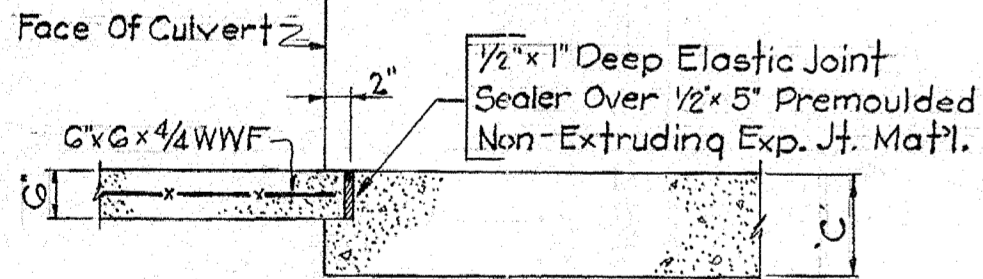
EXPANSION JOINT
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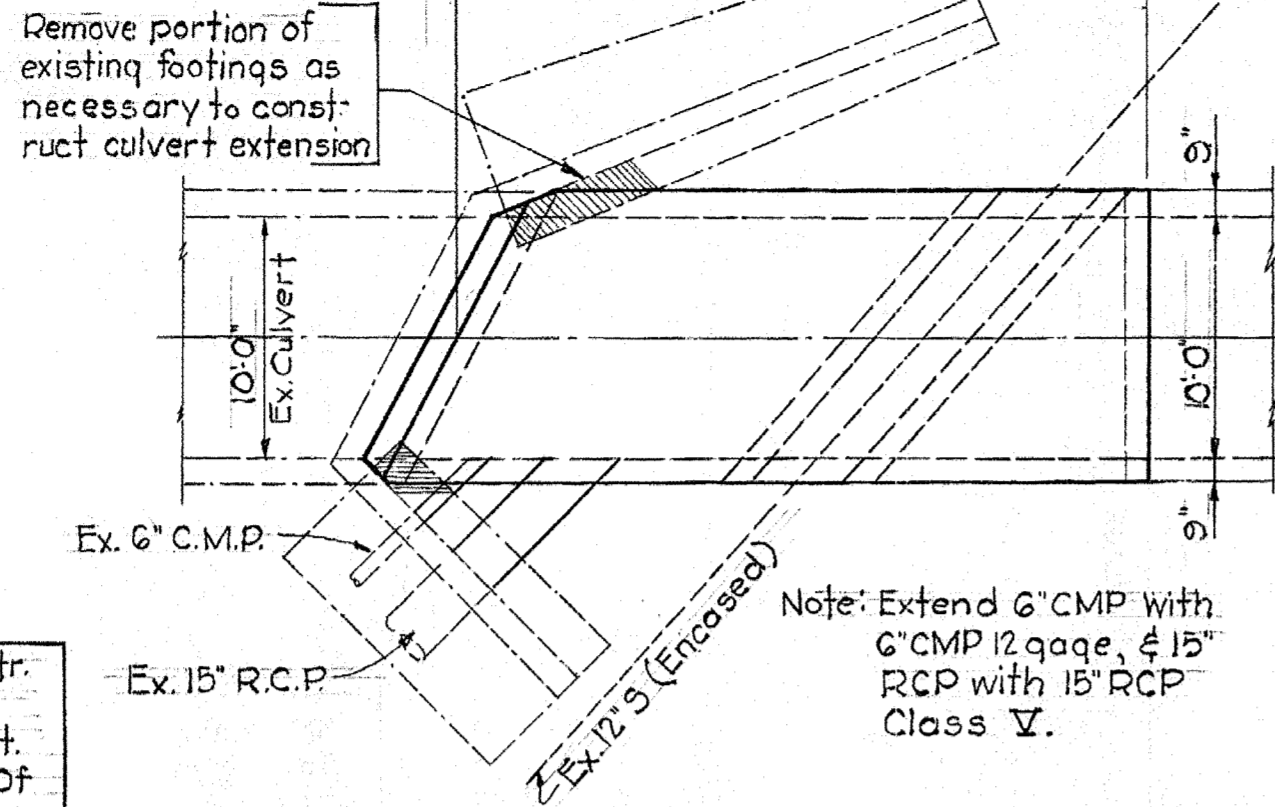
DETAIL A'
Scale: 3/8" = 1'-0"



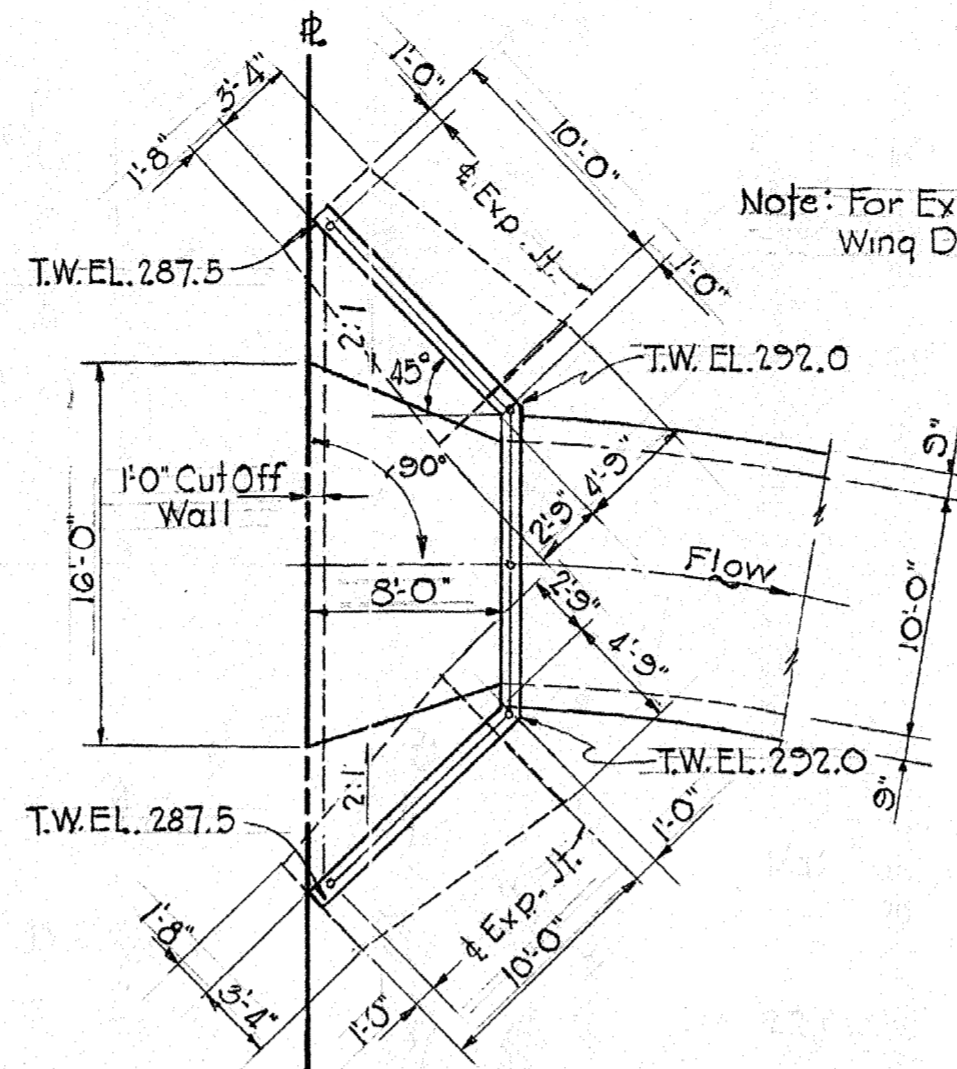
SECTION A-A
Scale: 3/8" = 1'-0"



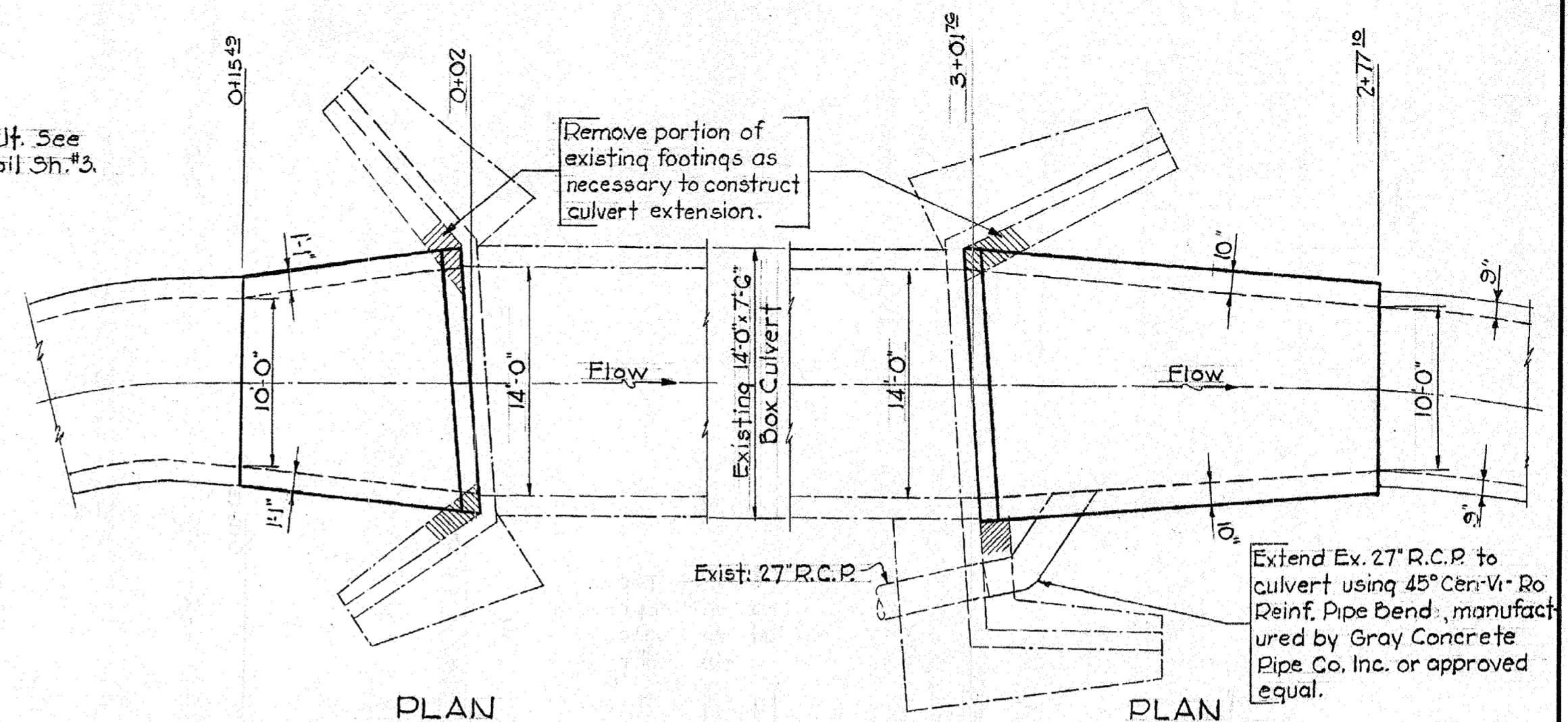
DETAIL OF FENCE POST INSTALLATION
No Scale



PLAN
Scale: 1/8" = 1'-0"

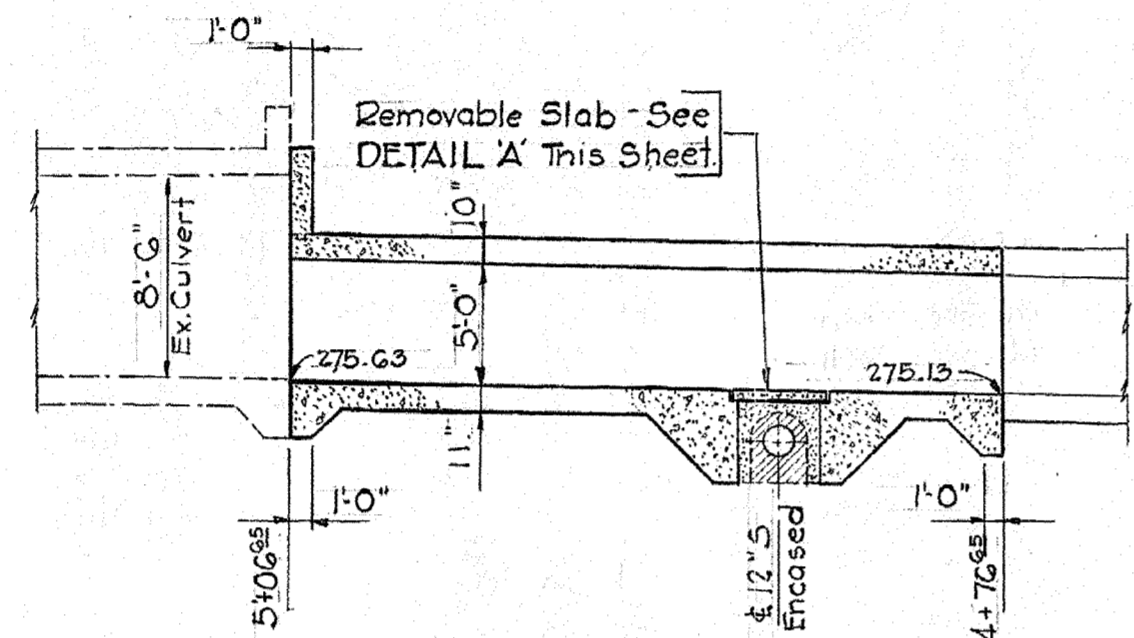


PLAN

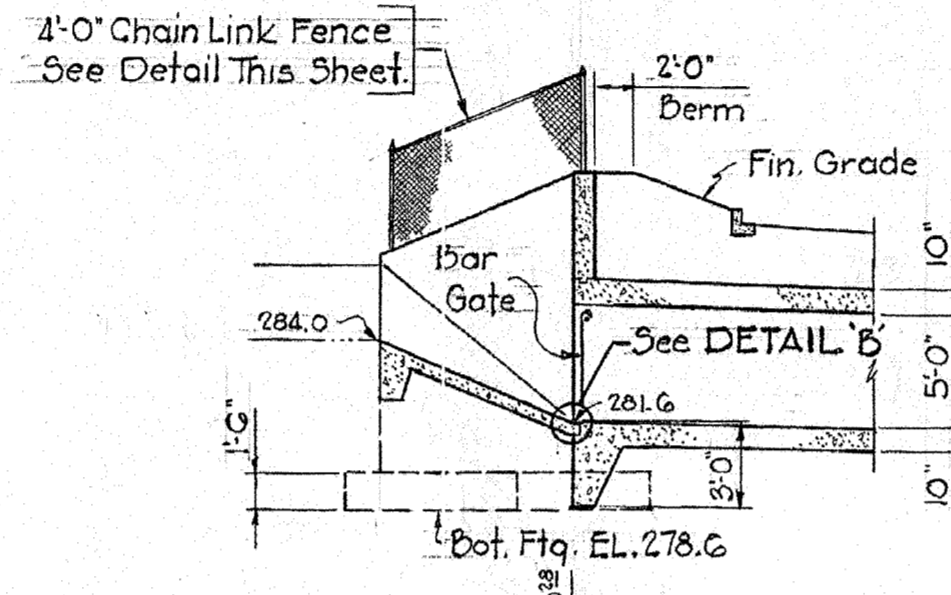


PLAN

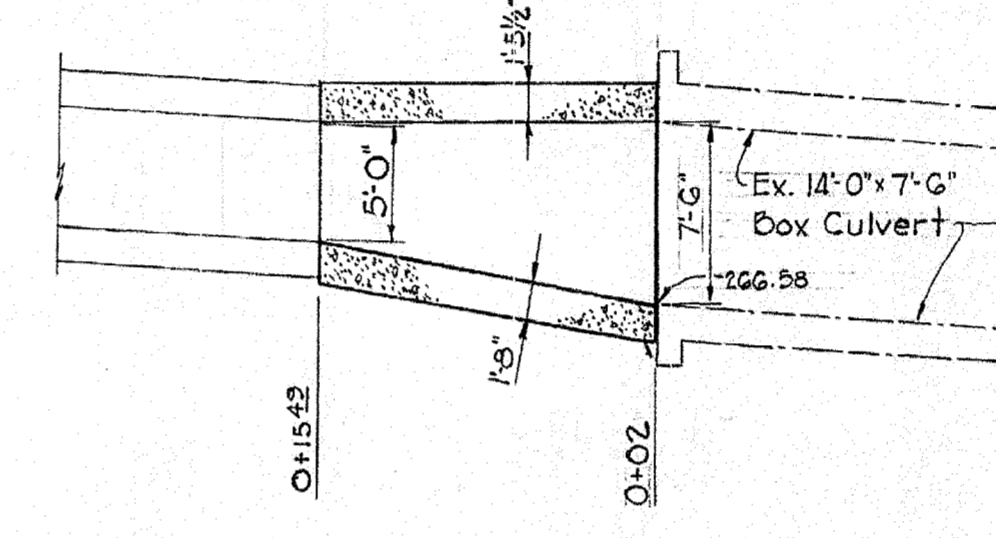
PLAN



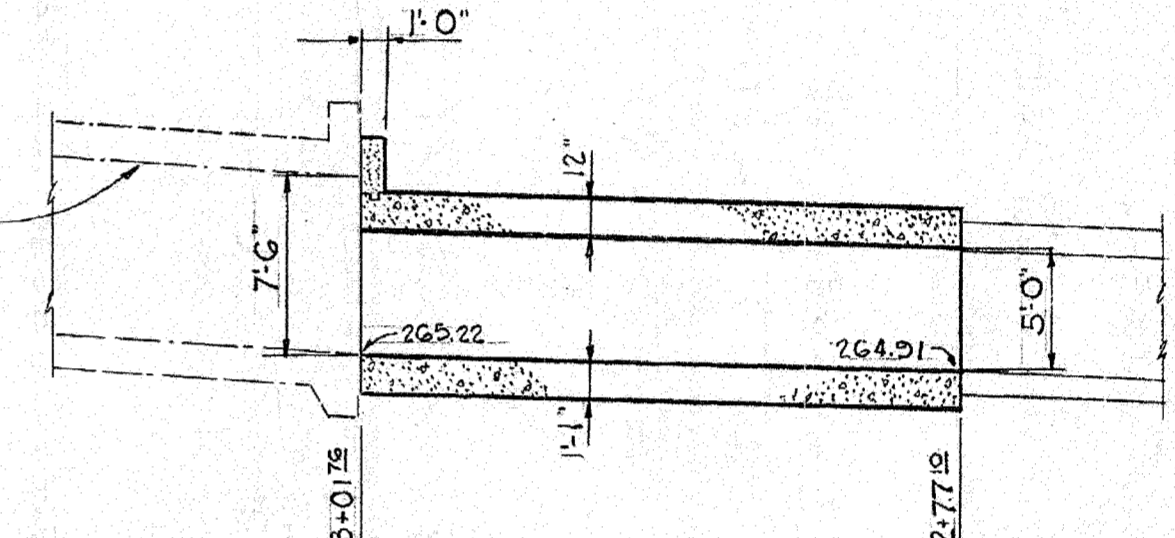
ELEVATION
Scale: 1/8" = 1'-0"



ELEVATION



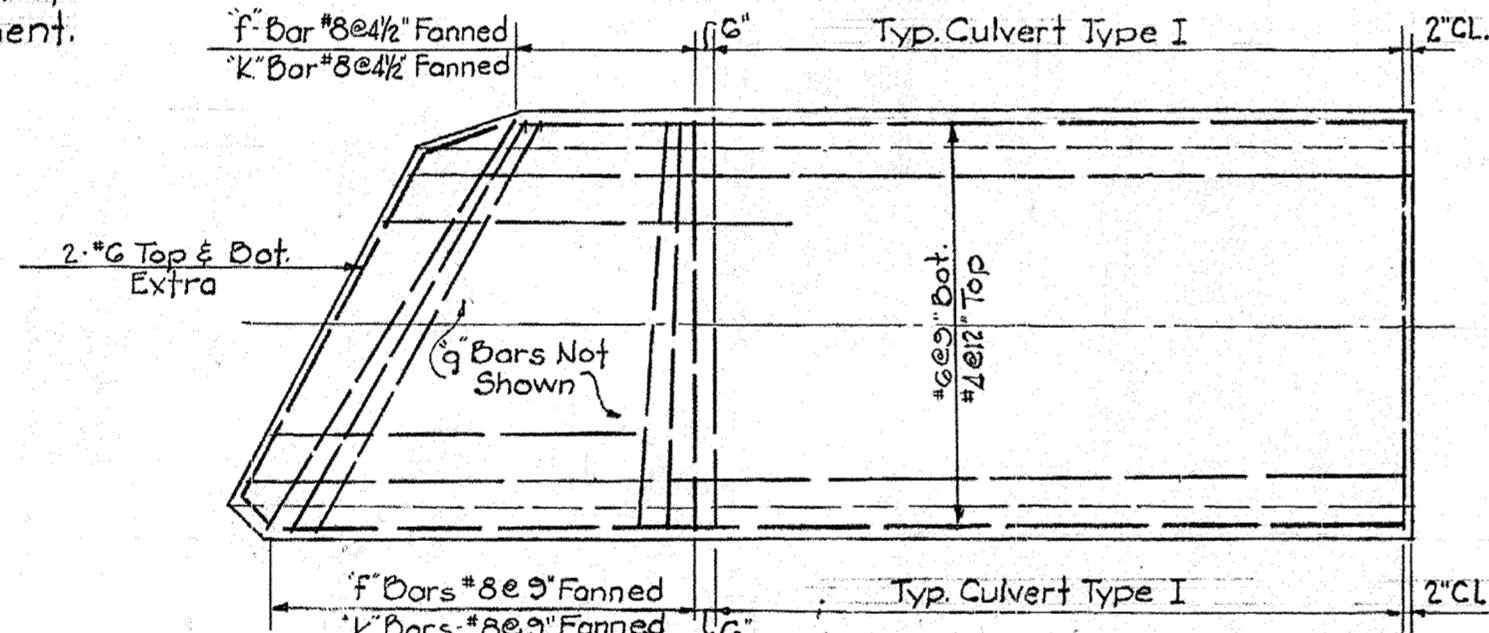
ELEVATION



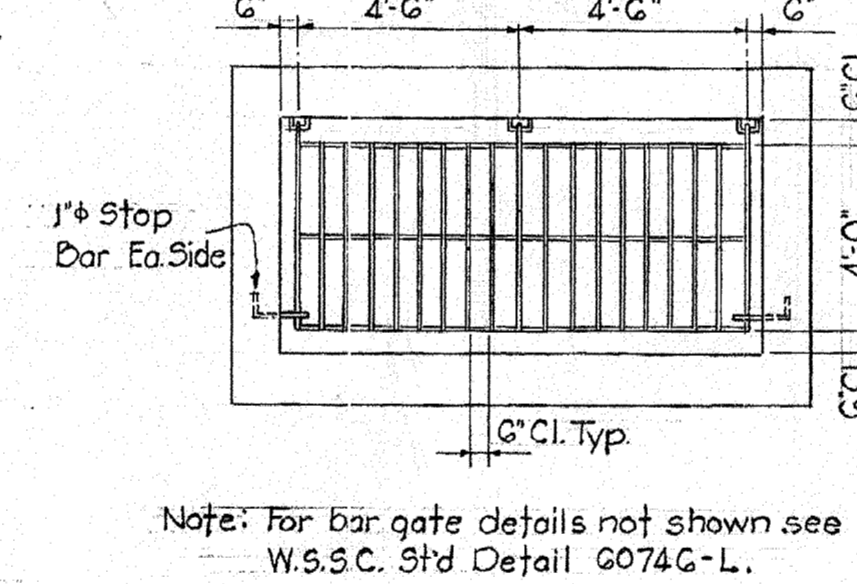
ELEVATION

STRUCTURE NO. 11
Scale: 1/8" = 1'-0"

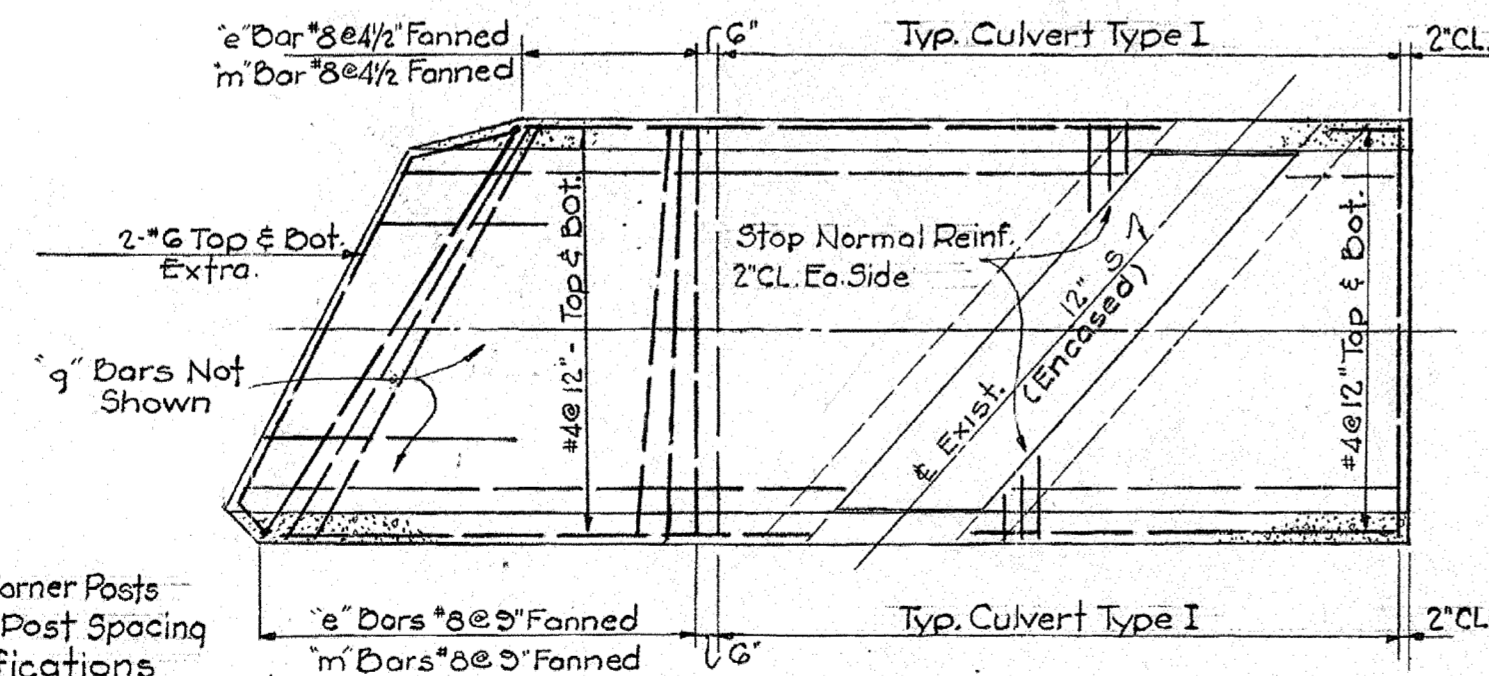
STRUCTURE NO. 12
Scale: 1/8" = 1'-0"



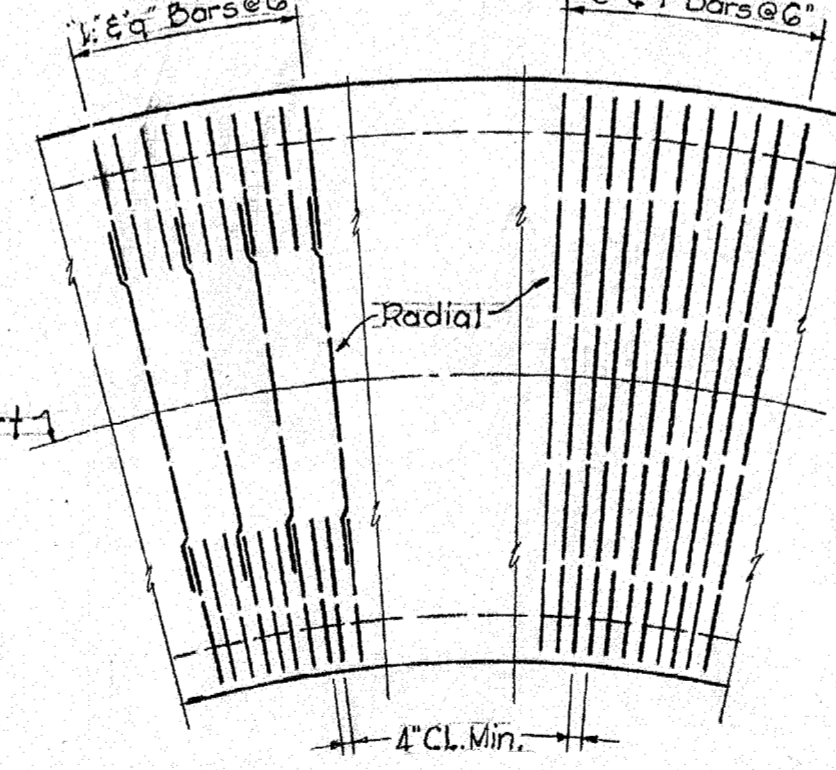
TOP SLAB REINF.
Scale: 3/16" = 1'-0"



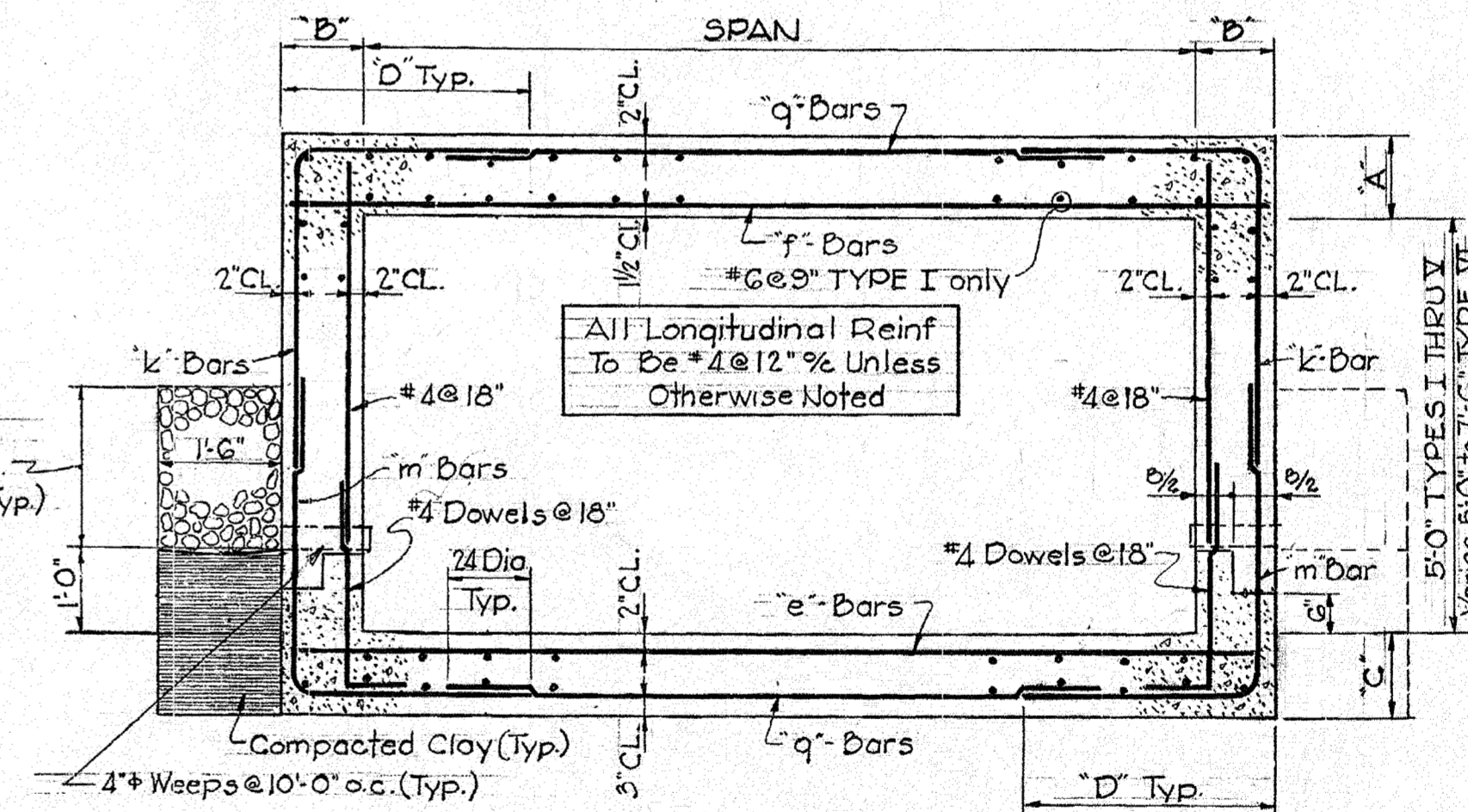
STRUCTURE NO. 10
Scale: 1/8" = 1'-0"



BOTTOM SLAB REINF.
Scale: 3/16" = 1'-0"



PARTIAL PLAN AT CURVE (TYP)
Scale: 1/4" = 1'-0"



TYPICAL CULVERT SECTION
Scale: 1/2" = 1'-0"

CULVERT SCHEDULE										
TYPE	SPAN	A	B	C	D	e Bars	f Bars	g Bars	k Bars	m Bars
I	10'-0"	10'	9'	11'	3'-3"	#6@6"	#6@6"	#4@18"	#6@12" All #5@12" @ G	#5@6"
II	10'-0"	10'	9'	11'	3'-3"	#7@6"	#7@6"	#4@18"	#6@12" All #5@12" @ G	#5@6"
III	10'-0"	14'	11'	16'	3'-3"	#7@6"	#7@6"	#4@18"	#6@12" All #5@12" @ G	#5@6"
IV	10'-0" TO 14'-0"	12"	10"	13"	3'-3"	#7@6"	#7@6"	#4@18"	#6@12" All #5@12" @ G	#5@6"
V	10'-0"	16"	12"	17"	3'-3"	#7@6"	#7@6"	#4@18"	#6@12" All #5@12" @ G	#5@6"
VI	10'-0" TO 14'-0"	17 1/2"	15"	20"	4'-0"	#8@6"	#8@6"	#4@18"	#6@12" All #5@12" @ G	#5@6"

REVISIONS		
NO.	DATE	REMARKS
1	5/10/66	STATIONS, BOX CULVERT KEY

WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED *May 5, 1966*
FOR STORM DRAINS ONLY
[Signature]
CIVIL ENGINEER

This plan supersedes
D-38, 66041-Y

CHECKED
EXAMINED

APPROVED _____ DATE _____
CHIEF ENGINEER

STORM SEWER
AUTHOR
JOB NO.
66DWO20A

SUPERVISION FOR MAIN LINES ONLY
NOT REQUIRED BY
DEPT. OF STATE FORESTS & PARKS
BALTIMORE, MD.

EXAMINED FOR
STORM SEWERS
R/W REQ'D.
OTHER UTILITIES

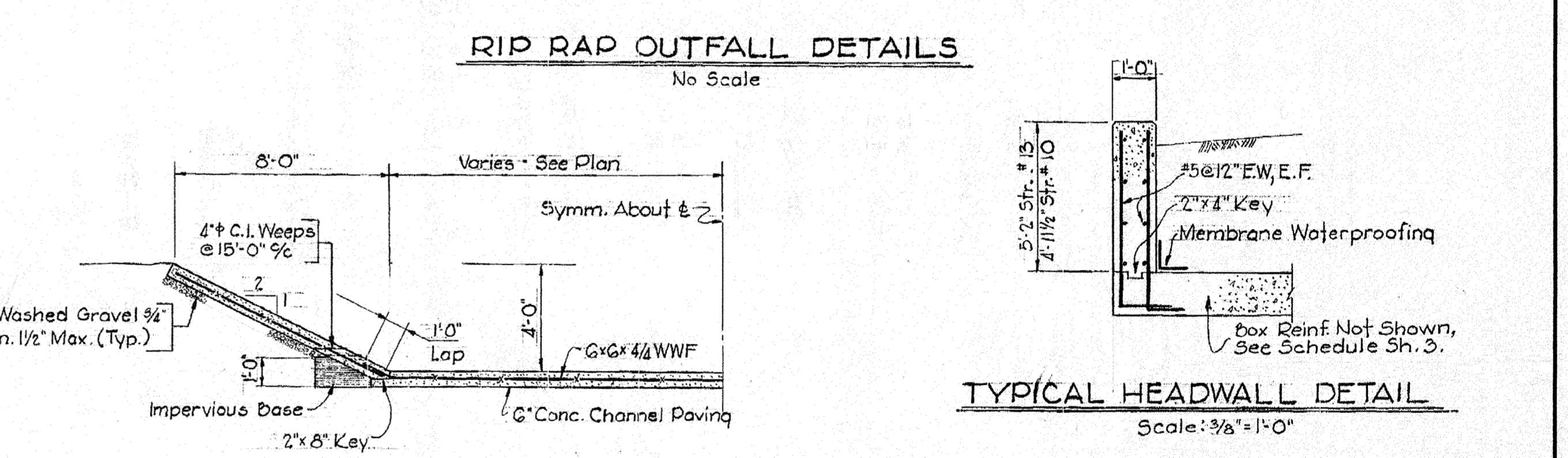
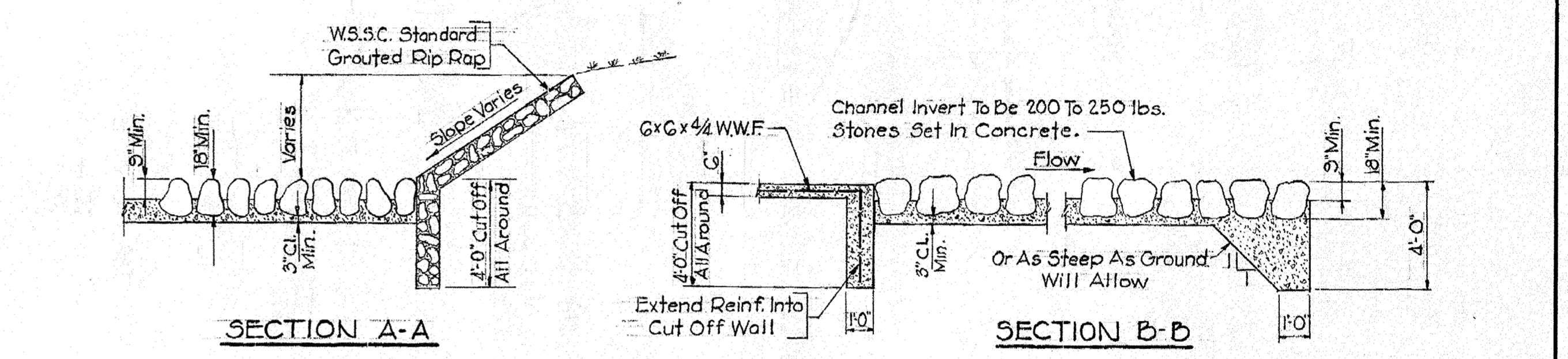
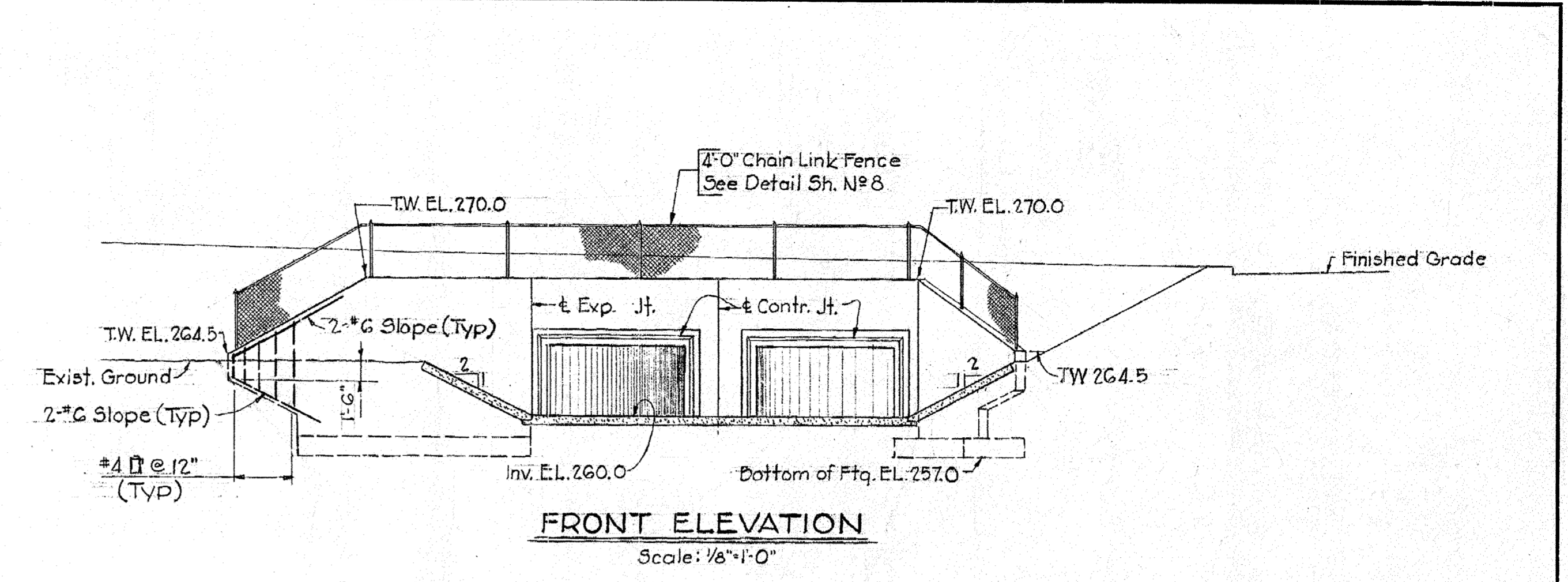
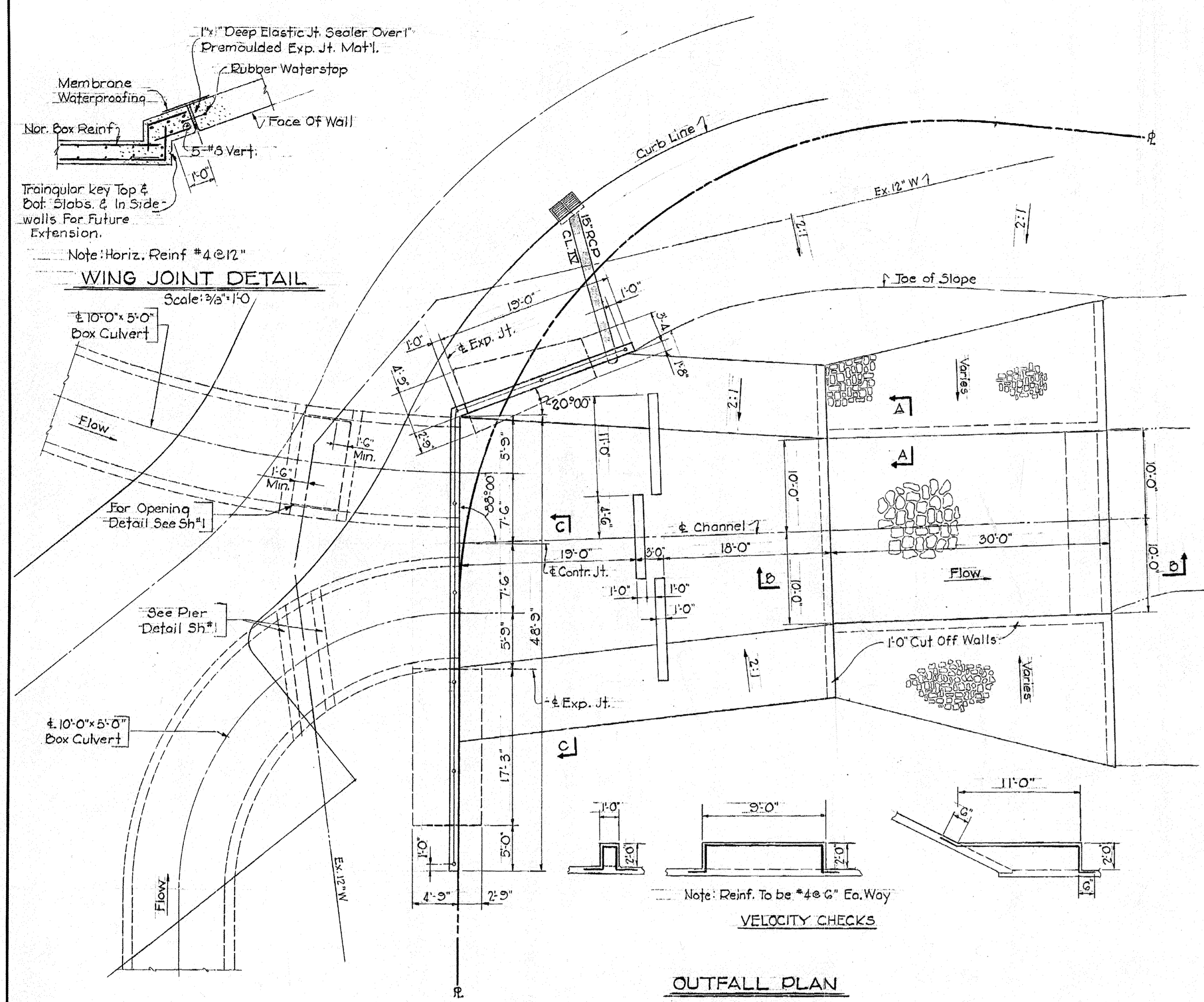
GREENHORNE & OMARA
ENGINEERS
6715 KENILWORTH AVENUE
RIVERDALE, MARYLAND

WINDHAM DISTRICT
STORM DRAIN
BULLIS SCHOOL PROPERTY
MONTGOMERY COUNTY, MARYLAND

DRAWING NO. 3 OF 4

SCALE AS SHOWN
1300

CE487-1279-3



STRUCTURAL NOTES

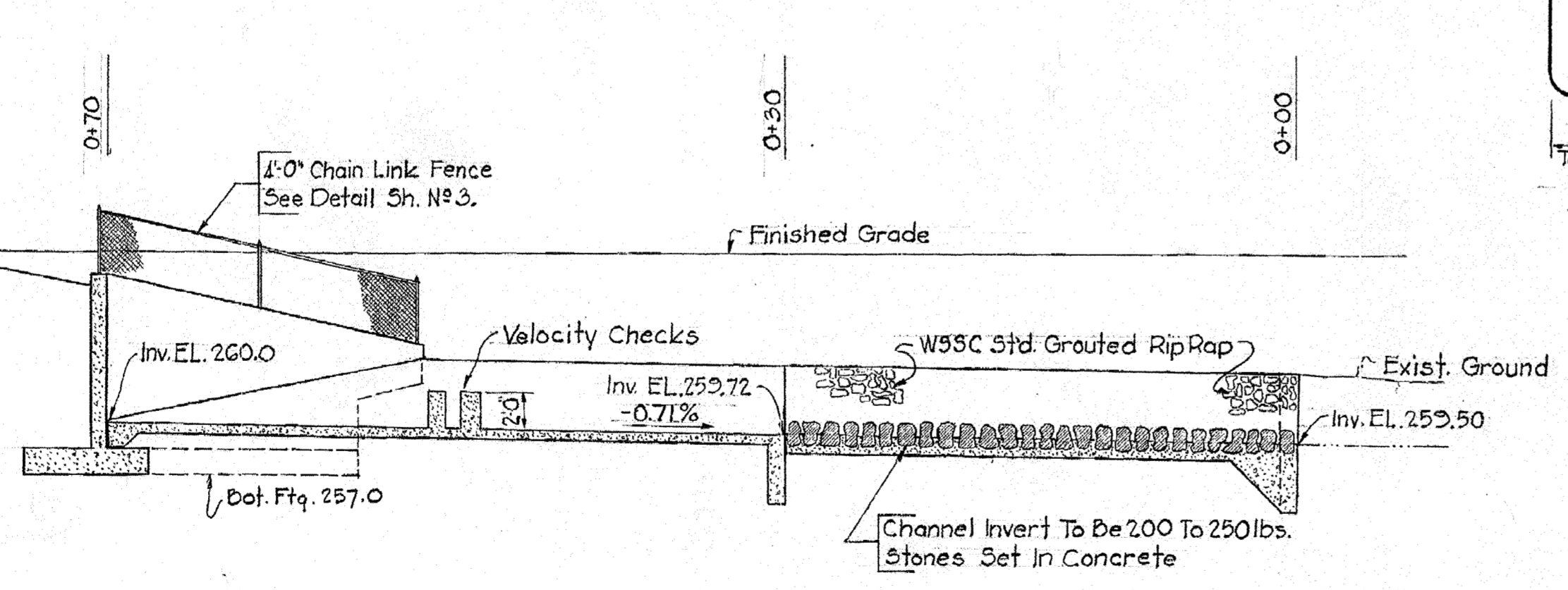
Specifications: Washington Suburban Sanitary Commission General Specifications for Water Mains, Sanitary Sewers and Storm Drains A.A.S.H.O. Standard Specs. for Highway Bridges, 1961 and Interim Specifications.

Loading: HS-20-44

Reinforcing Steel: Reinforcing steel to be deformed bars of intermediate grade. Lap min. of 24 bar diameters at all splices. Allowable fs = 20,000 psi. Reinforcing steel to have 2" min. clear cover unless otherwise shown.

Chamfer: All exposed edges of concrete to be chamfered 1"x1". Use milled chamfered strips.

Concrete: Fc = 3,500 psi at 28 days. Class 'A' Concrete unless otherwise shown.



3.0 * D-38, 66074-Y
WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED May 5, 1966
FOR STORM DRAINS ONLY

CHECKED
EXAMINED

This plan supersedes # D-38, 66041-Y

APPROVED _____ DATE _____	STORM SEWER AUTHOR _____	SUPERVISION FOR MAIN LINES ONLY NOT REQUIRED BY DEPT. OF STATE FORESTS & PARKS BALTIMORE, MD.	EXAMINED FOR STORM SEWERS _____	GREENHORNE & O'MARA ENGINEERS 6715 KENILWORTH AVENUE RIVERDALE, MARYLAND	WINDHAM DISTRICT STORM DRAIN BULLIS SCHOOL PROPERTY MONTGOMERY COUNTY, MARYLAND	DRAWING NO. 4	SCALE AS SHOWN	GGDW 0020 X Y
	CHIEF ENGINEER _____		JOB NO. GGDW0020 A			OTHER UTILITIES _____		

A. James O'Mara

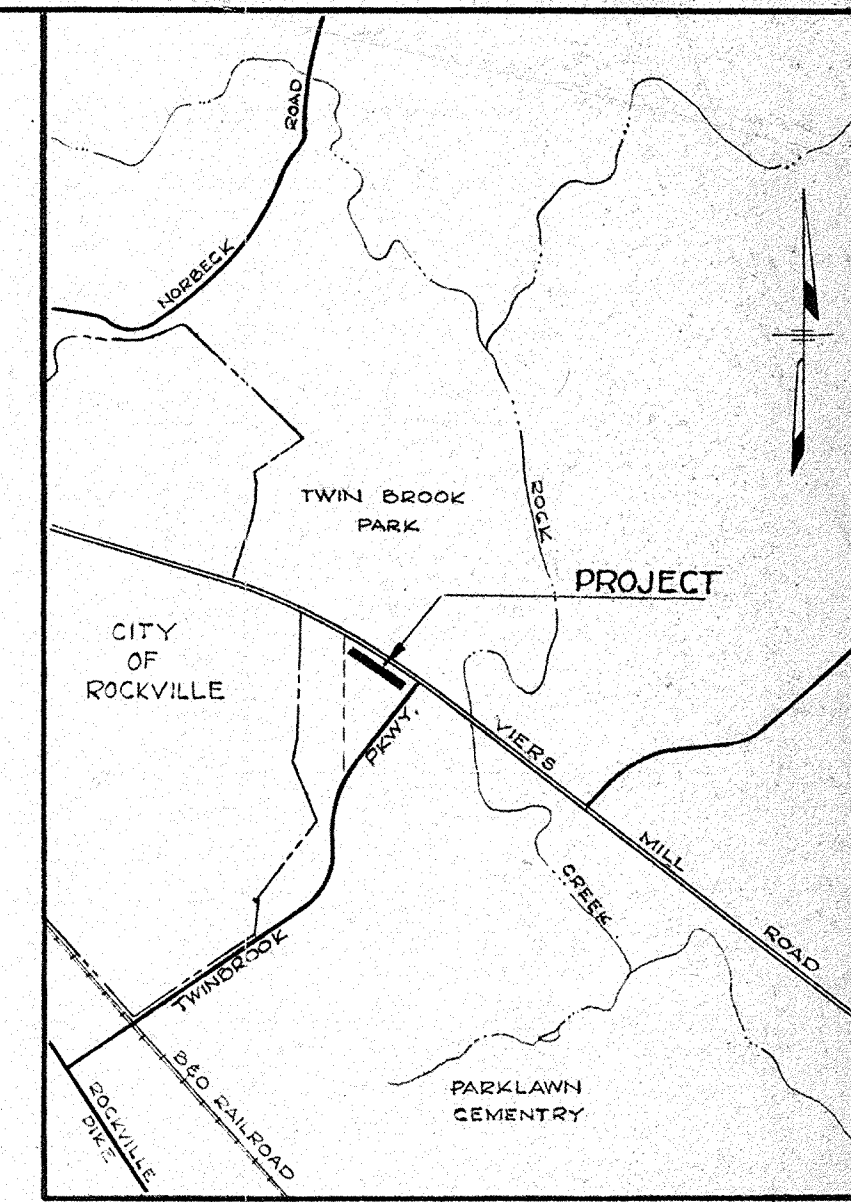
CE487-1279-4

1300

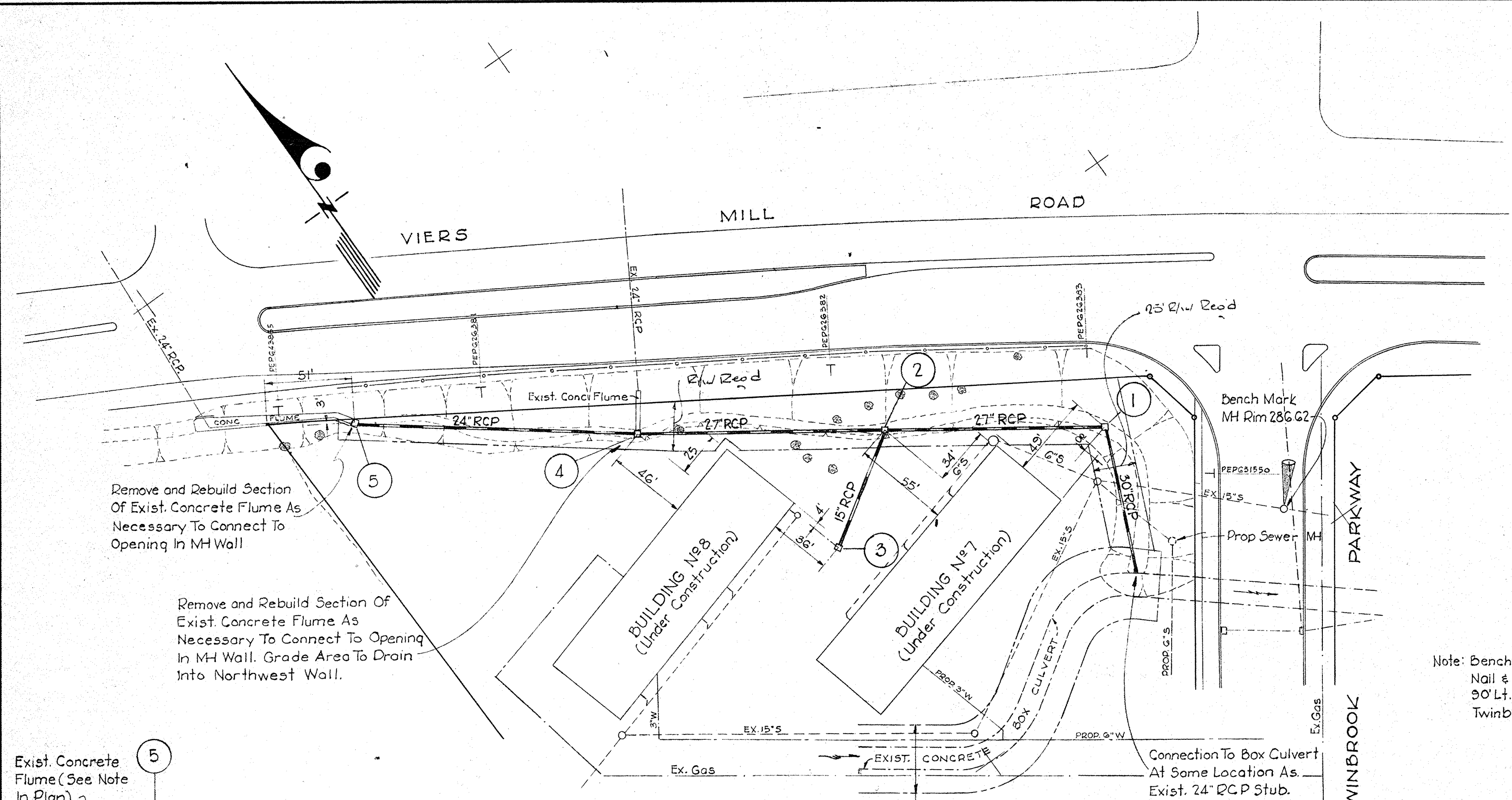
STRUCTURE		SCHEDULE			
NO.	TYPE	ELEV. IN	ELEV. OUT	TOPELEV.	REMARKS
1	B Manhole	271.91	271.66	278.0	WSSC Std. 48" Sq. *
2	B Manhole	275.20	274.95	279.0	WSSC Std. 48" Sq. *
3	E Inlet		276.00	279.0	WSSC Standard
4	B Manhole	282.78	280.37	290.5	WSSC Std. 48" Sq. †
5	B Manhole		299.90	306.8	WSSC Std. 48" Sq. †

PIPE SCHEDULE		
SIZE	TYPE	LENGTH
15"	CLASS IV	71'
24"	CLASS IV	160'
27"	CLASS IV	269'
30"	CLASS V	86'

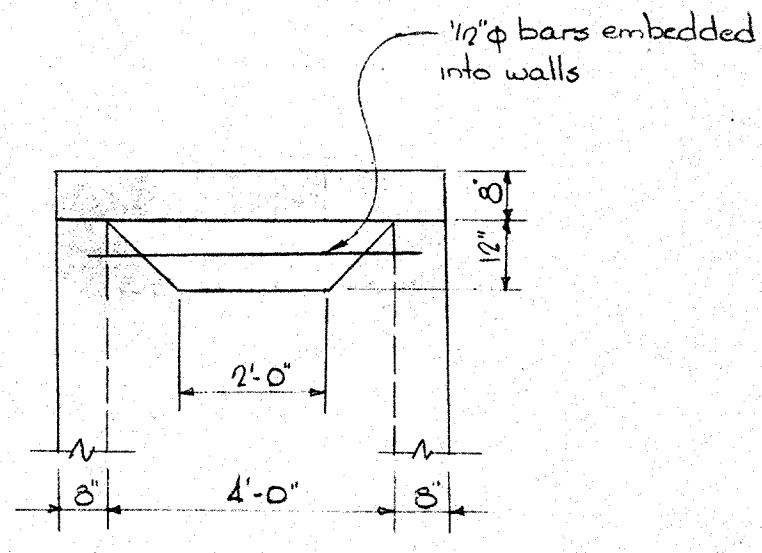
- * Cast MSRC Standard 'S' frame and grate into top slab.
- † Provide 12" x 4'-0" opening immediately beneath slab to receive existing flume.
- ‡ Provide 6" x 4'-0" opening in NW wall; grade area to drain into opening.
- Granite block bottom.



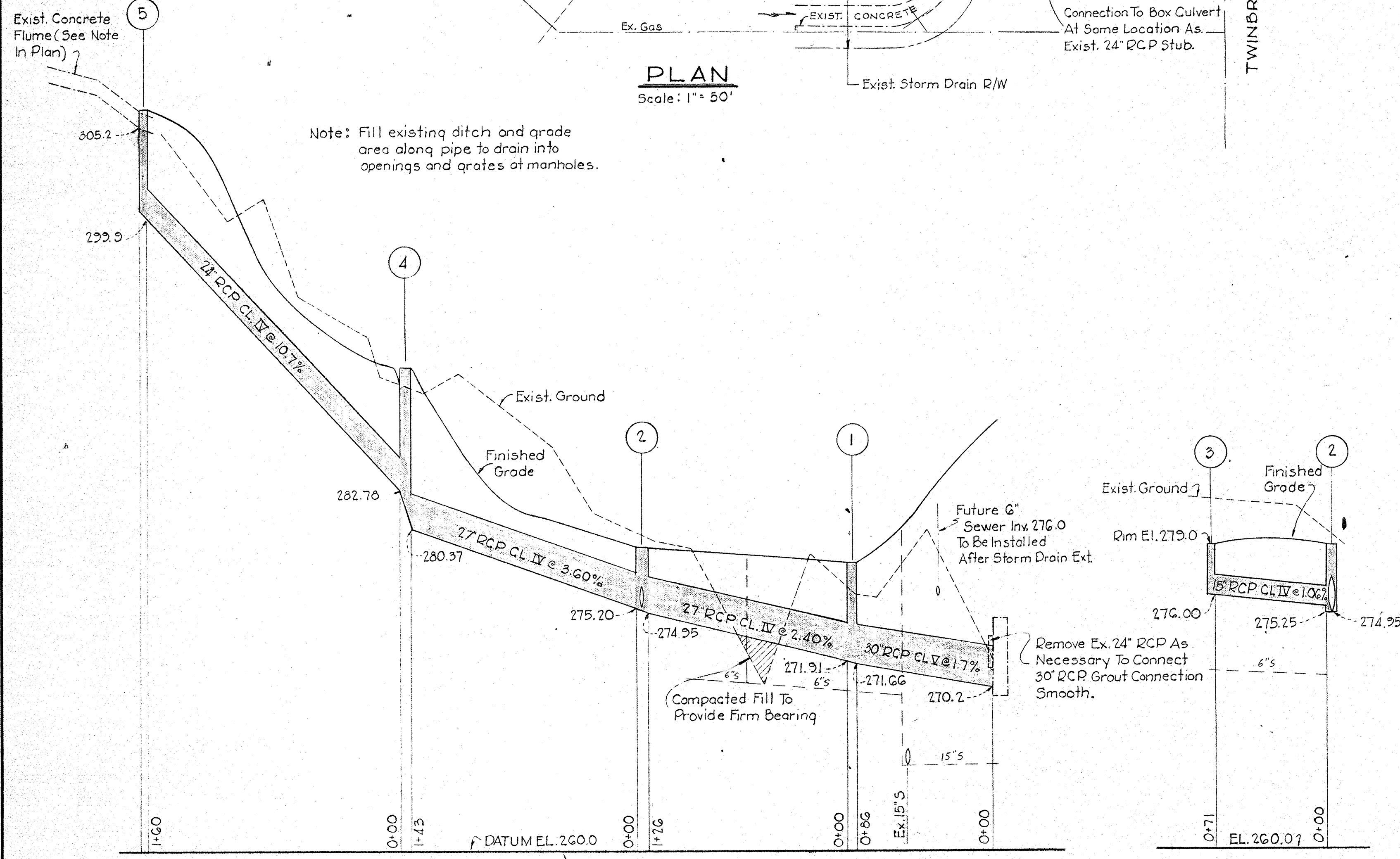
LOCATION PLAN
Scale: 1" = 2000'



PLAN
Scale: 1" = 50'



OPENING IN MANHOLE WALLS
FOR CONCRETE FLUMES
SCALE 3/8" = 1'-0"



PROFILES
Scale: 1" = 50' Horiz., 1" = 5' Vert.

SD #D-40-67077-Y
WASHINGTON SUBURBAN SANITARY COMMISSION
APPROVED 4-17-67
FOR STORM DRAINS ONLY
SUBJECT TO FINISH INSTALLATION OF WATER & SEWER AND PAYMENT FOR MOVING ANY EX. SAN STRUCTURES AFFECTED.
THE STORM DRAINAGE STRUCTURES SHOWN ON THIS PLAN ARE APPROVED AS TO DESIGN AS A COMPONENT PART OF THE STORM DRAINAGE SYSTEM FOR THIS DRAINAGE AREA. THIS COMMISSION ASSUMES NO RESPONSIBILITY WHATSOEVER FOR ANY DAMAGE WHICH MAY BE CAUSED TO ADJACENT PROPERTY OWNERS, OR TO OWNERS DOWNSTREAM, BY REASON OF THE INSTALLATION OF THE DRAINAGE STRUCTURES SHOWN HEREON.
E.A. Hoffman
DESIGNING ENGINEER
*Subject to issuance of permit by Maryland State Department of Health

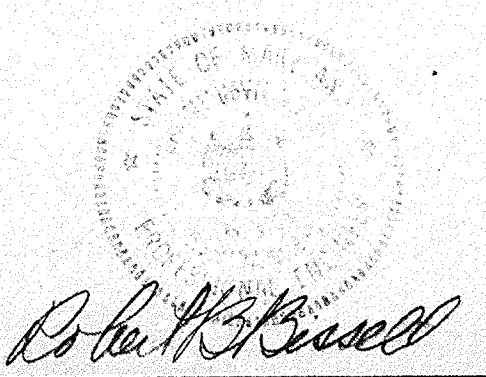
GENERAL NOTES

STORM DRAINAGE EXTENSION
ROCK CREEK WOODS APARTMENTS
MONTGOMERY COUNTY, MARYLAND 1034

DESIGNED BY J.M.W. SCALE AS SHOWN DATE FEB. 1967

DRAWN BY J.M.D. GREENHORNE AND O'MARA CIVIL ENGINEERS LAND SURVEYORS 6715 KENILWORTH AVE. RIVERDALE, MD.

APPROVED BY BILLIS TRACT JOINT VENTURE 1010 ROCKVILLE PIKE ROCKVILLE, MARYLAND JOB NO. 67-025 FILE NO. SD-853



Appendix B: NRCS Soils Report



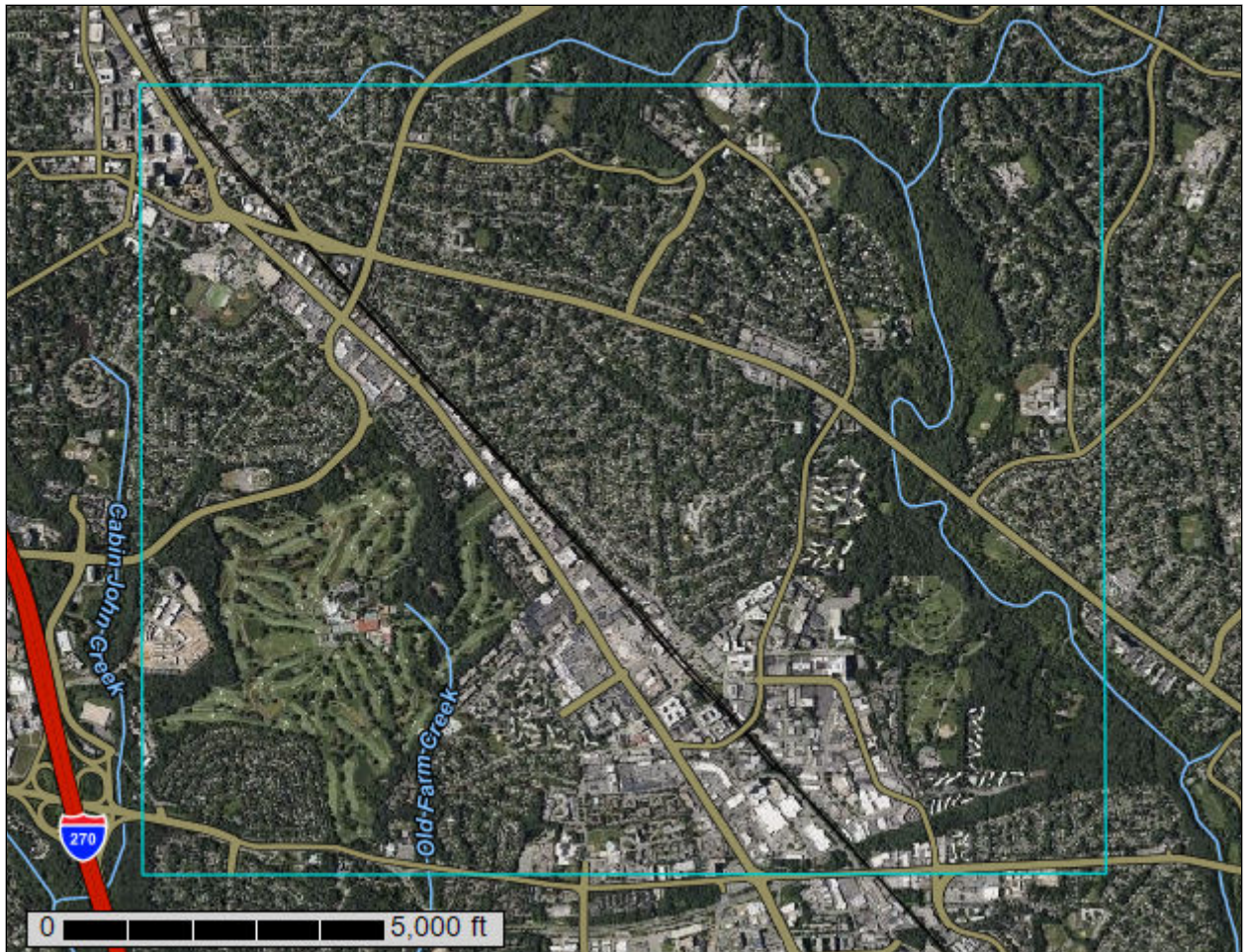
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Montgomery County, Maryland**



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Custom Soil Resource Report

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

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scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

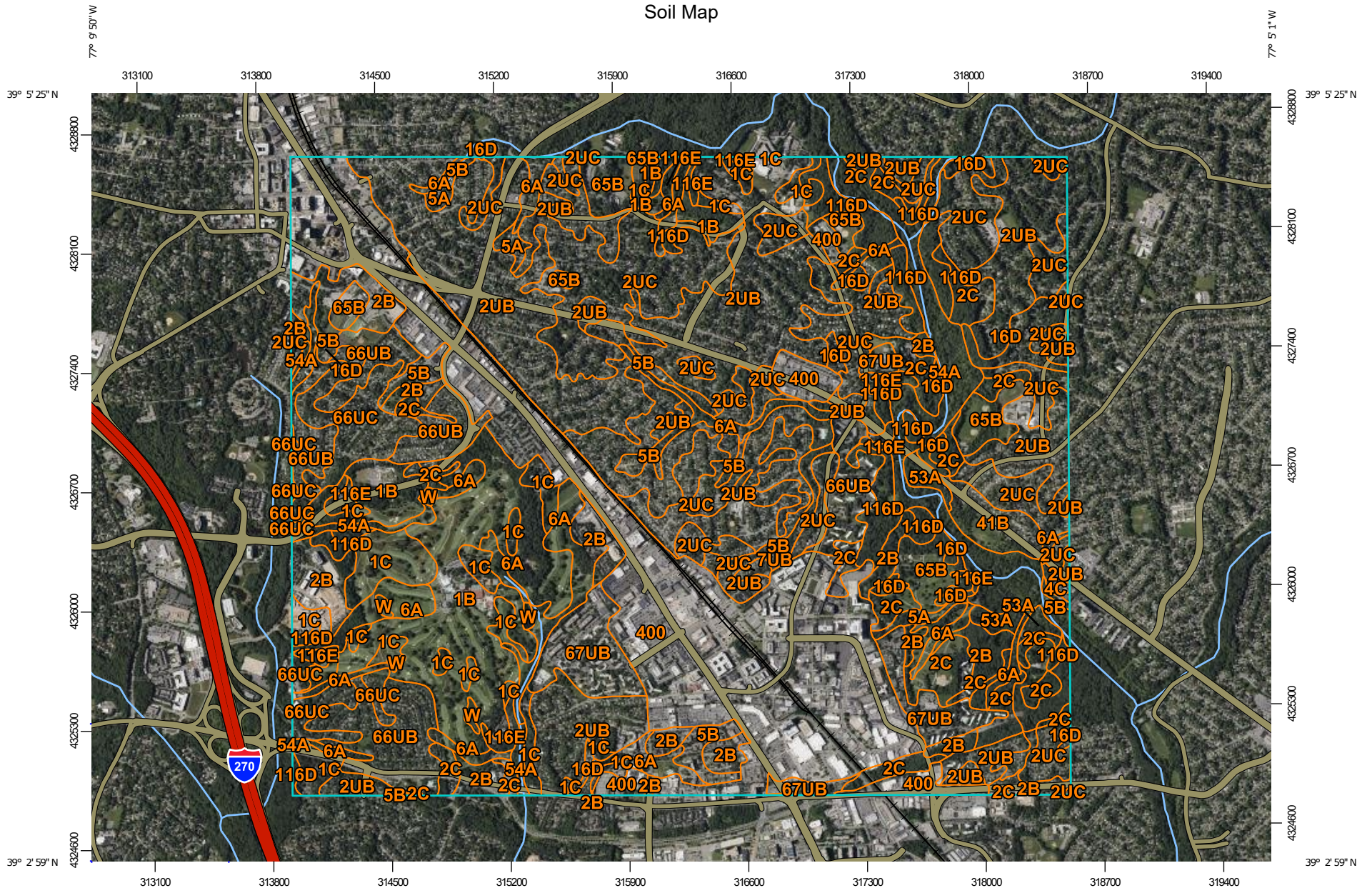
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identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

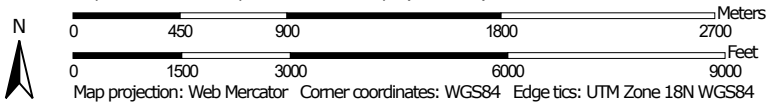
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map




Map Scale: 1:31,800 if printed on A landscape (11" x 8.5") sheet.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Maryland
 Survey Area Data: Version 17, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1B	Gaila silt loam, 3 to 8 percent slopes	297.1	7.0%
1C	Gaila silt loam, 8 to 15 percent slopes	165.2	3.9%
2B	Glenelg silt loam, 3 to 8 percent slopes	211.7	5.0%
2C	Glenelg silt loam, 8 to 15 percent slopes	180.4	4.2%
2UB	Glenelg-Urban land complex, 0 to 8 percent slopes	836.9	19.7%
2UC	Glenelg-Urban land complex, 8 to 15 percent slopes	582.0	13.7%
4B	Elioak silt loam, 3 to 8 percent slopes	1.5	0.0%
4C	Elioak silt loam, 8 to 15 percent slopes	3.2	0.1%
5A	Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes	20.7	0.5%
5B	Glenville silt loam, 3 to 8 percent slopes	84.4	2.0%
6A	Baile silt loam, 0 to 3 percent slopes	170.2	4.0%
7UB	Gaila-Urban land complex, 0 to 8 percent slopes	2.1	0.0%
16D	Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes	71.5	1.7%
41B	Elsinboro silt loam, 3 to 8 percent slopes	35.8	0.8%
53A	Codorus silt loam, 0 to 3 percent slopes, occasionally flooded	24.3	0.6%
54A	Hatboro silt loam, 0 to 3 percent slopes, frequently flooded	166.6	3.9%
65B	Wheaton silt loam, 0 to 8 percent slopes	101.1	2.4%
66UB	Wheaton-Urban land complex, 0 to 8 percent slopes	210.9	5.0%
66UC	Wheaton-Urban land complex, 8 to 15 percent slopes	98.8	2.3%
67UB	Urban land-Wheaton complex, 0 to 8 percent slopes	114.3	2.7%

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
116D	Blocktown channery silt loam, 15 to 25 percent slopes, very rocky	117.7	2.8%
116E	Blocktown channery silt loam, 25 to 45 percent slopes, very rocky	37.0	0.9%
400	Urban land	715.1	16.8%
W	Census water	9.8	0.2%
Totals for Area of Interest		4,258.5	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

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onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Montgomery County, Maryland

1B—Gaila silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: kx7m
Elevation: 100 to 2,000 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 120 to 255 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Gaila and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gaila

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 17 inches: sandy clay loam
H3 - 17 to 20 inches: sandy loam
H4 - 20 to 76 inches: loamy sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Baile

Percent of map unit: 5 percent
Landform: Flats
Hydric soil rating: Yes

1C—Gaila silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: kx7n

Elevation: 100 to 2,000 feet

Mean annual precipitation: 35 to 50 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 120 to 255 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Gaila and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gaila

Typical profile

H1 - 0 to 8 inches: silt loam

H2 - 8 to 17 inches: sandy clay loam

H3 - 17 to 20 inches: sandy loam

H4 - 20 to 76 inches: loamy sand

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Baile

Percent of map unit: 5 percent

Landform: Flats

Hydric soil rating: Yes

2B—Glenelg silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2v7gr
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting

Landform: Hillslopes, interfluves
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope, interfluve
Down-slope shape: Linear
Across-slope shape: Convex, concave, linear
Parent material: Residuum weathered from mica schist

Typical profile

Ap - 0 to 8 inches: silt loam
Bt1 - 8 to 18 inches: clay loam
Bt2 - 18 to 30 inches: clay loam
BCt - 30 to 42 inches: loam
CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Gaila

Percent of map unit: 10 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Glenville

Percent of map unit: 5 percent
Landform: Drainageways, swales
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

2C—Glenelg silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 2t89
Elevation: 30 to 1,200 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 150 to 192 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

Glenelg and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting

Landform: Interfluves, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Interfluve, side slope
Down-slope shape: Linear
Across-slope shape: Convex, concave, linear
Parent material: Residuum weathered from mica schist

Typical profile

Ap - 0 to 8 inches: silt loam
Bt1 - 8 to 18 inches: clay loam
Bt2 - 18 to 30 inches: clay loam
BCt - 30 to 42 inches: loam

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CBt - 42 to 54 inches: loam
C - 54 to 76 inches: channery fine sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Gaila

Percent of map unit: 10 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

Glenville

Percent of map unit: 5 percent
Landform: Drainageways, swales
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

2UB—Glenelg-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: kx8p
Elevation: 250 to 1,050 feet
Mean annual precipitation: 40 to 55 inches
Mean annual air temperature: 45 to 61 degrees F
Frost-free period: 110 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Glenelg and similar soils: 45 percent

Urban land: 35 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting

Landform: Hillslopes, interfluves

Landform position (two-dimensional): Shoulder, backslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Loamy residuum weathered from phyllite

Typical profile

Ap - 0 to 10 inches: loam

Bt1,Bt2,BCt1 - 10 to 30 inches: clay loam

BCt2, CBt - 30 to 54 inches: loam

C - 54 to 76 inches: very channery sandy loam

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)*

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 10.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Urban Land

Setting

Parent material: Human transported material

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 15 percent

Landform: Ridges

Landform position (two-dimensional): Summit, shoulder, backslope

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Landform position (three-dimensional): Interfluve, nose slope, side slope
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Glenville

Percent of map unit: 5 percent
Landform: Drainageways, swales
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

2UC—Glenelg-Urban land complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: kx8q
Elevation: 250 to 1,050 feet
Mean annual precipitation: 37 to 55 inches
Mean annual air temperature: 45 to 61 degrees F
Frost-free period: 110 to 235 days
Farmland classification: Not prime farmland

Map Unit Composition

Glenelg and similar soils: 45 percent
Urban land: 30 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenelg

Setting

Landform: Hillslopes, interfluves
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear

Typical profile

Ap - 0 to 10 inches: loam
Bt1, Bt2, BCt1 - 10 to 30 inches: clay loam
BCt2, CBt - 30 to 54 inches: loam
C - 54 to 76 inches: very channery sandy loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium

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Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.20 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 10.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Urban Land

Setting

Parent material: Human transported material

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 15 percent

Landform: Ridges

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Interfluve, nose slope, side slope

Down-slope shape: Convex, linear

Across-slope shape: Convex, linear

Hydric soil rating: No

Manor

Percent of map unit: 10 percent

Landform: Hillslopes, ridges

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

4B—Elioak silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: kx98

Elevation: 300 to 2,000 feet

Mean annual precipitation: 35 to 55 inches

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Mean annual air temperature: 45 to 61 degrees F

Frost-free period: 110 to 235 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Elioak and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elioak

Setting

Landform: Hillslopes, interfluves, flats

Landform position (two-dimensional): Shoulder, backslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Loamy residuum weathered from phyllite

Typical profile

Ap - 0 to 6 inches: silt loam

E, BE - 6 to 15 inches: silt loam

Bt1, Bt2 - 15 to 42 inches: silty clay loam

C - 42 to 60 inches: silt loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Glenelg

Percent of map unit: 15 percent

Landform: Hillslopes, interfluves

Landform position (two-dimensional): Shoulder, backslope, summit

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Hydric soil rating: No

4C—Elioak silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: kx99

Elevation: 300 to 2,000 feet

Mean annual precipitation: 35 to 55 inches

Mean annual air temperature: 45 to 61 degrees F

Frost-free period: 110 to 235 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Elioak and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elioak

Setting

Landform: Hillslopes

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Loamy residuum weathered from phyllite

Typical profile

Ap - 0 to 6 inches: silt loam

E, BE - 6 to 15 inches: silt loam

Bt1, Bt2 - 15 to 42 inches: silty clay loam

C - 42 to 60 inches: silt loam

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 6.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Hydric soil rating: No

Minor Components

Glenelg

Percent of map unit: 15 percent
Landform: Hillslopes, interfluves
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

5A—Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2w066
Elevation: 260 to 1,210 feet
Mean annual precipitation: 38 to 51 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 136 to 214 days
Farmland classification: Not prime farmland

Map Unit Composition

Glenville, somewhat poorly drained, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenville, Somewhat Poorly Drained

Setting

Landform: Drainageways, swales
Landform position (two-dimensional): Footslope, backslope
Landform position (three-dimensional): Base slope, head slope, interfluve
Down-slope shape: Concave, linear
Across-slope shape: Linear, concave
Parent material: Schist, gneiss or phyllite colluvium derived from metamorphic rock
over schist, gneiss or phyllite residuum weathered from metamorphic rock

Typical profile

Ap - 0 to 11 inches: silt loam
Bt1 - 11 to 20 inches: channery silt loam
Bt2 - 20 to 30 inches: silt loam
Btx - 30 to 40 inches: silt loam
C1 - 40 to 59 inches: loam
C2 - 59 to 80 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 29 to 31 inches to fragipan
Drainage class: Somewhat poorly drained
Runoff class: Medium

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.03 to 0.11 in/hr)

Depth to water table: About 10 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2w

Hydrologic Soil Group: C/D

Hydric soil rating: No

Minor Components

Baile

Percent of map unit: 10 percent

Landform: Drainageways, swales

Landform position (two-dimensional): Footslope, toeslope, backslope

Landform position (three-dimensional): Head slope, base slope, interfluve

Down-slope shape: Concave, linear

Across-slope shape: Concave, linear

Hydric soil rating: Yes

Glenelg

Percent of map unit: 5 percent

Landform: Hillslopes

Landform position (two-dimensional): Summit, shoulder, backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Linear

Across-slope shape: Convex, concave, linear

Hydric soil rating: No

5B—Glenville silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 2tmch

Elevation: 20 to 1,090 feet

Mean annual precipitation: 40 to 55 inches

Mean annual air temperature: 48 to 57 degrees F

Frost-free period: 150 to 192 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Glenville and similar soils: 75 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Glenville

Setting

Landform: Drainageways, swales

Landform position (two-dimensional): Footslope, backslope

Landform position (three-dimensional): Base slope, interfluve, head slope

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Parent material: Colluvium derived from metamorphic rock over schist, gneiss or phyllite residuum

Typical profile

Ap - 0 to 11 inches: silt loam

Bt1 - 11 to 20 inches: channery silt loam

Bt2 - 20 to 30 inches: silt loam

Btx - 30 to 40 inches: silt loam

C1 - 40 to 59 inches: loam

C2 - 59 to 82 inches: loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: 29 to 31 inches to fragipan

Drainage class: Moderately well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.03 to 0.11 in/hr)

Depth to water table: About 18 to 22 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C/D

Hydric soil rating: No

Minor Components

Unnamed

Percent of map unit: 15 percent

Landform: Drainageways

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Hydric soil rating: No

Baile

Percent of map unit: 10 percent

Landform: Swales, drainageways

Landform position (two-dimensional): Footslope

Landform position (three-dimensional): Base slope

Down-slope shape: Concave, linear

Across-slope shape: Linear, concave

Hydric soil rating: Yes

6A—Baile silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: kxb9
Elevation: 250 to 980 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 48 to 57 degrees F
Frost-free period: 120 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Baile and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Baile

Setting

Landform: Hillslopes, depressions, drainageways, swales
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Concave, linear

Typical profile

A - 0 to 9 inches: silt loam
Btg - 9 to 32 inches: silty clay loam
Cg - 32 to 65 inches: loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 0 to 6 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Minor Components

Glenville

Percent of map unit: 15 percent

Custom Soil Resource Report

Landform: Drainageways, swales
Landform position (three-dimensional): Head slope, base slope
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: No

7UB—Gaila-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: kxbf
Elevation: 100 to 2,000 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 120 to 255 days
Farmland classification: Not prime farmland

Map Unit Composition

Gaila and similar soils: 50 percent
Urban land: 45 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Gaila

Typical profile

H1 - 0 to 8 inches: silt loam
H2 - 8 to 17 inches: sandy clay loam
H3 - 17 to 20 inches: sandy loam
H4 - 20 to 76 inches: loamy sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Baile

Percent of map unit: 5 percent
Landform: Flats
Hydric soil rating: Yes

16D—Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes

Map Unit Setting

National map unit symbol: kx79
Elevation: 300 to 2,000 feet
Mean annual precipitation: 7 to 55 inches
Mean annual air temperature: 45 to 61 degrees F
Frost-free period: 110 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Brinklow and similar soils: 50 percent
Blocktown and similar soils: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Brinklow

Setting

Landform: Knolls
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Gravelly residuum weathered from low base phyllites and schists.

Typical profile

Ap - 0 to 10 inches: channery silt loam
Bt,BC - 10 to 25 inches: channery loam
Cr - 25 to 35 inches: bedrock
R - 35 to 39 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 4.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Custom Soil Resource Report

Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Hydric soil rating: No

Description of Blocktown

Setting

Landform: Knolls
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Gravelly residuum weathered from low base phyllites and schists.

Typical profile

Ap - 0 to 6 inches: channery silt loam
Bt - 6 to 17 inches: extremely channery silt loam
Cr - 17 to 21 inches: bedrock
R - 21 to 25 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent
Depth to restrictive feature: 10 to 20 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Glenelg

Percent of map unit: 10 percent
Hydric soil rating: No

Baile

Percent of map unit: 5 percent
Landform: Flats
Hydric soil rating: Yes

Occoquan

Percent of map unit: 5 percent
Hydric soil rating: No

41B—Elsinboro silt loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: kx91

Elevation: 0 to 1,050 feet

Mean annual precipitation: 35 to 55 inches

Mean annual air temperature: 48 to 61 degrees F

Frost-free period: 110 to 235 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Elsinboro and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Elsinboro

Setting

Landform: Terraces

Landform position (three-dimensional): Riser, tread

Down-slope shape: Concave, convex

Across-slope shape: Linear, convex

Parent material: Loamy alluvium derived from phyllite and/or loamy alluvium derived from mica schist and/or loamy alluvium derived from quartzite

Typical profile

Ap - 0 to 9 inches: silt loam

Bt, BC - 9 to 37 inches: silt loam

C1-2 - 37 to 60 inches: silt loam

Properties and qualities

Slope: 3 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: About 60 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Delanco

Percent of map unit: 10 percent
Landform: Stream terraces
Landform position (three-dimensional): Riser, tread
Down-slope shape: Linear, concave
Across-slope shape: Convex, linear

Glenelg

Percent of map unit: 5 percent
Landform: Hillslopes, interfluves
Landform position (two-dimensional): Shoulder, backslope, summit
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Hydric soil rating: No

53A—Codus silt loam, 0 to 3 percent slopes, occasionally flooded

Map Unit Setting

National map unit symbol: kx9d
Elevation: 200 to 600 feet
Mean annual precipitation: 36 to 46 inches
Mean annual air temperature: 54 to 57 degrees F
Frost-free period: 140 to 200 days
Farmland classification: Not prime farmland

Map Unit Composition

Codus and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Codorus

Setting

Landform: Flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from phyllite, schist, diabase and/or greenstone

Typical profile

Ap - 0 to 11 inches: silt loam
Bw1 - 11 to 18 inches: silt loam
Bw2 - 18 to 40 inches: gravelly silt loam
2C - 40 to 60 inches: stratified sand to very gravelly loam

Properties and qualities

Slope: 0 to 3 percent

Custom Soil Resource Report

Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 18 to 30 inches
Frequency of flooding: NoneOccasional
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Hatboro

Percent of map unit: 15 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

54A—Hatboro silt loam, 0 to 3 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: kx9f
Elevation: 200 to 600 feet
Mean annual precipitation: 40 to 50 inches
Mean annual air temperature: 52 to 57 degrees F
Frost-free period: 180 to 210 days
Farmland classification: Not prime farmland

Map Unit Composition

Hatboro and similar soils: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hatboro

Setting

Landform: Channels on flood plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mica bearing loamy alluvium

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material
A - 2 to 8 inches: silt loam
Bg - 8 to 18 inches: silt loam

Custom Soil Resource Report

Cg - 18 to 66 inches: loam

Properties and qualities

Slope: 0 to 3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Poorly drained

Runoff class: Very high

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.60 to 2.00 in/hr)*

Depth to water table: About 0 to 10 inches

Frequency of flooding: Frequent

Frequency of ponding: Frequent

Available water supply, 0 to 60 inches: Very high (about 12.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Hydric soil rating: Yes

65B—Wheaton silt loam, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: kxb5

Elevation: 330 to 1,000 feet

Mean annual precipitation: 35 to 45 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 160 to 200 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Wheaton and similar soils: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Typical profile

H1 - 0 to 6 inches: silt loam

H2 - 6 to 68 inches: channery loam

Properties and qualities

Slope: 0 to 8 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Runoff class: Low

*Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)*

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

66UB—Wheaton-Urban land complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: kxb6
Elevation: 200 to 2,000 feet
Mean annual precipitation: 7 to 50 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 120 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 50 percent
Urban land: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 68 inches: channery loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Baile

Percent of map unit: 5 percent
Landform: Flats
Hydric soil rating: Yes

Glenville

Percent of map unit: 5 percent
Hydric soil rating: No

Blocktown

Percent of map unit: 5 percent
Hydric soil rating: No

Brinklow

Percent of map unit: 5 percent
Hydric soil rating: No

66UC—Wheaton-Urban land complex, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: kxb7
Elevation: 200 to 2,000 feet
Mean annual precipitation: 7 to 50 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 120 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Wheaton and similar soils: 50 percent
Urban land: 30 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Setting

Landform: Hills, interfluves, knolls, ridges
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Human transported material derived from gneiss

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 68 inches: channery loam

Properties and qualities

Slope: 8 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Brinklow

Percent of map unit: 5 percent
Hydric soil rating: No

Blocktown

Percent of map unit: 5 percent
Hydric soil rating: No

Baile

Percent of map unit: 5 percent
Landform: Flats
Hydric soil rating: Yes

Glenville

Percent of map unit: 5 percent
Hydric soil rating: No

67UB—Urban land-Wheaton complex, 0 to 8 percent slopes

Map Unit Setting

National map unit symbol: kxb8
Elevation: 200 to 2,000 feet
Mean annual precipitation: 35 to 50 inches
Mean annual air temperature: 45 to 57 degrees F
Frost-free period: 120 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 60 percent
Wheaton and similar soils: 25 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wheaton

Typical profile

H1 - 0 to 6 inches: silt loam
H2 - 6 to 68 inches: channery loam

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained

Custom Soil Resource Report

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high
(0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: High (about 9.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Glenville

Percent of map unit: 10 percent

Hydric soil rating: No

Baile

Percent of map unit: 5 percent

Landform: Flats

Hydric soil rating: Yes

116D—Blocktown channery silt loam, 15 to 25 percent slopes, very rocky

Map Unit Setting

National map unit symbol: kx75

Elevation: 70 to 2,000 feet

Mean annual precipitation: 7 to 50 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 120 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Blocktown and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Blocktown

Setting

Landform: Knolls

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Gravelly residuum weathered from low base phyllites and schists.

Typical profile

Ap - 0 to 6 inches: channery silt loam

Custom Soil Resource Report

Bt - 6 to 17 inches: extremely channery silt loam

Cr - 17 to 21 inches: bedrock

R - 21 to 25 inches: bedrock

Properties and qualities

Slope: 15 to 25 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Brinklow

Percent of map unit: 10 percent

Hydric soil rating: No

Baile

Percent of map unit: 5 percent

Landform: Flats

Hydric soil rating: Yes

116E—Blocktown channery silt loam, 25 to 45 percent slopes, very rocky

Map Unit Setting

National map unit symbol: kx76

Elevation: 50 to 2,000 feet

Mean annual precipitation: 7 to 50 inches

Mean annual air temperature: 45 to 57 degrees F

Frost-free period: 120 to 240 days

Farmland classification: Not prime farmland

Map Unit Composition

Blocktown and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bloctown

Setting

Landform: Knolls

Down-slope shape: Convex

Across-slope shape: Linear

Parent material: Gravelly residuum weathered from low base phyllites and schists.

Typical profile

Ap - 0 to 6 inches: channery silt loam

Bt - 6 to 17 inches: extremely channery silt loam

Cr - 17 to 21 inches: bedrock

R - 21 to 25 inches: bedrock

Properties and qualities

Slope: 25 to 45 percent

Depth to restrictive feature: 10 to 20 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Brinklow

Percent of map unit: 10 percent

Hydric soil rating: No

Baile

Percent of map unit: 5 percent

Landform: Flats

Hydric soil rating: Yes

400—Urban land

Map Unit Setting

National map unit symbol: kx8y

Elevation: 300 to 900 feet

Mean annual precipitation: 42 to 48 inches

Mean annual air temperature: 50 to 57 degrees F

Frost-free period: 160 to 220 days

Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting

Parent material: Human transported material

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Udorthents

Percent of map unit: 15 percent

Hydric soil rating: No

W—Census water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Physical Properties

Soil Physical Properties are measured or inferred from direct observations in the field or laboratory. Examples of soil physical properties include percent clay, organic matter, saturated hydraulic conductivity, available water capacity, and bulk density.

Saturated Hydraulic Conductivity (Ksat)

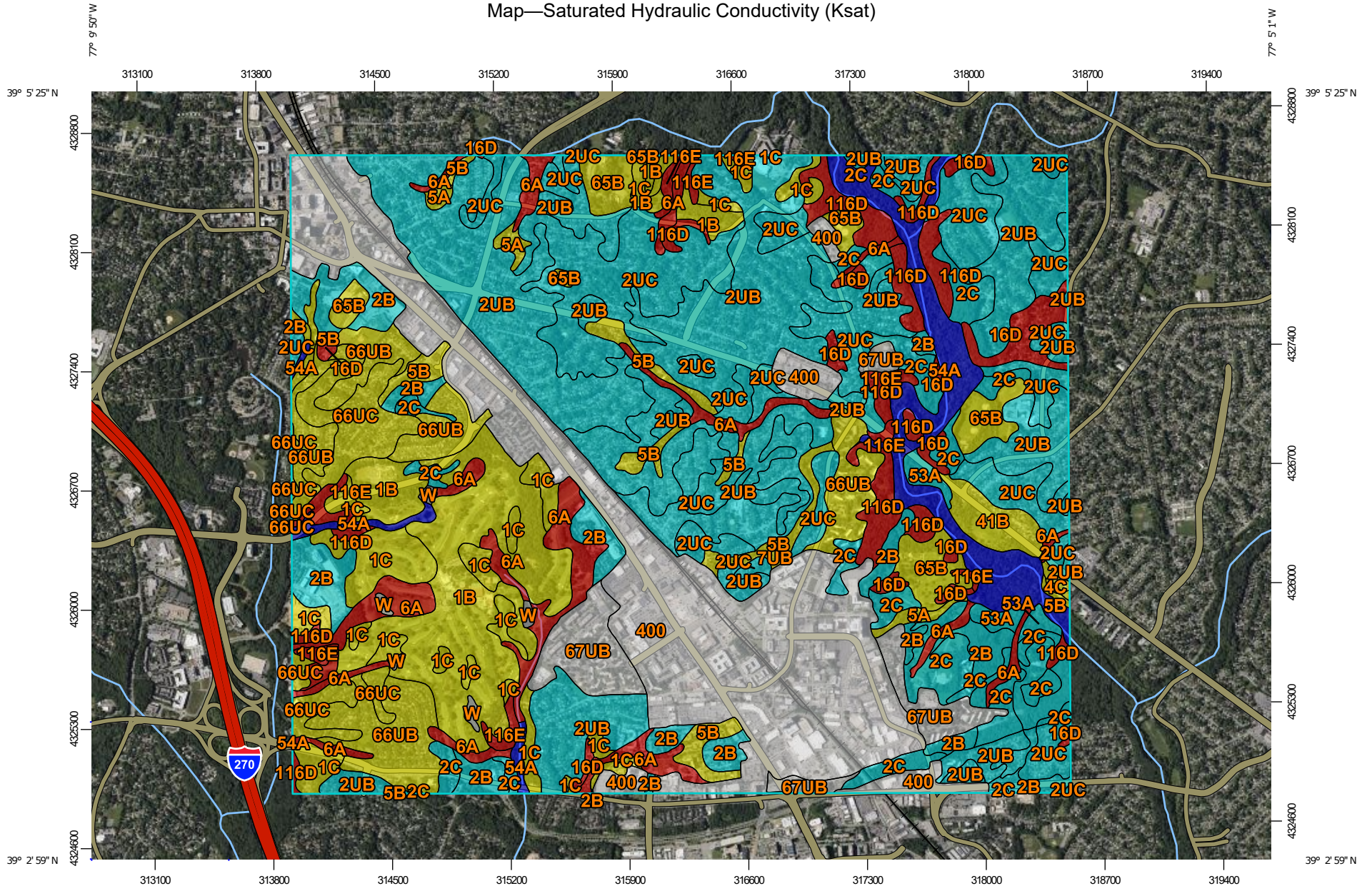
Saturated hydraulic conductivity (Ksat) refers to the ease with which pores in a saturated soil transmit water. The estimates are expressed in terms of micrometers per second. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Saturated hydraulic conductivity is considered in the design of soil drainage systems and septic tank absorption fields.

For each soil layer, this attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

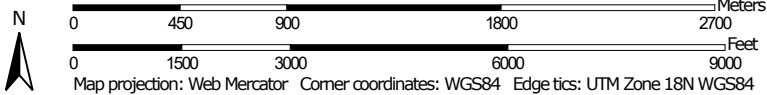
The numeric Ksat values have been grouped according to standard Ksat class limits.

Custom Soil Resource Report

Map—Saturated Hydraulic Conductivity (Ksat)



Map Scale: 1:31,800 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

Custom Soil Resource Report






MAP LEGEND

Area of Interest (AOI)






 Area of Interest (AOI)

Soils






Soil Rating Polygons

-  <= 2.7000
-  > 2.7000 and <= 9.0000
-  > 9.0000 and <= 9.1700
-  > 9.1700 and <= 92.0000
-  Not rated or not available


Soil Rating Lines

-  <= 2.7000
-  > 2.7000 and <= 9.0000
-  > 9.0000 and <= 9.1700
-  > 9.1700 and <= 92.0000
-  Not rated or not available

Soil Rating Points

-  <= 2.7000
-  > 2.7000 and <= 9.0000
-  > 9.0000 and <= 9.1700
-  > 9.1700 and <= 92.0000
-  Not rated or not available

Water Features

 Streams and Canals


Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Maryland

Survey Area Data: Version 17, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Table—Saturated Hydraulic Conductivity (Ksat)

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
1B	Gaila silt loam, 3 to 8 percent slopes	9.0000	297.1	7.0%
1C	Gaila silt loam, 8 to 15 percent slopes	9.0000	165.2	3.9%
2B	Glenelg silt loam, 3 to 8 percent slopes	9.1700	211.7	5.0%
2C	Glenelg silt loam, 8 to 15 percent slopes	9.1700	180.4	4.2%
2UB	Glenelg-Urban land complex, 0 to 8 percent slopes	9.1700	836.9	19.7%
2UC	Glenelg-Urban land complex, 8 to 15 percent slopes	9.1700	582.0	13.7%
4B	Elioak silt loam, 3 to 8 percent slopes	9.0000	1.5	0.0%
4C	Elioak silt loam, 8 to 15 percent slopes	9.0000	3.2	0.1%
5A	Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes	9.0000	20.7	0.5%
5B	Glenville silt loam, 3 to 8 percent slopes	9.0000	84.4	2.0%
6A	Baile silt loam, 0 to 3 percent slopes	2.7000	170.2	4.0%
7UB	Gaila-Urban land complex, 0 to 8 percent slopes	9.0000	2.1	0.0%
16D	Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes	2.7000	71.5	1.7%
41B	Elsinboro silt loam, 3 to 8 percent slopes	9.0000	35.8	0.8%
53A	Codorus silt loam, 0 to 3 percent slopes, occasionally flooded	9.1700	24.3	0.6%
54A	Hatboro silt loam, 0 to 3 percent slopes, frequently flooded	92.0000	166.6	3.9%
65B	Wheaton silt loam, 0 to 8 percent slopes	9.0000	101.1	2.4%
66UB	Wheaton-Urban land complex, 0 to 8 percent slopes	9.0000	210.9	5.0%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating (micrometers per second)	Acres in AOI	Percent of AOI
66UC	Wheaton-Urban land complex, 8 to 15 percent slopes	9.0000	98.8	2.3%
67UB	Urban land-Wheaton complex, 0 to 8 percent slopes		114.3	2.7%
116D	Blocktown channery silt loam, 15 to 25 percent slopes, very rocky	2.7000	117.7	2.8%
116E	Blocktown channery silt loam, 25 to 45 percent slopes, very rocky	2.7000	37.0	0.9%
400	Urban land		715.1	16.8%
W	Census water		9.8	0.2%
Totals for Area of Interest			4,258.5	100.0%

Rating Options—Saturated Hydraulic Conductivity (Ksat)

Units of Measure: micrometers per second

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Fastest

Interpret Nulls as Zero: No

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Depth to Any Soil Restrictive Layer

A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers.

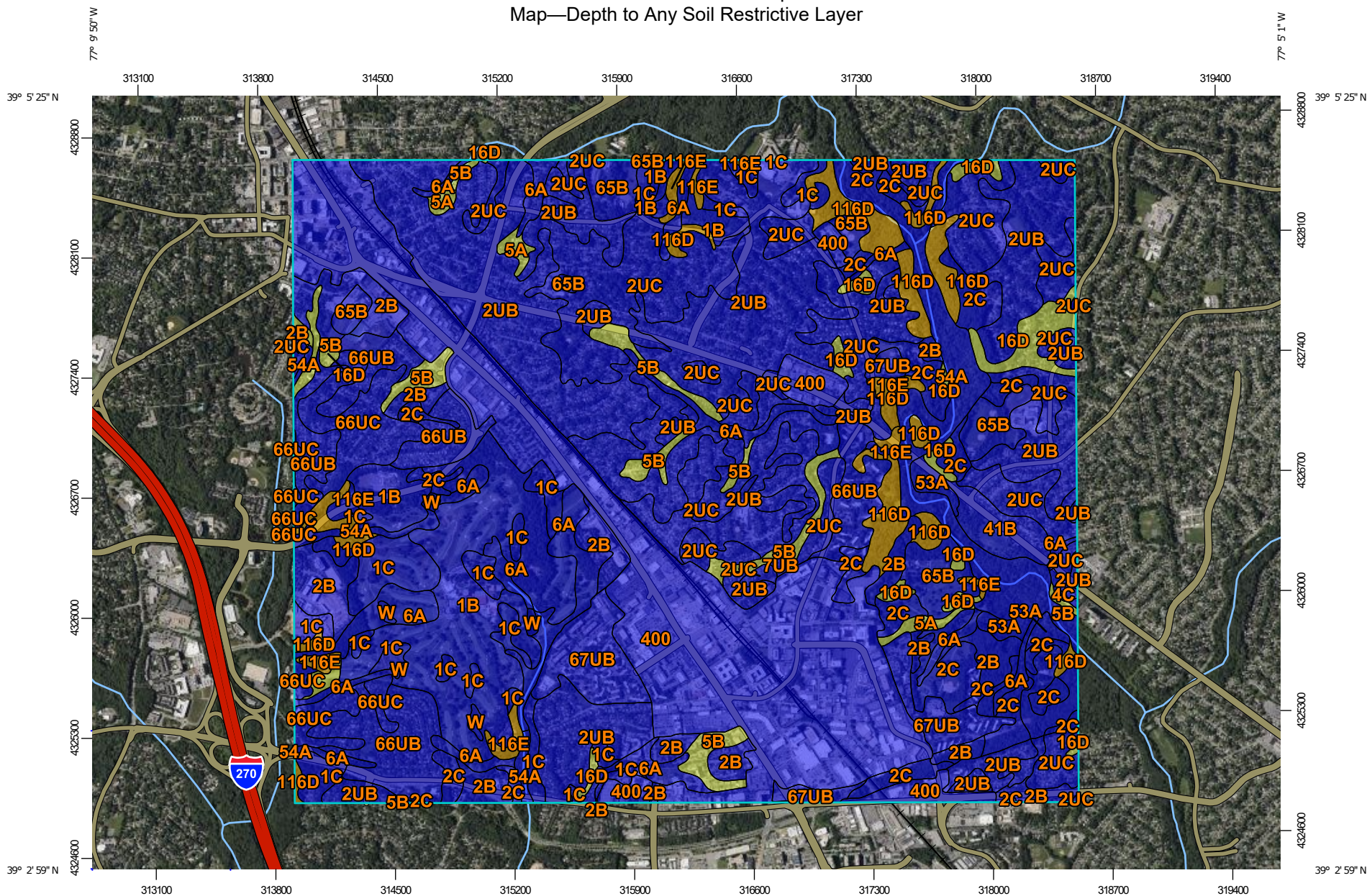
Custom Soil Resource Report

This theme presents the depth to any type of restrictive layer that is described for each map unit. If more than one type of restrictive layer is described for an individual soil type, the depth to the shallowest one is presented. If no restrictive layer is described in a map unit, it is represented by the "greater than 200" depth class.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report

Map—Depth to Any Soil Restrictive Layer




Map Scale: 1:31,800 if printed on A landscape (11" x 8.5") sheet.

0 450 900 1800 2700 Meters

0 1500 3000 6000 9000 Feet








Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND








Area of Interest (AOI)
 Area of Interest (AOI)

Soils







Soil Rating Polygons


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Lines






-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available


Soil Rating Points


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200

Water Features
 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background
 Aerial Photography

 Not rated or not available

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Maryland
 Survey Area Data: Version 17, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

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Custom Soil Resource Report

Table—Depth to Any Soil Restrictive Layer

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1B	Gaila silt loam, 3 to 8 percent slopes	>200	297.1	7.0%
1C	Gaila silt loam, 8 to 15 percent slopes	>200	165.2	3.9%
2B	Glenelg silt loam, 3 to 8 percent slopes	>200	211.7	5.0%
2C	Glenelg silt loam, 8 to 15 percent slopes	>200	180.4	4.2%
2UB	Glenelg-Urban land complex, 0 to 8 percent slopes	>200	836.9	19.7%
2UC	Glenelg-Urban land complex, 8 to 15 percent slopes	>200	582.0	13.7%
4B	Elioak silt loam, 3 to 8 percent slopes	>200	1.5	0.0%
4C	Elioak silt loam, 8 to 15 percent slopes	>200	3.2	0.1%
5A	Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes	76	20.7	0.5%
5B	Glenville silt loam, 3 to 8 percent slopes	76	84.4	2.0%
6A	Baile silt loam, 0 to 3 percent slopes	>200	170.2	4.0%
7UB	Gaila-Urban land complex, 0 to 8 percent slopes	>200	2.1	0.0%
16D	Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes	76	71.5	1.7%
41B	Elsinboro silt loam, 3 to 8 percent slopes	>200	35.8	0.8%
53A	Codorus silt loam, 0 to 3 percent slopes, occasionally flooded	>200	24.3	0.6%
54A	Hatboro silt loam, 0 to 3 percent slopes, frequently flooded	>200	166.6	3.9%
65B	Wheaton silt loam, 0 to 8 percent slopes	>200	101.1	2.4%
66UB	Wheaton-Urban land complex, 0 to 8 percent slopes	>200	210.9	5.0%
66UC	Wheaton-Urban land complex, 8 to 15 percent slopes	>200	98.8	2.3%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
67UB	Urban land-Wheaton complex, 0 to 8 percent slopes	>200	114.3	2.7%
116D	Blocktown channery silt loam, 15 to 25 percent slopes, very rocky	38	117.7	2.8%
116E	Blocktown channery silt loam, 25 to 45 percent slopes, very rocky	38	37.0	0.9%
400	Urban land	>200	715.1	16.8%
W	Census water	>200	9.8	0.2%
Totals for Area of Interest			4,258.5	100.0%

Rating Options—Depth to Any Soil Restrictive Layer

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Unified Soil Classification (Surface)

The Unified soil classification system classifies mineral and organic mineral soils for engineering purposes on the basis of particle-size characteristics, liquid limit, and plasticity index. It identifies three major soil divisions: (i) coarse-grained soils having less than 50 percent, by weight, particles smaller than 0.074 mm in diameter; (ii) fine-grained soils having 50 percent or more, by weight, particles smaller than 0.074 mm in diameter; and (iii) highly organic soils that demonstrate certain organic characteristics. These divisions are further subdivided into a total of 15 basic soil groups. The major soil divisions and basic soil groups are determined on the basis of estimated or measured values for grain-size distribution and Atterberg limits. ASTM D 2487 shows the criteria chart used for classifying soil in the Unified system and the 15 basic soil groups of the system and the plasticity chart for the Unified system.


The various groupings of this classification correlate in a general way with the engineering behavior of soils. This correlation provides a useful first step in any field or laboratory investigation for engineering purposes. It can serve to make some general interpretations relating to probable performance of the soil for engineering uses.

For each soil horizon in the database one or more Unified soil classifications may be listed. One is marked as the representative or most commonly occurring. The representative classification is shown here for the surface layer of the soil.

Custom Soil Resource Report









MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

Soil Rating Polygons

-  CH
-  CL
-  CL-A (proposed)
-  CL-K (proposed)
-  CL-ML
-  CL-O (proposed)
-  CL-T (proposed)
-  GC
-  GC-GM
-  GM
-  GP
-  GP-GC
-  GP-GM
-  GW
-  GW-GC
-  GW-GM
-  MH
-  MH-A (proposed)
-  MH-K (proposed)
-  MH-O (proposed)
-  MH-T (proposed)
-  ML








































-  ML-A (proposed)
-  ML-K (proposed)
-  ML-O (proposed)
-  ML-T (proposed)
-  OH
-  OH-T (proposed)
-  OL
-  PT
-  SC
-  SC-SM
-  SM
-  SP
-  SP-SC
-  SP-SM
-  SW
-  SW-SC
-  SW-SM
-  Not rated or not available

Soil Rating Lines


-  CH
-  CL
-  CL-A (proposed)
-  CL-K (proposed)
-  CL-ML
-  CL-O (proposed)
-  CL-T (proposed)
-  GC
-  GC-GM
-  GM
-  GP
-  GP-GC
-  GP-GM
-  GW
-  GW-GC
-  GW-GM
-  MH
-  MH-A (proposed)
-  MH-K (proposed)
-  MH-O (proposed)
-  MH-T (proposed)
-  ML
-  ML-A (proposed)
-  ML-K (proposed)
-  ML-O (proposed)
-  ML-T (proposed)
-  OH
-  OH-T (proposed)
-  OL
-  PT
-  SC
-  SC-SM
-  SM

-  SP
-  SP-SC
-  SP-SM
-  SW
-  SW-SC
-  SW-SM
-  Not rated or not available

Soil Rating Points

-  CH
-  CL
-  CL-A (proposed)
-  CL-K (proposed)
-  CL-ML
-  CL-O (proposed)
-  CL-T (proposed)
-  GC
-  GC-GM
-  GM
-  GP
-  GP-GC
-  GP-GM
-  GW
-  GW-GC
-  GW-GM
-  MH
-  MH-A (proposed)
-  MH-K (proposed)
-  MH-O (proposed)
-  MH-T (proposed)
-  ML
-  ML-A (proposed)
-  ML-K (proposed)
-  ML-O (proposed)
-  ML-T (proposed)
-  OH
-  OH-T (proposed)
-  OL
-  PT
-  SC
-  SC-SM
-  SM
-  SP
-  SP-SC
-  SP-SM
-  SW
-  SW-SC
-  SW-SM
-  Not rated or not available

Water Features





 Streams and Canals

Transportation


 Rails

Custom Soil Resource Report

MAP INFORMATION

-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Montgomery County, Maryland
Survey Area Data: Version 17, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

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Custom Soil Resource Report

Table—Unified Soil Classification (Surface)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1B	Gaila silt loam, 3 to 8 percent slopes		297.1	7.0%
1C	Gaila silt loam, 8 to 15 percent slopes		165.2	3.9%
2B	Glenelg silt loam, 3 to 8 percent slopes	CL	211.7	5.0%
2C	Glenelg silt loam, 8 to 15 percent slopes	CL	180.4	4.2%
2UB	Glenelg-Urban land complex, 0 to 8 percent slopes	ML	836.9	19.7%
2UC	Glenelg-Urban land complex, 8 to 15 percent slopes	ML	582.0	13.7%
4B	Elioak silt loam, 3 to 8 percent slopes	CL	1.5	0.0%
4C	Elioak silt loam, 8 to 15 percent slopes	CL	3.2	0.1%
5A	Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes	CL-ML	20.7	0.5%
5B	Glenville silt loam, 3 to 8 percent slopes	CL	84.4	2.0%
6A	Baile silt loam, 0 to 3 percent slopes	MH	170.2	4.0%
7UB	Gaila-Urban land complex, 0 to 8 percent slopes		2.1	0.0%
16D	Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes	ML	71.5	1.7%
41B	Elsinboro silt loam, 3 to 8 percent slopes	CL-ML	35.8	0.8%
53A	Codorus silt loam, 0 to 3 percent slopes, occasionally flooded	CL-ML	24.3	0.6%
54A	Hatboro silt loam, 0 to 3 percent slopes, frequently flooded	PT	166.6	3.9%
65B	Wheaton silt loam, 0 to 8 percent slopes		101.1	2.4%
66UB	Wheaton-Urban land complex, 0 to 8 percent slopes		210.9	5.0%
66UC	Wheaton-Urban land complex, 8 to 15 percent slopes	CL	98.8	2.3%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
67UB	Urban land-Wheaton complex, 0 to 8 percent slopes		114.3	2.7%
116D	Blocktown channery silt loam, 15 to 25 percent slopes, very rocky	CL	117.7	2.8%
116E	Blocktown channery silt loam, 25 to 45 percent slopes, very rocky	CL	37.0	0.9%
400	Urban land		715.1	16.8%
W	Census water		9.8	0.2%
Totals for Area of Interest			4,258.5	100.0%

Rating Options—Unified Soil Classification (Surface)

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Layer Options (Horizon Aggregation Method): Surface Layer (Not applicable)

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

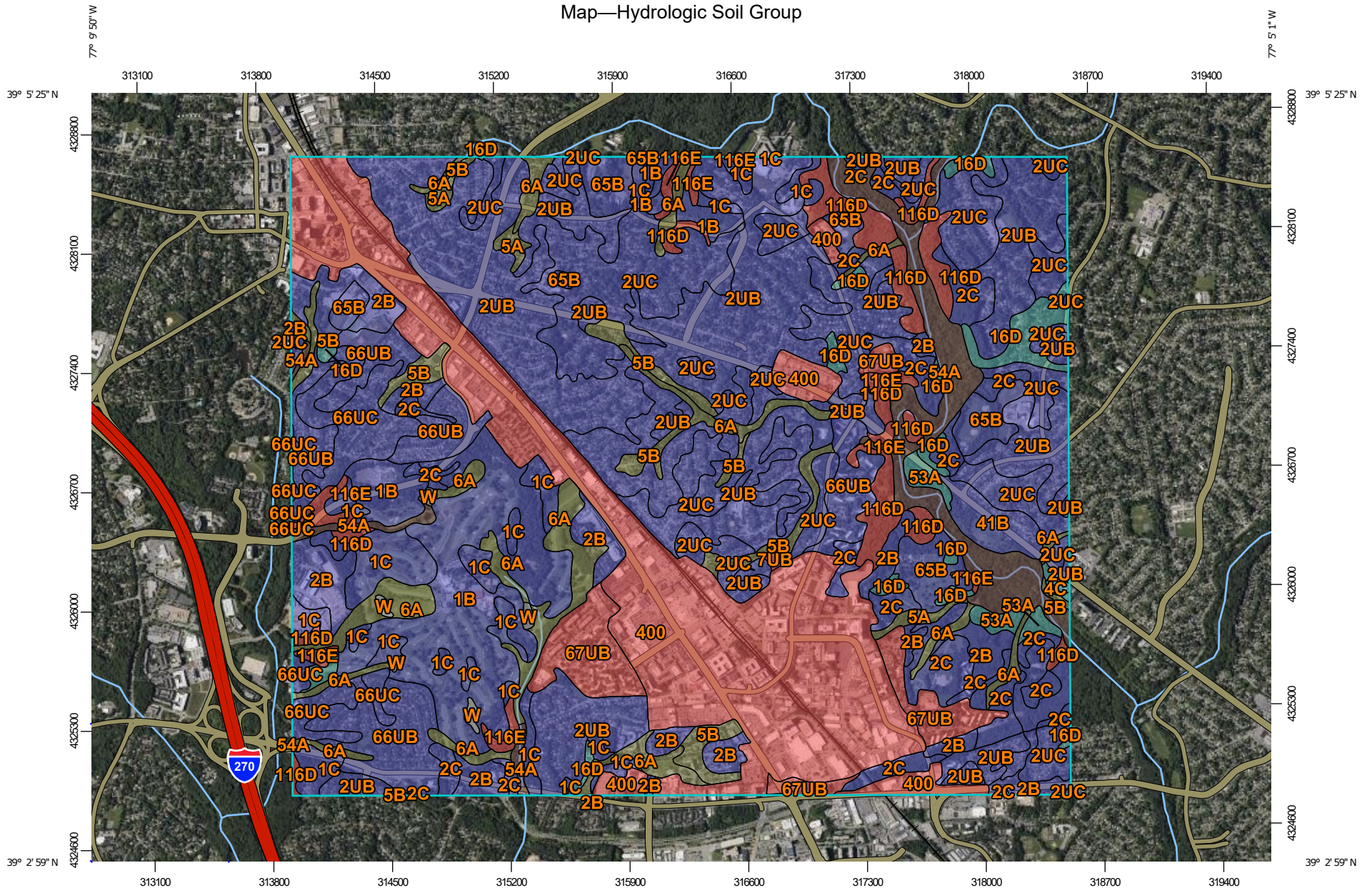
Custom Soil Resource Report

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

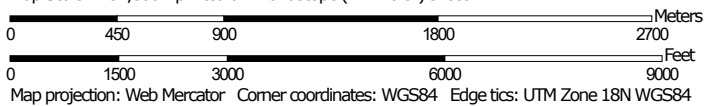
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report

Map—Hydrologic Soil Group




Map Scale: 1:31,800 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)









 Area of Interest (AOI)

Soils

Soil Rating Polygons





-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Lines


-  A
-  A/D
-  B
-  B/D
-  C
-  C/D
-  D
-  Not rated or not available

Soil Rating Points






-  A
-  A/D
-  B
-  B/D

-  C
-  C/D
-  D
-  Not rated or not available


Water Features

 Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

 Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Montgomery County, Maryland
 Survey Area Data: Version 17, Aug 27, 2021

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Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

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Custom Soil Resource Report

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1B	Gaila silt loam, 3 to 8 percent slopes	B	297.1	7.0%
1C	Gaila silt loam, 8 to 15 percent slopes	B	165.2	3.9%
2B	Glenelg silt loam, 3 to 8 percent slopes	B	211.7	5.0%
2C	Glenelg silt loam, 8 to 15 percent slopes	B	180.4	4.2%
2UB	Glenelg-Urban land complex, 0 to 8 percent slopes	B	836.9	19.7%
2UC	Glenelg-Urban land complex, 8 to 15 percent slopes	B	582.0	13.7%
4B	Elioak silt loam, 3 to 8 percent slopes	C	1.5	0.0%
4C	Elioak silt loam, 8 to 15 percent slopes	C	3.2	0.1%
5A	Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes	C/D	20.7	0.5%
5B	Glenville silt loam, 3 to 8 percent slopes	C/D	84.4	2.0%
6A	Baile silt loam, 0 to 3 percent slopes	C/D	170.2	4.0%
7UB	Gaila-Urban land complex, 0 to 8 percent slopes	D	2.1	0.0%
16D	Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes	C	71.5	1.7%
41B	Elsinboro silt loam, 3 to 8 percent slopes	B	35.8	0.8%
53A	Codorus silt loam, 0 to 3 percent slopes, occasionally flooded	C	24.3	0.6%
54A	Hatboro silt loam, 0 to 3 percent slopes, frequently flooded	B/D	166.6	3.9%
65B	Wheaton silt loam, 0 to 8 percent slopes	B	101.1	2.4%
66UB	Wheaton-Urban land complex, 0 to 8 percent slopes	B	210.9	5.0%
66UC	Wheaton-Urban land complex, 8 to 15 percent slopes	B	98.8	2.3%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
67UB	Urban land-Wheaton complex, 0 to 8 percent slopes	D	114.3	2.7%
116D	Blocktown channery silt loam, 15 to 25 percent slopes, very rocky	D	117.7	2.8%
116E	Blocktown channery silt loam, 25 to 45 percent slopes, very rocky	D	37.0	0.9%
400	Urban land	D	715.1	16.8%
W	Census water		9.8	0.2%
Totals for Area of Interest			4,258.5	100.0%

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Water Features

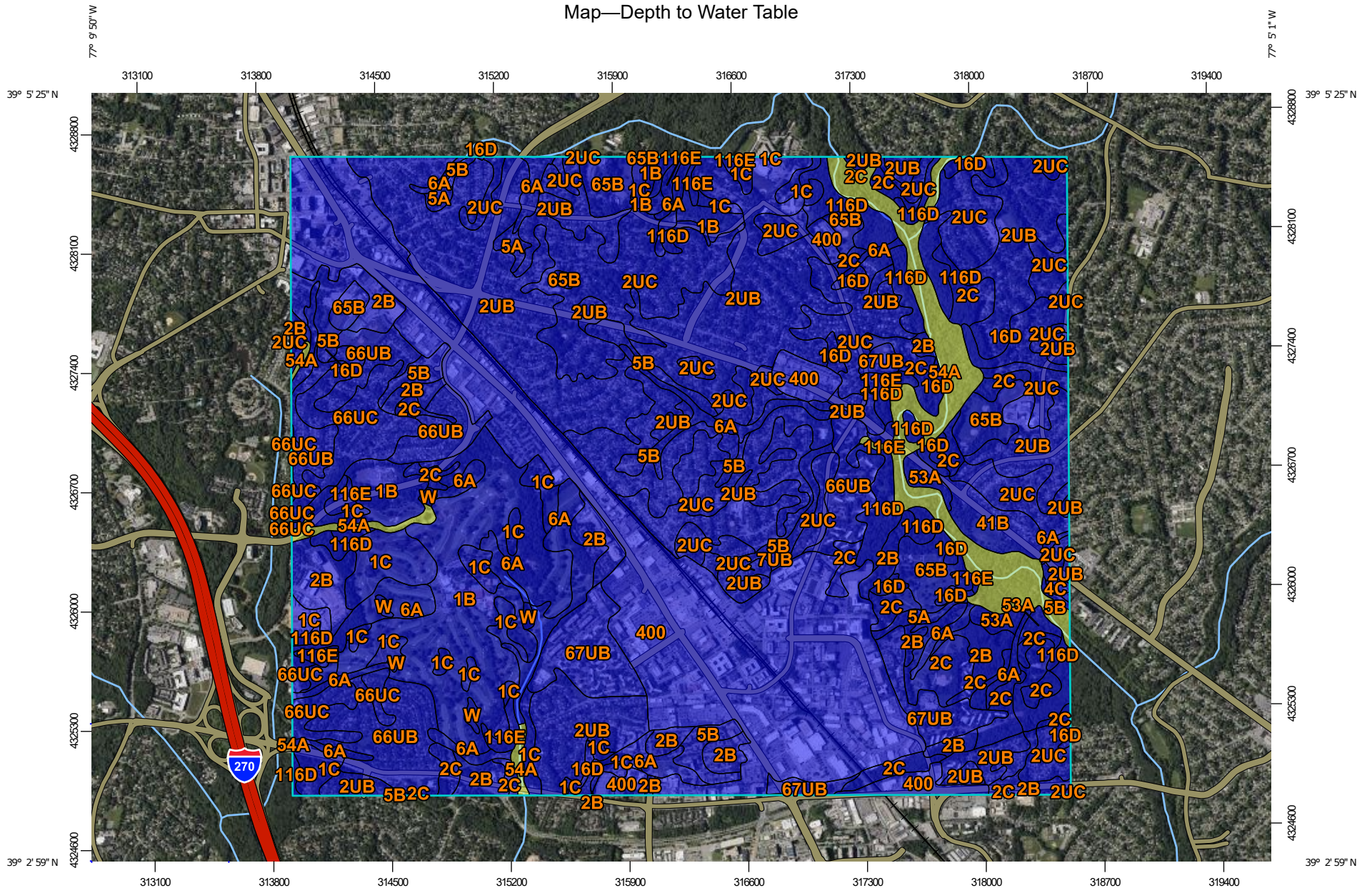
Water Features include ponding frequency, flooding frequency, and depth to water table.

Depth to Water Table

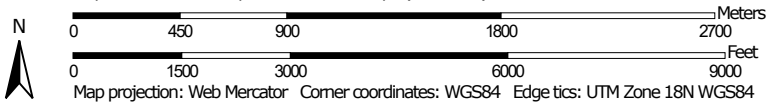
"Water table" refers to a saturated zone in the soil. It occurs during specified months. Estimates of the upper limit are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this soil property, only the representative value is used.

Custom Soil Resource Report Map—Depth to Water Table




Map Scale: 1:31,800 if printed on A landscape (11" x 8.5") sheet.










Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND








Area of Interest (AOI)
 Area of Interest (AOI)

Soils







Soil Rating Polygons


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Lines


-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200
-  Not rated or not available

Soil Rating Points






-  0 - 25
-  25 - 50
-  50 - 100
-  100 - 150
-  150 - 200
-  > 200

 Not rated or not available


Water Features

-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
 Web Soil Survey URL:
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Montgomery County, Maryland
 Survey Area Data: Version 17, Aug 27, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 20, 2021—Jun 18, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

Table—Depth to Water Table

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
1B	Gaila silt loam, 3 to 8 percent slopes	>200	297.1	7.0%
1C	Gaila silt loam, 8 to 15 percent slopes	>200	165.2	3.9%
2B	Glenelg silt loam, 3 to 8 percent slopes	>200	211.7	5.0%
2C	Glenelg silt loam, 8 to 15 percent slopes	>200	180.4	4.2%
2UB	Glenelg-Urban land complex, 0 to 8 percent slopes	>200	836.9	19.7%
2UC	Glenelg-Urban land complex, 8 to 15 percent slopes	>200	582.0	13.7%
4B	Elioak silt loam, 3 to 8 percent slopes	>200	1.5	0.0%
4C	Elioak silt loam, 8 to 15 percent slopes	>200	3.2	0.1%
5A	Glenville silt loam, somewhat poorly drained, 0 to 3 percent slopes	>200	20.7	0.5%
5B	Glenville silt loam, 3 to 8 percent slopes	>200	84.4	2.0%
6A	Baile silt loam, 0 to 3 percent slopes	>200	170.2	4.0%
7UB	Gaila-Urban land complex, 0 to 8 percent slopes	>200	2.1	0.0%
16D	Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes	>200	71.5	1.7%
41B	Elsinboro silt loam, 3 to 8 percent slopes	>200	35.8	0.8%
53A	Codorus silt loam, 0 to 3 percent slopes, occasionally flooded	>200	24.3	0.6%
54A	Hatboro silt loam, 0 to 3 percent slopes, frequently flooded	76	166.6	3.9%
65B	Wheaton silt loam, 0 to 8 percent slopes	>200	101.1	2.4%
66UB	Wheaton-Urban land complex, 0 to 8 percent slopes	>200	210.9	5.0%
66UC	Wheaton-Urban land complex, 8 to 15 percent slopes	>200	98.8	2.3%

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating (centimeters)	Acres in AOI	Percent of AOI
67UB	Urban land-Wheaton complex, 0 to 8 percent slopes	>200	114.3	2.7%
116D	Blocktown channery silt loam, 15 to 25 percent slopes, very rocky	>200	117.7	2.8%
116E	Blocktown channery silt loam, 25 to 45 percent slopes, very rocky	>200	37.0	0.9%
400	Urban land	>200	715.1	16.8%
W	Census water	>200	9.8	0.2%
Totals for Area of Interest			4,258.5	100.0%

Rating Options—Depth to Water Table

Units of Measure: centimeters

Aggregation Method: Dominant Component

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Interpret Nulls as Zero: No

Beginning Month: September

Ending Month: September

References

- American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.
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- United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084>

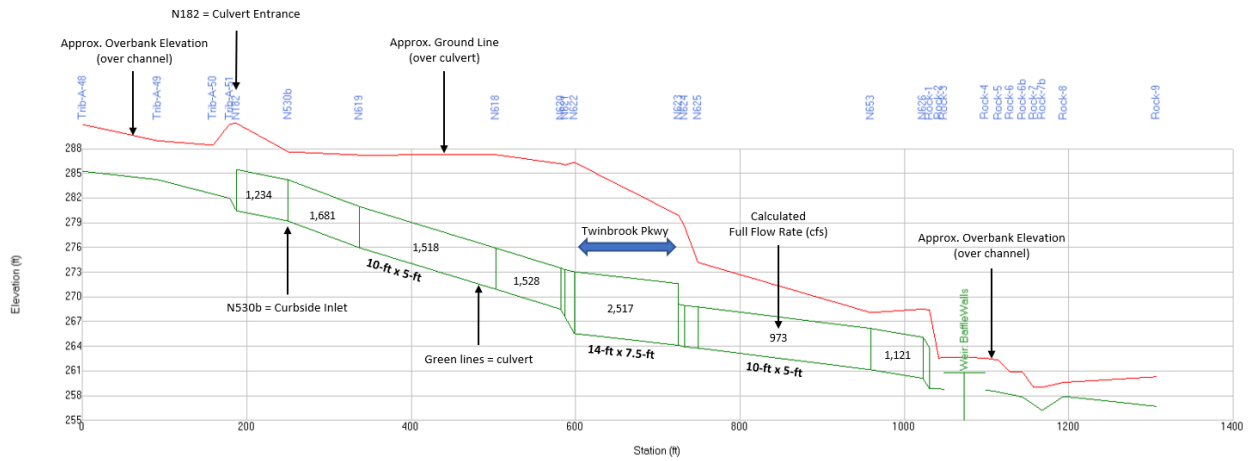
Custom Soil Resource Report

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

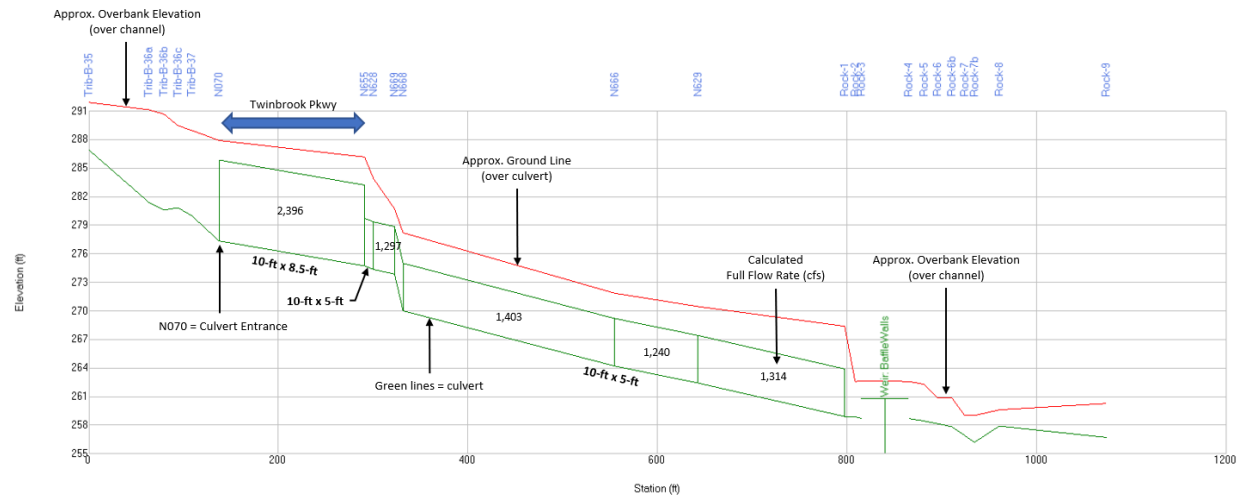
United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Appendix C: Culvert Profiles



Northern Culvert Profile



Southern Culvert Profile

Appendix D: ICPR4 Model Inputs & Outputs

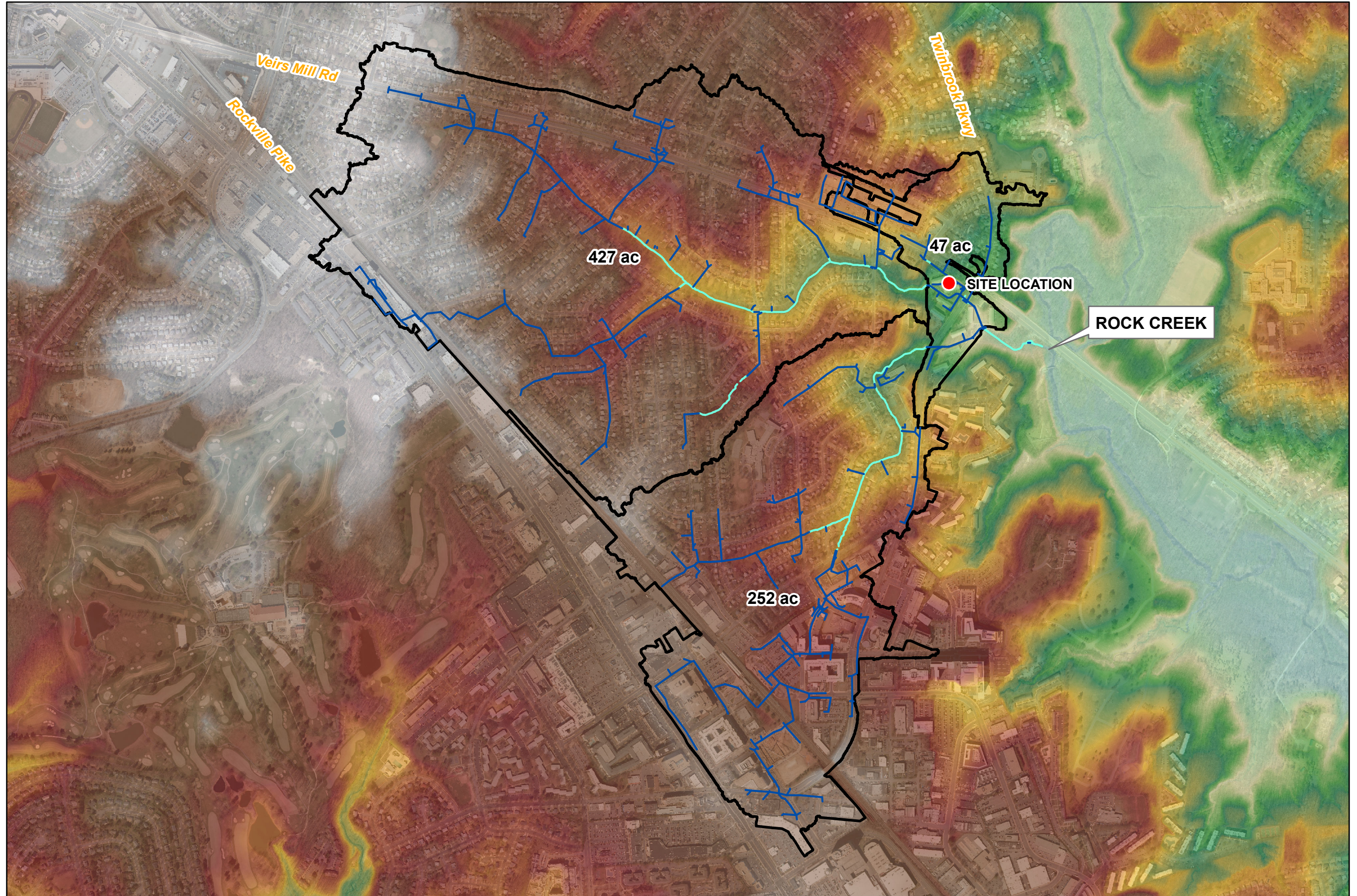
Notes

- Located in Rockville, MD
- Tributary 2 (a.k.a. "Rock-Crest")
Drainage area = 427 ac
- Tributary 1 (a.k.a. "Twinbrook")
Drainage area = 252 ac
- Direct (discharge to culverts)
Drainage area = 47 ac
- Total drainage area = 726 ac

Legend

- Pipe
- Channel
- ▭ Tributaries
- LIDAR**
- High : 465.382
- Low : 234.889

0 500 1,000 2,000
Feet
1 inch = 1,046 feet



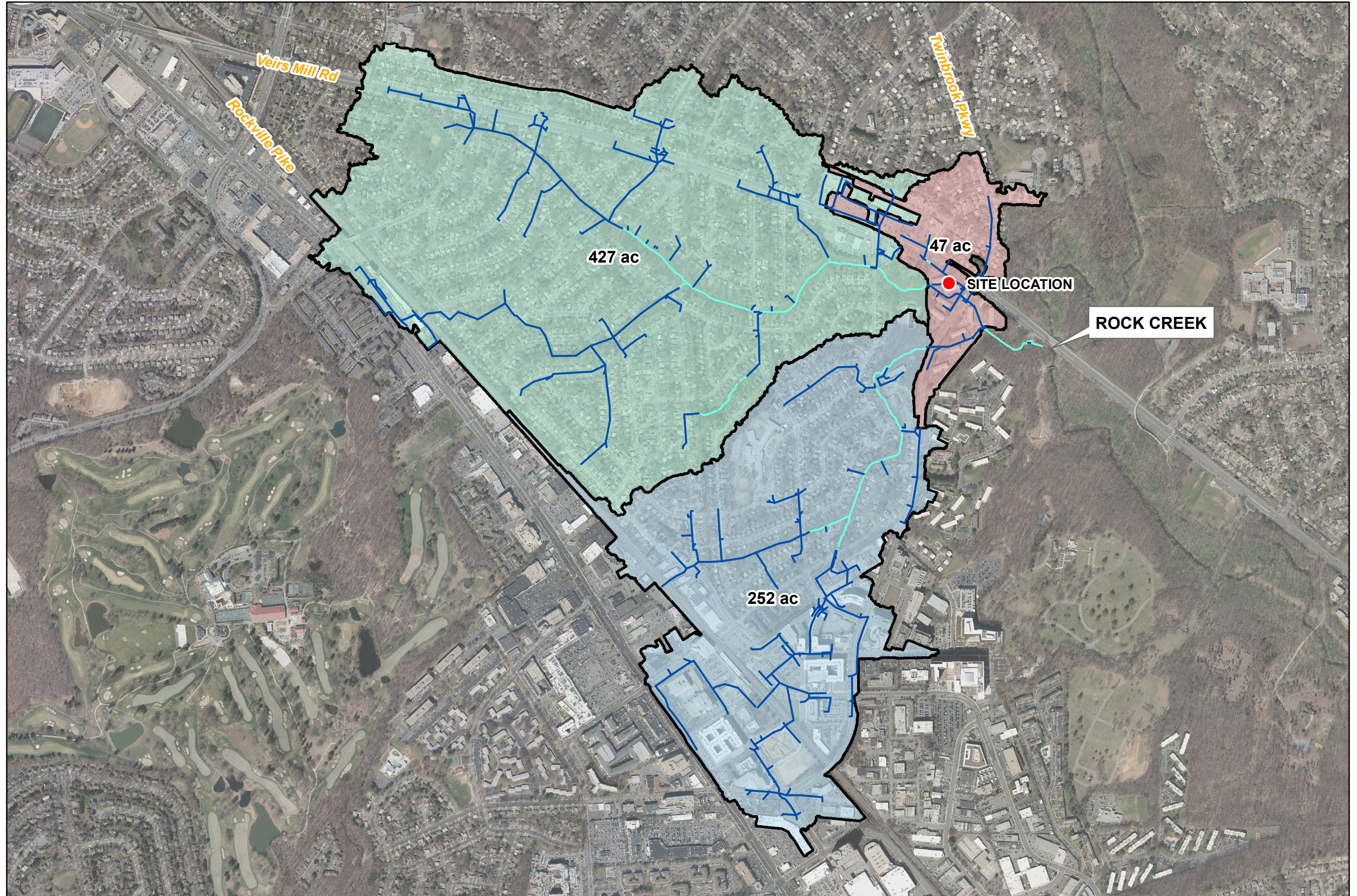
Flood Study at Rock Creek Woods Apartments

Tributary Drainage Areas to Twinbrook & Rock-Crest Culverts (1 of 2)

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

Notes

- Located in Rockville, MD
- Tributary 2 (a.k.a. "Rock-Crest")
Drainage area = 427 ac
- Tributary 1 (a.k.a. "Twinbrook")
Drainage area = 252 ac
- Direct (discharge to culverts)
Drainage area = 47 ac
- Total drainage area = 726 ac



Legend

- Pipe
- Channel
- Direct
- Tributary 1
- Tributary 2

0 500 1,000 2,000
Feet
1 inch = 1,046 feet



Flood Study at Rock Creek Woods Apartments











Tributary Drainage Areas to Twinbrook & Rock-Crest Culverts (2 of 2)

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Notes

- Located in Rockville, MD

Legend

-  Pipe
-  Total Drainage
- Landcover Layer**
-  Bare Soil
-  Building
-  Creek
-  Forest
-  Grass/Shrub
-  Other Paved
-  Railroad
-  Road
-  Tree Canopy
-  Water
-  Wetland

0 500 1,000 2,000
 Feet
 1 inch = 1,046 feet



Flood Study at Rock Creek Woods Apartments

ICPR4 Landcover Dataset

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A








Notes

- Located in Rockville, MD

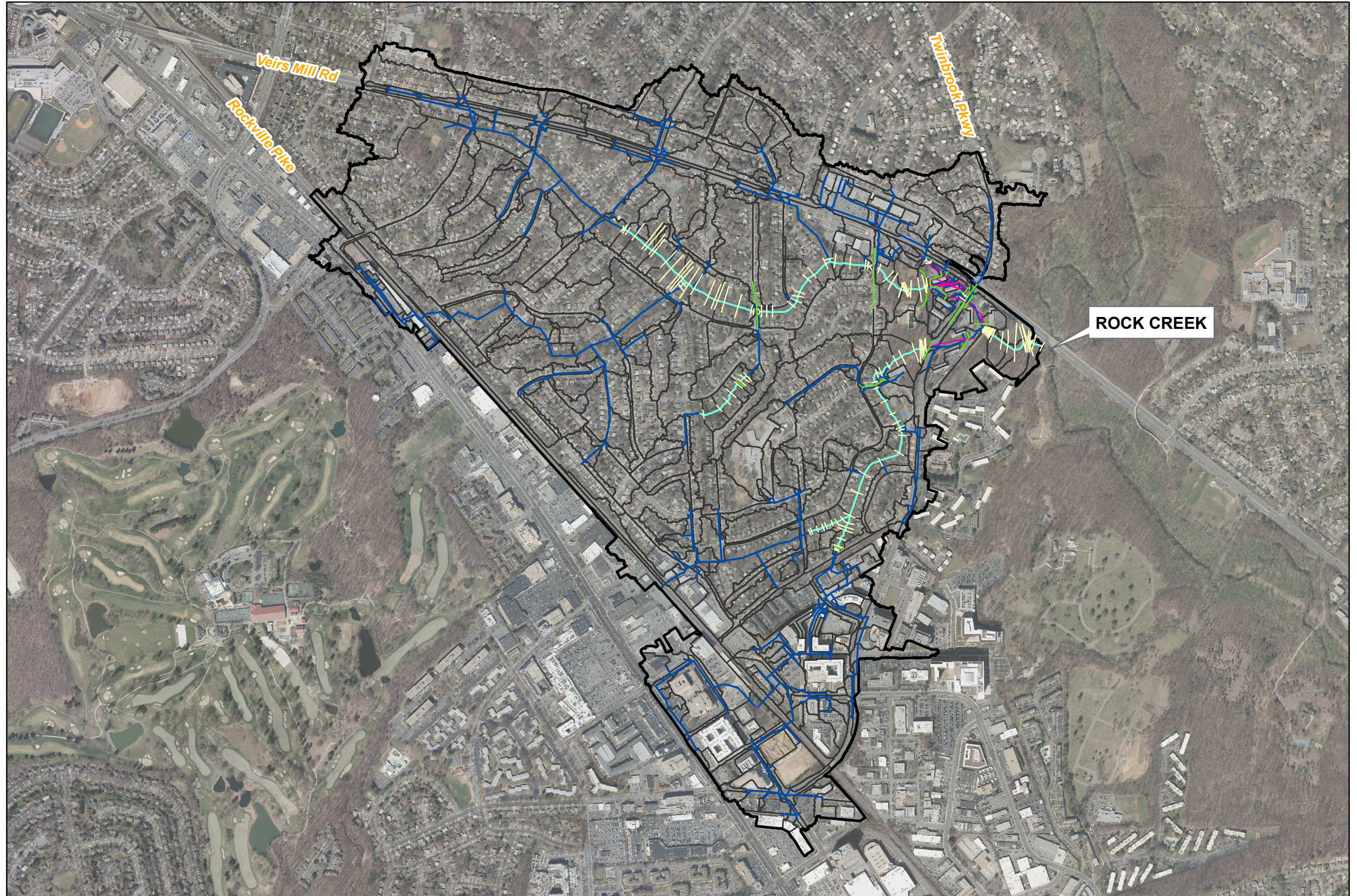
ICPR4 1D Assets:

- 614 Pipe links
- 1 Drop Structure link (not shown)
- 2 Percolation links (not shown)
- 36 Weir links
- 19 Weir Sections
- 126 Channel links
- 130 Channel Sections
- 424 Manual Basins ["Subcatchments"]
- 781 Nodes (not shown)

Legend

-  Channel Section
-  Weir Section
-  Weir Link
-  Pipe
-  Channel
-  Total Drainage Area
-  Subcatchments

0 500 1,000 2,000
 Feet
 1 inch = 1,046 feet



Flood Study at Rock Creek Woods Apartments

ICPR4 1D Model Construction (Total Drainage Area)

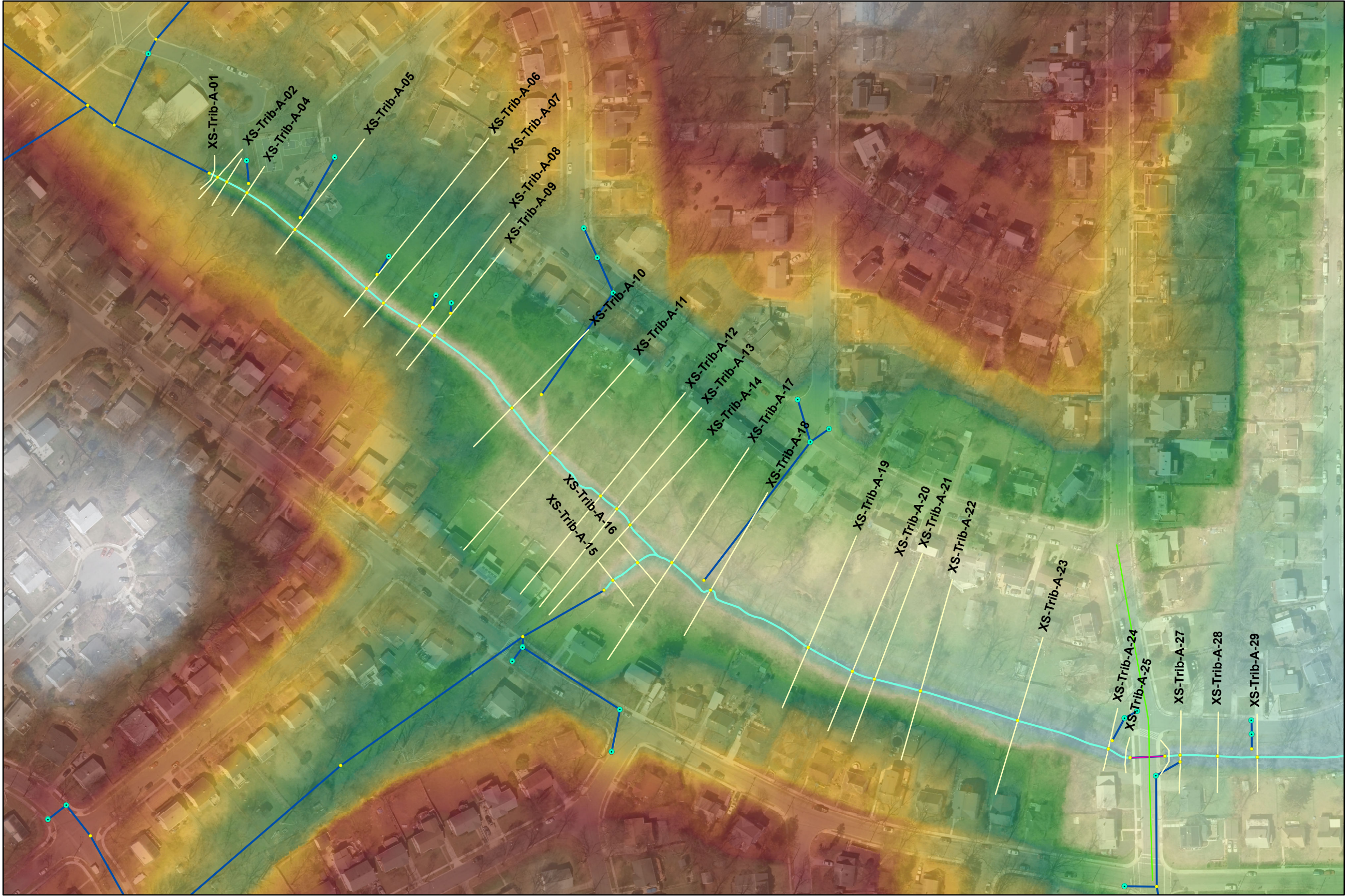
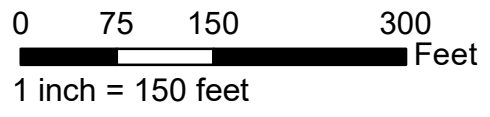
SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Model Node**
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- Channel
- Percolation Link
- Tributaries
- LIDAR**
- High : 390.747
- Low : 310.999



Flood Study at Rock Creek Woods Apartments

ICPR4 Tributary 2 Cross-Sections (1 of 3)

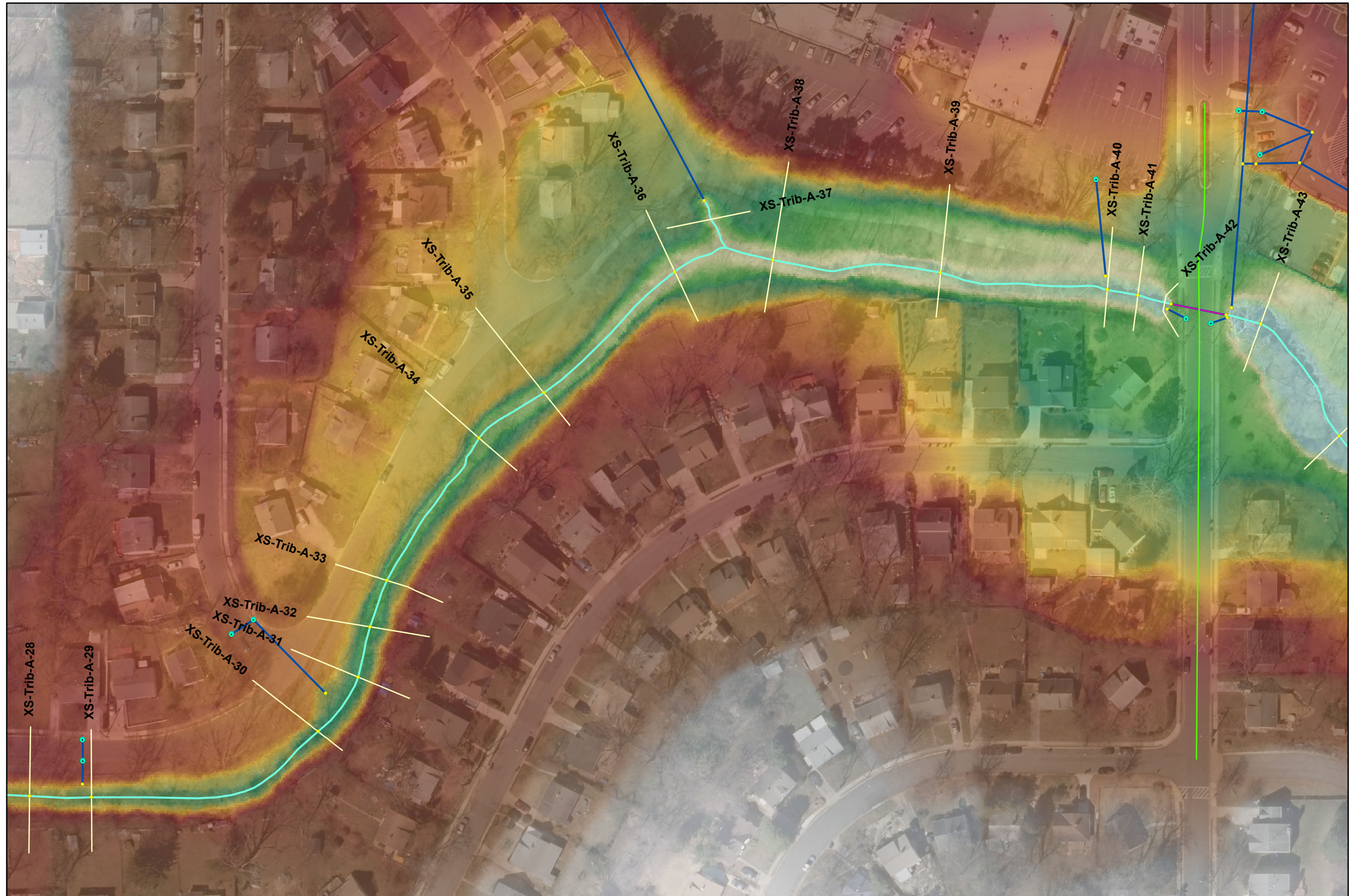
SCALE:	BY:
COUNTY:	A.M.
STATE:	CHECKED:
MONTGOMERY	R.M.
MARYLAND	REvised:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- Culvert Wall (for reference)
- Channel
- Percolation Link
- ▭ Tributaries
- LIDAR**
- High : 345.111
- Low : 293.638



Flood Study at Rock Creek Woods Apartments

ICPR4 Tributary 2 Cross-Sections (2 of 3)

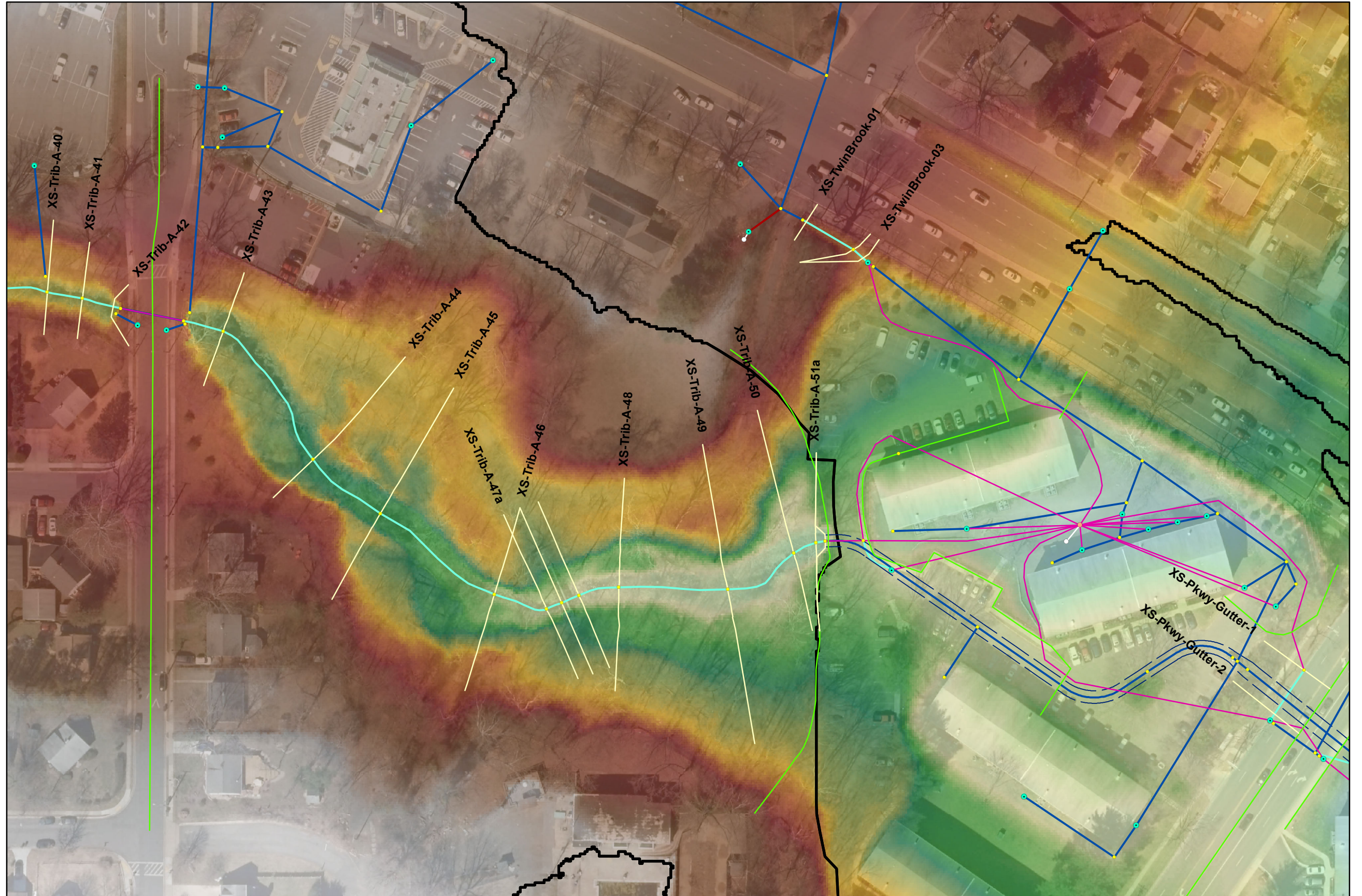
SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
 - Model Node**
 - Stage Area
 - Stage Volume
 - Time Stage
 - Channel Section
 - Weir Section
 - Weir Link
 - Drop Structure Link
 - Pipe
 - - Culvert Wall (for reference)
 - Channel
 - Percolation Link
 - Tributaries
 - LIDAR**
 - High : 338.001
 - Low : 276.476
- 0 40 80 160 Feet
1 inch = 83 feet



Flood Study at Rock Creek Woods Apartments

ICPR4 Tributary 2 Cross-Sections (3 of 3)

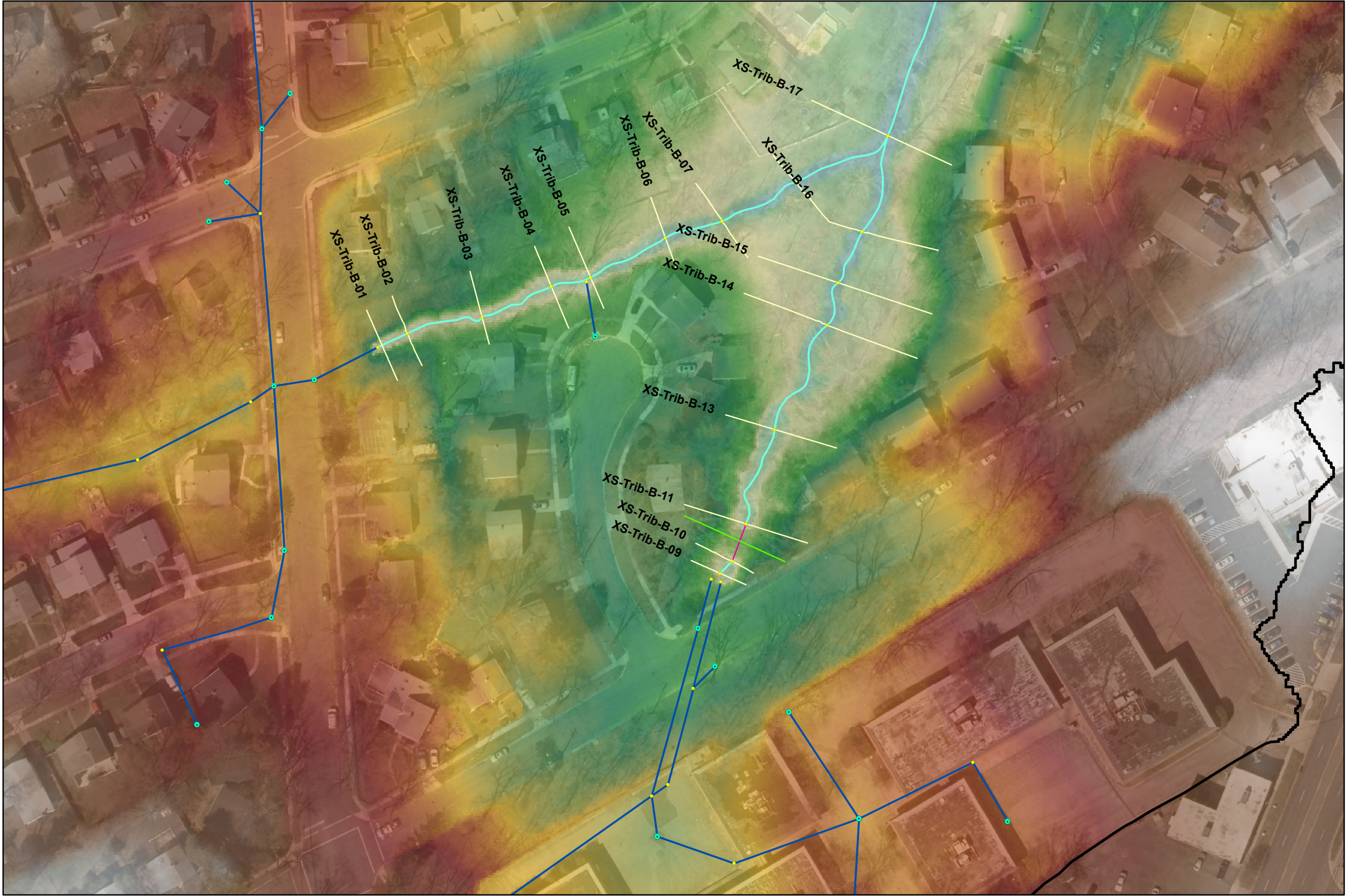
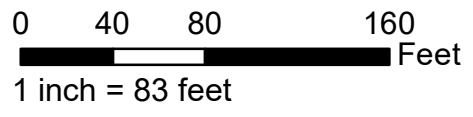
SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Model Node**
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- - Culvert Wall (for reference)
- Channel
- Percolation Link
- Tributaries
- LIDAR**
- High : 362.065
- Low : 323.062



Flood Study at Rock Creek Woods Apartments

ICPR4 Tributary 1 Cross-Sections (1 of 3)

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

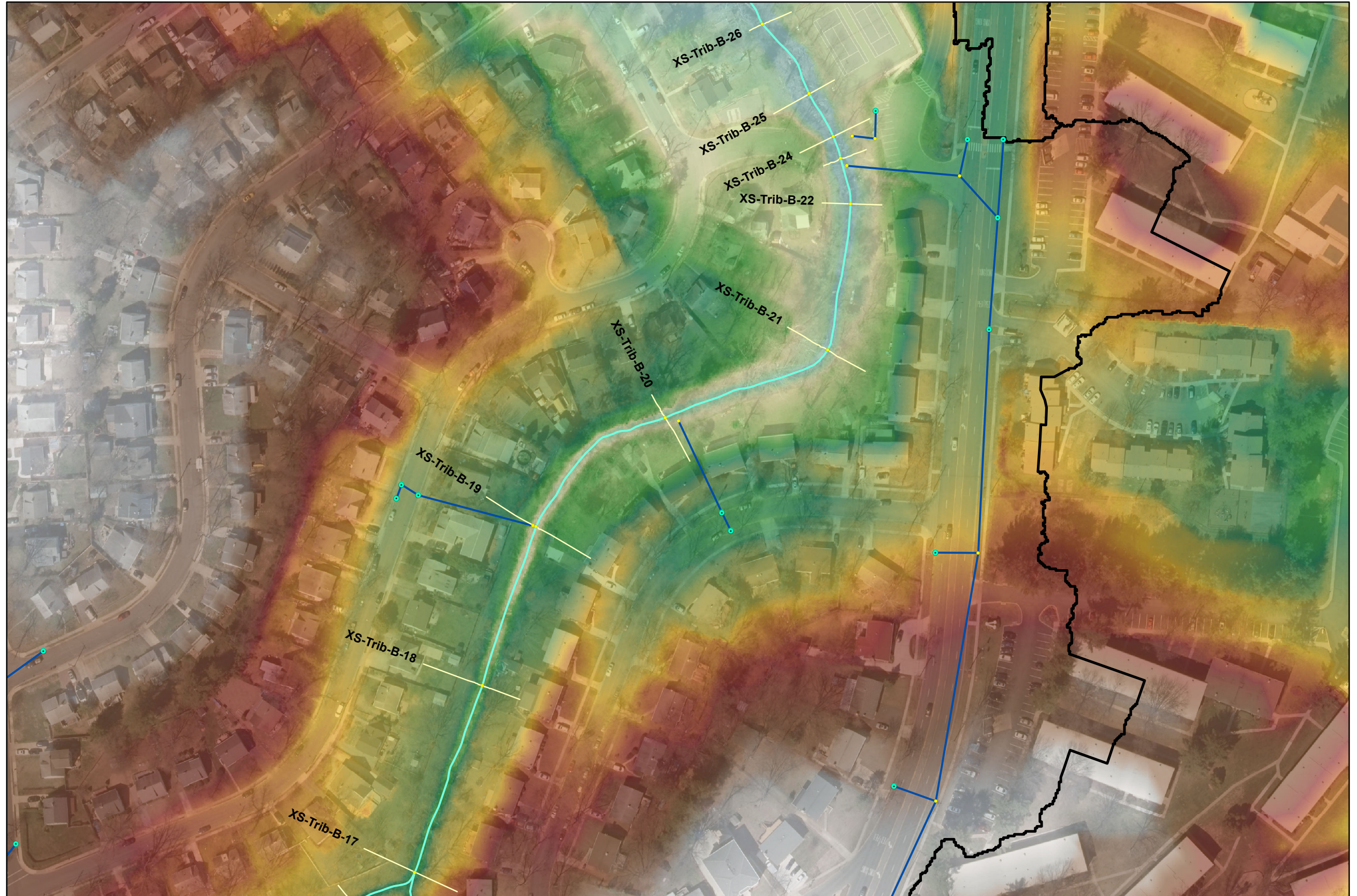
Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Model Node**
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- - Culvert Wall (for reference)
- Channel
- Percolation Link
- Tributaries
- LIDAR**
- High : 358.353
- Low : 306.8

0 62.5 125 250
 Feet
 1 inch = 125 feet



**Flood Study at Rock
 Creek Woods Apartments**

**ICPR4 Tributary 1 Cross-Sections
 (2 of 3)**

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

Notes

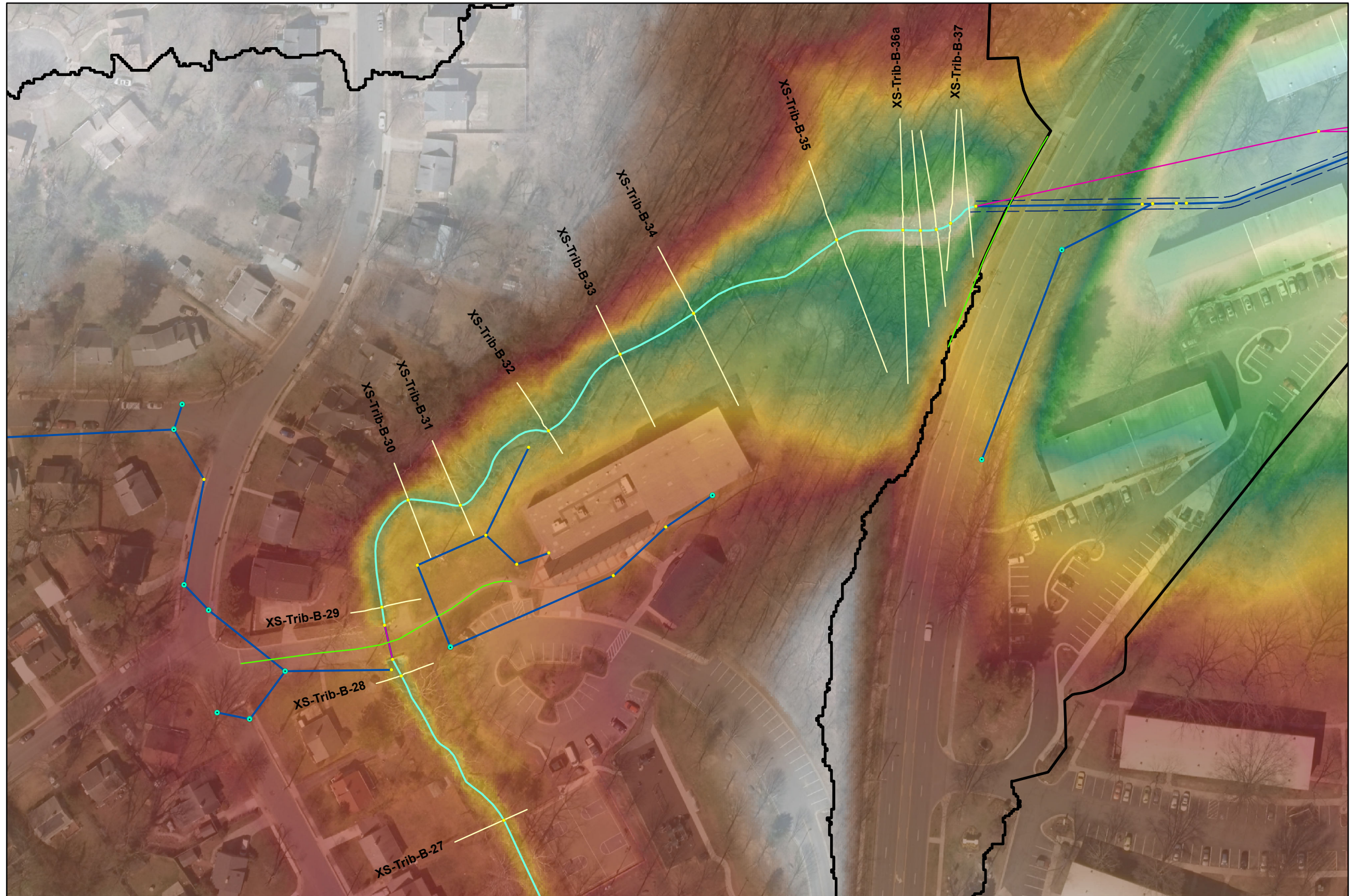
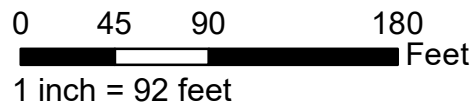
- Located in Rockville, MD

Legend

- Inlet (for reference)
- Model Node**
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- - Culvert Wall (for reference)
- Channel
- Percolation Link
- Tributaries

LIDAR

- High : 346.648
 - Low : 272.271



Flood Study at Rock Creek Woods Apartments

ICPR4 Tributary 1 Cross-Sections (3 of 3)

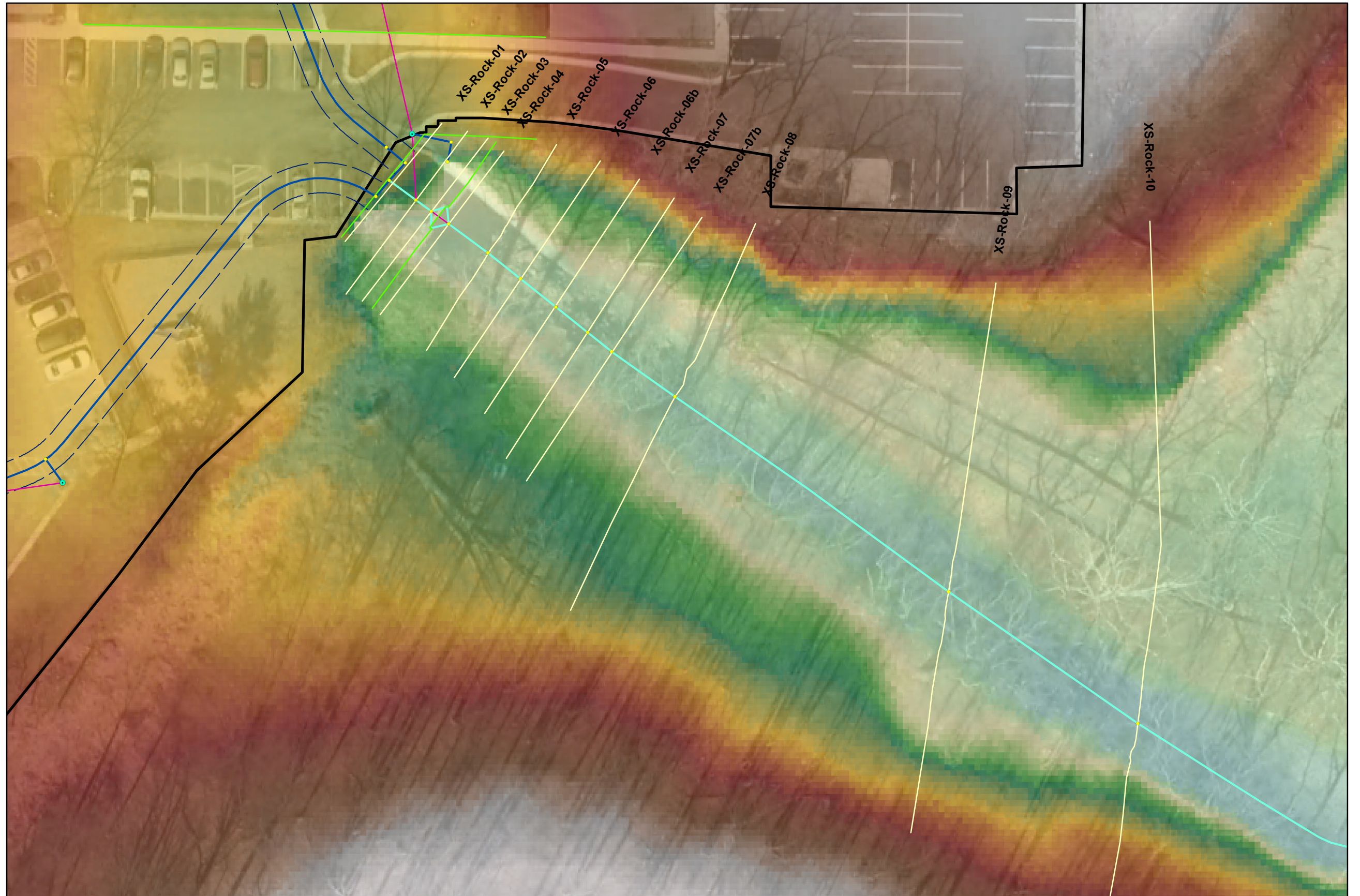
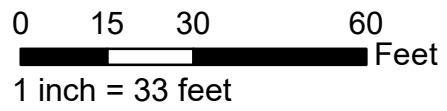
SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REVISED:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Model Node
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- Culvert Wall (for reference)
- Channel
- Percolation Link
- ▭ Tributaries
- LiDAR**
- High : 293.155
- Low : 255.924



Flood Study at Rock Creek Woods Apartments

ICPR4 Rock Creek Cross-Sections (1 of 2)

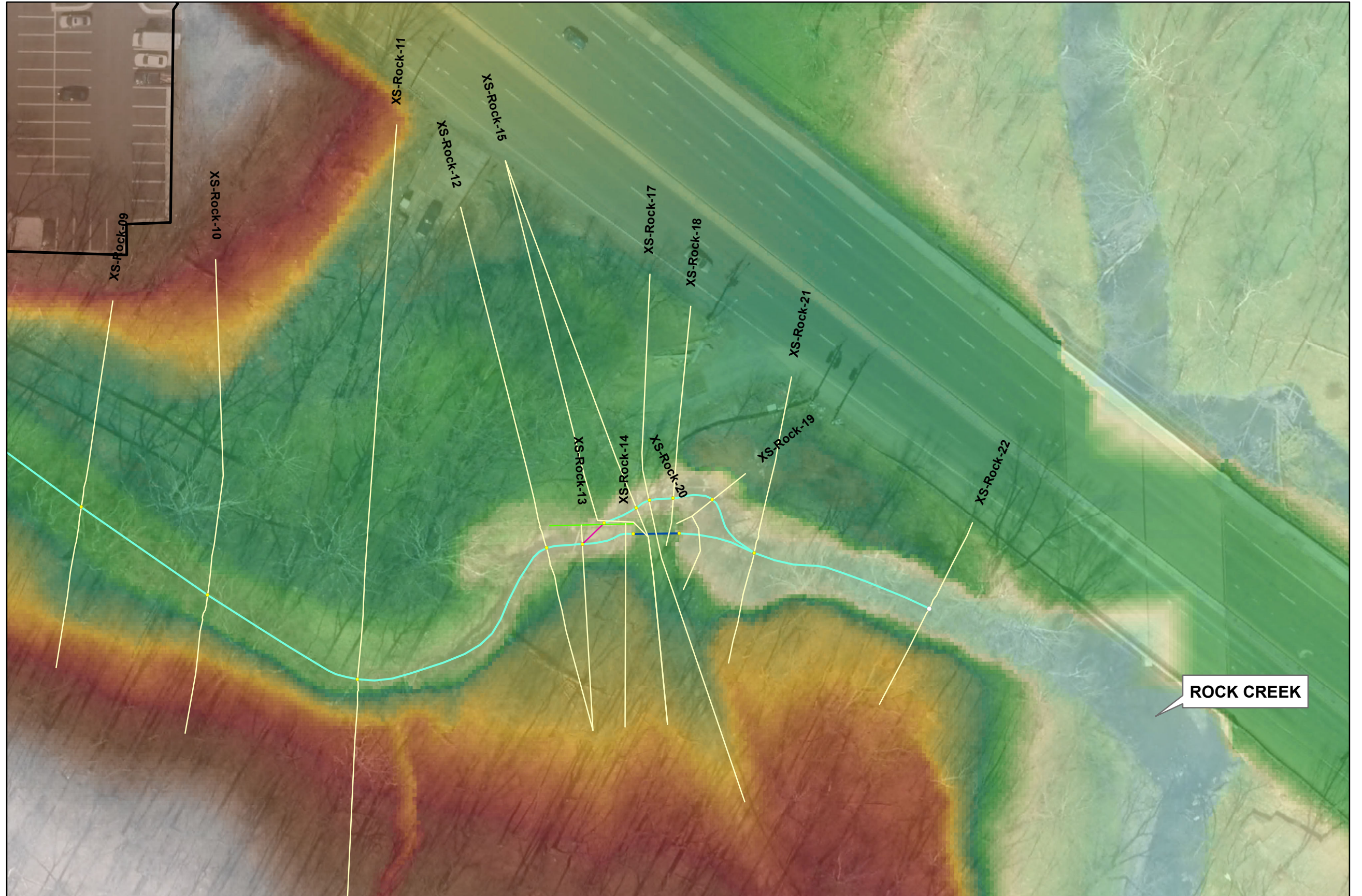
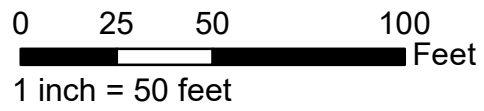
SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Model Node**
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- Culvert Wall (for reference)
- Channel
- Percolation Link
- ▭ Tributaries
- LIDAR**
- High : 305.383
- Low : 244.339



ROCK CREEK



Flood Study at Rock Creek Woods Apartments

ICPR4 Rock Creek Cross-Sections (2 of 2)

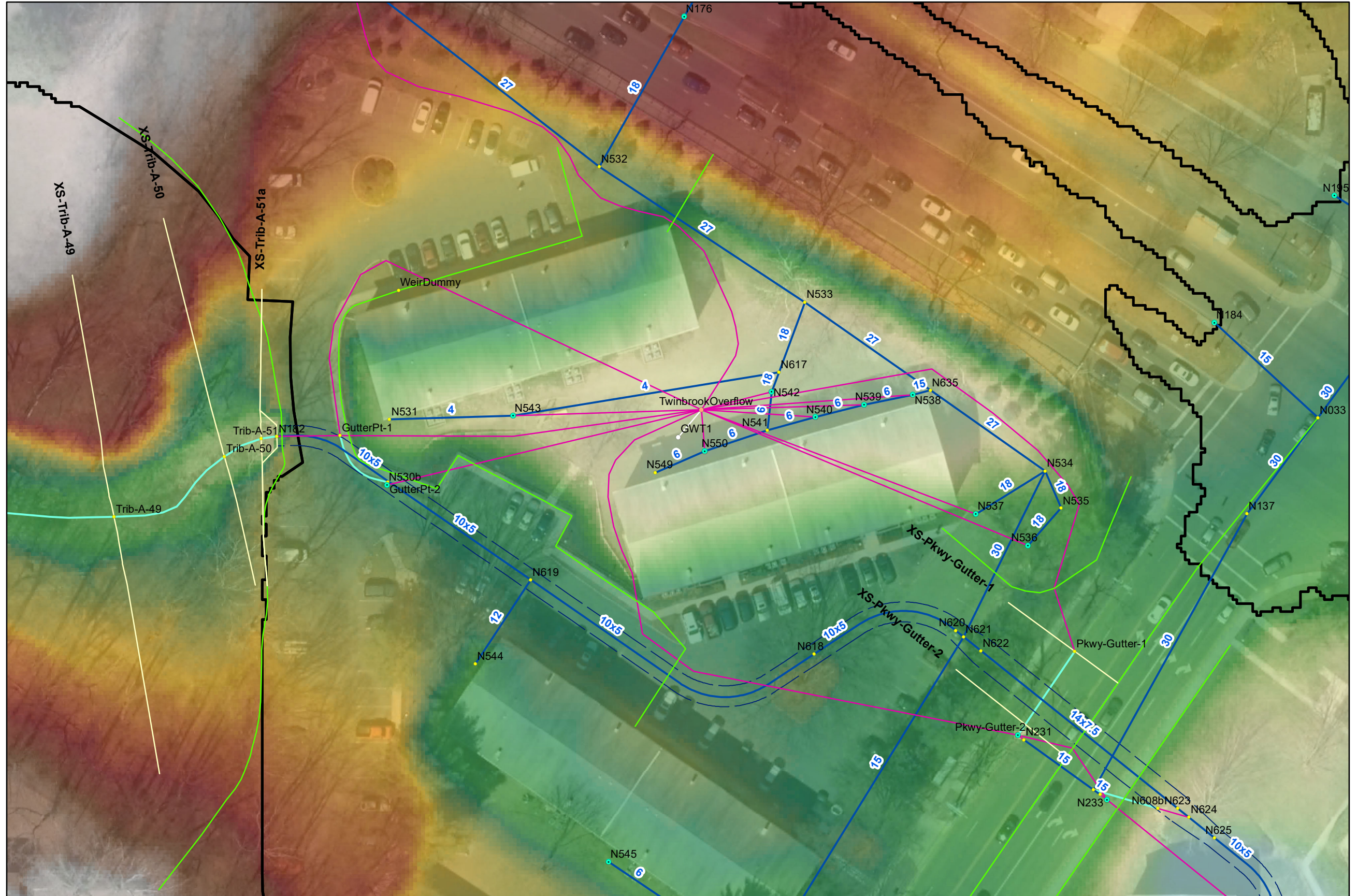
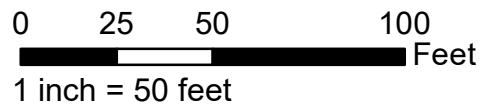
SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Notes

- Located in Rockville, MD

Legend

- Inlet (for reference)
- Stage Area
- Stage Volume
- Time Stage
- Channel Section
- Weir Section
- Weir Link
- Drop Structure Link
- Pipe
- Culvert Wall (for reference)
- Channel
- Percolation Link
- ▭ Tributaries
- LiDAR**
- High : 323.656
- Low : 271.157



Flood Study at Rock Creek Woods Apartments












ICPR4 1D Model Construction at Rock Creek Woods Apartments


SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Notes

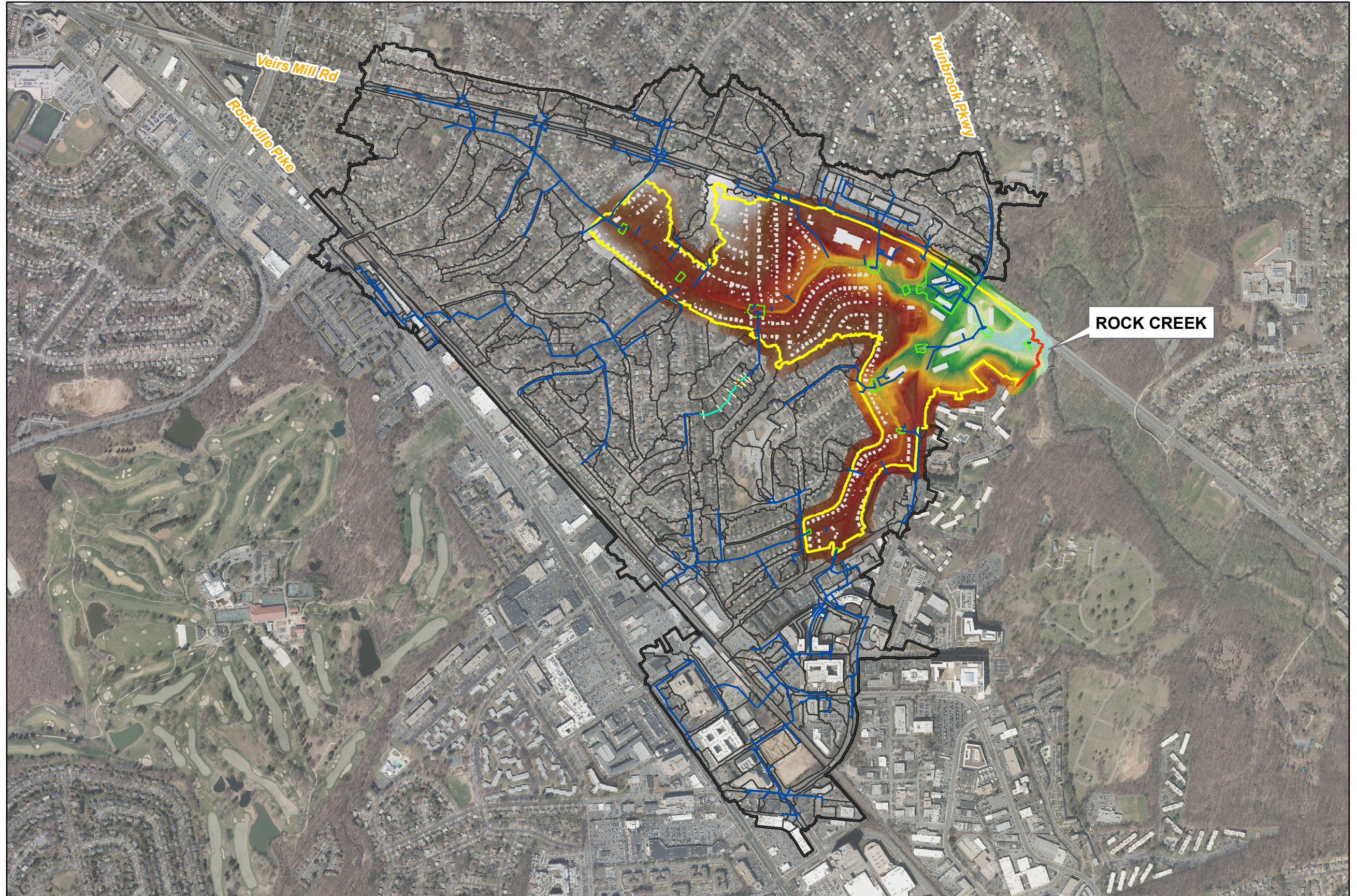
- Located in Rockville, MD

Legend

-  Pipe
-  Weir
-  Weir Section
-  Channel
-  Channel Section
-  Boundary Stage Line
-  2D Model Zone
-  Building
-  Subcatchment
-  MCI Surveyed Area
-  Total Drainage Area

**Survey / LiDAR
Composite DEM**
High : 382.211

Low : 245.849

0 500 1,000 2,000
Feet
1 inch = 1,046 feet



**Flood Study at Rock
Creek Woods Apartments**



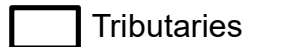
**ICPR4 1D/2D Model Construction
(Total Drainage Area)**

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Notes

- Located in Rockville, MD

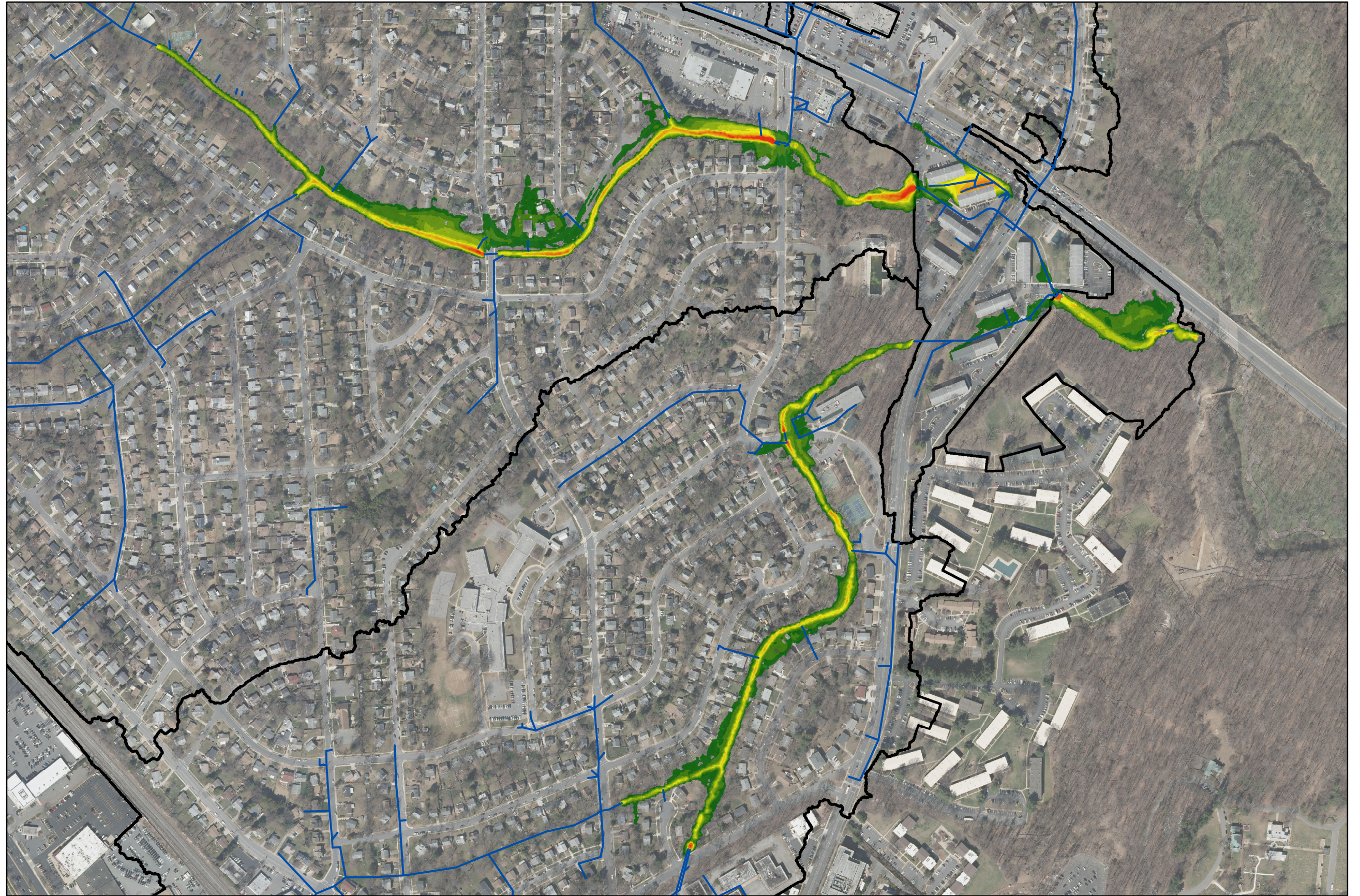
Legend

-  Pipe
-  Total Drainage
-  Tributaries

Depth

-  2 in - 1 ft
-  1 - 2 ft
-  2 - 3 ft
-  3 - 4 ft
-  4 - 5 ft
-  5 - 6 ft
-  6 - 7 ft
-  7 - 8 ft
-  8 - 9 ft
-  9 - 10 ft
-  >10 ft

0 210 420 840
 Feet
 1 inch = 419 feet



Flood Study at Rock Creek Woods Apartments

ICPR4 2D Modeled Maximum Overland Flow Depth (Hurricane Ida)

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Notes

- Located in Rockville, MD

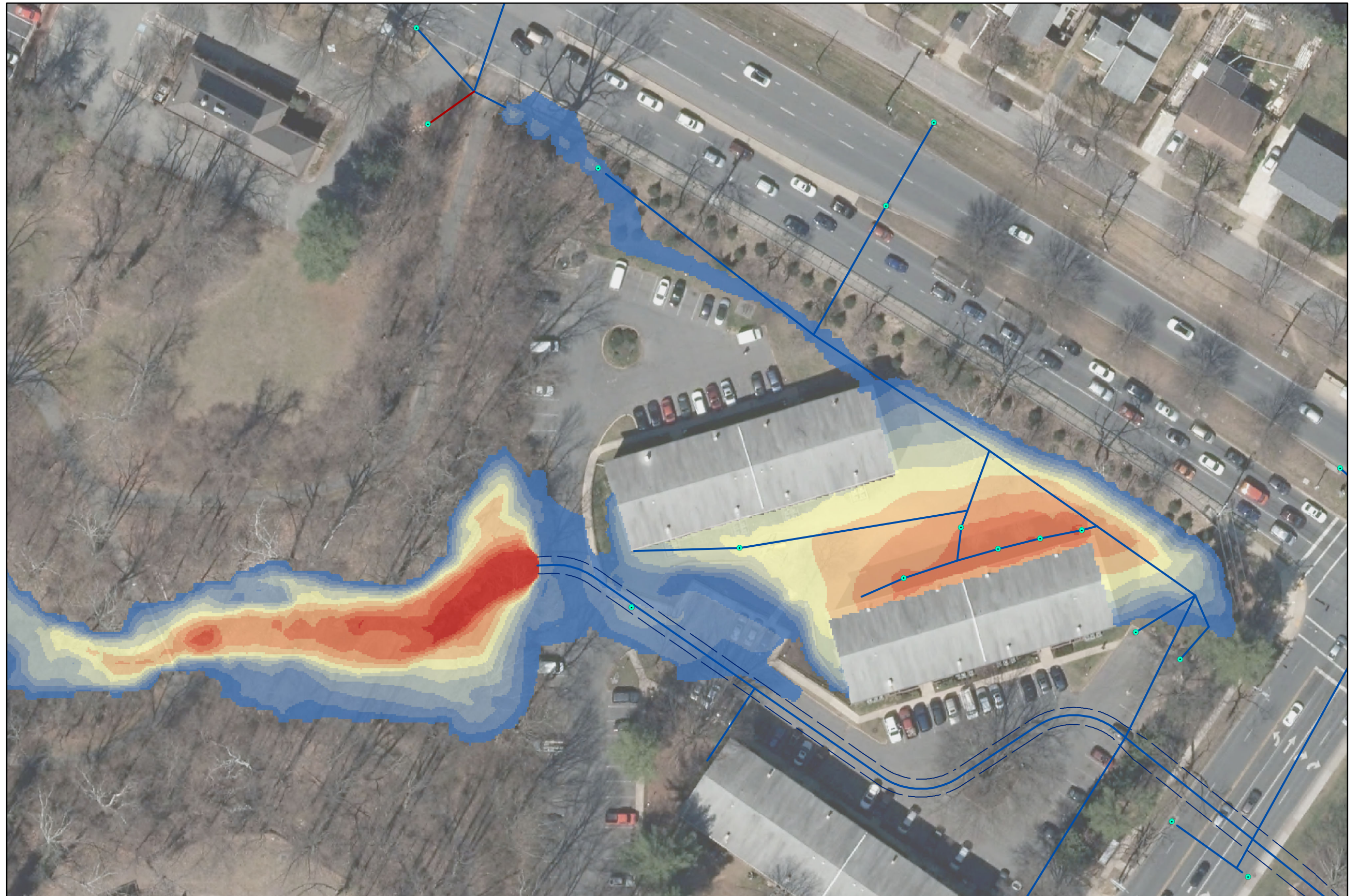
Legend

- Inlet (for reference)
- Drop Structure Link
- Pipe
- - - Culvert Wall (for reference)

Depth

- 2 in - 1 ft
- 1 - 2 ft
- 2 - 3 ft
- 3 - 4 ft
- 4 - 5 ft
- 5 - 6 ft
- 6 - 7 ft
- 7 - 8 ft
- 8 - 9 ft
- 9 - 10 ft
- >10 ft

0 25 50 100 Feet
1 inch = 58 feet



Flood Study at Rock Creek Woods Apartments

**ICPR4 2D Modeled Flood Depth
Rock Creek Woods Apartments
(Hurricane Ida)**

SCALE:	BY:
COUNTY:	A.M.
MONTGOMERY	CHECKED:
STATE:	R.M.
MARYLAND	REvised:
	N/A

Boundary Stage: 010-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	250.38
0	0	0	120.0000	250.38

Comment: Estimated 10-year stage

Boundary Stage: 011-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	250.52
0	0	0	120.0000	250.52

Comment:

Boundary Stage: 012-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	250.66
0	0	0	120.0000	250.66

Comment:

Boundary Stage: 013-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	250.80
0	0	0	120.0000	250.80

Comment:

Boundary Stage: 014-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	250.94
0	0	0	120.0000	250.94

Comment:

Boundary Stage: 015-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	251.33
0	0	0	120.0000	251.33

Comment: Estimated 15-year stage

Boundary Stage: 025-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	252.50
0	0	0	120.0000	252.50

Comment: Approximated as same to Ida

Boundary Stage: 050-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	254.38
0	0	0	120.0000	254.38

Comment: Estimated 50-year stage

Boundary Stage: 100-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	256.50
0	0	0	120.0000	256.50

Comment: approximately matched to FEMA floodplain

Boundary Stage: 500-year

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	258.75
0	0	0	120.0000	258.75

Comment: approximately matched to FEMA floodplain

Boundary Stage: Dry Wx (<10-Year)

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
0	0	0	0.0000	246.50
0	0	0	120.0000	246.50

Comment: Approximate dry weather stage

Boundary Stage: Ida

Boundary Stage Set: RockCreek

Year	Month	Day	Hour [hr]	Stage [ft]
2021	8	30	0.0000	254.00
2021	9	3	24.0000	254.00

Comment: Approximate stage as observed in field

Curve Number: CN [Set]

Land Cover Zone	Soil Zone	Curve Number [dec]
Bare Soil	B	86.0
Bare Soil	B/D	90.0
Bare Soil	C	91.0
Bare Soil	C/D	92.5
Bare Soil	D	94.0
Building	B	98.0
Building	B/D	98.0
Building	C	98.0
Building	C/D	98.0
Building	D	98.0
Creek	B	100.0
Creek	B/D	100.0
Creek	C	100.0
Creek	C/D	100.0
Creek	D	100.0
Creek Bank Boulder	B	100.0
Creek Bank Boulder	B/D	100.0
Creek Bank Boulder	C	100.0
Creek Bank Boulder	C/D	100.0
Creek Bank Boulder	D	100.0
Creek Bank Concrete	B	100.0
Creek Bank Concrete	B/D	100.0
Creek Bank Concrete	C	100.0
Creek Bank Concrete	C/D	100.0
Creek Bank Concrete	D	100.0
Creek Bank Grass/Shrub	B	95.0
Creek Bank Grass/Shrub	B/D	95.0
Creek Bank Grass/Shrub	C	95.0
Creek Bank Grass/Shrub	C/D	95.0
Creek Bank Grass/Shrub	D	95.0
Creek Bank Riprap	B	100.0
Creek Bank Riprap	B/D	100.0
Creek Bank Riprap	C	100.0
Creek Bank Riprap	C/D	100.0
Creek Bank Riprap	D	100.0
Creek Bank Stone	B	100.0
Creek Bank Stone	B/D	100.0
Creek Bank Stone	C	100.0
Creek Bank Stone	C/D	100.0
Creek Bank Stone	D	100.0
Creek Bed Boulder	B	100.0
Creek Bed Boulder	B/D	100.0
Creek Bed Boulder	C	100.0
Creek Bed Boulder	C/D	100.0
Creek Bed Boulder	D	100.0
Creek Bed Cobble	B	100.0
Creek Bed Cobble	B/D	100.0

Land Cover Zone	Soil Zone	Curve Number [dec]
Creek Bed Cobble	C	100.0
Creek Bed Cobble	C/D	100.0
Creek Bed Cobble	D	100.0
Creek Bed Concrete	B	100.0
Creek Bed Concrete	B/D	100.0
Creek Bed Concrete	C	100.0
Creek Bed Concrete	C/D	100.0
Creek Bed Concrete	D	100.0
Creek Bed Mixed Cobble/Boulder	B	100.0
Creek Bed Mixed Cobble/Boulder	B/D	100.0
Creek Bed Mixed Cobble/Boulder	C	100.0
Creek Bed Mixed Cobble/Boulder	C/D	100.0
Creek Bed Mixed Cobble/Boulder	D	100.0
Creek Bed Sand	B	100.0
Creek Bed Sand	B/D	100.0
Creek Bed Sand	C	100.0
Creek Bed Sand	C/D	100.0
Creek Bed Sand	D	100.0
Forest	B	60.0
Forest	B/D	69.5
Forest	C	73.0
Forest	C/D	76.0
Forest	D	79.0
Grass/Shrub	B	69.0
Grass/Shrub	B/D	76.5
Grass/Shrub	C	79.0
Grass/Shrub	C/D	81.5
Grass/Shrub	D	84.0
Other Paved	B	98.0
Other Paved	B/D	98.0
Other Paved	C	98.0
Other Paved	C/D	98.0
Other Paved	D	98.0
Railroad	B	85.0
Railroad	B/D	88.0
Railroad	C	89.0
Railroad	C/D	90.0
Railroad	D	91.0
Road	B	98.0
Road	B/D	98.0
Road	C	98.0
Road	C/D	98.0
Road	D	98.0
Tree Canopy	B	73.0
Tree Canopy	B/D	79.5
Tree Canopy	C	82.0
Tree Canopy	C/D	84.0
Tree Canopy	D	86.0
Water	B	100.0

Land Cover Zone	Soil Zone	Curve Number [dec]
Water	B/D	100.0
Water	C	100.0
Water	C/D	100.0
Water	D	100.0
Wetland	B	95.0
Wetland	B/D	95.0
Wetland	C	95.0
Wetland	C/D	95.0
Wetland	D	95.0

Impervious: Impervious_CN [Set]

Land Cover Zone	% Impervious	% DCIA	% Direct	Ia Impervious [in]	Ia Pervious [in]
Bare Soil	0.00	0.00	0.00	0.000	0.000
Building	0.00	0.00	0.00	0.000	0.000
Creek	0.00	0.00	0.00	0.000	0.000
Creek Bank Boulder	0.00	0.00	0.00	0.000	0.000
Creek Bank Concrete	0.00	0.00	0.00	0.000	0.000
Creek Bank Grass/Shrub	0.00	0.00	0.00	0.000	0.000
Creek Bank Riprap	0.00	0.00	0.00	0.000	0.000
Creek Bank Stone	0.00	0.00	0.00	0.000	0.000
Creek Bed Boulder	0.00	0.00	0.00	0.000	0.000
Creek Bed Cobble	0.00	0.00	0.00	0.000	0.000
Creek Bed Concrete	0.00	0.00	0.00	0.000	0.000
Creek Bed Mixed Cobble/Boulder	0.00	0.00	0.00	0.000	0.000
Creek Bed Sand	0.00	0.00	0.00	0.000	0.000
Forest	0.00	0.00	0.00	0.000	0.000
Grass/Shrub	0.00	0.00	0.00	0.000	0.000
Other Paved	0.00	0.00	0.00	0.000	0.000
Railroad	0.00	0.00	0.00	0.000	0.000
Road	0.00	0.00	0.00	0.000	0.000
Tree Canopy	0.00	0.00	0.00	0.000	0.000
Water	0.00	0.00	0.00	0.000	0.000
Wetland	0.00	0.00	0.00	0.000	0.000

Roughness: Roughness [Set]

Roughness Zone	Shallow Manning's N [dec]	Deep Manning's N [dec]	Depth Range [ft]	Damping Threshold [ft]	Area Reduction Factor [dec]
Bare Soil	0.0100	0.0050	3.00	0.0000	1.00
Building	0.0110	0.0055	3.00	0.0000	1.00
Creek	0.0420	0.0210	3.00	0.0000	1.00
Creek Bank Boulder	0.0550	0.0275	3.00	0.0000	1.00
Creek Bank Concrete	0.0120	0.0060	3.00	0.0000	1.00
Creek Bank Grass/Shrub	0.1200	0.0600	3.00	0.0000	1.00
Creek Bank Riprap	0.0350	0.0175	3.00	0.0000	1.00
Creek Bank Stone	0.0150	0.0075	3.00	0.0000	1.00
Creek Bed Boulder	0.0550	0.0275	3.00	0.0000	1.00
Creek Bed Cobble	0.0400	0.0200	3.00	0.0000	1.00
Creek Bed Concrete	0.0150	0.0075	3.00	0.0000	1.00
Creek Bed Mixed Cobble/Boulder	0.0475	0.0238	3.00	0.0000	1.00
Creek Bed Sand	0.0260	0.0130	3.00	0.0000	1.00
Forest	0.4000	0.2000	3.00	0.0000	1.00
Grass/Shrub	0.1500	0.0750	3.00	0.0000	1.00
Other Paved	0.0120	0.0060	3.00	0.0000	1.00
Railroad	0.0300	0.0150	3.00	0.0000	1.00
Road	0.0150	0.0075	3.00	0.0000	1.00
Tree Canopy	0.3200	0.1600	3.00	0.0000	1.00
Water	0.0400	0.0200	3.00	0.0000	1.00
Wetland	0.1200	0.0600	3.00	0.0000	1.00

Roughness: Roughness_2D [Set]

Roughness Zone	Shallow Manning's N [dec]	Deep Manning's N [dec]	Depth Range [ft]	Damping Threshold [ft]	Area Reduction Factor [dec]
Bare Soil	0.0100	0.0050	3.00	0.0000	1.00
Building	0.0110	0.0055	3.00	0.0000	1.00
Creek	0.0420	0.0210	3.00	0.0000	1.00
Creek Bank Boulder	0.0550	0.0275	3.00	0.0000	1.00
Creek Bank Concrete	0.0120	0.0060	3.00	0.0000	1.00
Creek Bank Grass/Shrub	0.1200	0.0600	3.00	0.0000	1.00
Creek Bank Riprap	0.0350	0.0175	3.00	0.0000	1.00
Creek Bank Stone	0.0150	0.0075	3.00	0.0000	1.00
Creek Bed Boulder	0.0275	0.0275	3.00	0.0000	1.00
Creek Bed Cobble	0.0200	0.0200	3.00	0.0000	1.00
Creek Bed Concrete	0.0075	0.0075	3.00	0.0000	1.00
Creek Bed Mixed Cobble/Boulder	0.0238	0.0238	3.00	0.0000	1.00
Creek Bed Sand	0.0130	0.0130	3.00	0.0000	1.00
Forest	0.4000	0.2000	3.00	0.0000	1.00
Grass/Shrub	0.1500	0.0750	3.00	0.0000	1.00
Other Paved	0.0120	0.0060	3.00	0.0000	1.00
Railroad	0.0300	0.0150	3.00	0.0000	1.00
Road	0.0150	0.0075	3.00	0.0000	1.00
Tree Canopy	0.3200	0.1600	3.00	0.0000	1.00
Water	0.0400	0.0200	3.00	0.0000	1.00
Wetland	0.1200	0.0600	3.00	0.0000	1.00

Pipe Link: L-0190P	Upstream	Downstream
Scenario: 1D	Invert: 331.14 ft	Invert: 330.93 ft
From Node: N616a	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N616b	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 16.24 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L-0220P	Upstream	Downstream
Scenario: 1D	Invert: 365.40 ft	Invert: 362.83 ft
From Node: N590b	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N585	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 149.95 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed 15in RCP connection		

Pipe Link: L001	Upstream	Downstream
Scenario: 1D	Invert: 391.58 ft	Invert: 384.91 ft
From Node: N367	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N411	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 114.53 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, slope excessive but minimized to min cover

Pipe Link: L002	Upstream	Downstream
Scenario: 1D	Invert: 421.19 ft	Invert: 418.47 ft
From Node: N408	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N490	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 420.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L003	Upstream	Downstream
Scenario: 1D	Invert: 418.38 ft	Invert: 416.28 ft
From Node: N491	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N420	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 56.80 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L004	Upstream	Downstream
Scenario: 1D	Invert: 418.54 ft	Invert: 418.47 ft
From Node: N396	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N490	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 87.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L005	Upstream	Downstream
Scenario: 1D	Invert: 378.79 ft	Invert: 375.40 ft
From Node: N411	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N397	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 157.78 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L006	Upstream	Downstream
Scenario: 1D	Invert: 375.40 ft	Invert: 376.25 ft
From Node: N397	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N398	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 30.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, adverse slope indicated by MC Stormnet

Pipe Link: L007	Upstream	Downstream
Scenario: 1D	Invert: 397.57 ft	Invert: 395.54 ft
From Node: N419	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N429	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 96.46 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L008	Upstream	Downstream
Scenario: 1D	Invert: 412.43 ft	Invert: 410.57 ft
From Node: N420	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N395	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 106.29 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L009	Upstream	Downstream
Scenario: 1D	Invert: 410.57 ft	Invert: 409.50 ft
From Node: N395	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N421	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 61.29 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L010	Upstream	Downstream
Scenario: 1D	Invert: 385.85 ft	Invert: 378.79 ft
From Node: N422	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N411	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 328.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L011	Upstream	Downstream
Scenario: 1D	Invert: 390.66 ft	Invert: 385.85 ft
From Node: N429	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N422	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 223.67 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L012	Upstream	Downstream
Scenario: 1D	Invert: 403.93 ft	Invert: 402.78 ft
From Node: N423	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N394	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 88.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L013	Upstream	Downstream
Scenario: 1D	Invert: 412.39 ft	Invert: 407.71 ft
From Node: N428	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N423	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 126.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L014	Upstream	Downstream
Scenario: 1D	Invert: 409.50 ft	Invert: 409.12 ft
From Node: N421	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N423	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 21.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L015	Upstream	Downstream
Scenario: 1D	Invert: 414.41 ft	Invert: 412.99 ft
From Node: N424	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N423	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 20.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L016	Upstream	Downstream
Scenario: 1D	Invert: 418.54 ft	Invert: 418.44 ft
From Node: N405	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N492	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 40.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L017	Upstream	Downstream
Scenario: 1D	Invert: 414.58 ft	Invert: 410.01 ft
From Node: N406	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N423	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.06 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L018	Upstream	Downstream
Scenario: 1D	Invert: 376.25 ft	Invert: 373.67 ft
From Node: N398	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N500	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 129.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L019	Upstream	Downstream
Scenario: 1D	Invert: 398.86 ft	Invert: 397.77 ft
From Node: N425	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N419	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 25.45 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, significant contraction from upstream section indicated by MC Stormnet

Pipe Link: L020	Upstream	Downstream
Scenario: 1D	Invert: 402.78 ft	Invert: 401.29 ft
From Node: N394	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N499	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Max Width: 6.00 ft	Max Width: 6.00 ft
Damping: 0.0000	Bottom Clip	
Length: 143.27 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.38	Ref Node:	Ref Node:
Exit Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed, LiDAR at 412.24

Pipe Link: L021	Upstream	Downstream
Scenario: 1D	Invert: 422.23 ft	Invert: 422.14 ft
From Node: N369	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N417	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 61.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L022	Upstream	Downstream
Scenario: 1D	Invert: 422.14 ft	Invert: 421.19 ft
From Node: N417	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N408	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 176.67 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L023	Upstream	Downstream
Scenario: 1D	Invert: 421.27 ft	Invert: 421.19 ft
From Node: N409	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N408	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 42.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L024	Upstream	Downstream
Scenario: 1D	Invert: 392.85 ft	Invert: 391.58 ft
From Node: N366	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N367	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L025	Upstream	Downstream
Scenario: 1D	Invert: 414.66 ft	Invert: 414.58 ft
From Node: N392	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N406	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 84.64 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L026	Upstream	Downstream
Scenario: 1D	Invert: 365.28 ft	Invert: 365.03 ft
From Node: N363	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N431	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 26.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L027	Upstream	Downstream
Scenario: 1D	Invert: 364.93 ft	Invert: 361.53 ft
From Node: N431	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N399	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 145.89 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L028	Upstream	Downstream
Scenario: 1D	Invert: 363.81 ft	Invert: 363.29 ft
From Node: N365	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N416	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.88 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L029	Upstream	Downstream
Scenario: 1D	Invert: 367.27 ft	Invert: 364.31 ft
From Node: N400	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N365	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L030	Upstream	Downstream
Scenario: 1D	Invert: 375.99 ft	Invert: 364.31 ft
From Node: N412	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N365	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 195.68 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L031	Upstream	Downstream
Scenario: 1D	Invert: 384.31 ft	Invert: 375.99 ft
From Node: N401	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N412	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 154.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L032	Upstream	Downstream
Scenario: 1D	Invert: 386.20 ft	Invert: 384.61 ft
From Node: N413	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N401	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 59.26 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L033	Upstream	Downstream
Scenario: 1D	Invert: 361.53 ft	Invert: 352.74 ft
From Node: N399	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N410	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 245.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: CMP, DS invert assumed, excessive slope necessary for cover		

Pipe Link: L034	Upstream	Downstream
Scenario: 1D	Invert: 418.47 ft	Invert: 418.38 ft
From Node: N490	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N491	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 117.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed RCP, US and DS inverts assumed		

Pipe Link: L035	Upstream	Downstream
Scenario: 1D	Invert: 401.49 ft	Invert: 399.56 ft
From Node: N499	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N425	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Max Width: 6.00 ft	Max Width: 6.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 125.40 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.38	Ref Node:	Ref Node:
Exit Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L036	Upstream	Downstream
Scenario: 1D	Invert: 366.04 ft	Invert: 365.28 ft
From Node: N435	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N363	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 51.96 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed RCP, US and DS inverts assumed		

Pipe Link: L037	Upstream	Downstream
Scenario: 1D	Invert: 369.22 ft	Invert: 366.04 ft
From Node: N437	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N435	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 96.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, DS invert assumed, excessive slope necessary for cover

Pipe Link: L038	Upstream	Downstream
Scenario: 1D	Invert: 369.88 ft	Invert: 369.22 ft
From Node: N436	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N437	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 82.77 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L039	Upstream	Downstream
Scenario: 1D	Invert: 376.02 ft	Invert: 373.02 ft
From Node: N235	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N082	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 59.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L040	Upstream	Downstream
Scenario: 1D	Invert: 373.72 ft	Invert: 373.02 ft
From Node: N081	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N082	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.72 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L041	Upstream	Downstream
Scenario: 1D	Invert: 349.55 ft	Invert: 342.45 ft
From Node: N265	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N224	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 187.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L042	Upstream	Downstream
Scenario: 1D	Invert: 349.64 ft	Invert: 349.55 ft
From Node: N083	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N265	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 48.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L043	Upstream	Downstream
Scenario: 1D	Invert: 370.27 ft	Invert: 367.15 ft
From Node: N225	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N267	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 174.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L044	Upstream	Downstream
Scenario: 1D	Invert: 332.75 ft	Invert: 331.56 ft
From Node: N084	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N166	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 51.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.73	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, exit loss calculated

Pipe Link: L045	Upstream	Downstream
Scenario: 1D	Invert: 338.43 ft	Invert: 334.44 ft
From Node: N264	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N085	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 145.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L046	Upstream	Downstream
Scenario: 1D	Invert: 363.32 ft	Invert: 362.00 ft
From Node: N086	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N087	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 105.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L047	Upstream	Downstream
Scenario: 1D	Invert: 373.02 ft	Invert: 363.90 ft
From Node: N082	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N087	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 193.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L048	Upstream	Downstream
Scenario: 1D	Invert: 361.15 ft	Invert: 360.37 ft
From Node: N153	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N154	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L049	Upstream	Downstream
Scenario: 1D	Invert: 366.95 ft	Invert: 358.77 ft
From Node: N267	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N154	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 144.14 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L050	Upstream	Downstream
Scenario: 1D	Invert: 323.71 ft	Invert: 308.84 ft
From Node: N061	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N009	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 308.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L051	Upstream	Downstream
Scenario: 1D	Invert: 287.21 ft	Invert: 286.75 ft
From Node: N170	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N255	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 37.41 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L052	Upstream	Downstream
Scenario: 1D	Invert: 287.73 ft	Invert: 286.75 ft
From Node: N007	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N255	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 40.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L053	Upstream	Downstream
Scenario: 1D	Invert: 335.72 ft	Invert: 333.72 ft
From Node: N008	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-10	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 187.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L054	Upstream	Downstream
Scenario: 1D	Invert: 378.89 ft	Invert: 378.14 ft
From Node: N046	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N112	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 14.95 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L055	Upstream	Downstream
Scenario: 1D	Invert: 308.84 ft	Invert: 308.06 ft
From Node: N009	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N633	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 118.06 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L056	Upstream	Downstream
Scenario: 1D	Invert: 368.04 ft	Invert: 356.92 ft
From Node: N196	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N163	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 255.82 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L057	Upstream	Downstream
Scenario: 1D	Invert: 373.87 ft	Invert: 372.12 ft
From Node: N011	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N010	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 132.11 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L058	Upstream	Downstream
Scenario: 1D	Invert: 374.47 ft	Invert: 373.97 ft
From Node: N012	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N011	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L059	Upstream	Downstream
Scenario: 1D	Invert: 320.30 ft	Invert: 317.15 ft
From Node: N013	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N108	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 46.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L060	Upstream	Downstream
Scenario: 1D	Invert: 317.15 ft	Invert: 312.79 ft
From Node: N108	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-B-23	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 138.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L061	Upstream	Downstream
Scenario: 1D	Invert: 320.40 ft	Invert: 320.21 ft
From Node: N014	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N200	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 98.60 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L062	Upstream	Downstream
Scenario: 1D	Invert: 320.21 ft	Invert: 317.15 ft
From Node: N200	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N108	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 71.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L063	Upstream	Downstream
Scenario: 1D	Invert: 379.34 ft	Invert: 376.37 ft
From Node: N202	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N012	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 296.57 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L064	Upstream	Downstream
Scenario: 1D	Invert: 381.57 ft	Invert: 379.44 ft
From Node: N073	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N202	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 51.45 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L065	Upstream	Downstream
Scenario: 1D	Invert: 314.00 ft	Invert: 308.84 ft
From Node: N060	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N009	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 140.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L066	Upstream	Downstream
Scenario: 1D	Invert: 292.49 ft	Invert: 287.21 ft
From Node: N057	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N170	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 259.31 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L067	Upstream	Downstream
Scenario: 1D	Invert: 360.21 ft	Invert: 357.29 ft
From Node: N167	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N595	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 91.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L068	Upstream	Downstream
Scenario: 1D	Invert: 361.77 ft	Invert: 360.21 ft
From Node: N168	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N167	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 15.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, US and DS inverts assumed

Pipe Link: L069	Upstream	Downstream
Scenario: 1D	Invert: 348.98 ft	Invert: 347.34 ft
From Node: N164	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N312	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 128.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L070	Upstream	Downstream
Scenario: 1D	Invert: 355.34 ft	Invert: 348.98 ft
From Node: N165	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N164	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 171.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L071	Upstream	Downstream
Scenario: 1D	Invert: 362.04 ft	Invert: 355.34 ft
From Node: N245	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N165	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 181.18 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L072	Upstream	Downstream
Scenario: 1D	Invert: 385.20 ft	Invert: 385.17 ft
From Node: N177	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N246	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Adjusted from 24 to 18, US and DS inverts assumed

Pipe Link: L073	Upstream	Downstream
Scenario: 1D	Invert: 385.36 ft	Invert: 385.20 ft
From Node: N247	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N177	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 81.71 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L074	Upstream	Downstream
Scenario: 1D	Invert: 365.21 ft	Invert: 362.04 ft
From Node: N045	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N245	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 131.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L075	Upstream	Downstream
Scenario: 1D	Invert: 305.51 ft	Invert: 292.49 ft
From Node: N103	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N057	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 240.66 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L076	Upstream	Downstream
Scenario: 1D	Invert: 315.20 ft	Invert: 313.35 ft
From Node: N313	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N315	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L077	Upstream	Downstream
Scenario: 1D	Invert: 342.45 ft	Invert: 327.12 ft
From Node: N224	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N254	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 316.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L078	Upstream	Downstream
Scenario: 1D	Invert: 342.56 ft	Invert: 342.45 ft
From Node: N223	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N224	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 55.88 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L079	Upstream	Downstream
Scenario: 1D	Invert: 375.08 ft	Invert: 373.72 ft
From Node: N236	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N081	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L080	Upstream	Downstream
Scenario: 1D	Invert: 353.54 ft	Invert: 350.17 ft
From Node: N243	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N242	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.60 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L081a	Upstream	Downstream
Scenario: 1D	Invert: 263.09 ft	Invert: 262.61 ft
From Node: N241	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N673	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 13.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L081b	Upstream	Downstream
Scenario: 1D	Invert: 262.61 ft	Invert: 262.37 ft
From Node: N673	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Rock-2	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 6.70 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L082	Upstream	Downstream
Scenario: 1D	Invert: 349.47 ft	Invert: 348.29 ft
From Node: N242	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N140	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 58.96 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L083	Upstream	Downstream
Scenario: 1D	Invert: 348.29 ft	Invert: 342.54 ft
From Node: N140	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N097	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 168.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L084	Upstream	Downstream
Scenario: 1D	Invert: 390.75 ft	Invert: 389.80 ft
From Node: N114	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N037	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 56.25 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L085	Upstream	Downstream
Scenario: 1D	Invert: 389.27 ft	Invert: 387.65 ft
From Node: N148	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N115	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 235.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L086	Upstream	Downstream
Scenario: 1D	Invert: 387.65 ft	Invert: 386.33 ft
From Node: N115	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N042	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 139.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L087	Upstream	Downstream
Scenario: 1D	Invert: 387.59 ft	Invert: 385.38 ft
From Node: N117	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N041	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 100.68 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L088	Upstream	Downstream
Scenario: 1D	Invert: 388.06 ft	Invert: 387.69 ft
From Node: N118	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N116	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L089	Upstream	Downstream
Scenario: 1D	Invert: 388.24 ft	Invert: 388.06 ft
From Node: N244	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N118	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 93.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L090	Upstream	Downstream
Scenario: 1D	Invert: 388.56 ft	Invert: 388.46 ft
From Node: N178	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N179	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 47.46 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L091	Upstream	Downstream
Scenario: 1D	Invert: 388.46 ft	Invert: 388.24 ft
From Node: N179	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N244	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 114.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L092	Upstream	Downstream
Scenario: 1D	Invert: 366.55 ft	Invert: 365.36 ft
From Node: N562	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N563	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 85.69 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L093	Upstream	Downstream
Scenario: 1D	Invert: 373.59 ft	Invert: 366.65 ft
From Node: N109	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N562	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 145.04 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed, excessive slope assumed by data and surface grade

Pipe Link: L094	Upstream	Downstream
Scenario: 1D	Invert: 374.85 ft	Invert: 373.59 ft
From Node: N018	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N109	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 43.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L095	Upstream	Downstream
Scenario: 1D	Invert: 391.97 ft	Invert: 389.92 ft
From Node: N110	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N564	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 322.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L096	Upstream	Downstream
Scenario: 1D	Invert: 378.10 ft	Invert: 373.59 ft
From Node: N111	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N109	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 93.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, excessive slope assumed by data and surface grade

Pipe Link: L097	Upstream	Downstream
Scenario: 1D	Invert: 378.14 ft	Invert: 378.10 ft
From Node: N112	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N111	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 46.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L098	Upstream	Downstream
Scenario: 1D	Invert: 378.92 ft	Invert: 378.14 ft
From Node: N113	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N112	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 43.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L099	Upstream	Downstream
Scenario: 1D	Invert: 392.90 ft	Invert: 391.97 ft
From Node: N001	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N110	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 116.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L101	Upstream	Downstream
Scenario: 1D	Invert: 317.31 ft	Invert: 315.92 ft
From Node: N067	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N068	Geometry: Circular	Geometry: Circular
Link Count: 2	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 52.20 ft	Op Table:	Op Table:
FHWA Code: 1	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.77	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Dual 60in RCP, entrance loss via FHWA code, exit loss calculated

Pipe Link: L102	Upstream	Downstream
Scenario: 1D	Invert: 331.90 ft	Invert: 329.10 ft
From Node: N268	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-B-5	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 46.54 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L103	Upstream	Downstream
Scenario: 1D	Invert: 316.33 ft	Invert: 313.82 ft
From Node: N063	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-31	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 99.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L104	Upstream	Downstream
Scenario: 1D	Invert: 281.48 ft	Invert: 278.23 ft
From Node: N231	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N608a	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 46.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, DS invert assumed

Pipe Link: L105	Upstream	Downstream
Scenario: 1D	Invert: 340.07 ft	Invert: 334.33 ft
From Node: N234	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N064	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 173.80 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L106	Upstream	Downstream
Scenario: 1D	Invert: 328.25 ft	Invert: 328.59 ft
From Node: N138	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N034	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 6.00 ft	Max Depth: 6.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 336.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, US invert assumed

Pipe Link: L107	Upstream	Downstream
Scenario: 1D	Invert: 344.00 ft	Invert: 340.07 ft
From Node: N316	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N234	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 64.63 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L108	Upstream	Downstream
Scenario: 1D	Invert: 317.42 ft	Invert: 316.37 ft
From Node: N069	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-27	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 41.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: 30in RCP, field verified

Pipe Link: L109	Upstream	Downstream
Scenario: 1D	Invert: 380.60 ft	Invert: 378.92 ft
From Node: N215	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N113	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 46.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L110	Upstream	Downstream
Scenario: 1D	Invert: 380.83 ft	Invert: 380.70 ft
From Node: N186	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N187	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 67.89 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L111	Upstream	Downstream
Scenario: 1D	Invert: 381.13 ft	Invert: 380.70 ft
From Node: N188	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N187	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 55.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L112	Upstream	Downstream
Scenario: 1D	Invert: 381.15 ft	Invert: 381.13 ft
From Node: N198	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N188	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 8.40 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L113	Upstream	Downstream
Scenario: 1D	Invert: 382.25 ft	Invert: 381.13 ft
From Node: N199	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N188	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 93.57 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L114	Upstream	Downstream
Scenario: 1D	Invert: 382.27 ft	Invert: 382.25 ft
From Node: N147	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N199	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 12.22 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L115	Upstream	Downstream
Scenario: 1D	Invert: 382.94 ft	Invert: 382.25 ft
From Node: N149	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N199	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 37.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L116	Upstream	Downstream
Scenario: 1D	Invert: 389.67 ft	Invert: 389.27 ft
From Node: N150	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N148	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 43.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L117	Upstream	Downstream
Scenario: 1D	Invert: 391.39 ft	Invert: 389.80 ft
From Node: N036	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N037	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 57.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L118	Upstream	Downstream
Scenario: 1D	Invert: 386.48 ft	Invert: 386.46 ft
From Node: N035	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N039	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 10.40 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L119	Upstream	Downstream
Scenario: 1D	Invert: 385.28 ft	Invert: 382.94 ft
From Node: N040	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N149	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 96.53 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Adjusted from 33 to 24, US and DS inverts assumed

Pipe Link: L120	Upstream	Downstream
Scenario: 1D	Invert: 385.38 ft	Invert: 385.28 ft
From Node: N041	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N040	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 98.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L121	Upstream	Downstream
Scenario: 1D	Invert: 385.41 ft	Invert: 385.38 ft
From Node: N038	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N041	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 13.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L122	Upstream	Downstream
Scenario: 1D	Invert: 389.80 ft	Invert: 385.38 ft
From Node: N037	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N041	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 193.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L123	Upstream	Downstream
Scenario: 1D	Invert: 386.46 ft	Invert: 386.33 ft
From Node: N039	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N042	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.78 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L124	Upstream	Downstream
Scenario: 1D	Invert: 386.33 ft	Invert: 385.28 ft
From Node: N042	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N040	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 86.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L125	Upstream	Downstream
Scenario: 1D	Invert: 361.72 ft	Invert: 360.99 ft
From Node: N155	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N258	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L126	Upstream	Downstream
Scenario: 1D	Invert: 363.90 ft	Invert: 360.89 ft
From Node: N087	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N258	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 121.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, Adjusted from 18 to 24		

Pipe Link: L127	Upstream	Downstream
Scenario: 1D	Invert: 360.59 ft	Invert: 359.13 ft
From Node: N260	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N259	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Max Width: 3.33 ft	Max Width: 3.33 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 31.72 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.50	Ref Node:	Ref Node:
Exit Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: CMP		

Pipe Link: L128	Upstream	Downstream
Scenario: 1D	Invert: 360.89 ft	Invert: 360.69 ft
From Node: N258	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N260	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.88 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L129	Upstream	Downstream
Scenario: 1D	Invert: 345.21 ft	Invert: 337.39 ft
From Node: N088	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N257	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 259.78 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L130	Upstream	Downstream
Scenario: 1D	Invert: 358.67 ft	Invert: 350.12 ft
From Node: N154	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N161	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 230.99 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L131	Upstream	Downstream
Scenario: 1D	Invert: 348.88 ft	Invert: 348.48 ft
From Node: N161	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N160	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.75 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L132	Upstream	Downstream
Scenario: 1D	Invert: 353.15 ft	Invert: 349.38 ft
From Node: N159	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N161	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 115.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Adjusted from 42 to 48, US invert assumed

Pipe Link: L133	Upstream	Downstream
Scenario: 1D	Invert: 348.48 ft	Invert: 345.40 ft
From Node: N160	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N556	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 200.97 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L134	Upstream	Downstream
Scenario: 1D	Invert: 357.35 ft	Invert: 353.15 ft
From Node: N156	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N159	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 128.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L135	Upstream	Downstream
Scenario: 1D	Invert: 359.03 ft	Invert: 357.35 ft
From Node: N259	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N156	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Max Width: 3.33 ft	Max Width: 3.33 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 129.99 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.50	Ref Node:	Ref Node:
Exit Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: CMP, DS invert assumed		

Pipe Link: L136	Upstream	Downstream
Scenario: 1D	Invert: 358.97 ft	Invert: 357.35 ft
From Node: N157	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N156	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 58.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, DS invert assumed		

Pipe Link: L137	Upstream	Downstream
Scenario: 1D	Invert: 363.08 ft	Invert: 358.97 ft
From Node: N372	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N157	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 83.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L138	Upstream	Downstream
Scenario: 1D	Invert: 361.44 ft	Invert: 360.37 ft
From Node: N269	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N157	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 86.66 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L139	Upstream	Downstream
Scenario: 1D	Invert: 365.30 ft	Invert: 365.21 ft
From Node: N145	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N045	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 59.67 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L140	Upstream	Downstream
Scenario: 1D	Invert: 387.04 ft	Invert: 385.20 ft
From Node: N146	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N177	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 250.49 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Adjusted from 24 to 18, US and DS inverts assumed

Pipe Link: L141	Upstream	Downstream
Scenario: 1D	Invert: 387.56 ft	Invert: 387.04 ft
From Node: N044	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N146	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 65.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L142	Upstream	Downstream
Scenario: 1D	Invert: 388.94 ft	Invert: 387.04 ft
From Node: N227	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N146	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 206.26 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L143	Upstream	Downstream
Scenario: 1D	Invert: 369.79 ft	Invert: 369.74 ft
From Node: N228	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N648	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 94.80 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed connection, DS invert assumed

Pipe Link: L144	Upstream	Downstream
Scenario: 1D	Invert: 372.31 ft	Invert: 370.03 ft
From Node: N123	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N228	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 44.68 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L145	Upstream	Downstream
Scenario: 1D	Invert: 385.17 ft	Invert: 372.31 ft
From Node: N246	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N123	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 355.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Adjusted from 24 to 18, US and DS inverts assumed

Pipe Link: L146	Upstream	Downstream
Scenario: 1D	Invert: 372.90 ft	Invert: 365.30 ft
From Node: N016	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N145	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 264.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L147	Upstream	Downstream
Scenario: 1D	Invert: 372.95 ft	Invert: 372.90 ft
From Node: N015	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N016	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.45 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L148	Upstream	Downstream
Scenario: 1D	Invert: 377.13 ft	Invert: 372.31 ft
From Node: N017	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N123	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 226.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L149	Upstream	Downstream
Scenario: 1D	Invert: 381.47 ft	Invert: 372.90 ft
From Node: N099	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N016	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 161.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L150	Upstream	Downstream
Scenario: 1D	Invert: 380.70 ft	Invert: 380.44 ft
From Node: N187	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N180	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 91.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L151	Upstream	Downstream
Scenario: 1D	Invert: 380.44 ft	Invert: 378.92 ft
From Node: N180	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N113	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 154.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L152	Upstream	Downstream
Scenario: 1D	Invert: 313.82 ft	Invert: 313.36 ft
From Node: N192	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N191	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 52.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L153	Upstream	Downstream
Scenario: 1D	Invert: 313.46 ft	Invert: 313.36 ft
From Node: N525	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N191	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 54.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L154	Upstream	Downstream
Scenario: 1D	Invert: 311.05 ft	Invert: 307.63 ft
From Node: N194	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N526	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 41.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, assumed crown matched to 72inch storage pipes

Pipe Link: L155	Upstream	Downstream
Scenario: 1D	Invert: 306.30 ft	Invert: 306.30 ft
From Node: N193	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N194	Geometry: Circular	Geometry: Circular
Link Count: 2	Max Depth: 6.00 ft	Max Depth: 6.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 120.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed approx 120 LF of dual 72inch RCP, crown matched to DS pipe

Pipe Link: L156	Upstream	Downstream
Scenario: 1D	Invert: 313.36 ft	Invert: 313.30 ft
From Node: N191	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N194	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 31.49 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, exit loss assumed storage

Pipe Link: L157	Upstream	Downstream
Scenario: 1D	Invert: 333.98 ft	Invert: 328.52 ft
From Node: N204	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N104	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 78.85 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L158	Upstream	Downstream
Scenario: 1D	Invert: 286.75 ft	Invert: 284.30 ft
From Node: N255	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N175	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 197.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L159	Upstream	Downstream
Scenario: 1D	Invert: 295.03 ft	Invert: 294.97 ft
From Node: N173	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N176	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 56.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L160	Upstream	Downstream
Scenario: 1D	Invert: 284.30 ft	Invert: 283.02 ft
From Node: N175	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N209	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 122.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L161	Upstream	Downstream
Scenario: 1D	Invert: 283.14 ft	Invert: 283.02 ft
From Node: N195	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N209	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 57.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L162	Upstream	Downstream
Scenario: 1D	Invert: 283.03 ft	Invert: 283.02 ft
From Node: N210	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N209	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 7.37 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L163	Upstream	Downstream
Scenario: 1D	Invert: 283.02 ft	Invert: 282.53 ft
From Node: N209	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N183	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 49.64 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L164	Upstream	Downstream
Scenario: 1D	Invert: 328.75 ft	Invert: 329.61 ft
From Node: N023	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N096	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 44.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L165	Upstream	Downstream
Scenario: 1D	Invert: 329.92 ft	Invert: 329.35 ft
From Node: N022	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N023	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.54 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L166	Upstream	Downstream
Scenario: 1D	Invert: 342.49 ft	Invert: 342.64 ft
From Node: N024	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N097	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L167	Upstream	Downstream
Scenario: 1D	Invert: 264.90 ft	Invert: 264.23 ft
From Node: N025	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N629	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 9.69 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US invert assumed

Pipe Link: L168	Upstream	Downstream
Scenario: 1D	Invert: 355.88 ft	Invert: 354.22 ft
From Node: N026	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N098	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L169	Upstream	Downstream
Scenario: 1D	Invert: 350.40 ft	Invert: 342.49 ft
From Node: N211	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N024	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 229.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, US and DS inverts assumed

Pipe Link: L170	Upstream	Downstream
Scenario: 1D	Invert: 348.50 ft	Invert: 342.54 ft
From Node: N212	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N097	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 133.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L171	Upstream	Downstream
Scenario: 1D	Invert: 350.66 ft	Invert: 350.40 ft
From Node: N047	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N211	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 253.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L172	Upstream	Downstream
Scenario: 1D	Invert: 353.42 ft	Invert: 350.75 ft
From Node: N098	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N213	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 286.72 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L173	Upstream	Downstream
Scenario: 1D	Invert: 350.45 ft	Invert: 348.70 ft
From Node: N213	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N212	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.77 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L174	Upstream	Downstream
Scenario: 1D	Invert: 281.51 ft	Invert: 275.20 ft
From Node: N071	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N628	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 93.78 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L175	Upstream	Downstream
Scenario: 1D	Invert: 352.32 ft	Invert: 351.15 ft
From Node: N072	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N213	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 64.85 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L176	Upstream	Downstream
Scenario: 1D	Invert: 354.12 ft	Invert: 353.02 ft
From Node: N229	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N072	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L177	Upstream	Downstream
Scenario: 1D	Invert: 337.78 ft	Invert: 328.95 ft
From Node: N262	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N023	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 303.85 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L178	Upstream	Downstream
Scenario: 1D	Invert: 318.28 ft	Invert: 317.50 ft
From Node: N261	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N048	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L179	Upstream	Downstream
Scenario: 1D	Invert: 322.69 ft	Invert: 317.10 ft
From Node: N049	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N048	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 192.67 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L180	Upstream	Downstream
Scenario: 1D	Invert: 317.00 ft	Invert: 312.89 ft
From Node: N048	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N050	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 54.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L181	Upstream	Downstream
Scenario: 1D	Invert: 295.85 ft	Invert: 281.51 ft
From Node: N052	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N071	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 207.20 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L182	Upstream	Downstream
Scenario: 1D	Invert: 353.38 ft	Invert: 351.96 ft
From Node: N053	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N047	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 54.08 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L183	Upstream	Downstream
Scenario: 1D	Invert: 380.36 ft	Invert: 378.85 ft
From Node: N074	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N201	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 48.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L184	Upstream	Downstream
Scenario: 1D	Invert: 380.64 ft	Invert: 378.75 ft
From Node: N124	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N201	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.89 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L185	Upstream	Downstream
Scenario: 1D	Invert: 382.22 ft	Invert: 381.67 ft
From Node: N125	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N073	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.89 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L186	Upstream	Downstream
Scenario: 1D	Invert: 322.23 ft	Invert: 320.21 ft
From Node: N263	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N200	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 140.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L187	Upstream	Downstream
Scenario: 1D	Invert: 319.08 ft	Invert: 318.89 ft
From Node: N079	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-B-20	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 127.75 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L188	Upstream	Downstream
Scenario: 1D	Invert: 319.12 ft	Invert: 319.08 ft
From Node: N080	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N079	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L189	Upstream	Downstream
Scenario: 1D	Invert: 282.53 ft	Invert: 282.04 ft
From Node: N183	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N033	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 49.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Adjusted from 24 to 30, US and DS inverts assumed

Pipe Link: L190	Upstream	Downstream
Scenario: 1D	Invert: 285.05 ft	Invert: 282.04 ft
From Node: N184	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N033	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 70.71 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L191	Upstream	Downstream
Scenario: 1D	Invert: 328.29 ft	Invert: 326.47 ft
From Node: N034	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N185	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 6.00 ft	Max Depth: 6.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 140.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.59	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, DS invert assumed, exit loss calculated

Pipe Link: L192	Upstream	Downstream
Scenario: 1D	Invert: 331.73 ft	Invert: 331.99 ft
From Node: N064	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N034	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 16.16 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L193	Upstream	Downstream
Scenario: 1D	Invert: 317.17 ft	Invert: 316.53 ft
From Node: N065	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N063	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.20 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L194	Upstream	Downstream
Scenario: 1D	Invert: 332.22 ft	Invert: 331.53 ft
From Node: N066	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N064	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 26.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L195	Upstream	Downstream
Scenario: 1D	Invert: 334.74 ft	Invert: 333.41 ft
From Node: N557	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N558	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 106.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Adjusted from 15 to 54, US and DS invert assumed

Pipe Link: L196	Upstream	Downstream
Scenario: 1D	Invert: 337.39 ft	Invert: 334.74 ft
From Node: N257	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N557	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 121.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L197	Upstream	Downstream
Scenario: 1D	Invert: 333.30 ft	Invert: 333.11 ft
From Node: N085	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N084	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Max Width: 4.00 ft	Max Width: 4.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 34.09 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.00	Ref Node:	Ref Node:
Exit Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L198	Upstream	Downstream
Scenario: 1D	Invert: 318.45 ft	Invert: 317.83 ft
From Node: N128	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N129	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 20.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L199	Upstream	Downstream
Scenario: 1D	Invert: 317.83 ft	Invert: 317.79 ft
From Node: N129	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-29	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L200	Upstream	Downstream
Scenario: 1D	Invert: 313.35 ft	Invert: 306.73 ft
From Node: N315	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N382	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 297.08 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US invert assumed

Pipe Link: L201	Upstream	Downstream
Scenario: 1D	Invert: 329.61 ft	Invert: 317.70 ft
From Node: N096	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N069	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 167.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: 30in RCP, diameter and inverts field verified

Pipe Link: L202	Upstream	Downstream
Scenario: 1D	Invert: 329.66 ft	Invert: 327.18 ft
From Node: N095	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N096	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 48.61 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L203	Upstream	Downstream
Scenario: 1D	Invert: 342.54 ft	Invert: 328.25 ft
From Node: N097	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N138	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 388.39 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L204	Upstream	Downstream
Scenario: 1D	Invert: 363.79 ft	Invert: 362.14 ft
From Node: N197	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N269	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 45.95 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L205		Upstream	Downstream
Scenario:	1D	Invert: 367.65 ft	Invert: 365.91 ft
From Node:	N370	Manning's N: 0.0240	Manning's N: 0.0240
To Node:	N361	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count:	1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction:	Both	Max Width: 4.00 ft	Max Width: 4.00 ft
Damping:	0.0000 ft	Bottom Clip	
Length:	95.76 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code:	0	Op Table:	Op Table:
Entr Loss Coef:	0.25	Ref Node:	Ref Node:
Exit Loss Coef:	0.23	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef:	0.00	Top Clip	
Bend Location:	0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch:	Momentum	Op Table:	Op Table:
		Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP

Pipe Link: L206		Upstream	Downstream
Scenario:	1D	Invert: 357.95 ft	Invert: 350.16 ft
From Node:	N043	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N144	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	123.13 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.25	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L207	Upstream	Downstream
Scenario: 1D	Invert: 306.13 ft	Invert: 301.32 ft
From Node: N162	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N219	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 164.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L208	Upstream	Downstream
Scenario: 1D	Invert: 301.17 ft	Invert: 300.93 ft
From Node: N219	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N055	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 81.67 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L209	Upstream	Downstream
Scenario: 1D	Invert: 300.67 ft	Invert: 300.24 ft
From Node: N055	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N133	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 69.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L210	Upstream	Downstream
Scenario: 1D	Invert: 300.24 ft	Invert: 299.62 ft
From Node: N133	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-B-32	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 89.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, DS invert assumed		

Pipe Link: L211	Upstream	Downstream
Scenario: 1D	Invert: 306.44 ft	Invert: 306.30 ft
From Node: N207	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N132	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 52.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L212	Upstream	Downstream
Scenario: 1D	Invert: 306.30 ft	Invert: 306.13 ft
From Node: N132	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N162	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 65.88 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L213	Upstream	Downstream
Scenario: 1D	Invert: 305.94 ft	Invert: 305.84 ft
From Node: N054	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N075	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 31.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC, US invert assumed

Pipe Link: L214	Upstream	Downstream
Scenario: 1D	Invert: 305.44 ft	Invert: 302.86 ft
From Node: N075	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N133	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 39.31 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L215	Upstream	Downstream
Scenario: 1D	Invert: 316.81 ft	Invert: 316.64 ft
From Node: N189	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N190	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 87.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L216	Upstream	Downstream
Scenario: 1D	Invert: 316.64 ft	Invert: 313.30 ft
From Node: N190	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N193	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 75.98 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, exit loss assumes storage

Pipe Link: L217	Upstream	Downstream
Scenario: 1D	Invert: 327.12 ft	Invert: 322.23 ft
From Node: N254	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N263	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 281.25 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L218	Upstream	Downstream
Scenario: 1D	Invert: 327.22 ft	Invert: 327.12 ft
From Node: N253	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N254	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 53.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L219	Upstream	Downstream
Scenario: 1D	Invert: 356.13 ft	Invert: 351.46 ft
From Node: N206	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N047	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 157.71 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L220	Upstream	Downstream
Scenario: 1D	Invert: 363.29 ft	Invert: 356.23 ft
From Node: N416	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N206	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 405.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, US invert assumed		

Pipe Link: L221	Upstream	Downstream
Scenario: 1D	Invert: 342.80 ft	Invert: 337.98 ft
From Node: N208	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N262	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 131.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L222	Upstream	Downstream
Scenario: 1D	Invert: 354.09 ft	Invert: 353.88 ft
From Node: N230	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N053	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 42.40 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L223	Upstream	Downstream
Scenario: 1D	Invert: 326.35 ft	Invert: 322.79 ft
From Node: N119	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N049	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 129.57 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L224	Upstream	Downstream
Scenario: 1D	Invert: 344.63 ft	Invert: 342.80 ft
From Node: N134	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N208	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 49.46 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.90	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: CMP, US invert assumed		

Pipe Link: L225	Upstream	Downstream
Scenario: 1D	Invert: 356.82 ft	Invert: 353.38 ft
From Node: N163	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N053	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 129.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L226	Upstream	Downstream
Scenario: 1D	Invert: 312.79 ft	Invert: 307.65 ft
From Node: N050	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N217	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 98.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L227	Upstream	Downstream
Scenario: 1D	Invert: 307.45 ft	Invert: 305.90 ft
From Node: N217	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N218	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L228	Upstream	Downstream
Scenario: 1D	Invert: 300.04 ft	Invert: 300.01 ft
From Node: N127	Manning's N: 0.0180	Manning's N: 0.0180
To Node: N216	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 5.67 ft	Max Depth: 5.67 ft
Flow Direction: Both	Max Width: 6.00 ft	Max Width: 6.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 34.04 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 45	Op Table:	Op Table:
Entr Loss Coef: 0.00	Ref Node:	Ref Node:
Exit Loss Coef: 0.40	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, 72x68in arch, manning adjusted for bot conc top corr metal, entrance loss via FHWA code, exit loss calculated

Pipe Link: L229	Upstream	Downstream
Scenario: 1D	Invert: 334.46 ft	Invert: 326.35 ft
From Node: N222	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N119	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 232.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L230	Upstream	Downstream
Scenario: 1D	Invert: 339.87 ft	Invert: 338.69 ft
From Node: N319	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N320	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 172.06 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, US and DS inverts assumed

Pipe Link: L231	Upstream	Downstream
Scenario: 1D	Invert: 338.69 ft	Invert: 338.13 ft
From Node: N320	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N321	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 69.48 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, US and DS inverts assumed

Pipe Link: L232	Upstream	Downstream
Scenario: 1D	Invert: 338.13 ft	Invert: 337.77 ft
From Node: N321	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N322	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 44.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, US and DS inverts assumed

Pipe Link: L233	Upstream	Downstream
Scenario: 1D	Invert: 341.99 ft	Invert: 341.68 ft
From Node: N348	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N349	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 65.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L234	Upstream	Downstream
Scenario: 1D	Invert: 341.68 ft	Invert: 341.39 ft
From Node: N349	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N347	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 59.99 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L235	Upstream	Downstream
Scenario: 1D	Invert: 342.41 ft	Invert: 342.35 ft
From Node: N325	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N324	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.83 ft	Max Depth: 0.83 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 19.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, US and DS inverts assumed

Pipe Link: L236	Upstream	Downstream
Scenario: 1D	Invert: 342.52 ft	Invert: 342.41 ft
From Node: N326	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N325	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.83 ft	Max Depth: 0.83 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.93 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, US and DS inverts assumed

Pipe Link: L237	Upstream	Downstream
Scenario: 1D	Invert: 342.61 ft	Invert: 342.52 ft
From Node: N327	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N326	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.83 ft	Max Depth: 0.83 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.70 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, US and DS inverts assumed

Pipe Link: L238	Upstream	Downstream
Scenario: 1D	Invert: 347.34 ft	Invert: 346.97 ft
From Node: N312	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N271	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 86.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L239	Upstream	Downstream
Scenario: 1D	Invert: 347.05 ft	Invert: 346.97 ft
From Node: N311	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N271	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 40.91 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L240	Upstream	Downstream
Scenario: 1D	Invert: 346.97 ft	Invert: 342.97 ft
From Node: N271	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N274	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 277.95 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L241	Upstream	Downstream
Scenario: 1D	Invert: 342.97 ft	Invert: 341.37 ft
From Node: N274	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N272	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 119.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L242	Upstream	Downstream
Scenario: 1D	Invert: 387.69 ft	Invert: 385.51 ft
From Node: N116	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N291	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 47.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L243	Upstream	Downstream
Scenario: 1D	Invert: 385.51 ft	Invert: 385.28 ft
From Node: N291	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N040	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 11.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L244	Upstream	Downstream
Scenario: 1D	Invert: 343.62 ft	Invert: 341.96 ft
From Node: N299	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N300	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 73.41 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L245	Upstream	Downstream
Scenario: 1D	Invert: 341.96 ft	Invert: 340.48 ft
From Node: N300	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N306	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 136.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L246	Upstream	Downstream
Scenario: 1D	Invert: 340.48 ft	Invert: 338.07 ft
From Node: N306	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N307	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 301.71 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L247	Upstream	Downstream
Scenario: 1D	Invert: 338.07 ft	Invert: 337.41 ft
From Node: N307	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N308	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 82.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L248	Upstream	Downstream
Scenario: 1D	Invert: 342.75 ft	Invert: 342.03 ft
From Node: N279	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N303	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L249	Upstream	Downstream
Scenario: 1D	Invert: 335.79 ft	Invert: 335.16 ft
From Node: N220	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N222	Geometry: Horizontal Ellipse	Geometry: Horizontal Ellipse
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: CMP		

Pipe Link: L250	Upstream	Downstream
Scenario: 1D	Invert: 305.23 ft	Invert: 303.08 ft
From Node: N076	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-B-28	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 98.31 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, field verified 27in		

Pipe Link: L251	Upstream	Downstream
Scenario: 1D	Invert: 305.90 ft	Invert: 305.23 ft
From Node: N218	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N076	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 90.08 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L252	Upstream	Downstream
Scenario: 1D	Invert: 307.52 ft	Invert: 305.23 ft
From Node: N078	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N076	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 54.98 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L253	Upstream	Downstream
Scenario: 1D	Invert: 308.38 ft	Invert: 307.72 ft
From Node: N077	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N078	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 30.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L254	Upstream	Downstream
Scenario: 1D	Invert: 344.48 ft	Invert: 335.56 ft
From Node: N256	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N222	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 292.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L255	Upstream	Downstream
Scenario: 1D	Invert: 352.74 ft	Invert: 350.40 ft
From Node: N410	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N211	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 187.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, US invert assumed

Pipe Link: L256	Upstream	Downstream
Scenario: 1D	Invert: 282.04 ft	Invert: 281.51 ft
From Node: N033	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N137	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 60.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Adjusted from 24 to 30, US and DS inverts assumed

Pipe Link: L257	Upstream	Downstream
Scenario: 1D	Invert: 281.51 ft	Invert: 277.14 ft
From Node: N137	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N608a	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 158.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L258	Upstream	Downstream
Scenario: 1D	Invert: 355.68 ft	Invert: 354.73 ft
From Node: N353	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N572	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Adjusted from 18 to 24, US and DS inverts assumed

Pipe Link: L260	Upstream	Downstream
Scenario: 1D	Invert: 352.41 ft	Invert: 347.78 ft
From Node: N282	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N577	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 125.04 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L261	Upstream	Downstream
Scenario: 1D	Invert: 346.28 ft	Invert: 345.60 ft
From Node: N577	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N298	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 30.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L262	Upstream	Downstream
Scenario: 1D	Invert: 352.88 ft	Invert: 348.81 ft
From Node: N284	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N283	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 110.12 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L263	Upstream	Downstream
Scenario: 1D	Invert: 347.40 ft	Invert: 344.01 ft
From Node: N280	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N278	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 78.57 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L264	Upstream	Downstream
Scenario: 1D	Invert: 355.71 ft	Invert: 355.68 ft
From Node: N286	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N353	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 17.11 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L265	Upstream	Downstream
Scenario: 1D	Invert: 342.03 ft	Invert: 341.96 ft
From Node: N303	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N300	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 219.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L266	Upstream	Downstream
Scenario: 1D	Invert: 352.37 ft	Invert: 352.31 ft
From Node: N302	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N301	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 41.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L267	Upstream	Downstream
Scenario: 1D	Invert: 349.04 ft	Invert: 344.01 ft
From Node: N301	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N278	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 92.63 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L268	Upstream	Downstream
Scenario: 1D	Invert: 344.01 ft	Invert: 343.53 ft
From Node: N278	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N303	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 13.10 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L269	Upstream	Downstream
Scenario: 1D	Invert: 320.87 ft	Invert: 320.58 ft
From Node: N337	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N338	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 21.49 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PE

Pipe Link: L270		Upstream	Downstream
Scenario:	1D	Invert: 320.58 ft	Invert: 320.52 ft
From Node:	N338	Manning's N: 0.0100	Manning's N: 0.0100
To Node:	Trib-A-24	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	39.00 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	1.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: PE, DS invert assumed

Pipe Link: L271		Upstream	Downstream
Scenario:	1D	Invert: 325.28 ft	Invert: 324.96 ft
From Node:	N341	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N342	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	18.32 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.50	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L272	Upstream	Downstream
Scenario: 1D	Invert: 324.86 ft	Invert: 324.00 ft
From Node: N342	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N343	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 25.24 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L273	Upstream	Downstream
Scenario: 1D	Invert: 351.53 ft	Invert: 349.50 ft
From Node: N356	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N357	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 14.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L274	Upstream	Downstream
Scenario: 1D	Invert: 350.45 ft	Invert: 349.70 ft
From Node: N358	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N357	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 19.40 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L275	Upstream	Downstream
Scenario: 1D	Invert: 349.50 ft	Invert: 348.02 ft
From Node: N357	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N559	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 58.04 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed pipe, DS invert assumed

Pipe Link: L276	Upstream	Downstream
Scenario: 1D	Invert: 351.46 ft	Invert: 350.09 ft
From Node: N354	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N355	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 27.04 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L277	Upstream	Downstream
Scenario: 1D	Invert: 341.93 ft	Invert: 341.31 ft
From Node: N290	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N345	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.24 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L278	Upstream	Downstream
Scenario: 1D	Invert: 341.33 ft	Invert: 341.31 ft
From Node: N289	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N345	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.61 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L279	Upstream	Downstream
Scenario: 1D	Invert: 342.47 ft	Invert: 341.31 ft
From Node: N344	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N345	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 94.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L280	Upstream	Downstream
Scenario: 1D	Invert: 341.11 ft	Invert: 339.12 ft
From Node: N345	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N288	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 217.91 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L281	Upstream	Downstream
Scenario: 1D	Invert: 340.01 ft	Invert: 339.22 ft
From Node: N275	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N288	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 37.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L282	Upstream	Downstream
Scenario: 1D	Invert: 339.02 ft	Invert: 338.53 ft
From Node: N288	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N264	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 71.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L283	Upstream	Downstream
Scenario: 1D	Invert: 340.11 ft	Invert: 338.43 ft
From Node: N276	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N264	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 38.14 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L284	Upstream	Downstream
Scenario: 1D	Invert: 339.30 ft	Invert: 338.43 ft
From Node: N287	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N264	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 43.45 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L285	Upstream	Downstream
Scenario: 1D	Invert: 370.00 ft	Invert: 367.65 ft
From Node: N143	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N370	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Max Width: 3.00 ft	Max Width: 3.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 81.58 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.25	Ref Node:	Ref Node:
Exit Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, US invert assumed		

Pipe Link: L286	Upstream	Downstream
Scenario: 1D	Invert: 340.39 ft	Invert: 340.36 ft
From Node: N310	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N352	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 19.70 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L287	Upstream	Downstream
Scenario: 1D	Invert: 342.70 ft	Invert: 341.43 ft
From Node: N329	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N352	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 49.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L288	Upstream	Downstream
Scenario: 1D	Invert: 341.43 ft	Invert: 340.87 ft
From Node: N352	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N351	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 21.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L289	Upstream	Downstream
Scenario: 1D	Invert: 340.87 ft	Invert: 339.16 ft
From Node: N351	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N308	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 31.46 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L290	Upstream	Downstream
Scenario: 1D	Invert: 340.74 ft	Invert: 339.16 ft
From Node: N350	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N308	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L291	Upstream	Downstream
Scenario: 1D	Invert: 342.19 ft	Invert: 341.76 ft
From Node: N346	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N602	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.70 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L292	Upstream	Downstream
Scenario: 1D	Invert: 341.55 ft	Invert: 340.74 ft
From Node: N309	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N350	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 39.34 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L293	Upstream	Downstream
Scenario: 1D	Invert: 348.81 ft	Invert: 347.37 ft
From Node: N283	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N298	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 38.80 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L294	Upstream	Downstream
Scenario: 1D	Invert: 331.10 ft	Invert: 330.90 ft
From Node: N333	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N335	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L295	Upstream	Downstream
Scenario: 1D	Invert: 332.15 ft	Invert: 330.90 ft
From Node: N334	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N335	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.75 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L296	Upstream	Downstream
Scenario: 1D	Invert: 330.70 ft	Invert: 327.39 ft
From Node: N335	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-18	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 263.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L297	Upstream	Downstream
Scenario: 1D	Invert: 343.22 ft	Invert: 342.70 ft
From Node: N330	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N329	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 63.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC, US and DS inverts assumed

Pipe Link: L298	Upstream	Downstream
Scenario: 1D	Invert: 342.80 ft	Invert: 342.70 ft
From Node: N328	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N329	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 38.14 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC, US and DS inverts assumed

Pipe Link: L299	Upstream	Downstream
Scenario: 1D	Invert: 345.60 ft	Invert: 344.45 ft
From Node: N298	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N598	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.80 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L300	Upstream	Downstream
Scenario: 1D	Invert: 347.96 ft	Invert: 346.33 ft
From Node: N305	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N598	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L301	Upstream	Downstream
Scenario: 1D	Invert: 375.63 ft	Invert: 363.08 ft
From Node: N359	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N372	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 231.08 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L302	Upstream	Downstream
Scenario: 1D	Invert: 365.91 ft	Invert: 363.08 ft
From Node: N361	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N372	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 45.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L303	Upstream	Downstream
Scenario: 1D	Invert: 364.58 ft	Invert: 364.49 ft
From Node: N360	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N197	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L304	Upstream	Downstream
Scenario: 1D	Invert: 385.13 ft	Invert: 385.22 ft
From Node: N433	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N434	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L305	Upstream	Downstream
Scenario: 1D	Invert: 385.02 ft	Invert: 380.56 ft
From Node: N434	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N074	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 270.32 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L306	Upstream	Downstream
Scenario: 1D	Invert: 376.69 ft	Invert: 376.12 ft
From Node: N371	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N235	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.69 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L307	Upstream	Downstream
Scenario: 1D	Invert: 345.98 ft	Invert: 344.48 ft
From Node: N340	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N256	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 40.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L308	Upstream	Downstream
Scenario: 1D	Invert: 307.63 ft	Invert: 306.73 ft
From Node: N526	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N382	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 12.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L310	Upstream	Downstream
Scenario: 1D	Invert: 305.71 ft	Invert: 303.59 ft
From Node: N383	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N174	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 16.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L311	Upstream	Downstream
Scenario: 1D	Invert: 305.85 ft	Invert: 303.22 ft
From Node: N384	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N136	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 20.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L312	Upstream	Downstream
Scenario: 1D	Invert: 338.32 ft	Invert: 334.41 ft
From Node: N385	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N085	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 138.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L313	Upstream	Downstream
Scenario: 1D	Invert: 336.07 ft	Invert: 335.99 ft
From Node: N059	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N314	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 160.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.75	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, Outfalls to large stoned depression with conc wingwalls, field verified 66inch

Pipe Link: L314	Upstream	Downstream
Scenario: 1D	Invert: 333.38 ft	Invert: 329.28 ft
From Node: N506	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N181	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 110.77 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L315	Upstream	Downstream
Scenario: 1D	Invert: 336.23 ft	Invert: 329.28 ft
From Node: N214	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N181	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 108.59 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L316	Upstream	Downstream
Scenario: 1D	Invert: 344.72 ft	Invert: 337.96 ft
From Node: N364	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N407	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 366.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP

Pipe Link: L317	Upstream	Downstream
Scenario: 1D	Invert: 329.28 ft	Invert: 326.70 ft
From Node: N181	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N031	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 84.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, 3pct slope assumed due to surface grades, high velocities up to 20fps expected

Pipe Link: L318	Upstream	Downstream
Scenario: 1D	Invert: 339.51 ft	Invert: 339.07 ft
From Node: N032	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N131	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.11 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L319	Upstream	Downstream
Scenario: 1D	Invert: 337.96 ft	Invert: 337.88 ft
From Node: N407	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N486	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 248.23 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP

Pipe Link: L320	Upstream	Downstream
Scenario: 1D	Invert: 362.20 ft	Invert: 357.43 ft
From Node: N390	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N415	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 331.57 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L321	Upstream	Downstream
Scenario: 1D	Invert: 340.04 ft	Invert: 338.42 ft
From Node: N386	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N385	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 57.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L322	Upstream	Downstream
Scenario: 1D	Invert: 341.64 ft	Invert: 340.04 ft
From Node: N387	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N386	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 95.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L323	Upstream	Downstream
Scenario: 1D	Invert: 341.77 ft	Invert: 341.64 ft
From Node: N158	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N387	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 69.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L324	Upstream	Downstream
Scenario: 1D	Invert: 348.51 ft	Invert: 345.21 ft
From Node: N388	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N088	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 182.66 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Adjusted from 15 to 18, DS invert assumed

Pipe Link: L325	Upstream	Downstream
Scenario: 1D	Invert: 349.47 ft	Invert: 348.61 ft
From Node: N389	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N388	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 27.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L326	Upstream	Downstream
Scenario: 1D	Invert: 350.16 ft	Invert: 349.47 ft
From Node: N144	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N389	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 109.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L327	Upstream	Downstream
Scenario: 1D	Invert: 362.57 ft	Invert: 360.87 ft
From Node: N120	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N121	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 73.75 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L328	Upstream	Downstream
Scenario: 1D	Invert: 369.18 ft	Invert: 362.33 ft
From Node: N091	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N122	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 127.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L329	Upstream	Downstream
Scenario: 1D	Invert: 362.33 ft	Invert: 360.87 ft
From Node: N122	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N121	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 53.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L330	Upstream	Downstream
Scenario: 1D	Invert: 360.87 ft	Invert: 358.60 ft
From Node: N121	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N092	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 105.68 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L331	Upstream	Downstream
Scenario: 1D	Invert: 353.77 ft	Invert: 343.46 ft
From Node: N240	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N056	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 279.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L332	Upstream	Downstream
Scenario: 1D	Invert: 349.52 ft	Invert: 344.82 ft
From Node: N404	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N364	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 221.99 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, US invert assumed

Pipe Link: L333	Upstream	Downstream
Scenario: 1D	Invert: 363.99 ft	Invert: 363.70 ft
From Node: N093	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N027	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 56.46 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L334	Upstream	Downstream
Scenario: 1D	Invert: 343.46 ft	Invert: 340.65 ft
From Node: N056	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N028	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 85.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L335	Upstream	Downstream
Scenario: 1D	Invert: 341.94 ft	Invert: 340.65 ft
From Node: N029	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N028	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 42.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L336	Upstream	Downstream
Scenario: 1D	Invert: 340.65 ft	Invert: 338.88 ft
From Node: N028	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N203	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 54.18 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L337	Upstream	Downstream
Scenario: 1D	Invert: 342.07 ft	Invert: 338.88 ft
From Node: N030	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N203	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 46.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L338	Upstream	Downstream
Scenario: 1D	Invert: 363.70 ft	Invert: 362.92 ft
From Node: N502	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N151	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 14.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L339	Upstream	Downstream
Scenario: 1D	Invert: 357.80 ft	Invert: 351.76 ft
From Node: N092	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N152	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 205.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L340	Upstream	Downstream
Scenario: 1D	Invert: 352.89 ft	Invert: 344.82 ft
From Node: N414	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N364	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 152.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, US drop assumed for max slope from DS invert

Pipe Link: L341	Upstream	Downstream
Scenario: 1D	Invert: 335.18 ft	Invert: 334.74 ft
From Node: N004	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N505	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 37.83 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L342	Upstream	Downstream
Scenario: 1D	Invert: 344.88 ft	Invert: 344.82 ft
From Node: N205	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N005	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 55.91 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L343	Upstream	Downstream
Scenario: 1D	Invert: 362.92 ft	Invert: 351.68 ft
From Node: N151	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N006	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 207.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L344	Upstream	Downstream
Scenario: 1D	Invert: 334.81 ft	Invert: 334.74 ft
From Node: N002	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N505	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L345	Upstream	Downstream
Scenario: 1D	Invert: 338.88 ft	Invert: 333.38 ft
From Node: N203	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N506	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 168.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L346	Upstream	Downstream
Scenario: 1D	Invert: 356.46 ft	Invert: 356.17 ft
From Node: N368	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N414	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 76.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L347	Upstream	Downstream
Scenario: 1D	Invert: 356.63 ft	Invert: 356.46 ft
From Node: N415	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N368	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 26.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L348	Upstream	Downstream
Scenario: 1D	Invert: 352.16 ft	Invert: 349.19 ft
From Node: N152	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N102	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 110.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L349	Upstream	Downstream
Scenario: 1D	Invert: 344.82 ft	Invert: 344.81 ft
From Node: N003	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N105	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 12.83 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L350	Upstream	Downstream
Scenario: 1D	Invert: 351.68 ft	Invert: 344.90 ft
From Node: N006	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N105	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 126.54 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L351	Upstream	Downstream
Scenario: 1D	Invert: 339.93 ft	Invert: 336.91 ft
From Node: N503	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N106	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 61.18 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L352	Upstream	Downstream
Scenario: 1D	Invert: 336.91 ft	Invert: 336.23 ft
From Node: N504	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N214	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 12.61 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L353	Upstream	Downstream
Scenario: 1D	Invert: 344.81 ft	Invert: 336.23 ft
From Node: N105	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N214	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 133.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, excessive slope required for surface grades, velocities up to 23fps expected

Pipe Link: L354	Upstream	Downstream
Scenario: 1D	Invert: 366.76 ft	Invert: 366.63 ft
From Node: N463	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N464	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L355	Upstream	Downstream
Scenario: 1D	Invert: 378.25 ft	Invert: 376.41 ft
From Node: N451	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N485	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 140.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L356	Upstream	Downstream
Scenario: 1D	Invert: 377.05 ft	Invert: 374.20 ft
From Node: N452	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N477	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 152.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L357	Upstream	Downstream
Scenario: 1D	Invert: 366.63 ft	Invert: 366.48 ft
From Node: N464	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N466	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L358	Upstream	Downstream
Scenario: 1D	Invert: 376.39 ft	Invert: 376.33 ft
From Node: N475	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N467	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 62.75 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L359	Upstream	Downstream
Scenario: 1D	Invert: 374.06 ft	Invert: 373.26 ft
From Node: N462	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N468	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.61 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L360	Upstream	Downstream
Scenario: 1D	Invert: 366.48 ft	Invert: 366.28 ft
From Node: N466	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N471	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 38.23 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L361	Upstream	Downstream
Scenario: 1D	Invert: 365.89 ft	Invert: 365.75 ft
From Node: N465	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N472	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L362	Upstream	Downstream
Scenario: 1D	Invert: 376.33 ft	Invert: 373.56 ft
From Node: N467	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N478	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.18 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L363	Upstream	Downstream
Scenario: 1D	Invert: 366.28 ft	Invert: 366.16 ft
From Node: N471	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N479	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.32 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L364	Upstream	Downstream
Scenario: 1D	Invert: 365.75 ft	Invert: 365.62 ft
From Node: N472	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N480	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 21.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L365	Upstream	Downstream
Scenario: 1D	Invert: 366.16 ft	Invert: 365.98 ft
From Node: N479	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N481	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L366	Upstream	Downstream
Scenario: 1D	Invert: 365.62 ft	Invert: 365.23 ft
From Node: N480	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N454	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 62.63 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L367	Upstream	Downstream
Scenario: 1D	Invert: 365.98 ft	Invert: 363.46 ft
From Node: N481	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N474	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 68.05 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L368	Upstream	Downstream
Scenario: 1D	Invert: 388.30 ft	Invert: 384.02 ft
From Node: N446	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N443	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 135.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L369	Upstream	Downstream
Scenario: 1D	Invert: 382.28 ft	Invert: 379.30 ft
From Node: N443	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N447	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 140.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L370	Upstream	Downstream
Scenario: 1D	Invert: 365.95 ft	Invert: 364.71 ft
From Node: N473	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N470	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.41 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed RCP, US and DS inverts assumed		

Pipe Link: L371	Upstream	Downstream
Scenario: 1D	Invert: 365.23 ft	Invert: 363.46 ft
From Node: N454	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N474	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 84.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L372	Upstream	Downstream
Scenario: 1D	Invert: 376.27 ft	Invert: 374.42 ft
From Node: N636	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N477	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.75 ft	Max Depth: 2.75 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 145.97 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Adjusted size from 24 to 30, US invert assumed

Pipe Link: L373	Upstream	Downstream
Scenario: 1D	Invert: 376.60 ft	Invert: 374.66 ft
From Node: N447	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N477	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 43.60 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L374	Upstream	Downstream
Scenario: 1D	Invert: 337.78 ft	Invert: 337.58 ft
From Node: N292	Manning's N: 0.0100	Manning's N: 0.0100
To Node: Trib-A-5	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 104.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PE, US and DS inverts assumed

Pipe Link: L375	Upstream	Downstream
Scenario: 1D	Invert: 334.10 ft	Invert: 334.01 ft
From Node: N294	Manning's N: 0.0100	Manning's N: 0.0100
To Node: Trib-A-6	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.22 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PE, US and DS inverts assumed

Pipe Link: L376	Upstream	Downstream
Scenario: 1D	Invert: 333.73 ft	Invert: 333.68 ft
From Node: N295	Manning's N: 0.0100	Manning's N: 0.0100
To Node: Trib-A-8	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 19.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PE, US and DS inverts assumed

Pipe Link: L377	Upstream	Downstream
Scenario: 1D	Invert: 376.69 ft	Invert: 376.49 ft
From Node: N432	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N442	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L378	Upstream	Downstream
Scenario: 1D	Invert: 376.39 ft	Invert: 375.37 ft
From Node: N442	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N441	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 124.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L379	Upstream	Downstream
Scenario: 1D	Invert: 375.27 ft	Invert: 371.87 ft
From Node: N441	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N440	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 331.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L380	Upstream	Downstream
Scenario: 1D	Invert: 371.87 ft	Invert: 367.93 ft
From Node: N440	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N439	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 142.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L381	Upstream	Downstream
Scenario: 1D	Invert: 366.93 ft	Invert: 365.93 ft
From Node: N438	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N439	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L382	Upstream	Downstream
Scenario: 1D	Invert: 365.53 ft	Invert: 356.57 ft
From Node: N439	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N430	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 212.72 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L383	Upstream	Downstream
Scenario: 1D	Invert: 366.81 ft	Invert: 366.75 ft
From Node: N476	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N454	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 57.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L384	Upstream	Downstream
Scenario: 1D	Invert: 338.53 ft	Invert: 338.21 ft
From Node: N331	Manning's N: 0.0240	Manning's N: 0.0240
To Node: Trib-A-4	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, US and DS inverts assumed

Pipe Link: L385	Upstream	Downstream
Scenario: 1D	Invert: 366.30 ft	Invert: 339.03 ft
From Node: N393	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N486	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 290.66 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, link indicated by MC Stormnet, DS invert assumed as centerline tap to 66in, unverified, excessive slope flagged

Pipe Link: L386	Upstream	Downstream
Scenario: 1D	Invert: 349.19 ft	Invert: 339.51 ft
From Node: N102	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N032	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 249.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L387	Upstream	Downstream
Scenario: 1D	Invert: 362.89 ft	Invert: 362.85 ft
From Node: N373	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N251	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 45.40 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L388	Upstream	Downstream
Scenario: 1D	Invert: 362.98 ft	Invert: 362.89 ft
From Node: N374	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N373	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 31.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L389	Upstream	Downstream
Scenario: 1D	Invert: 362.98 ft	Invert: 362.89 ft
From Node: N375	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N373	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 48.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L390	Upstream	Downstream
Scenario: 1D	Invert: 365.59 ft	Invert: 362.96 ft
From Node: N376	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N250	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 52.22 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L391	Upstream	Downstream
Scenario: 1D	Invert: 363.06 ft	Invert: 362.96 ft
From Node: N377	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N250	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 68.59 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L392	Upstream	Downstream
Scenario: 1D	Invert: 364.39 ft	Invert: 363.32 ft
From Node: N378	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N377	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.93 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L393	Upstream	Downstream
Scenario: 1D	Invert: 364.14 ft	Invert: 362.33 ft
From Node: N379	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N122	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 93.64 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L394	Upstream	Downstream
Scenario: 1D	Invert: 363.11 ft	Invert: 363.06 ft
From Node: N380	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N377	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L395		Upstream	Downstream
Scenario:	1D	Invert: 364.23 ft	Invert: 362.89 ft
From Node:	N381	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N373	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	36.20 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.08	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L396		Upstream	Downstream
Scenario:	1D	Invert: 366.50 ft	Invert: 364.23 ft
From Node:	N455	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N381	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	204.89 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.25	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L397	Upstream	Downstream
Scenario: 1D	Invert: 373.26 ft	Invert: 366.82 ft
From Node: N468	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N456	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 288.54 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L398	Upstream	Downstream
Scenario: 1D	Invert: 366.82 ft	Invert: 366.50 ft
From Node: N456	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N455	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.88 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L399	Upstream	Downstream
Scenario: 1D	Invert: 366.93 ft	Invert: 366.82 ft
From Node: N457	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N456	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 35.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L400	Upstream	Downstream
Scenario: 1D	Invert: 366.63 ft	Invert: 366.50 ft
From Node: N458	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N455	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 70.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L401	Upstream	Downstream
Scenario: 1D	Invert: 367.51 ft	Invert: 366.63 ft
From Node: N459	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N458	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 65.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L402	Upstream	Downstream
Scenario: 1D	Invert: 367.93 ft	Invert: 367.79 ft
From Node: N460	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N461	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 74.68 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L403	Upstream	Downstream
Scenario: 1D	Invert: 367.79 ft	Invert: 366.50 ft
From Node: N461	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N455	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 90.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L404	Upstream	Downstream
Scenario: 1D	Invert: 373.06 ft	Invert: 371.19 ft
From Node: N478	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N469	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 129.48 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L405	Upstream	Downstream
Scenario: 1D	Invert: 374.16 ft	Invert: 368.49 ft
From Node: N477	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N469	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 201.82 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP

Pipe Link: L406	Upstream	Downstream
Scenario: 1D	Invert: 364.71 ft	Invert: 364.33 ft
From Node: N470	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N474	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 62.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L407	Upstream	Downstream
Scenario: 1D	Invert: 363.46 ft	Invert: 355.57 ft
From Node: N474	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N430	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 287.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L408	Upstream	Downstream
Scenario: 1D	Invert: 368.39 ft	Invert: 366.00 ft
From Node: N469	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N362	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 136.61 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert interpolated

Pipe Link: L409	Upstream	Downstream
Scenario: 1D	Invert: 364.91 ft	Invert: 361.57 ft
From Node: N362	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N402	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 191.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert interpolated

Pipe Link: L410	Upstream	Downstream
Scenario: 1D	Invert: 383.26 ft	Invert: 375.06 ft
From Node: N403	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N477	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.75 ft	Max Depth: 2.75 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 199.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L411	Upstream	Downstream
Scenario: 1D	Invert: 372.62 ft	Invert: 372.44 ft
From Node: N130	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N090	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 40.45 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L412	Upstream	Downstream
Scenario: 1D	Invert: 356.01 ft	Invert: 355.27 ft
From Node: N089	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N238	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 27.41 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L413	Upstream	Downstream
Scenario: 1D	Invert: 372.44 ft	Invert: 371.46 ft
From Node: N090	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N239	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.49 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L414	Upstream	Downstream
Scenario: 1D	Invert: 361.57 ft	Invert: 356.89 ft
From Node: N402	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N418	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 151.91 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L415	Upstream	Downstream
Scenario: 1D	Invert: 355.27 ft	Invert: 353.77 ft
From Node: N238	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N240	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 40.18 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L416	Upstream	Downstream
Scenario: 1D	Invert: 371.46 ft	Invert: 362.57 ft
From Node: N239	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N120	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 413.10 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L417	Upstream	Downstream
Scenario: 1D	Invert: 355.85 ft	Invert: 353.77 ft
From Node: N248	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N240	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 59.79 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L418	Upstream	Downstream
Scenario: 1D	Invert: 423.27 ft	Invert: 421.64 ft
From Node: N449	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N651	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L419	Upstream	Downstream
Scenario: 1D	Invert: 398.53 ft	Invert: 396.74 ft
From Node: N652	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N450	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.91 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L420	Upstream	Downstream
Scenario: 1D	Invert: 421.64 ft	Invert: 402.63 ft
From Node: N651	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N652	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 350.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L421	Upstream	Downstream
Scenario: 1D	Invert: 385.44 ft	Invert: 382.50 ft
From Node: N448	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N650	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 72.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L422	Upstream	Downstream
Scenario: 1D	Invert: 384.63 ft	Invert: 383.15 ft
From Node: N445	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N451	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 64.55 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L423	Upstream	Downstream
Scenario: 1D	Invert: 396.74 ft	Invert: 382.65 ft
From Node: N450	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N451	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 399.54 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L424	Upstream	Downstream
Scenario: 1D	Invert: 339.07 ft	Invert: 338.67 ft
From Node: N131	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N059	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 119.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L425	Upstream	Downstream
Scenario: 1D	Invert: 365.56 ft	Invert: 362.20 ft
From Node: N427	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N390	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 174.53 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L426	Upstream	Downstream
Scenario: 1D	Invert: 367.30 ft	Invert: 365.56 ft
From Node: N391	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N427	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L427	Upstream	Downstream
Scenario: 1D	Invert: 366.93 ft	Invert: 366.50 ft
From Node: N426	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N393	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.10 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L428	Upstream	Downstream
Scenario: 1D	Invert: 337.68 ft	Invert: 337.81 ft
From Node: N062	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N169	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 49.24 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L429	Upstream	Downstream
Scenario: 1D	Invert: 337.71 ft	Invert: 335.92 ft
From Node: N169	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N008	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 58.51 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L430	Upstream	Downstream
Scenario: 1D	Invert: 314.64 ft	Invert: 306.84 ft
From Node: N507	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N172	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 255.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.83	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, 3pct slope assumed due to surface grades, high velocities up to 20fps, exit loss calculated

Pipe Link: L431		Upstream	Downstream
Scenario:	1D	Invert: 326.70 ft	Invert: 322.58 ft
From Node:	N031	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N058	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	134.91 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.38	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, 3pct slope assumed due to surface grades, high velocities up to 20fps expected

Pipe Link: L432		Upstream	Downstream
Scenario:	1D	Invert: 332.74 ft	Invert: 331.94 ft
From Node:	N019	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N020	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	74.70 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.25	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L433	Upstream	Downstream
Scenario: 1D	Invert: 331.94 ft	Invert: 331.89 ft
From Node: N020	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N021	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 52.71 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L434	Upstream	Downstream
Scenario: 1D	Invert: 356.79 ft	Invert: 355.57 ft
From Node: N418	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N430	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.25 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L435	Upstream	Downstream
Scenario: 1D	Invert: 362.96 ft	Invert: 362.90 ft
From Node: N250	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N251	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 31.98 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L436	Upstream	Downstream
Scenario: 1D	Invert: 363.69 ft	Invert: 362.85 ft
From Node: N249	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N251	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 64.83 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L437	Upstream	Downstream
Scenario: 1D	Invert: 355.57 ft	Invert: 349.52 ft
From Node: N430	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N404	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 179.48 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L438	Upstream	Downstream
Scenario: 1D	Invert: 363.90 ft	Invert: 363.37 ft
From Node: N252	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N120	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 43.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, US invert assumed		

Pipe Link: L439	Upstream	Downstream
Scenario: 1D	Invert: 362.85 ft	Invert: 360.87 ft
From Node: N251	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N121	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 97.89 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L440	Upstream	Downstream
Scenario: 1D	Invert: 384.96 ft	Invert: 383.81 ft
From Node: N482	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N483	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.63 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L441	Upstream	Downstream
Scenario: 1D	Invert: 385.09 ft	Invert: 384.63 ft
From Node: N484	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N445	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 20.32 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L442	Upstream	Downstream
Scenario: 1D	Invert: 376.31 ft	Invert: 376.27 ft
From Node: N485	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N636	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.75 ft	Max Depth: 2.75 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 52.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, DS invert assumed

Pipe Link: L443	Upstream	Downstream
Scenario: 1D	Invert: 334.75 ft	Invert: 334.71 ft
From Node: N487	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-9	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 15.48 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L444	Upstream	Downstream
Scenario: 1D	Invert: 419.18 ft	Invert: 418.54 ft
From Node: N489	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N396	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 201.59 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L445	Upstream	Downstream
Scenario: 1D	Invert: 418.44 ft	Invert: 418.38 ft
From Node: N492	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N491	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 41.57 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L446	Upstream	Downstream
Scenario: 1D	Invert: 421.62 ft	Invert: 421.43 ft
From Node: N495	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N494	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 125.23 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L447	Upstream	Downstream
Scenario: 1D	Invert: 421.43 ft	Invert: 421.38 ft
From Node: N494	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N493	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 35.12 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L448	Upstream	Downstream
Scenario: 1D	Invert: 421.38 ft	Invert: 421.27 ft
From Node: N493	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N496	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 73.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L449	Upstream	Downstream
Scenario: 1D	Invert: 421.27 ft	Invert: 421.19 ft
From Node: N496	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N408	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 54.45 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L450	Upstream	Downstream
Scenario: 1D	Invert: 415.05 ft	Invert: 414.87 ft
From Node: N498	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N497	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 117.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L451	Upstream	Downstream
Scenario: 1D	Invert: 414.87 ft	Invert: 414.66 ft
From Node: N497	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N392	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 138.10 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L452	Upstream	Downstream
Scenario: 1D	Invert: 373.67 ft	Invert: 369.88 ft
From Node: N500	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N436	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 73.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L453	Upstream	Downstream
Scenario: 1D	Invert: 378.85 ft	Invert: 374.04 ft
From Node: N201	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N501	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 240.10 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L454	Upstream	Downstream
Scenario: 1D	Invert: 374.04 ft	Invert: 368.14 ft
From Node: N501	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N196	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 141.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L455	Upstream	Downstream
Scenario: 1D	Invert: 344.82 ft	Invert: 344.82 ft
From Node: N005	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N003	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 3.86 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L456	Upstream	Downstream
Scenario: 1D	Invert: 363.70 ft	Invert: 363.70 ft
From Node: N027	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N502	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 3.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L457	Upstream	Downstream
Scenario: 1D	Invert: 336.91 ft	Invert: 336.91 ft
From Node: N106	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N504	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 3.69 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L458	Upstream	Downstream
Scenario: 1D	Invert: 334.74 ft	Invert: 333.38 ft
From Node: N505	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N506	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 113.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L459	Upstream	Downstream
Scenario: 1D	Invert: 322.58 ft	Invert: 314.64 ft
From Node: N058	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N507	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 260.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, 3pct slope assumed due to surface grades, high velocities up to 20fps expected

Pipe Link: L460	Upstream	Downstream
Scenario: 1D	Invert: 336.55 ft	Invert: 336.39 ft
From Node: N509	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N508	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 83.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L461	Upstream	Downstream
Scenario: 1D	Invert: 336.39 ft	Invert: 332.74 ft
From Node: N508	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N019	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 225.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L462	Upstream	Downstream
Scenario: 1D	Invert: 334.43 ft	Invert: 334.30 ft
From Node: N517	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N516	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.63 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, US and DS inverts assumed

Pipe Link: L463	Upstream	Downstream
Scenario: 1D	Invert: 334.30 ft	Invert: 333.69 ft
From Node: N516	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N519	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 164.64 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, US and DS inverts assumed

Pipe Link: L464	Upstream	Downstream
Scenario: 1D	Invert: 335.01 ft	Invert: 334.80 ft
From Node: N518	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N515	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 66.38 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, US and DS inverts assumed

Pipe Link: L465	Upstream	Downstream
Scenario: 1D	Invert: 334.80 ft	Invert: 334.32 ft
From Node: N515	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N510	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 155.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, US and DS inverts assumed

Pipe Link: L466	Upstream	Downstream
Scenario: 1D	Invert: 334.32 ft	Invert: 333.96 ft
From Node: N510	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N511	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 114.77 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, US and DS inverts assumed

Pipe Link: L467		Upstream	Downstream
Scenario:	1D	Invert: 333.96 ft	Invert: 322.39 ft
From Node:	N511	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N512	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	285.26 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.43	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L468		Upstream	Downstream
Scenario:	1D	Invert: 326.89 ft	Invert: 322.39 ft
From Node:	N513	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N512	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	268.78 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.50	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L469	Upstream	Downstream
Scenario: 1D	Invert: 329.28 ft	Invert: 326.89 ft
From Node: N514	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N513	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 143.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L470	Upstream	Downstream
Scenario: 1D	Invert: 333.28 ft	Invert: 333.17 ft
From Node: N520	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N021	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.28 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, US and DS inverts assumed

Pipe Link: L471	Upstream	Downstream
Scenario: 1D	Invert: 333.69 ft	Invert: 333.28 ft
From Node: N519	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N520	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.67 ft	Max Depth: 0.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 133.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC, DS invert assumed

Pipe Link: L472	Upstream	Downstream
Scenario: 1D	Invert: 298.92 ft	Invert: 298.15 ft
From Node: N136	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N174	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 4.75 ft	Max Depth: 4.75 ft
Flow Direction: Both	Max Width: 8.00 ft	Max Width: 8.00 ft
Damping: 0.0000	Fillet: 1.00 ft	Fillet: 1.00 ft
Length: 57.18 ft	Bottom Clip	
FHWA Code: 9	Default: 0.00 ft	Default: 0.00 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.80	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, field verified 96inWx57inH, entrance loss via FHWA code, exit loss calculated

Pipe Link: L476	Upstream	Downstream
Scenario: 1D	Invert: 313.88 ft	Invert: 313.82 ft
From Node: N524	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N192	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.61 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L477	Upstream	Downstream
Scenario: 1D	Invert: 307.18 ft	Invert: 301.06 ft
From Node: N527	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Trib-A-40	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 93.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L478	Upstream	Downstream
Scenario: 1D	Invert: 306.73 ft	Invert: 299.89 ft
From Node: N382	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N174	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 128.87 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, field verified		

Pipe Link: L479	Upstream	Downstream
Scenario: 1D	Invert: 296.09 ft	Invert: 282.03 ft
From Node: N548	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N532	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 159.78 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L480	Upstream	Downstream
Scenario: 1D	Invert: 281.81 ft	Invert: 275.27 ft
From Node: N532	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N533	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 123.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L481	Upstream	Downstream
Scenario: 1D	Invert: 281.52 ft	Invert: 280.75 ft
From Node: N536	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N535	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.26 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP		

Pipe Link: L482	Upstream	Downstream
Scenario: 1D	Invert: 281.49 ft	Invert: 279.89 ft
From Node: N537	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N534	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 41.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L483	Upstream	Downstream
Scenario: 1D	Invert: 280.24 ft	Invert: 279.91 ft
From Node: N535	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N534	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 20.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L484	Upstream	Downstream
Scenario: 1D	Invert: 277.67 ft	Invert: 276.40 ft
From Node: N541	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N540	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.02 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L485	Upstream	Downstream
Scenario: 1D	Invert: 276.39 ft	Invert: 276.28 ft
From Node: N540	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N539	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 25.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L486	Upstream	Downstream
Scenario: 1D	Invert: 276.22 ft	Invert: 275.75 ft
From Node: N539	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N538	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 24.89 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L487	Upstream	Downstream
Scenario: 1D	Invert: 277.51 ft	Invert: 276.76 ft
From Node: N541	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N542	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 19.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L488	Upstream	Downstream
Scenario: 1D	Invert: 276.44 ft	Invert: 275.32 ft
From Node: N617	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N533	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 37.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert interpolated

Pipe Link: L489	Upstream	Downstream
Scenario: 1D	Invert: 279.71 ft	Invert: 278.67 ft
From Node: N543	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N617	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.33 ft	Max Depth: 0.33 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 135.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L490	Upstream	Downstream
Scenario: 1D	Invert: 275.37 ft	Invert: 273.57 ft
From Node: N533	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N635	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 77.11 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert interpolated

Pipe Link: L491	Upstream	Downstream
Scenario: 1D	Invert: 278.92 ft	Invert: 276.71 ft
From Node: N549	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N550	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 27.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: PVC

Pipe Link: L492	Upstream	Downstream
Scenario: 1D	Invert: 276.76 ft	Invert: 277.60 ft
From Node: N550	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N541	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: PVC		

Pipe Link: L493	Upstream	Downstream
Scenario: 1D	Invert: 294.97 ft	Invert: 288.51 ft
From Node: N176	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N532	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 86.82 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: CIP, US invert assumed		

Pipe Link: L494	Upstream	Downstream
Scenario: 1D	Invert: 274.44 ft	Invert: 274.42 ft
From Node: N538	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N635	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 9.09 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed DS invert

Pipe Link: L496	Upstream	Downstream
Scenario: 1D	Invert: 282.09 ft	Invert: 279.52 ft
From Node: N544	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N619	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Positive	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 50.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, 12in tap on south wall, assumed check valve, set positive flow only

Pipe Link: L497		Upstream	Downstream
Scenario:	1D	Invert: 283.22 ft	Invert: 279.71 ft
From Node:	N531	Manning's N: 0.0100	Manning's N: 0.0100
To Node:	N543	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 0.33 ft	Max Depth: 0.33 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	62.05 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.25	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000
Comment: PVC			

Pipe Link: L498		Upstream	Downstream
Scenario:	1D	Invert: 284.44 ft	Invert: 283.14 ft
From Node:	N546	Manning's N: 0.0100	Manning's N: 0.0100
To Node:	N545	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	90.89 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.50	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000
Comment: PVC			

Pipe Link: L499	Upstream	Downstream
Scenario: 1D	Invert: 281.93 ft	Invert: 271.45 ft
From Node: N547	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N621	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 161.43 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, enters culvert near top

Pipe Link: L500	Upstream	Downstream
Scenario: 1D	Invert: 316.58 ft	Invert: 316.51 ft
From Node: N551	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N552	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed 15in RCP, US invert assumed

Pipe Link: L501		Upstream	Downstream
Scenario:	1D	Invert: 316.51 ft	Invert: 314.04 ft
From Node:	N552	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	Trib-B-24	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	30.65 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	1.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L502		Upstream	Downstream
Scenario:	1D	Invert: 324.00 ft	Invert: 320.72 ft
From Node:	N343	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	Trib-B-19	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	149.15 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	1.00	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed 18in RCP, US and DS inverts assumed

Pipe Link: L503	Upstream	Downstream
Scenario: 1D	Invert: 373.00 ft	Invert: 370.00 ft
From Node: N555	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N143	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Max Width: 3.00 ft	Max Width: 3.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 104.39 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.25	Ref Node:	Ref Node:
Exit Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed RCP, US and DS inverts assumed		

Pipe Link: L504	Upstream	Downstream
Scenario: 1D	Invert: 345.40 ft	Invert: 345.31 ft
From Node: N556	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N088	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 147.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: RCP, US invert assumed		

Pipe Link: L505	Upstream	Downstream
Scenario: 1D	Invert: 348.02 ft	Invert: 341.31 ft
From Node: N559	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N345	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 264.14 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed pipe, US and DS inverts assumed

Pipe Link: L506	Upstream	Downstream
Scenario: 1D	Invert: 350.09 ft	Invert: 348.02 ft
From Node: N355	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N559	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 57.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed pipe, US and DS inverts assumed

Pipe Link: L507	Upstream	Downstream
Scenario: 1D	Invert: 381.53 ft	Invert: 381.47 ft
From Node: N560	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N099	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.81 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L508	Upstream	Downstream
Scenario: 1D	Invert: 365.36 ft	Invert: 365.30 ft
From Node: N561	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N145	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.20 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L509	Upstream	Downstream
Scenario: 1D	Invert: 365.36 ft	Invert: 364.52 ft
From Node: N563	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N101	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 60.74 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L510	Upstream	Downstream
Scenario: 1D	Invert: 389.92 ft	Invert: 389.22 ft
From Node: N564	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N565	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 84.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L511	Upstream	Downstream
Scenario: 1D	Invert: 354.73 ft	Invert: 352.88 ft
From Node: N572	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N284	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 49.96 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Adjusted from 18 to 24, US and DS inverts assumed

Pipe Link: L512	Upstream	Downstream
Scenario: 1D	Invert: 373.88 ft	Invert: 372.90 ft
From Node: N594	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N016	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 14.15 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L513	Upstream	Downstream
Scenario: 1D	Invert: 362.83 ft	Invert: 360.57 ft
From Node: N585	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N593	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 54.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L514	Upstream	Downstream
Scenario: 1D	Invert: 360.57 ft	Invert: 357.98 ft
From Node: N593	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N586	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 98.75 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L515	Upstream	Downstream
Scenario: 1D	Invert: 357.98 ft	Invert: 356.79 ft
From Node: N586	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N587	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 72.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L516	Upstream	Downstream
Scenario: 1D	Invert: 360.46 ft	Invert: 356.72 ft
From Node: N591	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N592	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 178.73 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L517	Upstream	Downstream
Scenario: 1D	Invert: 356.79 ft	Invert: 356.72 ft
From Node: N587	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N592	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 48.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L518	Upstream	Downstream
Scenario: 1D	Invert: 357.91 ft	Invert: 357.39 ft
From Node: N589	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N588	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 48.30 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L519	Upstream	Downstream
Scenario: 1D	Invert: 357.39 ft	Invert: 356.79 ft
From Node: N588	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N587	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 57.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L520	Upstream	Downstream
Scenario: 1D	Invert: 358.21 ft	Invert: 357.21 ft
From Node: N582	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N583	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 104.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L521	Upstream	Downstream
Scenario: 1D	Invert: 358.27 ft	Invert: 357.21 ft
From Node: N584	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N583	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 92.70 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L522	Upstream	Downstream
Scenario: 1D	Invert: 354.53 ft	Invert: 352.89 ft
From Node: N580	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N581	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 130.83 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L523	Upstream	Downstream
Scenario: 1D	Invert: 352.89 ft	Invert: 352.10 ft
From Node: N581	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N579	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 34.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L524	Upstream	Downstream
Scenario: 1D	Invert: 355.55 ft	Invert: 354.53 ft
From Node: N578	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N580	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.50 ft	Max Depth: 4.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 81.44 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L525	Upstream	Downstream
Scenario: 1D	Invert: 357.21 ft	Invert: 352.89 ft
From Node: N583	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N581	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 79.55 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L526	Upstream	Downstream
Scenario: 1D	Invert: 352.10 ft	Invert: 350.78 ft
From Node: N579	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N575	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 58.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L527	Upstream	Downstream
Scenario: 1D	Invert: 350.78 ft	Invert: 347.80 ft
From Node: N575	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N574	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 131.24 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L528	Upstream	Downstream
Scenario: 1D	Invert: 347.80 ft	Invert: 346.28 ft
From Node: N574	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N577	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 67.06 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L529	Upstream	Downstream
Scenario: 1D	Invert: 357.29 ft	Invert: 355.72 ft
From Node: N595	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N576	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 209.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L530	Upstream	Downstream
Scenario: 1D	Invert: 355.72 ft	Invert: 355.68 ft
From Node: N576	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N353	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 37.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L531	Upstream	Downstream
Scenario: 1D	Invert: 355.81 ft	Invert: 355.81 ft
From Node: N596	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N597	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 10.64 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L532	Upstream	Downstream
Scenario: 1D	Invert: 355.81 ft	Invert: 350.34 ft
From Node: N597	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N573	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 100.66 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L533	Upstream	Downstream
Scenario: 1D	Invert: 350.34 ft	Invert: 347.78 ft
From Node: N573	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N577	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 47.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L534	Upstream	Downstream
Scenario: 1D	Invert: 344.45 ft	Invert: 343.62 ft
From Node: N598	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N299	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.78 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L535	Upstream	Downstream
Scenario: 1D	Invert: 346.67 ft	Invert: 346.33 ft
From Node: N304	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N598	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 4.96 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US and DS inverts assumed

Pipe Link: L536	Upstream	Downstream
Scenario: 1D	Invert: 352.92 ft	Invert: 352.88 ft
From Node: N599	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N284	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 20.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L537	Upstream	Downstream
Scenario: 1D	Invert: 341.39 ft	Invert: 340.77 ft
From Node: N347	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N603	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 16.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L538	Upstream	Downstream
Scenario: 1D	Invert: 341.76 ft	Invert: 341.39 ft
From Node: N602	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N347	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 28.63 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L539	Upstream	Downstream
Scenario: 1D	Invert: 340.80 ft	Invert: 340.77 ft
From Node: N600	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N603	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 17.47 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L540	Upstream	Downstream
Scenario: 1D	Invert: 340.77 ft	Invert: 340.74 ft
From Node: N603	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N350	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 22.31 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L541	Upstream	Downstream
Scenario: 1D	Invert: 341.28 ft	Invert: 340.93 ft
From Node: N604	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N605	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 62.08 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L542	Upstream	Downstream
Scenario: 1D	Invert: 340.93 ft	Invert: 340.87 ft
From Node: N605	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N351	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 10.76 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L543	Upstream	Downstream
Scenario: 1D	Invert: 389.11 ft	Invert: 388.94 ft
From Node: N607	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N227	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 168.77 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L544	Upstream	Downstream
Scenario: 1D	Invert: 389.22 ft	Invert: 389.11 ft
From Node: N565	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N607	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 108.21 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L545	Upstream	Downstream
Scenario: 1D	Invert: 337.41 ft	Invert: 336.36 ft
From Node: N308	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N647	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 96.03 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed dual 60, US and DS inverts assumed

Pipe Link: L546	Upstream	Downstream
Scenario: 1D	Invert: 336.03 ft	Invert: 333.65 ft
From Node: N270	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N142	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 218.10 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed dual 60, DS invert assumed

Pipe Link: L547	Upstream	Downstream
Scenario: 1D	Invert: 333.65 ft	Invert: 331.14 ft
From Node: N142	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N616a	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 196.65 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L549	Upstream	Downstream
Scenario: 1D	Invert: 342.35 ft	Invert: 342.18 ft
From Node: N324	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N323a	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.00 ft	Max Depth: 1.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000	Default: 0.00 ft	Default: 0.00 ft
Length: 65.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: HDPE, Assumed connection, US and DS inverts assumed, exit loss assumes discharge to BMP

Pipe Link: L551	Upstream	Downstream
Scenario: 1D	Invert: 337.77 ft	Invert: 337.53 ft
From Node: N322	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N270	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.59 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L552	Upstream	Downstream
Scenario: 1D	Invert: 341.37 ft	Invert: 340.91 ft
From Node: N272	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N647	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 12.37 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, DS invert assumed

Pipe Link: L553	Upstream	Downstream
Scenario: 1D	Invert: 337.28 ft	Invert: 336.57 ft
From Node: N486	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N059	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.50 ft	Max Depth: 5.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 48.86 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP

Pipe Link: L554	Upstream	Downstream
Scenario: 1D	Invert: 322.39 ft	Invert: 315.20 ft
From Node: N512	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N313	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 132.33 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L556		Upstream	Downstream
Scenario:	1D	Invert: 333.41 ft	Invert: 333.30 ft
From Node:	N558	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N085	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count:	1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction:	Both	Max Width: 4.00 ft	Max Width: 4.00 ft
Damping:	0.0000 ft	Bottom Clip	
Length:	23.57 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code:	0	Op Table:	Op Table:
Entr Loss Coef:	0.00	Ref Node:	Ref Node:
Exit Loss Coef:	0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef:	0.00	Top Clip	
Bend Location:	0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch:	Momentum	Op Table:	Op Table:
		Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L557		Upstream	Downstream
Scenario:	1D	Invert: 375.60 ft	Invert: 368.88 ft
From Node:	N571	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N570	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	208.70 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.25	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L558	Upstream	Downstream
Scenario: 1D	Invert: 368.88 ft	Invert: 364.32 ft
From Node: N570	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N101	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 31.17 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed connection, US invert assumed

Pipe Link: L559	Upstream	Downstream
Scenario: 1D	Invert: 365.76 ft	Invert: 364.32 ft
From Node: N100	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N101	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 33.50 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, Assumed connection

Pipe Link: L560	Upstream	Downstream
Scenario: 1D	Invert: 336.43 ft	Invert: 334.93 ft
From Node: N610	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N614	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 111.31 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L561	Upstream	Downstream
Scenario: 1D	Invert: 334.93 ft	Invert: 333.35 ft
From Node: N614	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N609	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 68.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.43	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L562	Upstream	Downstream
Scenario: 1D	Invert: 333.35 ft	Invert: 332.14 ft
From Node: N609	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N616a	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 34.70 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L563	Upstream	Downstream
Scenario: 1D	Invert: 338.21 ft	Invert: 338.10 ft
From Node: N611	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N612	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 57.36 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L564	Upstream	Downstream
Scenario: 1D	Invert: 338.10 ft	Invert: 336.43 ft
From Node: N612	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N610	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 106.66 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L565	Upstream	Downstream
Scenario: 1D	Invert: 337.80 ft	Invert: 336.43 ft
From Node: N613	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N610	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 137.83 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L566	Upstream	Downstream
Scenario: 1D	Invert: 336.59 ft	Invert: 336.43 ft
From Node: N615	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N610	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 107.13 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L567	Upstream	Downstream
Scenario: 1D	Invert: 276.76 ft	Invert: 276.44 ft
From Node: N542	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N617	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 10.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert interpolated,

Pipe Link: L583		Upstream	Downstream
Scenario:	1D	Invert: 271.52 ft	Invert: 269.62 ft
From Node:	N534	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N621	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	92.98 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.50	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L584		Upstream	Downstream
Scenario:	1D	Invert: 278.69 ft	Invert: 278.23 ft
From Node:	N233	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N608a	Geometry: Circular	Geometry: Circular
Link Count:	1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction:	Both	Bottom Clip	
Damping:	0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length:	8.46 ft	Op Table:	Op Table:
FHWA Code:	0	Ref Node:	Ref Node:
Entr Loss Coef:	0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef:	0.50	Top Clip	
Bend Loss Coef:	0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location:	0.00 dec	Op Table:	Op Table:
Energy Switch:	Momentum	Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, DS invert assumed

Pipe Link: L587	Upstream	Downstream
Scenario: 1D	Invert: 307.49 ft	Invert: 299.79 ft
From Node: N633	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N631	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, assumed DS invert typo from 289.79, 20 plus feet drop not visible in field pictures

Pipe Link: L588	Upstream	Downstream
Scenario: 1D	Invert: 310.22 ft	Invert: 309.76 ft
From Node: N094	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N633	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 36.54 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L590	Upstream	Downstream
Scenario: 1D	Invert: 273.57 ft	Invert: 271.93 ft
From Node: N635	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N534	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.25 ft	Max Depth: 2.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 70.58 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert interpolated

Pipe Link: L591	Upstream	Downstream
Scenario: 1D	Invert: 382.50 ft	Invert: 379.45 ft
From Node: N650	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N485	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 143.99 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L592	Upstream	Downstream
Scenario: 1D	Invert: 363.32 ft	Invert: 362.09 ft
From Node: N101	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N643	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 1	Max Depth: 3.67 ft	Max Depth: 3.67 ft
Flow Direction: Both	Max Width: 5.67 ft	Max Width: 5.67 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 100.87 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.25	Ref Node:	Ref Node:
Exit Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed RCP, Elliptical, DS invert assumed		

Pipe Link: L593	Upstream	Downstream
Scenario: 1D	Invert: 366.96 ft	Invert: 366.65 ft
From Node: N639	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N562	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 5.71 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Assumed RCP, US and DS inverts assumed		

Pipe Link: L594	Upstream	Downstream
Scenario: 1D	Invert: 379.69 ft	Invert: 377.13 ft
From Node: N641	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N017	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 80.67 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L595	Upstream	Downstream
Scenario: 1D	Invert: 378.60 ft	Invert: 378.10 ft
From Node: N640	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N111	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 63.22 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L596	Upstream	Downstream
Scenario: 1D	Invert: 362.09 ft	Invert: 355.55 ft
From Node: N643	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N578	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 4.00 ft	Max Depth: 4.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 369.19 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L597	Upstream	Downstream
Scenario: 1D	Invert: 356.72 ft	Invert: 356.36 ft
From Node: N592	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N578	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 243.01 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L598	Upstream	Downstream
Scenario: 1D	Invert: 342.07 ft	Invert: 340.59 ft
From Node: N273	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N647	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 21.37 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, DS invert assumed

Pipe Link: L599	Upstream	Downstream
Scenario: 1D	Invert: 332.00 ft	Invert: 331.39 ft
From Node: N237	Manning's N: 0.0240	Manning's N: 0.0240
To Node: N645	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.67 ft	Max Depth: 1.67 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 26.49 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.80	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CMP, Assumed to cross over dual 60x36in arches, US and DS inverts assumed

Pipe Link: L600	Upstream	Downstream
Scenario: 1D	Invert: 329.67 ft	Invert: 329.81 ft
From Node: N606	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N644c	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 41.85 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.93	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, 30in round RCP, next to dual 36x60 arches, bouldered DS, exit loss calculated

Pipe Link: L601	Upstream	Downstream
Scenario: 1D	Invert: 331.14 ft	Invert: 329.67 ft
From Node: N616a	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N606	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.50 ft	Max Depth: 2.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 145.52 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP

Pipe Link: L602a	Upstream	Downstream
Scenario: 1D	Invert: 330.93 ft	Invert: 330.39 ft
From Node: N616b	Manning's N: 0.0180	Manning's N: 0.0180
To Node: N645	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 2	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Max Width: 5.00 ft	Max Width: 5.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 83.00 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.38	Ref Node:	Ref Node:
Exit Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.00	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Dual 36x60 arch, manning adjusted for bot conc top corr metal		

Pipe Link: L602b	Upstream	Downstream
Scenario: 1D	Invert: 330.39 ft	Invert: 329.79 ft
From Node: N645	Manning's N: 0.0180	Manning's N: 0.0180
To Node: N644c	Geometry: Arch Structural Plate	Geometry: Arch Structural Plate
Link Count: 2	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Max Width: 5.00 ft	Max Width: 5.00 ft
Damping: 0.0000 ft	Bottom Clip	
Length: 91.19 ft	Default: 0.00 ft	Default: 0.00 ft
FHWA Code: 0	Op Table:	Op Table:
Entr Loss Coef: 0.00	Ref Node:	Ref Node:
Exit Loss Coef: 0.08	Manning's N: 0.0000	Manning's N: 0.0000
Bend Loss Coef: 0.83	Top Clip	
Bend Location: 0.00 dec	Default: 0.00 ft	Default: 0.00 ft
Energy Switch: Momentum	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Dual 36x60 arch, manning adjusted for bot conc top corr metal, exit loss calculated		

Pipe Link: L603	Upstream	Downstream
Scenario: 1D	Invert: 336.36 ft	Invert: 336.03 ft
From Node: N647	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N270	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 30.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.23	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L604	Upstream	Downstream
Scenario: 1D	Invert: 369.74 ft	Invert: 369.67 ft
From Node: N648	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N566	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 140.84 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L605	Upstream	Downstream
Scenario: 1D	Invert: 369.67 ft	Invert: 361.92 ft
From Node: N566	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N649a	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 270.62 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 1.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed, excessive slope assumed by surface grades and LiDAR at outlet

Pipe Link: L606	Upstream	Downstream
Scenario: 1D	Invert: 355.00 ft	Invert: 354.53 ft
From Node: N649b	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N580	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 346.27 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed 36in RCP connection by cover and surface grades and inverts downstream, US and DS inverts assumed

Pipe Link: L607	Upstream	Downstream
Scenario: 1D	Invert: 328.52 ft	Invert: 313.35 ft
From Node: N104	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N315	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 348.94 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.23	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L608	Upstream	Downstream
Scenario: 1D	Invert: 284.44 ft	Invert: 281.93 ft
From Node: N546	Manning's N: 0.0100	Manning's N: 0.0100
To Node: N547	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.50 ft	Max Depth: 0.50 ft
Flow Direction: Positive	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.37 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.50	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.25	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed PVC, Assumed connection, US and DS inverts assumed, set positive flow only due to uncertainty

Pipe Link: L609	Upstream	Downstream
Scenario: 1D	Invert: 383.81 ft	Invert: 382.50 ft
From Node: N483	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N650	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.11 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.43	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: RCP, US invert assumed

Pipe Link: L610	Upstream	Downstream
Scenario: 1D	Invert: 423.38 ft	Invert: 421.64 ft
From Node: N453	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N651	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 32.07 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L611	Upstream	Downstream
Scenario: 1D	Invert: 400.12 ft	Invert: 398.53 ft
From Node: N444	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N652	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.50 ft	Max Depth: 1.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 29.31 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L612	Upstream	Downstream
Scenario: 1D	Invert: 331.89 ft	Invert: 315.20 ft
From Node: N021	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N313	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 2.00 ft	Max Depth: 2.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 497.90 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, Assumed connection, US and DS inverts assumed

Pipe Link: L619	Upstream	Downstream
Scenario: 1D	Invert: 251.87 ft	Invert: 251.41 ft
From Node: N670	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N671	Geometry: Circular	Geometry: Circular
Link Count: 2	Max Depth: 3.50 ft	Max Depth: 3.50 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 23.55 ft	Op Table:	Op Table:
FHWA Code: 1	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Twin barrel 42in RCP, wier wall lines north US bank, inverts slightly buried, entrance loss applied via FHWA code

Pipe Link: L620	Upstream	Downstream
Scenario: 1D	Invert: 390.43 ft	Invert: 389.79 ft
From Node: N569	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N568	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 18.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.38	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L621	Upstream	Downstream
Scenario: 1D	Invert: 389.79 ft	Invert: 388.46 ft
From Node: N568	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N179	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 136.56 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.38	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L622	Upstream	Downstream
Scenario: 1D	Invert: 389.89 ft	Invert: 388.46 ft
From Node: N567	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N179	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 44.35 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.08	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed RCP, US and DS inverts assumed

Pipe Link: L623	Upstream	Downstream
Scenario: 1D	Invert: 340.75 ft	Invert: 340.75 ft
From Node: N323a	Manning's N: 0.0110	Manning's N: 0.0110
To Node: N323b	Geometry: Circular	Geometry: Circular
Link Count: 4	Max Depth: 3.00 ft	Max Depth: 3.00 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 60.00 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.00	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: x4 36inch HDPE storage pipes, inverts assumed

Pipe Link: L624	Upstream	Downstream
Scenario: 1D	Invert: 365.49 ft	Invert: 365.40 ft
From Node: N590a	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N590b	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 1.25 ft	Max Depth: 1.25 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 45.92 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.25	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Assumed 15in RCP connection

Pipe Link: L625	Upstream	Downstream
Scenario: 1D	Invert: 267.95 ft	Invert: 267.70 ft
From Node: N667	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N666	Geometry: Circular	Geometry: Circular
Link Count: 1	Max Depth: 0.83 ft	Max Depth: 0.83 ft
Flow Direction: Both	Bottom Clip	
Damping: 0.0000 ft	Default: 0.00 ft	Default: 0.00 ft
Length: 74.42 ft	Op Table:	Op Table:
FHWA Code: 0	Ref Node:	Ref Node:
Entr Loss Coef: 0.00	Manning's N: 0.0000	Manning's N: 0.0000
Exit Loss Coef: 0.50	Top Clip	
Bend Loss Coef: 0.00	Default: 0.00 ft	Default: 0.00 ft
Bend Location: 0.00 dec	Op Table:	Op Table:
Energy Switch: Momentum	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: CIP, taps into culvert near top, US and DS inverts assumed

Pipe Link: NorthCulvert-01	Upstream	Downstream
Scenario: 1D	Invert: 280.46 ft	Invert: 279.19 ft
From Node: N182	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N530b	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 63.04 ft	Bottom Clip	
FHWA Code: 0	Default: 0.10 ft	Default: 0.04 ft
Entr Loss Coef: 0.40	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.13	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.34 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, entrance loss set for square edge conc box with 30 to 75 degree wingwalls, bend loss interpolated via FHWA table

Pipe Link: NorthCulvert-02	Upstream	Downstream
Scenario: 1D	Invert: 279.19 ft	Invert: 275.96 ft
From Node: N530b	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N619	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 86.52 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Conc box culvert		

Pipe Link: NorthCulvert-03	Upstream	Downstream
Scenario: 1D	Invert: 275.96 ft	Invert: 270.92 ft
From Node: N619	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N618	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 166.00 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.15 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.17	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.68 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000
Comment: Conc box culvert, bend loss interpolated via FHWA table		

Pipe Link: NorthCulvert-04	Upstream	Downstream
Scenario: 1D	Invert: 270.92 ft	Invert: 268.48 ft
From Node: N618	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N620	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 79.33 ft	Bottom Clip	
FHWA Code: 0	Default: 0.15 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.18	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.65 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, bend loss interpolated via FHWA table

Pipe Link: NorthCulvert-05	Upstream	Downstream
Scenario: 1D	Invert: 268.48 ft	Invert: 267.51 ft
From Node: N620	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N621	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.79 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 5.17 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, begin gradual expansion and slope downward

Pipe Link: NorthCulvert-06	Upstream	Downstream
Scenario: 1D	Invert: 267.51 ft	Invert: 265.54 ft
From Node: N621	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N622	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.79 ft	Max Depth: 7.50 ft
Flow Direction: Both	Max Width: 11.41 ft	Max Width: 11.41 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 1.00 ft
Length: 11.11 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.20	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, end gradual expansion and slope down for Twinbrook Pkwy, eddy losses assumed

Pipe Link: NorthCulvert-07	Upstream	Downstream
Scenario: 1D	Invert: 265.54 ft	Invert: 264.10 ft
From Node: N622	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N623	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 7.50 ft	Max Depth: 7.50 ft
Flow Direction: Both	Max Width: 14.00 ft	Max Width: 14.00 ft
Damping: 0.0000 ft	Fillet: 1.00 ft	Fillet: 1.00 ft
Length: 126.86 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.45	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert under Twinbrook Pkwy, chamfered top corners, entrance loss factors steady hydraulic jump

Pipe Link: NorthCulvert-08	Upstream	Downstream
Scenario: 1D	Invert: 264.10 ft	Invert: 263.93 ft
From Node: N623	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N624	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 14.00 ft	Max Width: 14.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 7.18 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.09 ft
Entr Loss Coef: 0.13	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, abrupt height contraction to 5ft unchamfered, entrance loss coef calculated, begin gradual width contraction

Pipe Link: NorthCulvert-09	Upstream	Downstream
Scenario: 1D	Invert: 263.93 ft	Invert: 263.77 ft
From Node: N624	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N625	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 12.87 ft	Max Width: 12.87 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 16.44 ft	Bottom Clip	
FHWA Code: 0	Default: 0.09 ft	Default: 0.08 ft
Entr Loss Coef: 0.03	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, gradual width contraction ends downstream

Pipe Link: NorthCulvert-10	Upstream	Downstream
Scenario: 1D	Invert: 263.77 ft	Invert: 261.14 ft
From Node: N625	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N653	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 210.29 ft	Bottom Clip	
FHWA Code: 0	Default: 0.08 ft	Default: 0.04 ft
Entr Loss Coef: 0.08	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.12	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.15 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, bend loss interpolated via FHWA table, entrance loss calculated

Pipe Link: NorthCulvert-11	Upstream	Downstream
Scenario: 1D	Invert: 261.14 ft	Invert: 260.09 ft
From Node: N653	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N626	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 63.28 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.12	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.63 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, bend loss interpolated via FHWA table

Pipe Link: NorthCulvert-12	Upstream	Downstream
Scenario: 1D	Invert: 260.09 ft	Invert: 258.84 ft
From Node: N626	Manning's N: 0.0120	Manning's N: 0.0120
To Node: Rock-1	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 8.23 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.55	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, steep downward slope, exit loss set for abrupt expansion

Pipe Link: SouthCulvert-01	Upstream	Downstream
Scenario: 1D	Invert: 277.36 ft	Invert: 274.73 ft
From Node: N070	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N655	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 8.50 ft	Max Depth: 8.50 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 1.00 ft	Fillet: 1.00 ft
Length: 153.64 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.20	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, chamfered top, entrance loss set for square edge conc box with 30 to 75 degree wingwalls, reduced loss from 0.4 to 0.2 due to conc flume

Pipe Link: SouthCulvert-02	Upstream	Downstream
Scenario: 1D	Invert: 274.73 ft	Invert: 274.36 ft
From Node: N655	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N628	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 9.46 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.17	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, not chamfered, abrupt height contraction, entrance loss calculated

Pipe Link: SouthCulvert-03	Upstream	Downstream
Scenario: 1D	Invert: 274.36 ft	Invert: 273.87 ft
From Node: N628	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N669	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 22.11 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, begin steep slope down

Pipe Link: SouthCulvert-04	Upstream	Downstream
Scenario: 1D	Invert: 273.87 ft	Invert: 270.01 ft
From Node: N669	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N668	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 9.09 ft	Bottom Clip	
FHWA Code: 0	Default: 0.04 ft	Default: 0.06 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.15	Ref Node:	Ref Node:
Bend Loss Coef: 0.00	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.00 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, steep down slope, exit loss accounts for hydraulic jump

Pipe Link: SouthCulvert-05	Upstream	Downstream
Scenario: 1D	Invert: 270.01 ft	Invert: 264.20 ft
From Node: N668	Manning's N: 0.0120	Manning's N: 0.0120
To Node: N666	Geometry: Rectangular	Geometry: Rectangular
Link Count: 1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction: Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping: 0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length: 223.38 ft	Bottom Clip	
FHWA Code: 0	Default: 0.06 ft	Default: 0.25 ft
Entr Loss Coef: 0.00	Op Table:	Op Table:
Exit Loss Coef: 0.00	Ref Node:	Ref Node:
Bend Loss Coef: 0.08	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location: 0.18 dec	Top Clip	
Energy Switch: Momentum	Default: 0.00 ft	Default: 0.00 ft
	Op Table:	Op Table:
	Ref Node:	Ref Node:
	Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, bend loss interpolated via FHWA table

Pipe Link: SouthCulvert-06		Upstream	Downstream
Scenario:	1D	Invert: 264.20 ft	Invert: 262.42 ft
From Node:	N666	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	N629	Geometry: Rectangular	Geometry: Rectangular
Link Count:	1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction:	Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping:	0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length:	87.83 ft	Bottom Clip	
FHWA Code:	0	Default: 0.25 ft	Default: 0.04 ft
Entr Loss Coef:	0.00	Op Table:	Op Table:
Exit Loss Coef:	0.00	Ref Node:	Ref Node:
Bend Loss Coef:	0.15	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location:	0.99 dec	Top Clip	
Energy Switch:	Momentum	Default: 0.00 ft	Default: 0.00 ft
		Op Table:	Op Table:
		Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, bend loss interpolated via FHWA table

Pipe Link: SouthCulvert-07		Upstream	Downstream
Scenario:	1D	Invert: 262.42 ft	Invert: 258.90 ft
From Node:	N629	Manning's N: 0.0120	Manning's N: 0.0120
To Node:	Rock-1	Geometry: Rectangular	Geometry: Rectangular
Link Count:	1	Max Depth: 5.00 ft	Max Depth: 5.00 ft
Flow Direction:	Both	Max Width: 10.00 ft	Max Width: 10.00 ft
Damping:	0.0000 ft	Fillet: 0.00 ft	Fillet: 0.00 ft
Length:	154.71 ft	Bottom Clip	
FHWA Code:	0	Default: 0.04 ft	Default: 0.04 ft
Entr Loss Coef:	0.00	Op Table:	Op Table:
Exit Loss Coef:	0.55	Ref Node:	Ref Node:
Bend Loss Coef:	0.24	Manning's N: 0.0170	Manning's N: 0.0170
Bend Location:	0.82 dec	Top Clip	
Energy Switch:	Momentum	Default: 0.00 ft	Default: 0.00 ft
		Op Table:	Op Table:
		Ref Node:	Ref Node:
		Manning's N: 0.0000	Manning's N: 0.0000

Comment: Conc box culvert, bend loss interpolated via FHWA table, exit loss set for abrupt expansion

Weir Link: Ardennes-Overflow		Bottom Clip
Scenario:	1D	Default: 0.00 ft
From Node:	N067	Op Table:
To Node:	N068	Ref Node:
Link Count:	1	
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft

Weir Type: Paved Road Vertical
 Geometry Type: Irregular
 Invert: 324.43 ft
 Control Elevation: 325.00 ft
 Cross Section: Ardennes-Crown

Op Table:
 Ref Node:
 Discharge Coefficients
 Weir Default: 3.040
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment: Top of headwall at 326.49, overflows and travels north to roadway sag and crosses at approx elev 325 back to stream

Weir Link: Atlantic-Overflow

Scenario: 1D
 From Node: N136
 To Node: N174
 Link Count: 1
 Flow Direction: Both
 Damping: 0.0000 ft
 Weir Type: Paved Road Vertical
 Geometry Type: Irregular
 Invert: 308.43 ft
 Control Elevation: 308.43 ft
 Cross Section: Atlantic-Crown

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Top Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Discharge Coefficients
 Weir Default: 3.040
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment:

Weir Link: BaffleWalls

Scenario: 1D
 From Node: Rock-3
 To Node: Rock-4
 Link Count: 1
 Flow Direction: Both
 Damping: 0.0000 ft
 Weir Type: Sharp Crested Vertical
 Geometry Type: Irregular
 Invert: 260.76 ft
 Control Elevation: 260.76 ft
 Cross Section: Baffles

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Top Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Discharge Coefficients
 Weir Default: 3.330
 Weir Table: BafflesCoef_mod
 Orifice Default: 0.600
 Orifice Table:

Comment: three staggered concrete baffle walls approx 2 feet tall each, two small rectangular slots available for stream passage at flow line elevations

Weir Link: Creek-Bypass-Wall

Scenario:	1D	Bottom Clip
From Node:	Rock-13	Default: 0.00 ft
To Node:	Rock-15	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	254.96 ft	Discharge Coefficients
Control Elevation:	254.96 ft	Weir Default: 3.330
Cross Section:	Creek-Wall	Weir Table: WallCoef
		Orifice Default: 0.600
		Orifice Table:

Comment:

Weir Link: N-Culvert-Overflow

Scenario:	1D	Bottom Clip
From Node:	N182	Default: 0.00 ft
To Node:	GutterPt-1	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	291.07 ft	Discharge Coefficients
Control Elevation:	291.07 ft	Weir Default: 3.040
Cross Section:	TwinBrook-Headwall	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment: surveyed lowest point 291.07, overflow from culvert entrance, positive direction only

Weir Link: NE-Capture

Scenario:	1D	Bottom Clip
From Node:	NorthEastOverflow	Default: 0.00 ft
To Node:	N241	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	269.35 ft	Discharge Coefficients
Control Elevation:	269.35 ft	Weir Default: 2.900
Cross Section:	NE-Lawn	Weir Table:
		Orifice Default: 0.600

Orifice Table:

Comment: Sheet overflow from northeast lawn over roadway to sag inlet

Weir Link: NE-Spill

Scenario:	1D	Bottom Clip
From Node:	N241	Default: 0.00 ft
To Node:	Rock-2	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	267.97 ft	Discharge Coefficients
Control Elevation:	267.97 ft	Weir Default: 3.330
Cross Section:	DS-Headwall	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment: sag inlet bypass to stream or reverse flow from stream

Weir Link: NE-Surcharge

Scenario:	1D	Bottom Clip
From Node:	N653	Default: 0.00 ft
To Node:	NorthEastOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	268.08 ft	Discharge Coefficients
Control Elevation:	268.08 ft	Weir Default: 3.330
Max Depth:	1.79 ft	Weir Table:
Max Width:	1.79 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: Twinbrook bypass to top slab opening, 2.7x2.38 ft, dimensions from survey, no data on grate, flow area reduced 50pct for grate

Weir Link: Pkwy-E-SagInlet

Scenario:	1D	Bottom Clip
From Node:	N233	Default: 0.00 ft
To Node:	Pkwy-Gutter-3	Op Table:
Link Count:	1	Ref Node:

Flow Direction:	Both	
Damping:	0.0000 ft	Top Clip
Weir Type:	Sharp Crested Vertical	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	284.24 ft	Ref Node:
Control Elevation:	284.24 ft	Discharge Coefficients
Max Depth:	0.50 ft	Weir Default: 3.000
Max Width:	10.00 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment: Approx. 10ft by 0.5ft curb inlet

Weir Link: Pkwy-NE-Overflow

Scenario:	1D	Bottom Clip
From Node:	Pkwy-Gutter-3	Default: 0.00 ft
To Node:	NorthEastOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	284.79 ft	Discharge Coefficients
Control Elevation:	284.79 ft	Weir Default: 3.000
Cross Section:	TB-Pkwy-NE	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment:

Weir Link: Pkwy-W-SagInlet

Scenario:	1D	Bottom Clip
From Node:	Pkwy-Gutter-2	Default: 0.00 ft
To Node:	N231	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	284.37 ft	Discharge Coefficients
Control Elevation:	284.37 ft	Weir Default: 3.000
Max Depth:	2.25 ft	Weir Table:
Max Width:	5.18 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: approx. 2.5ft x 5.75ft curb inlet with horizontal grate, dimesions reduced 10pct for grate

Weir Link: Pwky-N-Crossing-1

Scenario:	1D	Bottom Clip
From Node:	Pkwy-Gutter-2	Default: 0.00 ft
To Node:	Pkwy-Gutter-3	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	284.93 ft	Discharge Coefficients
Control Elevation:	284.93 ft	Weir Default: 2.900
Cross Section:	TB-Pkwy-NorthCrown	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment: Bypass flow from west sag inlet over Twinbrook Pkwy crown to east sag inlet

Weir Link: Rec-Overflow

Scenario:	1D	Bottom Clip
From Node:	N127	Default: 0.00 ft
To Node:	N216	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	306.31 ft	Discharge Coefficients
Control Elevation:	306.31 ft	Weir Default: 3.040
Cross Section:	Rec-Center-Bridge	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment:

Weir Link: S-Culvert-Overflow

Scenario:	1D	Bottom Clip
From Node:	N070	Default: 0.00 ft
To Node:	SouthEastOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	299.59 ft	Discharge Coefficients
Control Elevation:	299.59 ft	Weir Default: 3.040
Cross Section:	TB-Pkwy-SW	Weir Table:
		Orifice Default: 0.600

Orifice Table:

Comment:

Weir Link: SE-Capture

Scenario:	1D	Bottom Clip
From Node:	SouthEastOverflow	Default: 0.00 ft
To Node:	N025	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Paved Road Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	272.10 ft	Discharge Coefficients
Control Elevation:	272.10 ft	Weir Default: 2.900
Cross Section:	SE-Lawn	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment: Sheet overflow from southeast lawn over roadway to sag inlet

Weir Link: SE-Surcharge

Scenario:	1D	Bottom Clip
From Node:	N666	Default: 0.00 ft
To Node:	SouthEastOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	271.86 ft	Discharge Coefficients
Control Elevation:	271.86 ft	Weir Default: 3.330
Max Depth:	2.89 ft	Weir Table:
Max Width:	2.89 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: south culvert bypass to top slab opening, 2.88x5.79 ft, dimensions from survey, no data on grate, flow area reduced 50pct for grate

Weir Link: TB-NE-Overflow

Scenario:	1D	Bottom Clip
From Node:	TwinbrookOverflow	Default: 0.00 ft
To Node:	Pkwy-Gutter-1	Op Table:
Link Count:	1	Ref Node:

Flow Direction: Positive	
Damping: 0.0000 ft	Top Clip
Weir Type: Broad Crested Vertical	Default: 0.00 ft
Geometry Type: Irregular	Op Table:
Invert: 286.15 ft	Ref Node:
Control Elevation: 286.15 ft	Discharge Coefficients
Cross Section: Twinbrook-NE	Weir Default: 2.500
	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Comment: Depression area bypass, lowest elevations at northeast corner, crest at 286.15 by survey surface, set positive flow only as flow on Pwky will follow gutter line

Weir Link: TB-NW-Slot

Scenario: 1D	Bottom Clip
From Node: N548x	Default: 0.00 ft
To Node: N548	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Sharp Crested Vertical	Op Table:
Geometry Type: Trapezoidal	Ref Node:
Invert: 303.09 ft	Discharge Coefficients
Control Elevation: 303.09 ft	Weir Default: 3.330
Max Depth: 1.00 ft	Weir Table:
Extrapolation Method: Vertical Projection	Orifice Default: 0.600
Bottom Width: 2.00 ft	Orifice Table:
Left Slope: 1.000 (h:v)	
Right Slope: 1.000 (h:v)	

Comment:

Weir Link: TB-SE-Overflow

Scenario: 1D	Bottom Clip
From Node: TwinbrookOverflow	Default: 0.00 ft
To Node: Pkwy-Gutter-2	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Paved Road Vertical	Op Table:
Geometry Type: Irregular	Ref Node:
Invert: 289.41 ft	Discharge Coefficients
Control Elevation: 289.41 ft	Weir Default: 2.900
Cross Section: Twinbrook-SE	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Comment: Flow from SE corner of residential depression area over roadway to Twinbrook Pwky sag inlet

Weir Link: Twinbrook-NW-Bypass

Scenario: 1D	Bottom Clip
From Node: N548x	Default: 0.00 ft
To Node: TwinbrookOverflow	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0100 ft	Default: 0.00 ft
Weir Type: Broad Crested Vertical	Op Table:
Geometry Type: Irregular	Ref Node:
Invert: 304.09 ft	Discharge Coefficients
Control Elevation: 304.09 ft	Weir Default: 2.500
Cross Section: Twinbrook-NW	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Comment:

Weir Link: Twinbrook-Weir-01a

Scenario: 1D	Bottom Clip
From Node: GutterPt-1	Default: 0.00 ft
To Node: TwinbrookOverflow	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Paved Road Vertical	Op Table:
Geometry Type: Irregular	Ref Node:
Invert: 287.73 ft	Discharge Coefficients
Control Elevation: 288.92 ft	Weir Default: 3.000
Cross Section: Twinbrook-Sidewalk-A	Weir Table:
	Orifice Default: 0.600
	Orifice Table:

Comment: overflow of headwall and gutter to depression area, control elevation set to top of curb

Weir Link: Twinbrook-Weir-01b

Scenario: 1D	Bottom Clip
From Node: GutterPt-1	Default: 0.00 ft
To Node: TwinbrookOverflow	Op Table:
Link Count: 1	Ref Node:
Flow Direction: Both	Top Clip
Damping: 0.0000 ft	Default: 0.00 ft
Weir Type: Paved Road Vertical	Op Table:

Geometry Type: Irregular
 Invert: 292.24 ft
 Control Elevation: 292.24 ft
 Cross Section: Twinbrook-Sidewalk-B

Ref Node:
 Discharge Coefficients
 Weir Default: 3.000
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment: overflow of headwall and gutter to depression area AFTER flow rounds curb return to north

Weir Link: Twinbrook-Weir-02a

Scenario: 1D
 From Node: N530b
 To Node: GutterPt-2
 Link Count: 1
 Flow Direction: Both
 Damping: 0.0000 ft
 Weir Type: Horizontal
 Geometry Type: Rectangular
 Invert: 286.69 ft
 Control Elevation: 286.69 ft
 Max Depth: 1.75 ft
 Max Width: 4.20 ft
 Fillet: 0.00 ft

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Top Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Discharge Coefficients
 Weir Default: 3.330
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment: surcharge from culvert to gutter line, rectangular curbside inlet, two 2.5x3ft grates, flow area reduced for grate slots, invert set at grate elevation

Weir Link: Twinbrook-Weir-02b

Scenario: 1D
 From Node: N530b
 To Node: TwinbrookOverflow
 Link Count: 1
 Flow Direction: Both
 Damping: 0.0000 ft
 Weir Type: Paved Road Vertical
 Geometry Type: Irregular
 Invert: 287.73 ft
 Control Elevation: 287.73 ft
 Cross Section: Twinbrook-Sidewalk-A

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Top Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:
 Discharge Coefficients
 Weir Default: 3.000
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment: surcharge and overflow to depression area

Weir Link: Twinbrook-Weir-03

Scenario:	1D	Bottom Clip
From Node:	N543	Default: 0.00 ft
To Node:	TwinbrookOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	280.78 ft	Discharge Coefficients
Control Elevation:	280.78 ft	Weir Default: 3.330
Max Depth:	0.73 ft	Weir Table:
Max Width:	0.73 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: surcharge to depression area, approx 15x15in square inlet, probable plastic grate, reduced flow area by 50pct for grate slots

Weir Link: Twinbrook-Weir-04

Scenario:	1D	Bottom Clip
From Node:	N550	Default: 0.00 ft
To Node:	TwinbrookOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	277.96 ft	Discharge Coefficients
Control Elevation:	277.96 ft	Weir Default: 3.330
Max Depth:	0.73 ft	Weir Table:
Max Width:	0.73 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: surcharge to depression area, approx 15x15in inlet, probable plastic grate, reduced flow area by 50pct for grate slots

Weir Link: Twinbrook-Weir-05

Scenario:	1D	Bottom Clip
From Node:	N542	Default: 0.00 ft
To Node:	TwinbrookOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	278.08 ft	Discharge Coefficients
Control Elevation:	278.08 ft	Weir Default: 3.330
Max Depth:	1.41 ft	Weir Table:

Max Width: 1.41 ft
 Fillet: 0.00 ft

Orifice Default: 0.600
 Orifice Table:

Comment: surcharge to depression area, approx 2x2ft inlet, reduced flow area by 50pct for grate slots

Weir Link: Twinbrook-Weir-06

Scenario: 1D
 From Node: N540
 To Node: TwinbrookOverflow
 Link Count: 1
 Flow Direction: Both
 Damping: 0.0000 ft
 Weir Type: Horizontal
 Geometry Type: Rectangular
 Invert: 277.28 ft
 Control Elevation: 277.28 ft
 Max Depth: 1.06 ft
 Max Width: 1.06 ft
 Fillet: 0.00 ft

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:

Top Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:

Discharge Coefficients
 Weir Default: 3.330
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment: surcharge to depression area, approx 18x18in inlet, plastic grate, reduced flow area by 50pct for grate slots

Weir Link: Twinbrook-Weir-07

Scenario: 1D
 From Node: N539
 To Node: TwinbrookOverflow
 Link Count: 1
 Flow Direction: Both
 Damping: 0.0000 ft
 Weir Type: Horizontal
 Geometry Type: Rectangular
 Invert: 277.40 ft
 Control Elevation: 277.40 ft
 Max Depth: 1.06 ft
 Max Width: 1.06 ft
 Fillet: 0.00 ft

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:

Top Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:

Discharge Coefficients
 Weir Default: 3.330
 Weir Table:
 Orifice Default: 0.600
 Orifice Table:

Comment: surcharge to depression area, approx 18x18in inlet, plastic grate, reduced flow area by 50pct for grate slots

Weir Link: Twinbrook-Weir-08

Scenario: 1D
 From Node: N538
 To Node: TwinbrookOverflow
 Link Count: 1

Bottom Clip
 Default: 0.00 ft
 Op Table:
 Ref Node:

Flow Direction:	Both	
Damping:	0.0000 ft	Top Clip
Weir Type:	Horizontal	Default: 0.00 ft
Geometry Type:	Rectangular	Op Table:
Invert:	277.13 ft	Ref Node:
Control Elevation:	277.13 ft	Discharge Coefficients
Max Depth:	1.41 ft	Weir Default: 3.330
Max Width:	1.41 ft	Weir Table:
Fillet:	0.00 ft	Orifice Default: 0.600
		Orifice Table:

Comment: surcharge to depression area, approx 2x2ft inlet, metal grate, reduced flow area by 50pct for grate slots

Weir Link: Twinbrook-Weir-09

Scenario:	1D	Bottom Clip
From Node:	N537	Default: 0.00 ft
To Node:	TwinbrookOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	285.96 ft	Discharge Coefficients
Control Elevation:	285.96 ft	Weir Default: 3.330
Max Depth:	1.38 ft	Weir Table:
Max Width:	2.33 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: surcharge to depression area, curbside inlet, approx 33x36in grate, flow area reduced for grate slots

Weir Link: Twinbrook-Weir-10

Scenario:	1D	Bottom Clip
From Node:	N536	Default: 0.00 ft
To Node:	TwinbrookOverflow	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Horizontal	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	285.70 ft	Discharge Coefficients
Control Elevation:	285.70 ft	Weir Default: 3.330
Max Depth:	1.38 ft	Weir Table:
Max Width:	2.08 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: surcharge to depression area, curbside inlet, approx 33x33in grate, flow area reduced for grate slots

Weir Link: Weir-01

Scenario:	1D	Bottom Clip
From Node:	Trib-A-56	Default: 0.00 ft
To Node:	Trib-A-57	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	354.98 ft	Discharge Coefficients
Control Elevation:	354.98 ft	Weir Default: 2.900
Cross Section:	XS-Weir-1	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment:

Weir Link: Weir-02

Scenario:	1D	Bottom Clip
From Node:	Trib-B-10	Default: 0.00 ft
To Node:	Trib-B-11	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Broad Crested Vertical	Op Table:
Geometry Type:	Irregular	Ref Node:
Invert:	333.50 ft	Discharge Coefficients
Control Elevation:	333.50 ft	Weir Default: 2.900
Cross Section:	XS-Weir-2	Weir Table:
		Orifice Default: 0.600
		Orifice Table:

Comment:

Weir Link: Weir-03

Scenario:	1D	Bottom Clip
From Node:	N649a	Default: 0.00 ft
To Node:	N649b	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	370.67 ft	Discharge Coefficients
Control Elevation:	370.67 ft	Weir Default: 3.330
Max Depth:	0.67 ft	Weir Table:
Max Width:	12.00 ft	Orifice Default: 0.600

Fillet: 0.00 ft

Orifice Table:

Comment: assumed vertical rectangular on one face of the 14x14 square structure

Weir Link: Weir-04

Scenario:	1D	Bottom Clip
From Node:	N608b	Default: 0.00 ft
To Node:	N624	Op Table:
Link Count:	1	Ref Node:
Flow Direction:	Both	Top Clip
Damping:	0.0000 ft	Default: 0.00 ft
Weir Type:	Sharp Crested Vertical	Op Table:
Geometry Type:	Rectangular	Ref Node:
Invert:	265.73 ft	Discharge Coefficients
Control Elevation:	265.73 ft	Weir Default: 3.330
Max Depth:	3.00 ft	Weir Table:
Max Width:	3.00 ft	Orifice Default: 0.600
Fillet:	0.00 ft	Orifice Table:

Comment: Rectangular slot in south wall of culvert, approx 3x3ft, top edge clips flow area by approx 2 feet

Percolation Link: Perc1

Scenario:	1D	Surface Area Option:	User Specified
From Node:	TwinbrookOverflow	Bottom Elevation:	277.04 ft
To Node:	GWT1	Surface Area:	0.7400 ac
Link Count:	1	Vertical Flow Termination:	Horizontal Flow Algorithm
Flow Direction:	Both	Perimeter 1:	1411.28 ft
Aquifer Base Elevation:	207.00 ft	Perimeter 2:	1575.75 ft
Water Table Elevation:	257.00 ft	Perimeter 3:	1702.29 ft
Annual Recharge Rate:	0 ipy	Distance P1 to P2:	30.00 ft
Horizontal Conductivity:	3.630 fpd	Distance P2 to P3:	30.00 ft
Vertical Conductivity:	2.420 fpd	# of Cells P1 to P2:	6
Fillable Porosity:	0.165	# of Cells P2 to P3:	6
Layer Thickness:	20.00 ft		

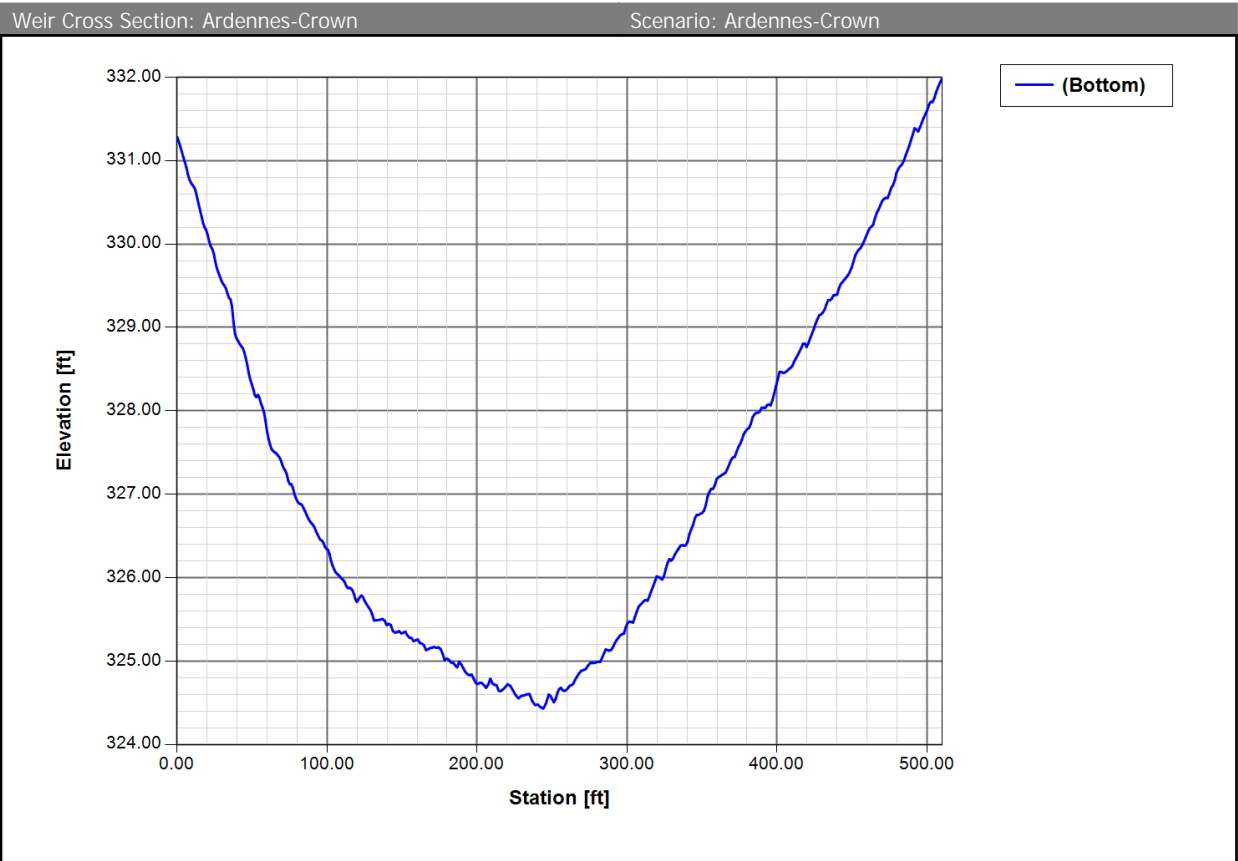
Comment: Water table assumed 20 feet below grade, assumed aquifer thickness of 50 feet, vertical conductivity from NCRS, horizontal conductivity estimate by 1.5V, porosity from NCRS

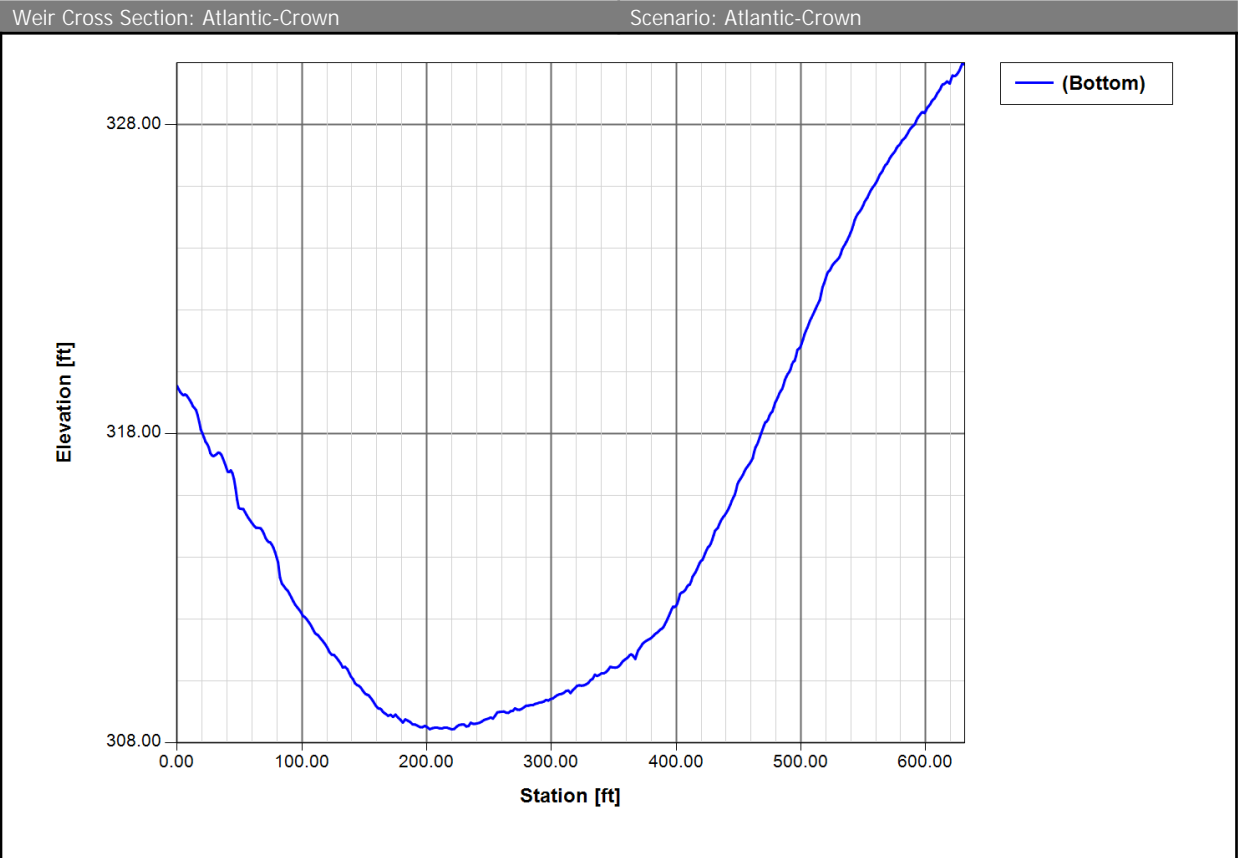
Percolation Link: Perc2

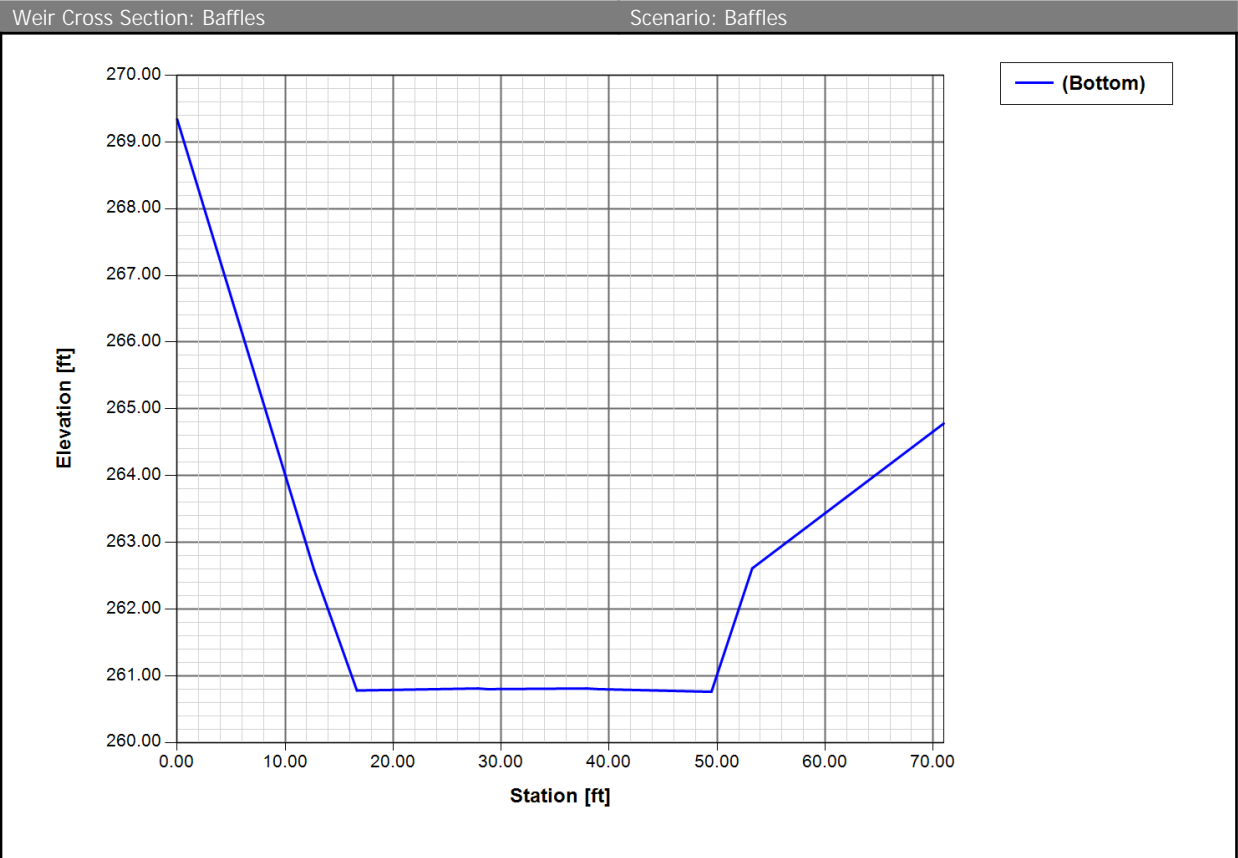
Scenario:	1D	Surface Area Option:	User Specified
From Node:	N634	Bottom Elevation:	312.34 ft
To Node:	GWT2	Surface Area:	0.0165 ac
Link Count:	1	Vertical Flow Termination:	Horizontal Flow Algorithm
Flow Direction:	Both	Perimeter 1:	105.15 ft

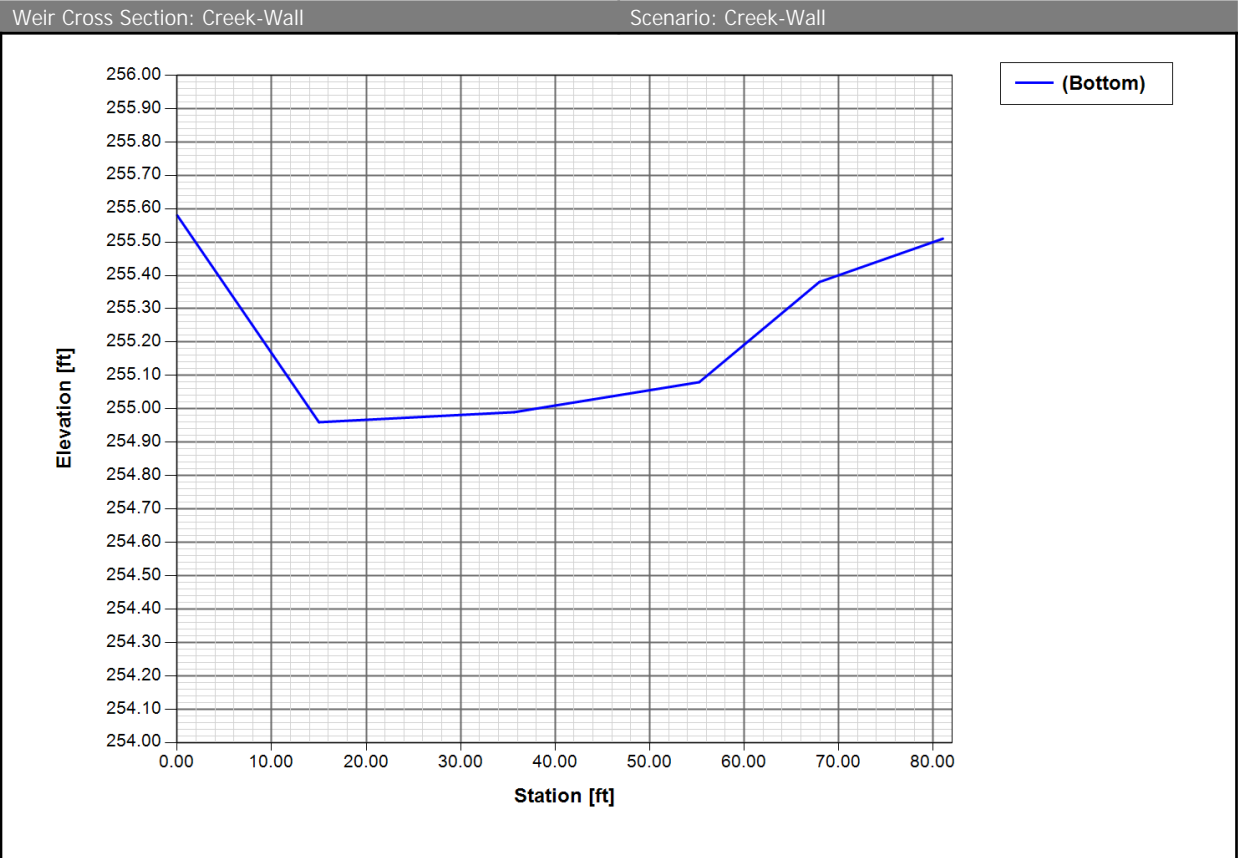
Aquifer Base Elevation: 242.00 ft	
Water Table Elevation: 292.00 ft	Perimeter 2: 300.11 ft
Annual Recharge Rate: 0 ipy	Perimeter 3: 495.70 ft
Horizontal Conductivity: 3.630 fpd	Distance P1 to P2: 30.00 ft
Vertical Conductivity: 2.420 fpd	Distance P2 to P3: 30.00 ft
Fillable Porosity: 0.165	# of Cells P1 to P2: 6
Layer Thickness: 20.00 ft	# of Cells P2 to P3: 6

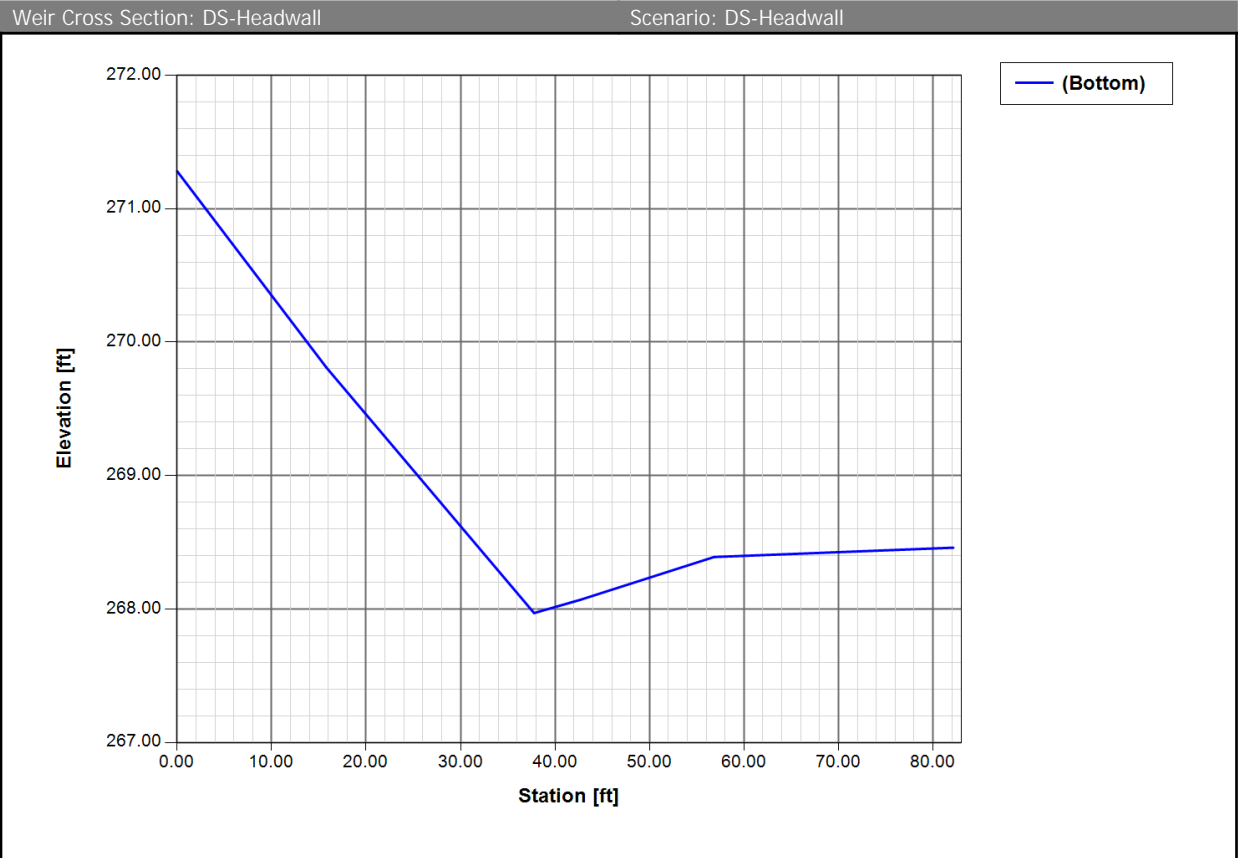
Comment: Water table assumed 20 feet below grade, assumed aquifer thickness of 50 feet, vertical conductivity from NCRS, horizontal conductivity estimate by 1.5V, porosity from NCRS

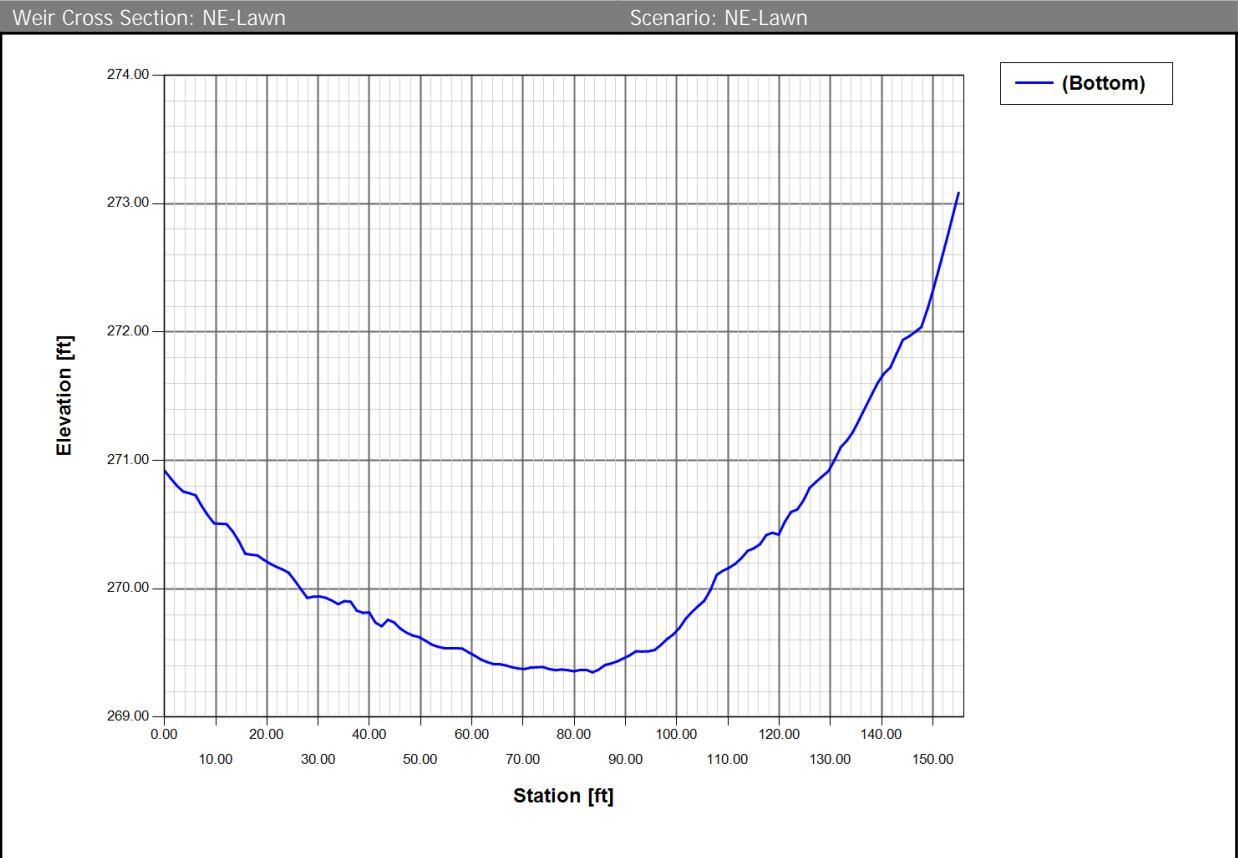


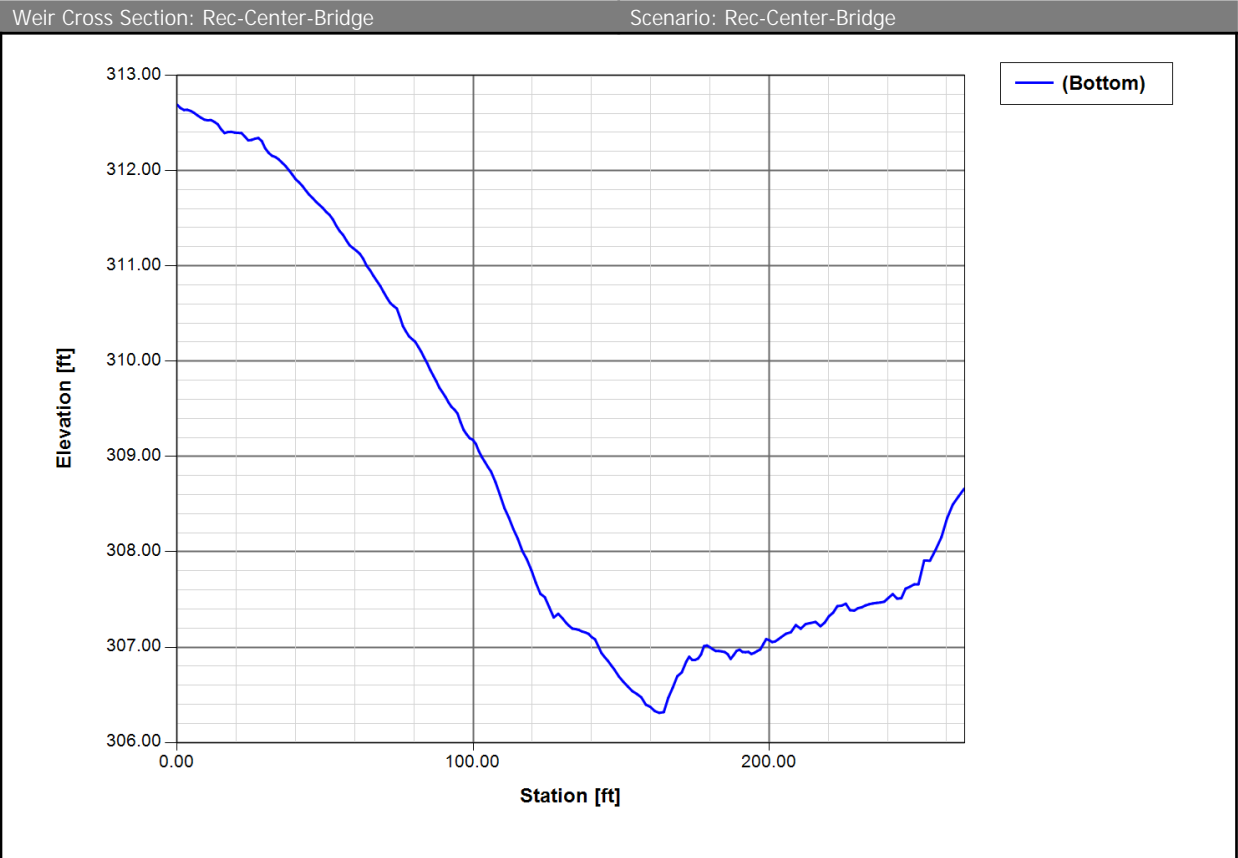


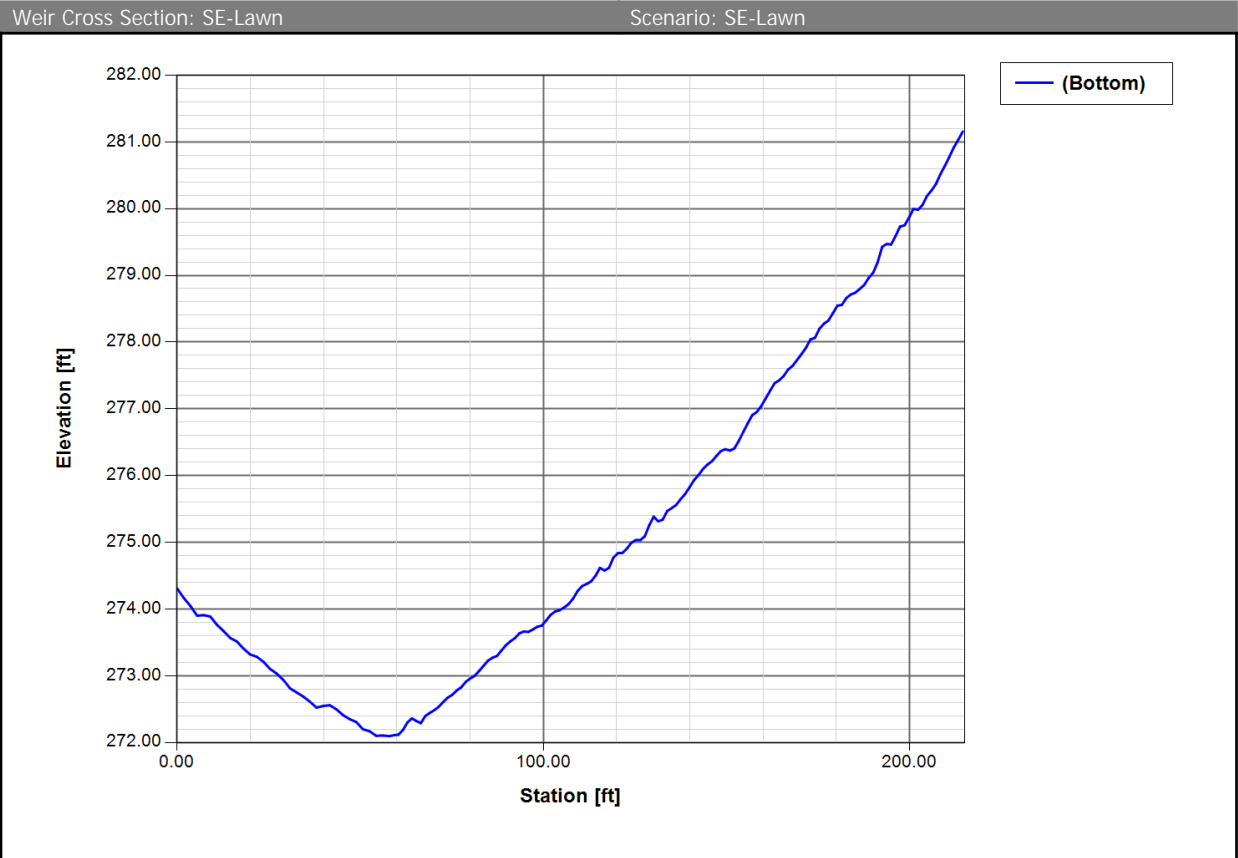


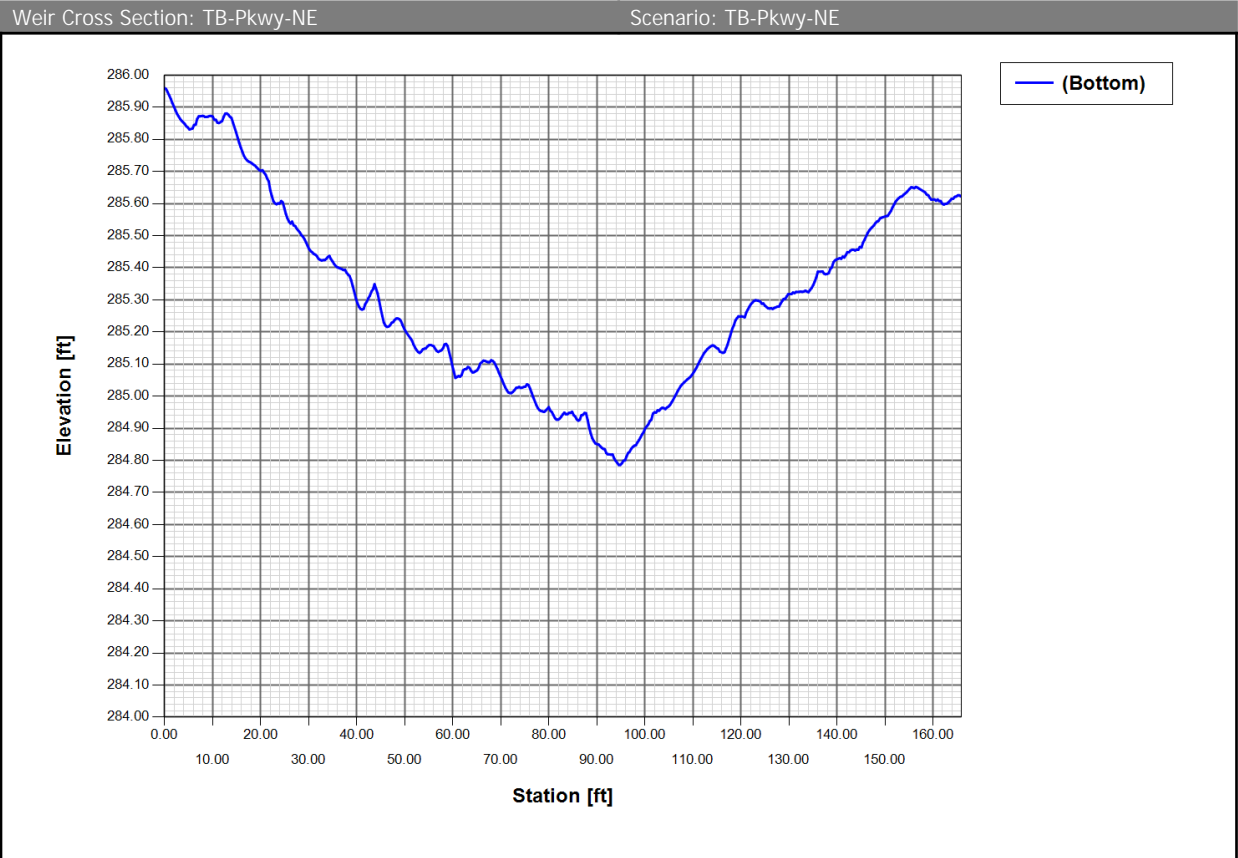


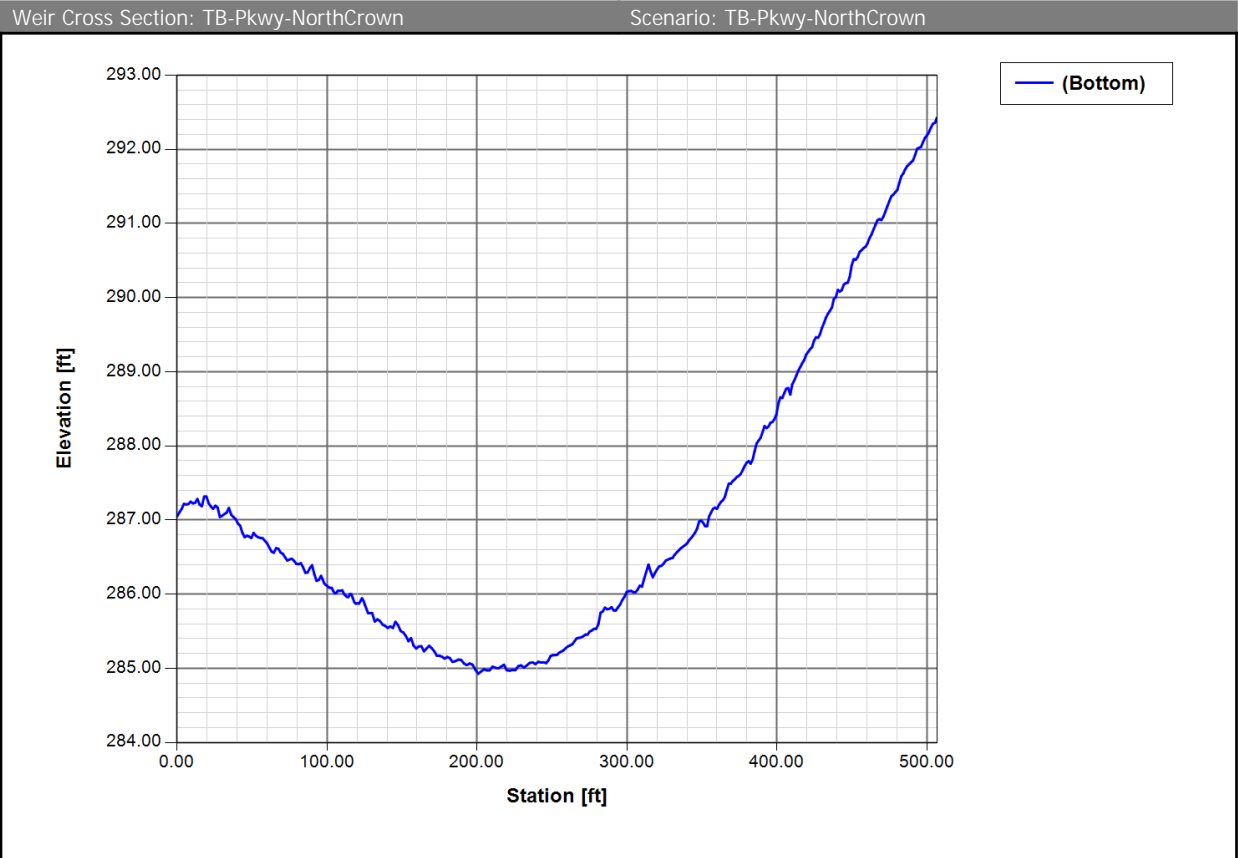


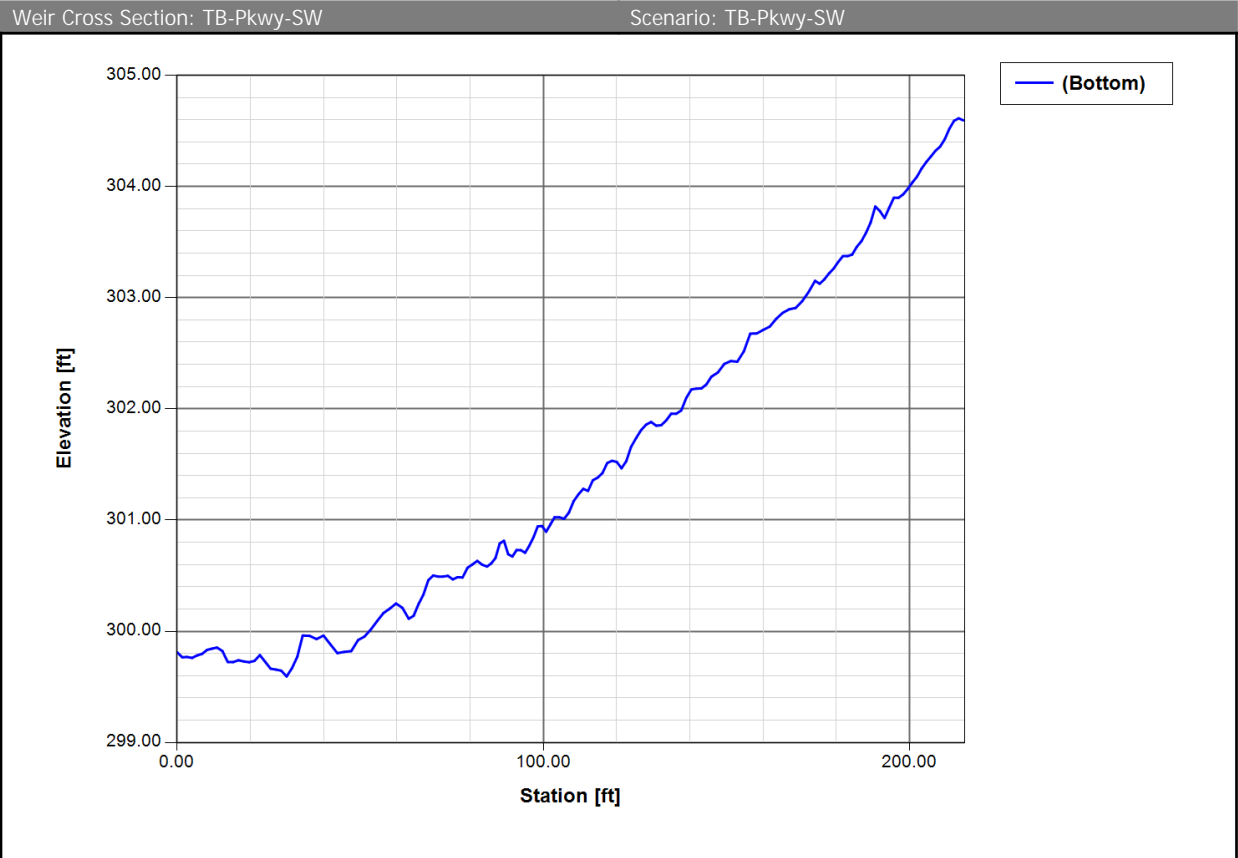


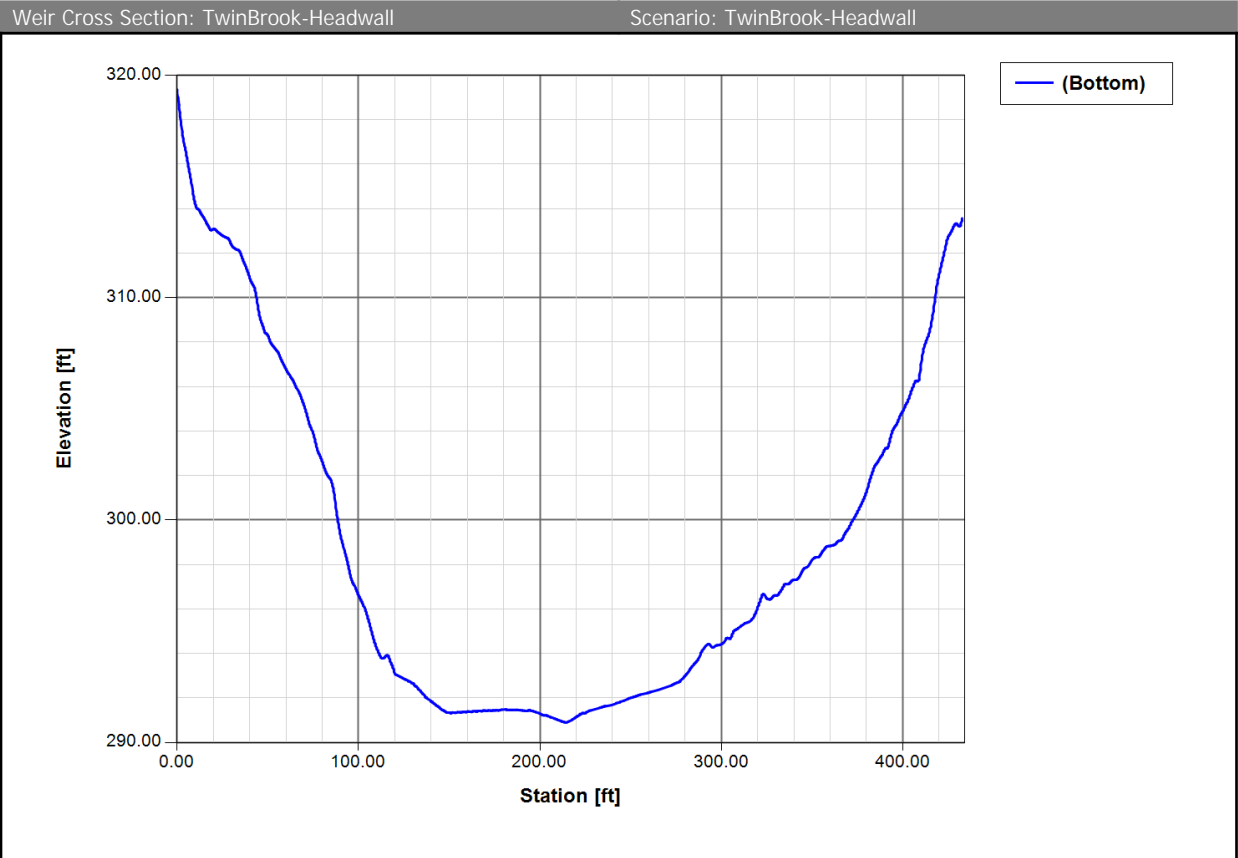


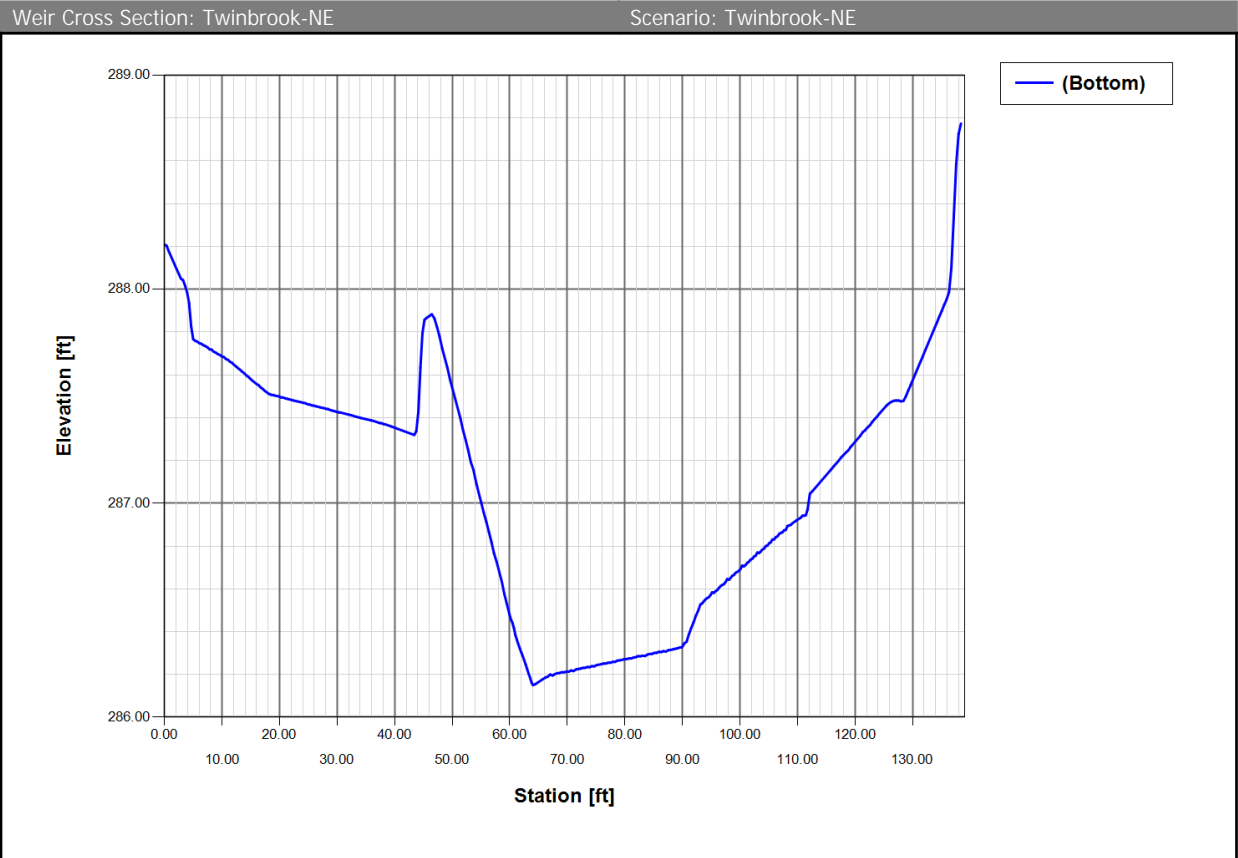


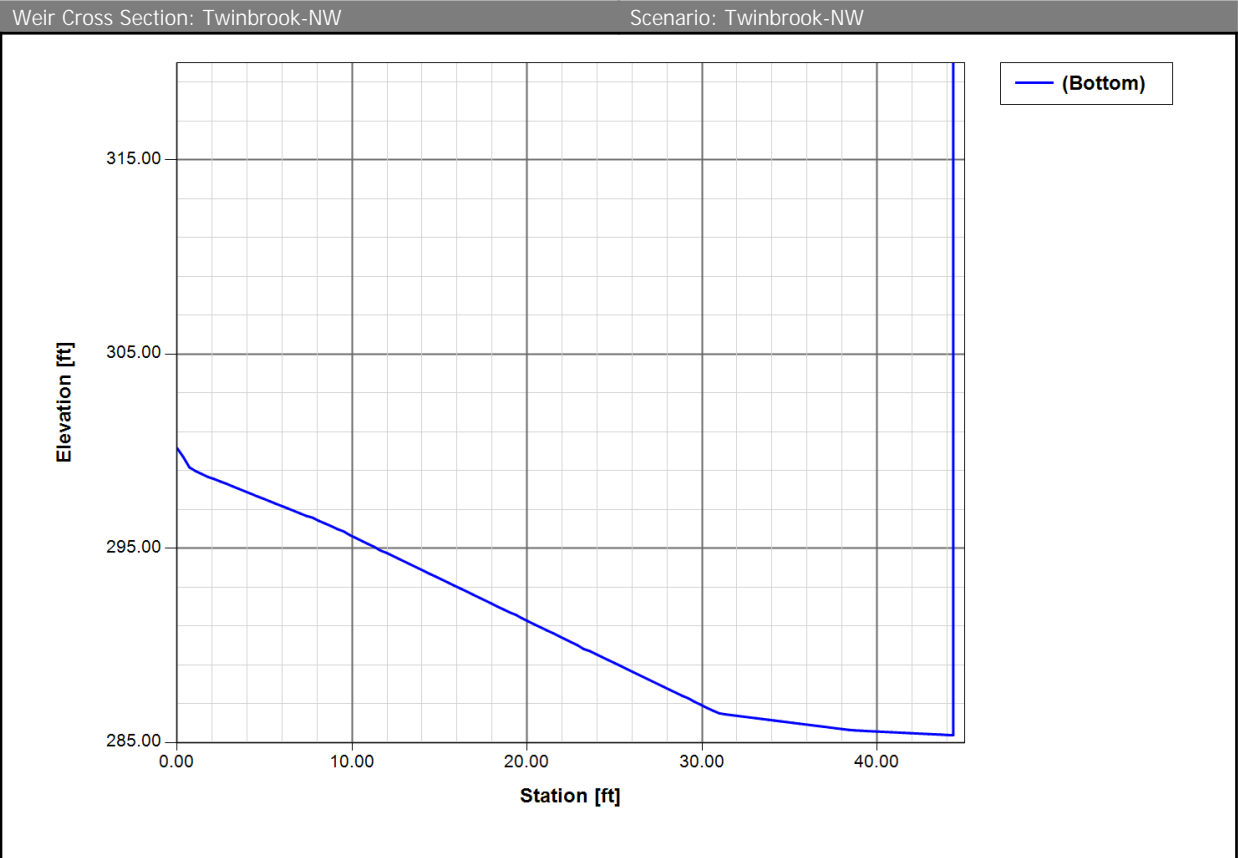


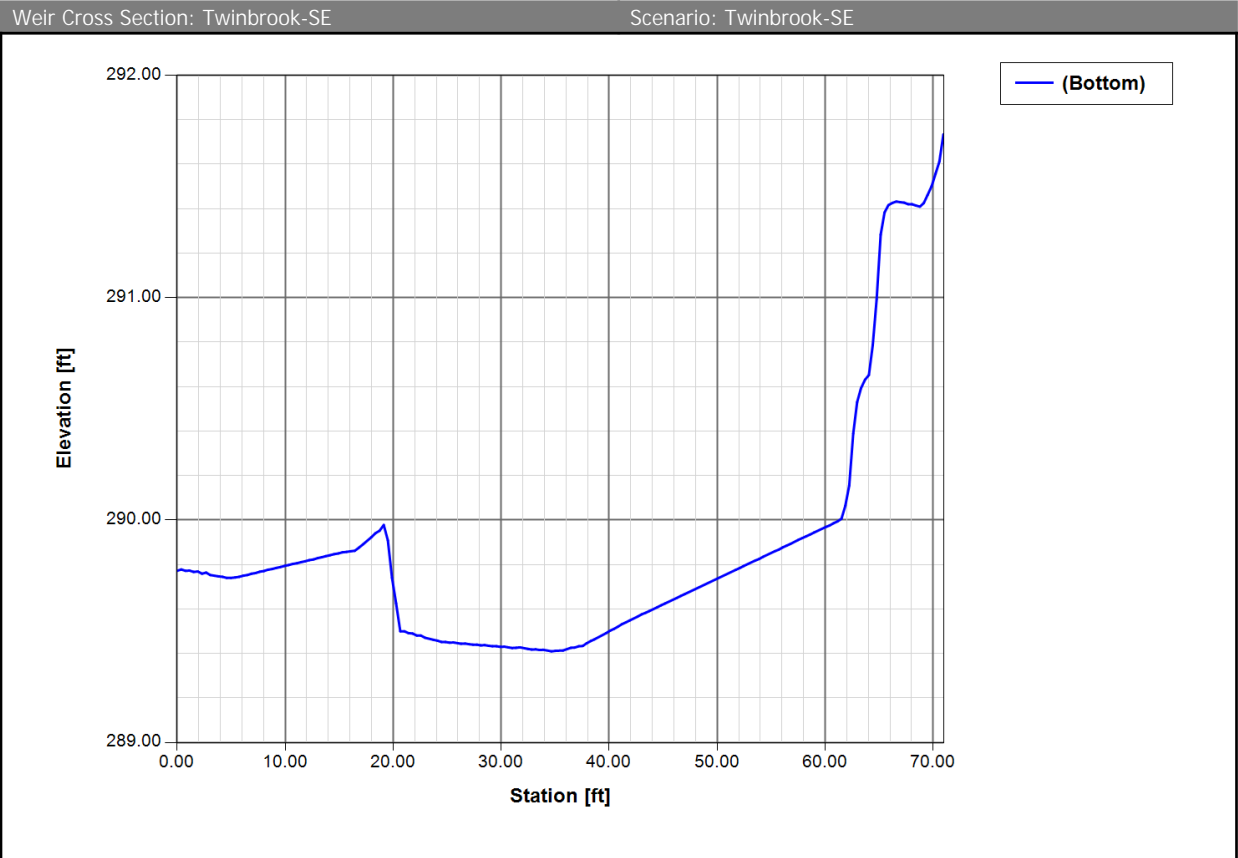


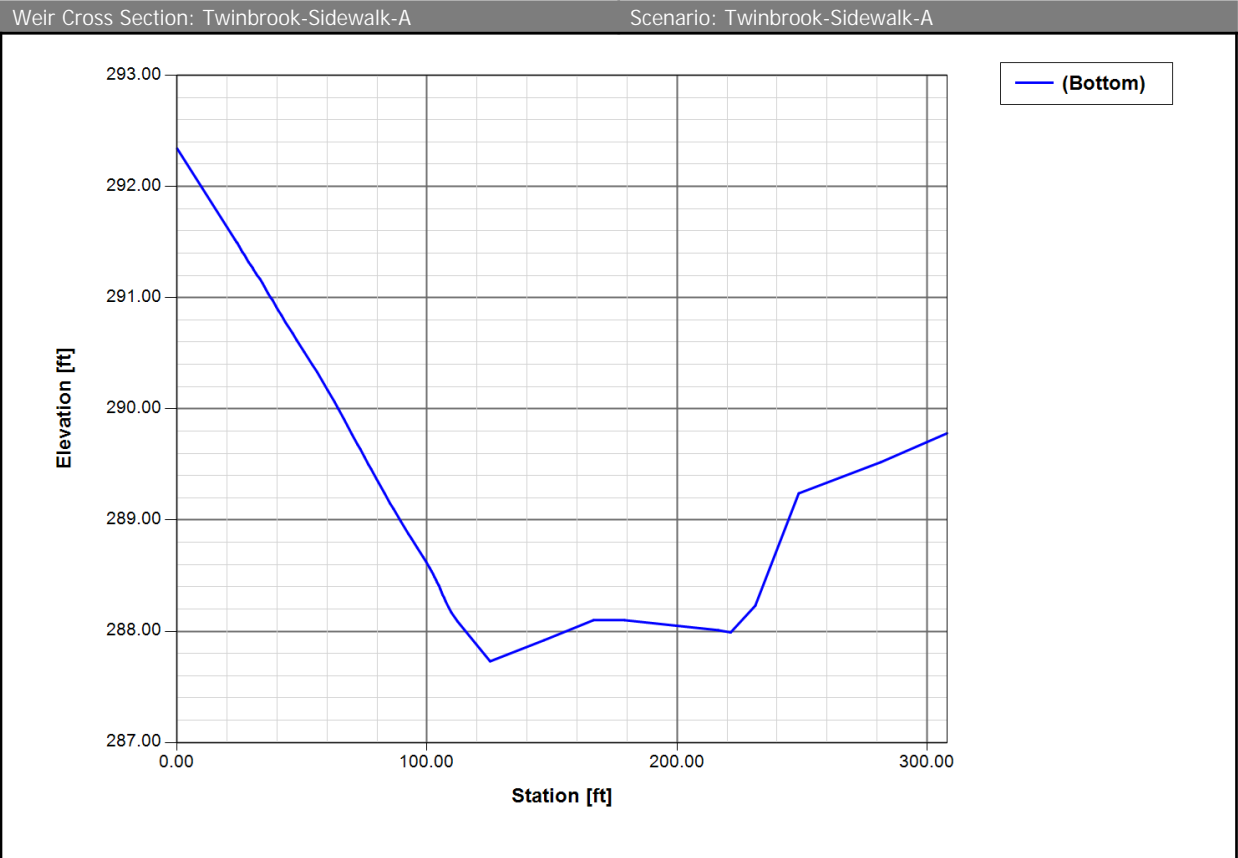






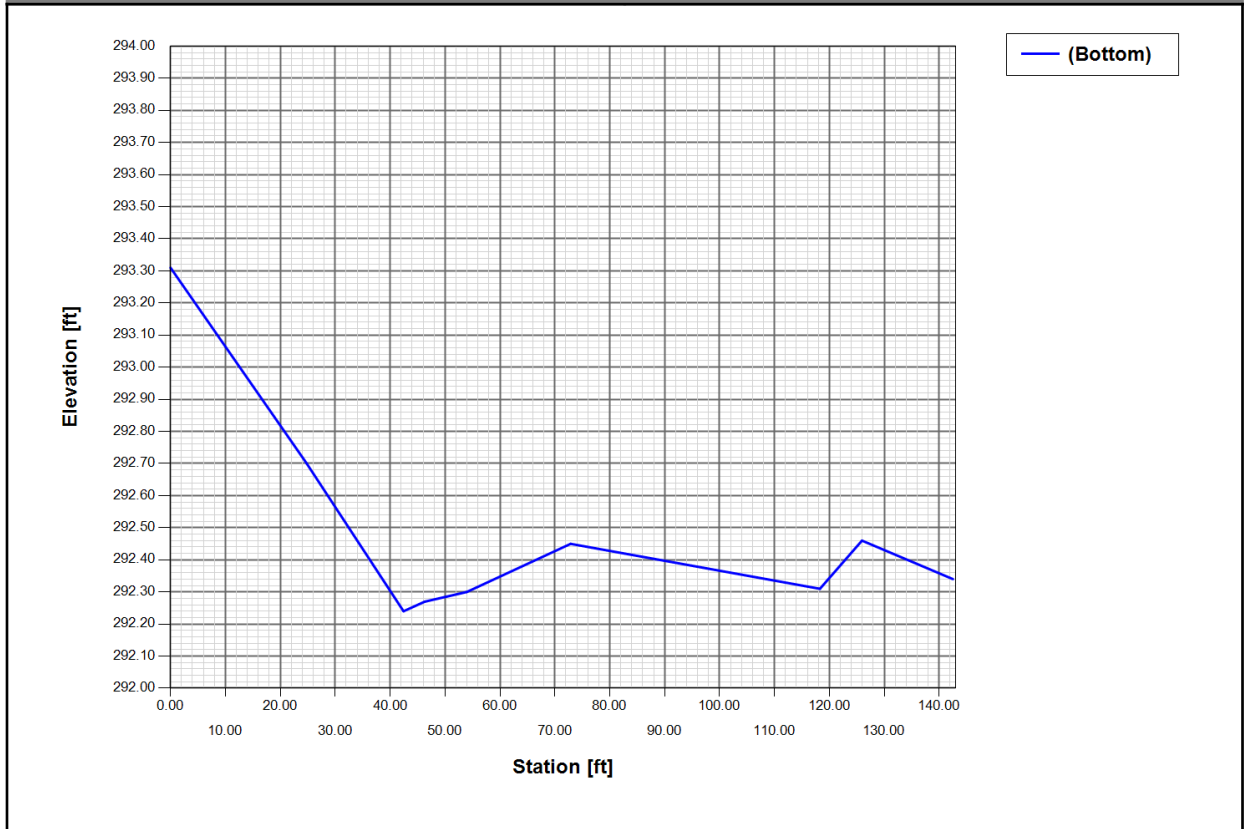


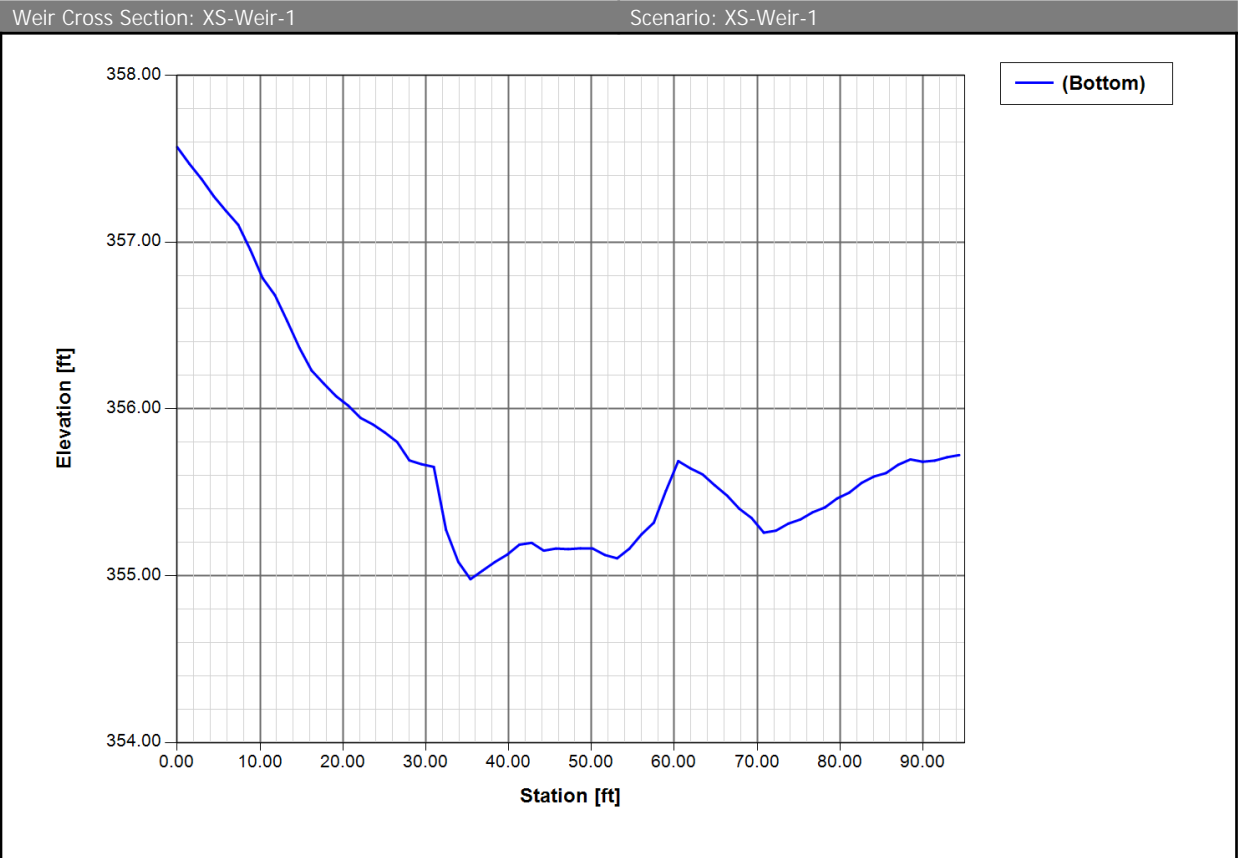


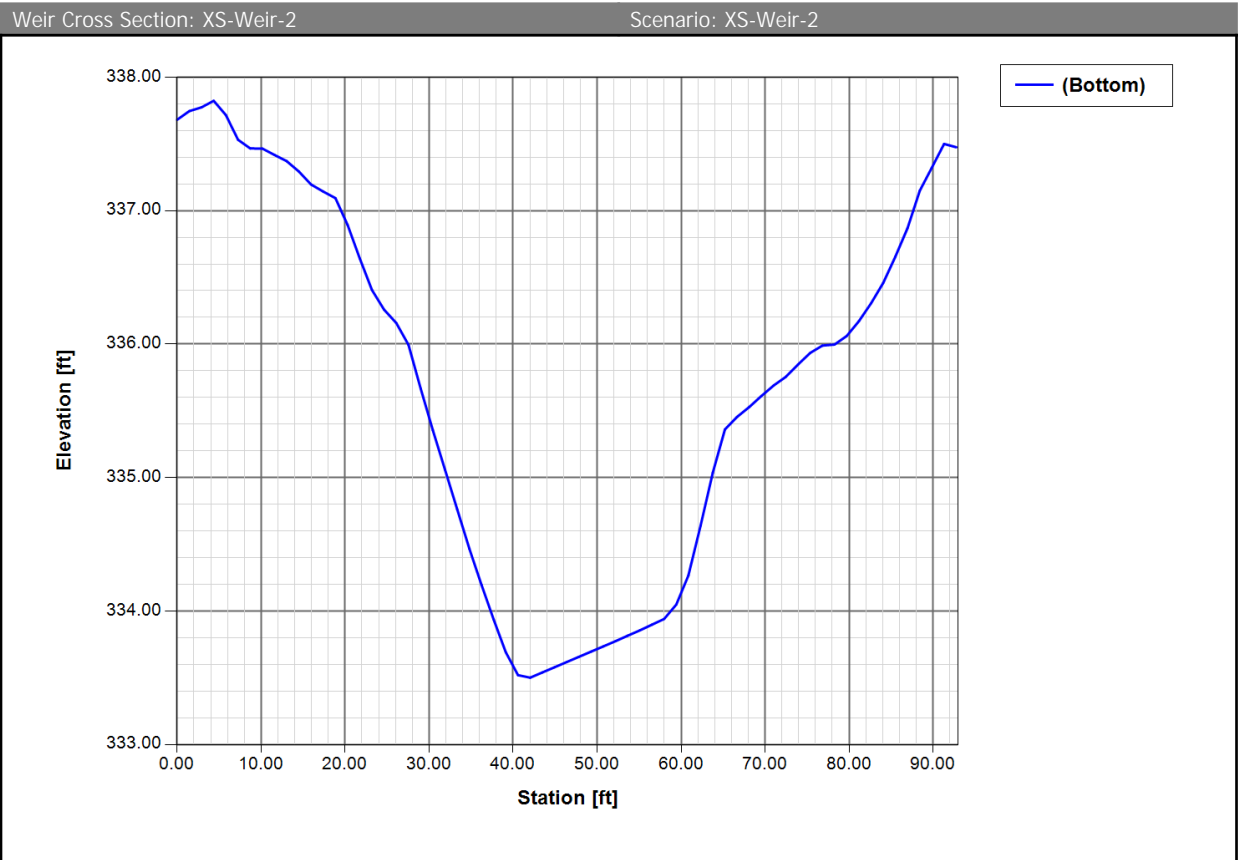


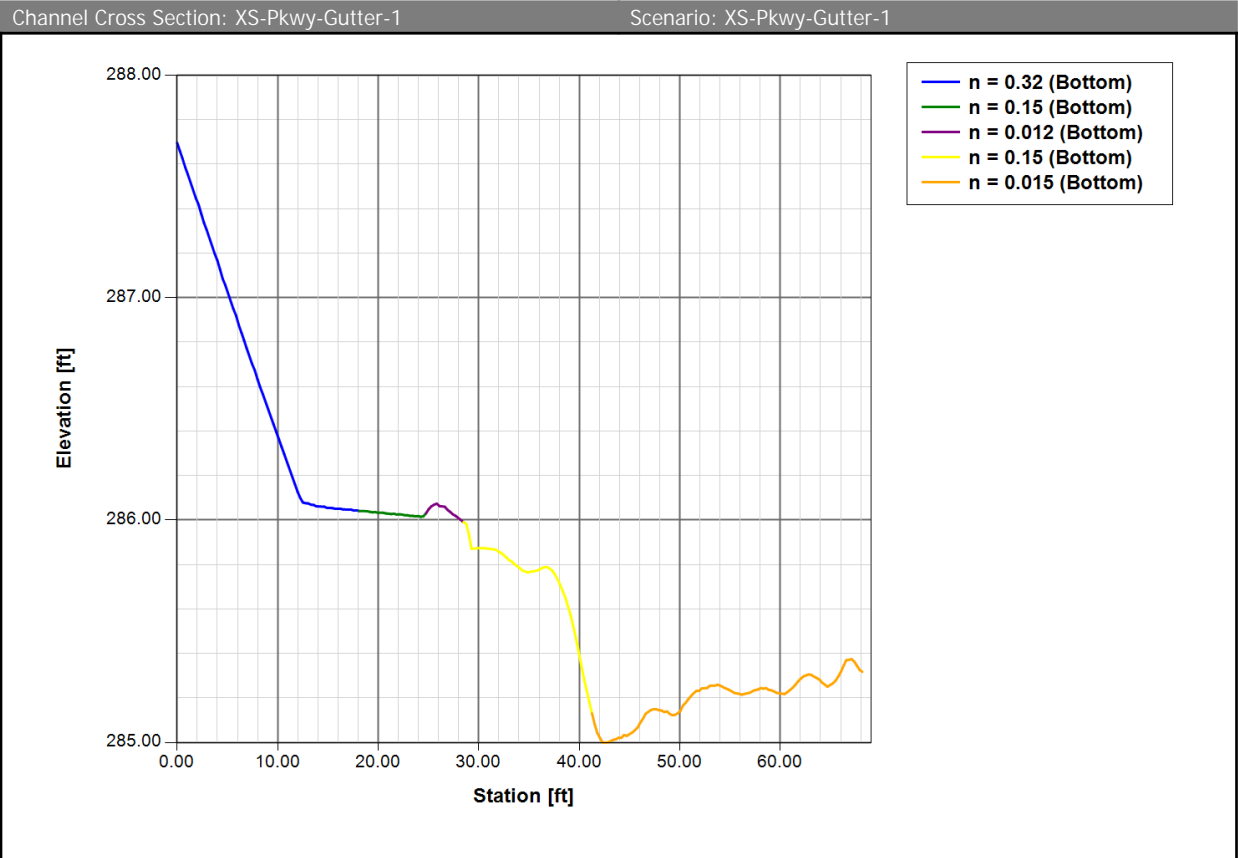
Weir Cross Section: Twinbrook-Sidewalk-B

Scenario: Twinbrook-Sidewalk-B



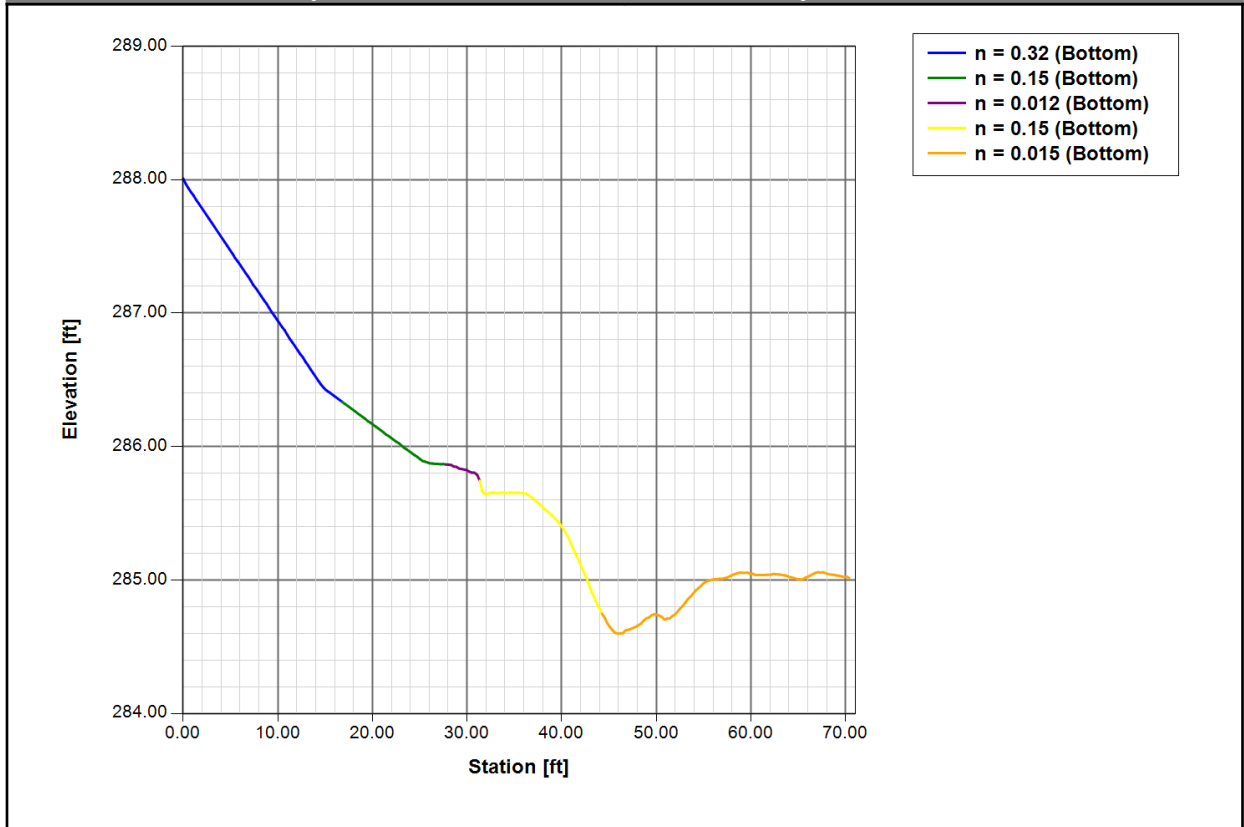






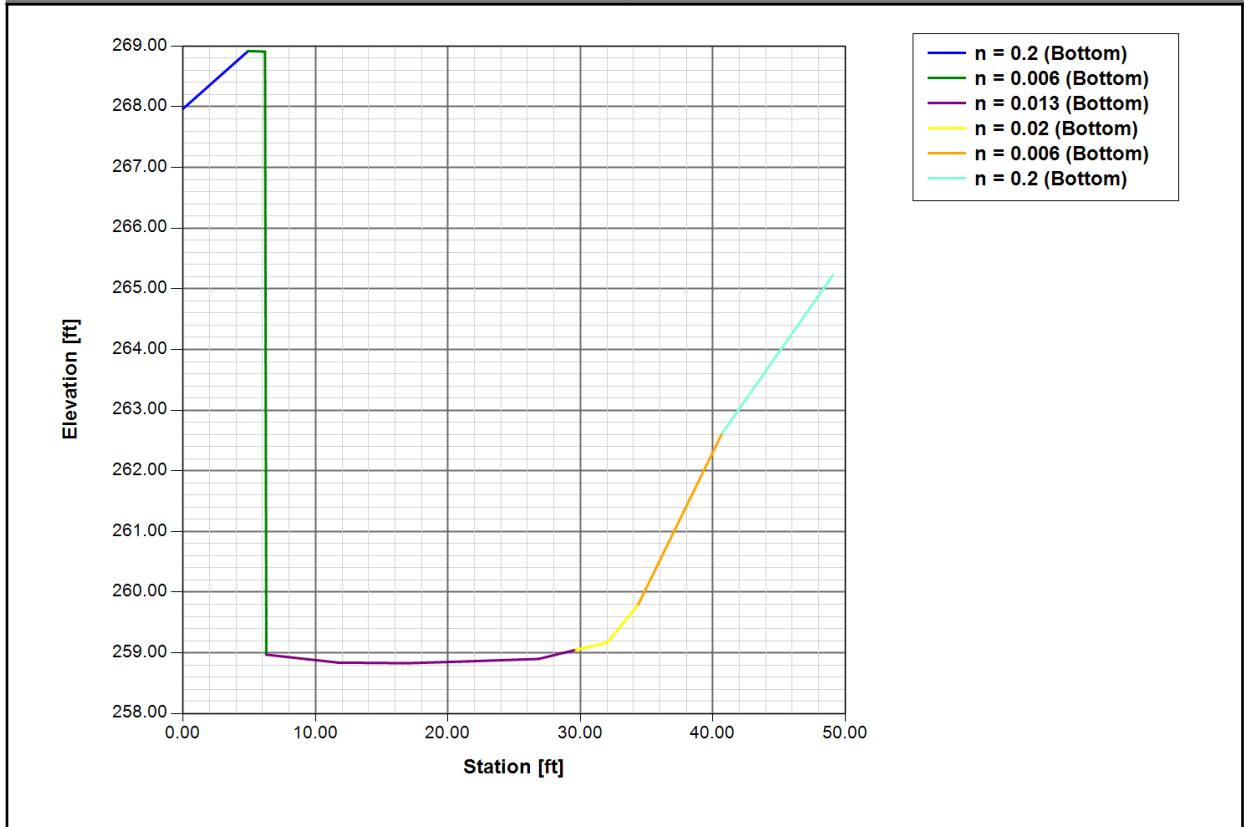
Channel Cross Section: XS-Pkwy-Gutter-2

Scenario: XS-Pkwy-Gutter-2



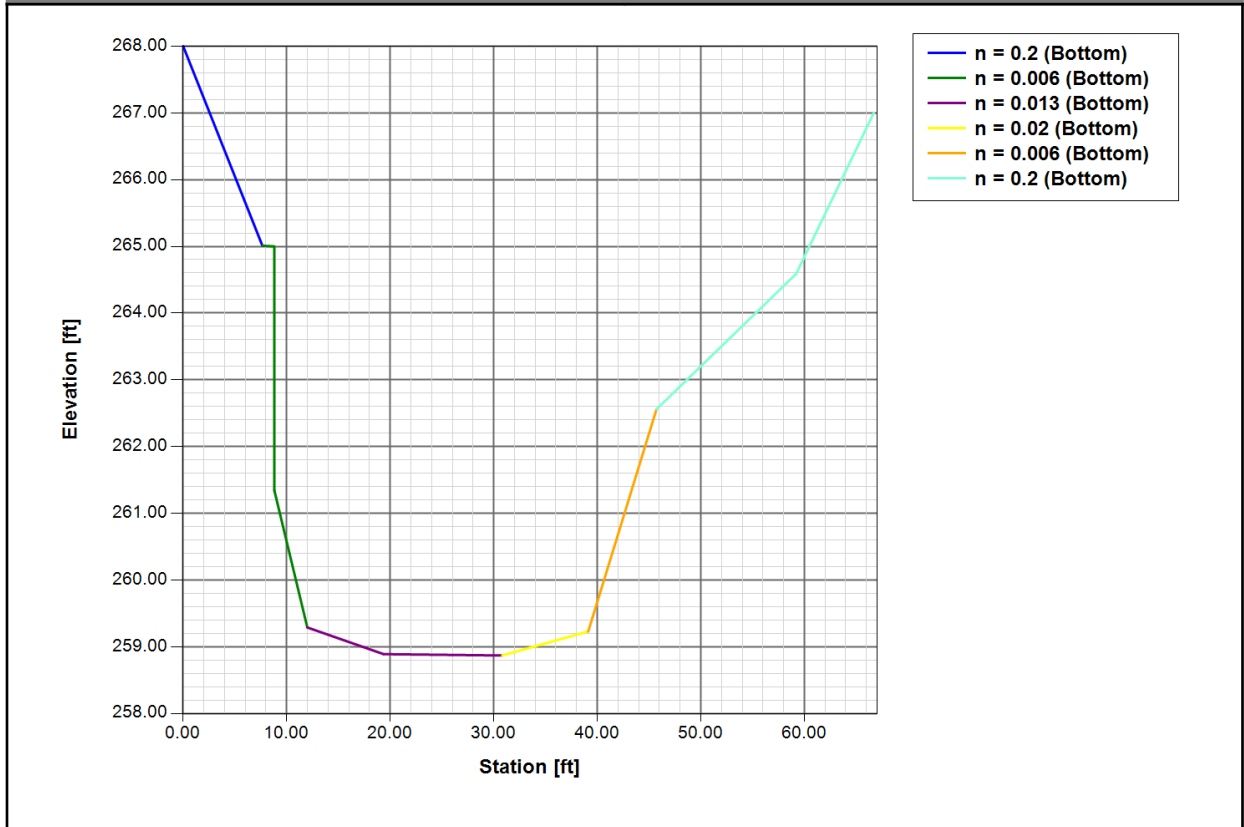
Channel Cross Section: XS-Rock-01

Scenario: XS-Rock-01



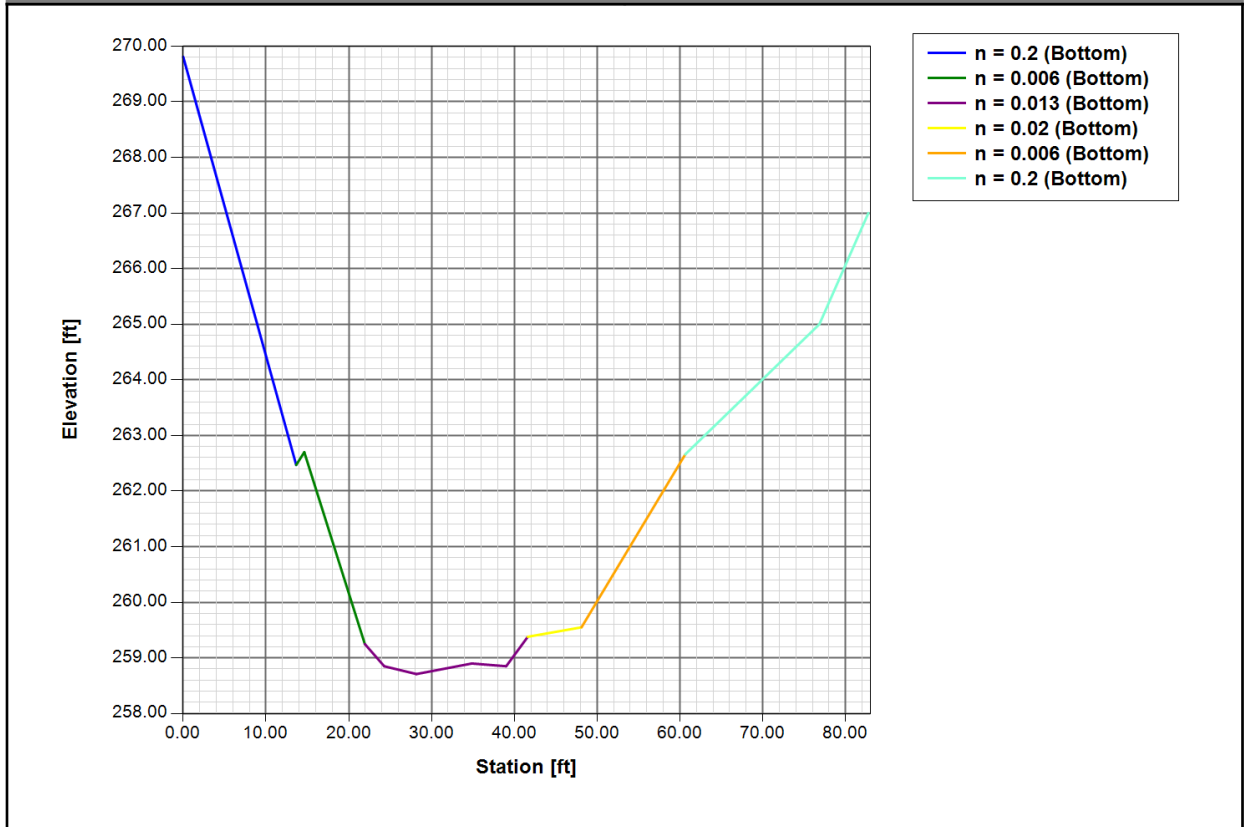
Channel Cross Section: XS-Rock-02

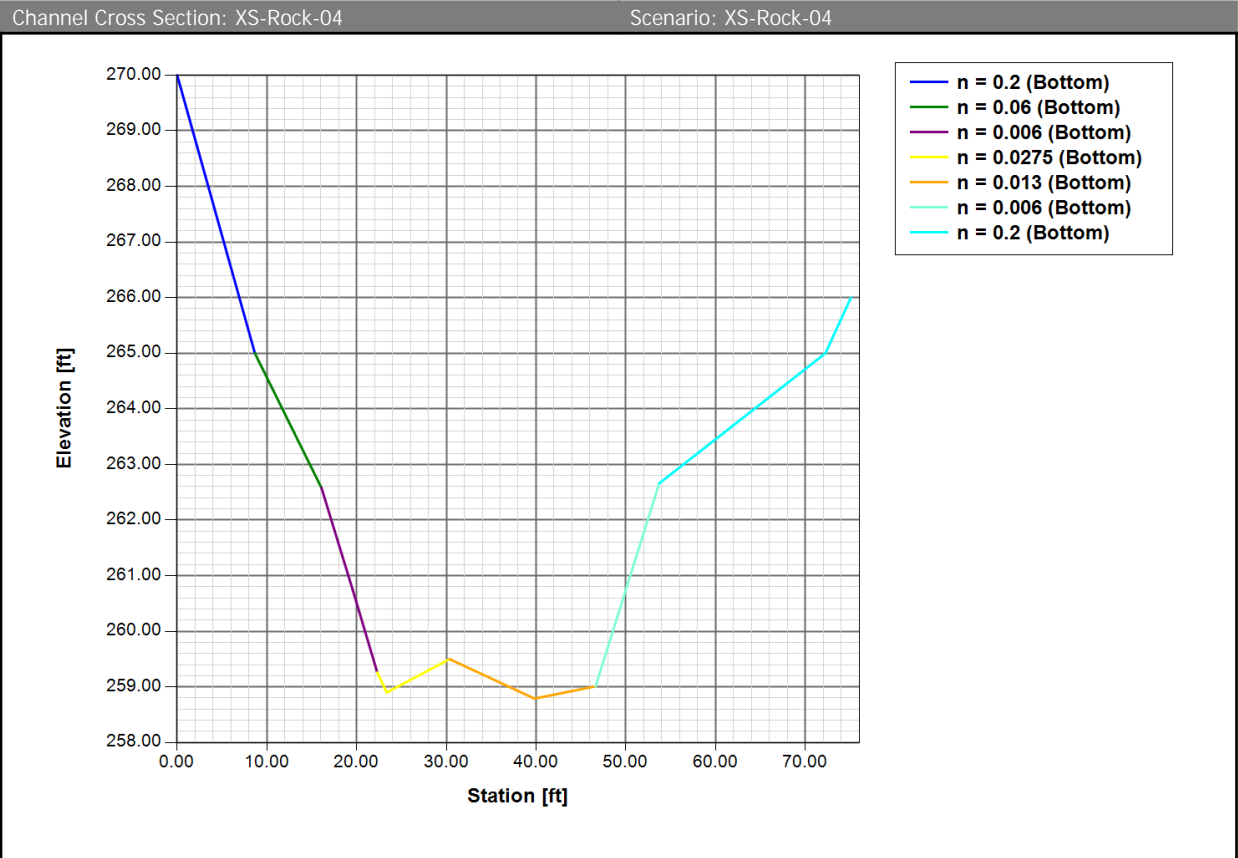
Scenario: XS-Rock-02

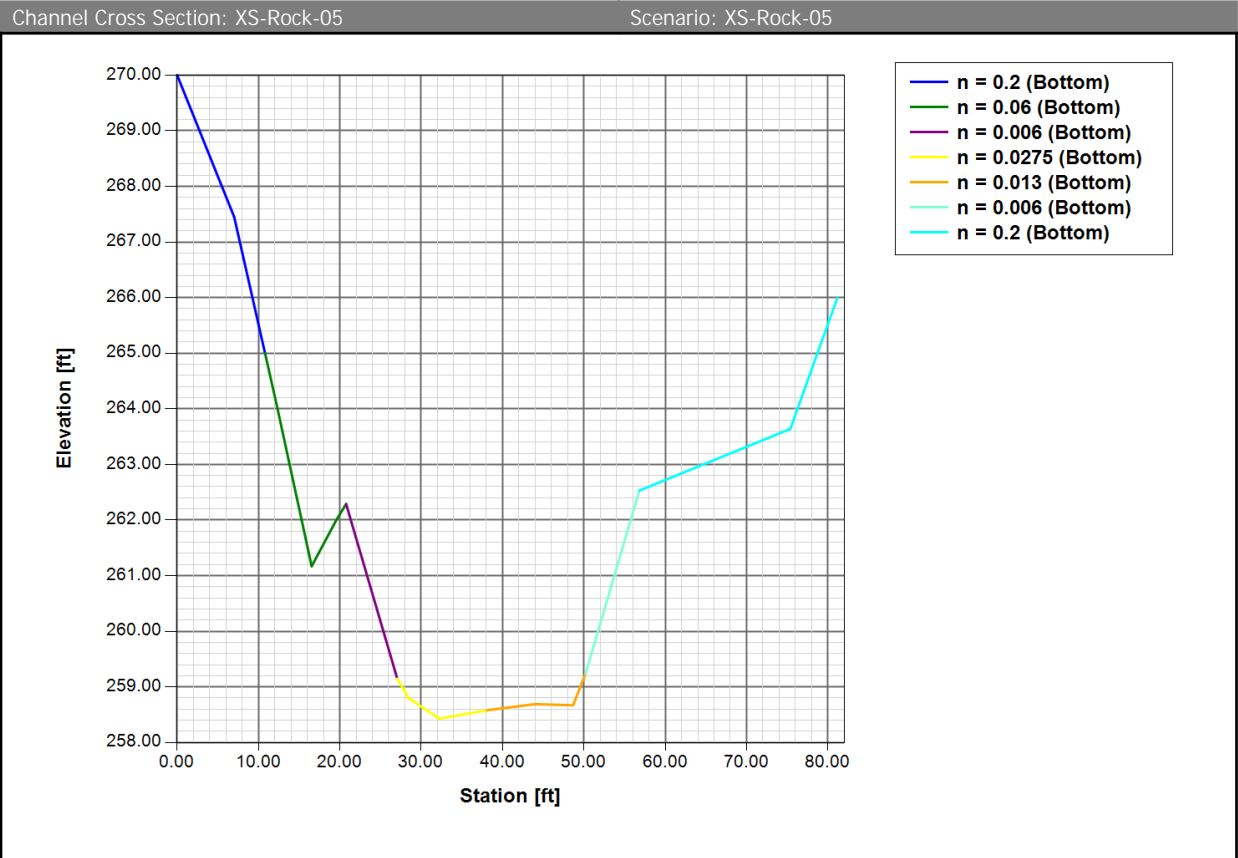


Channel Cross Section: XS-Rock-03

Scenario: XS-Rock-03

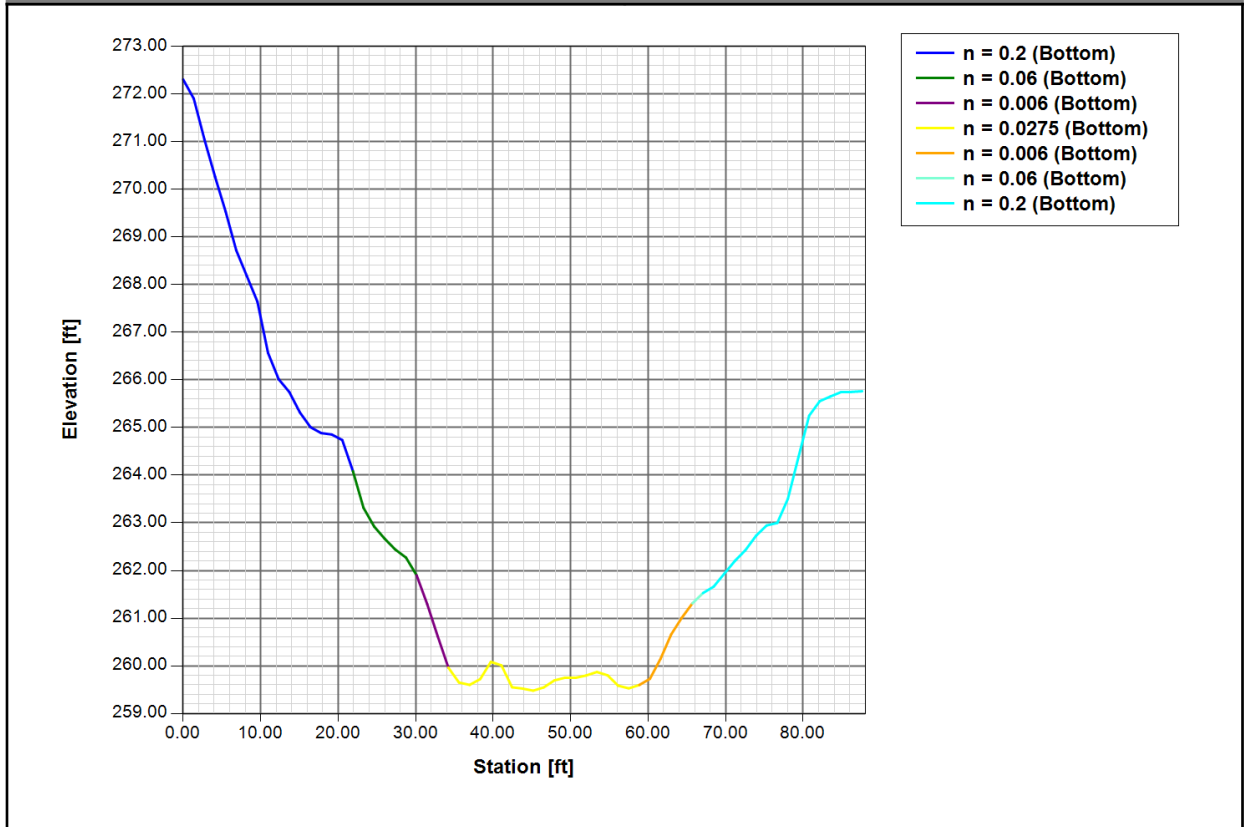


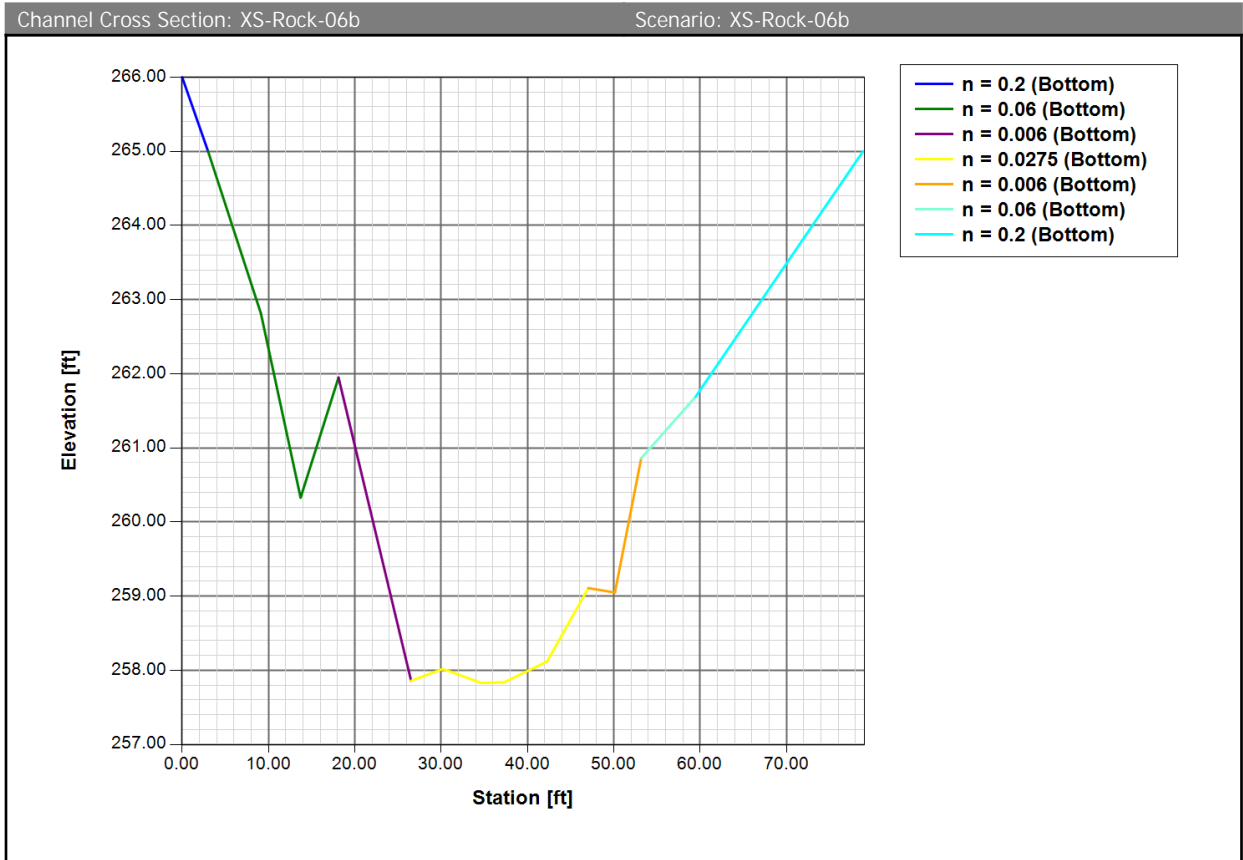


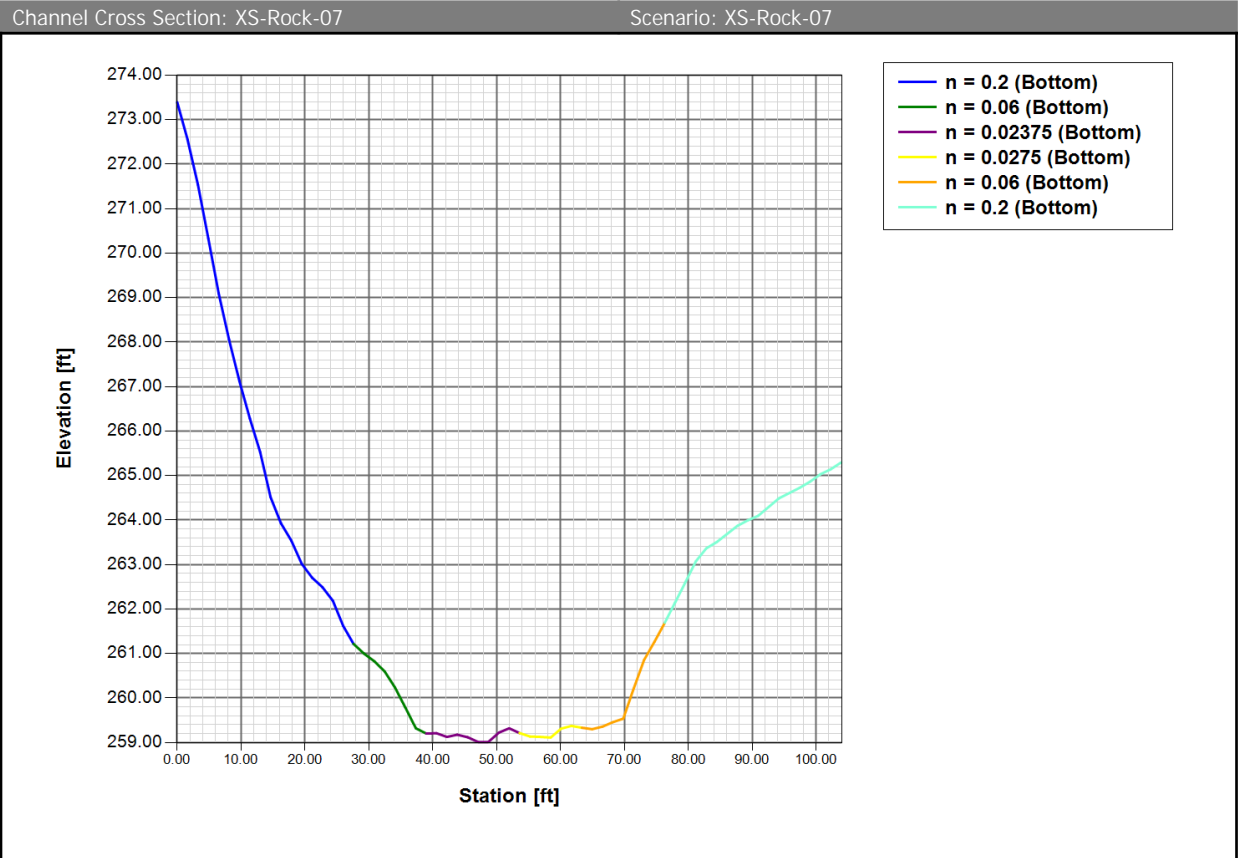


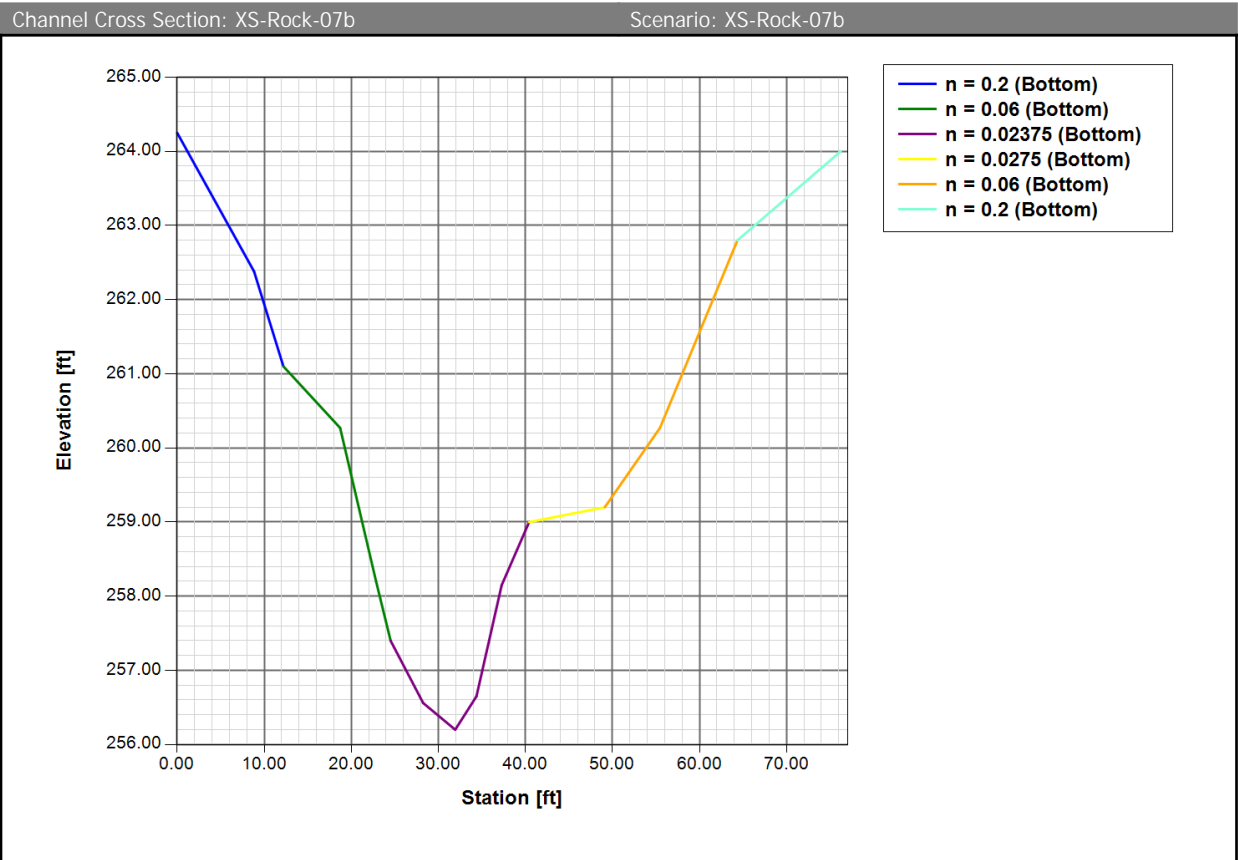
Channel Cross Section: XS-Rock-06

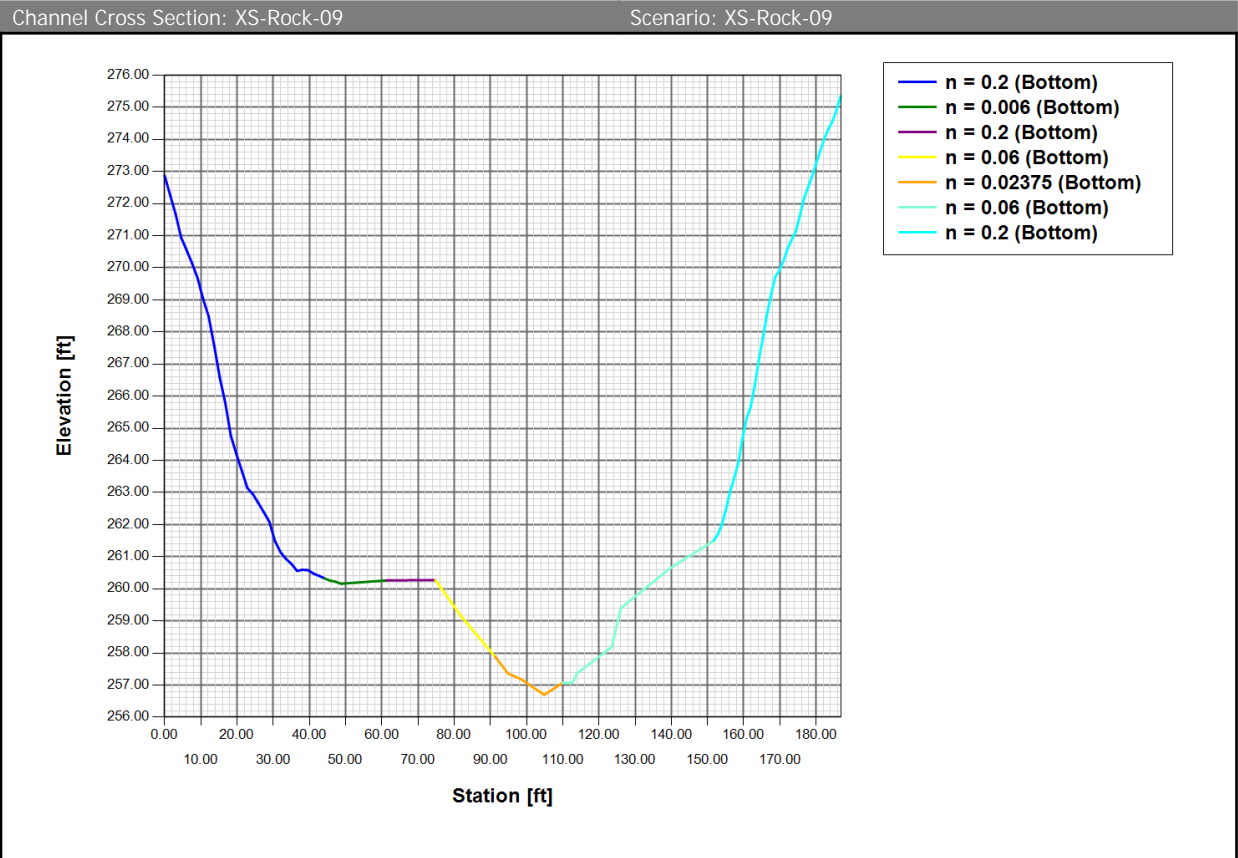
Scenario: XS-Rock-06

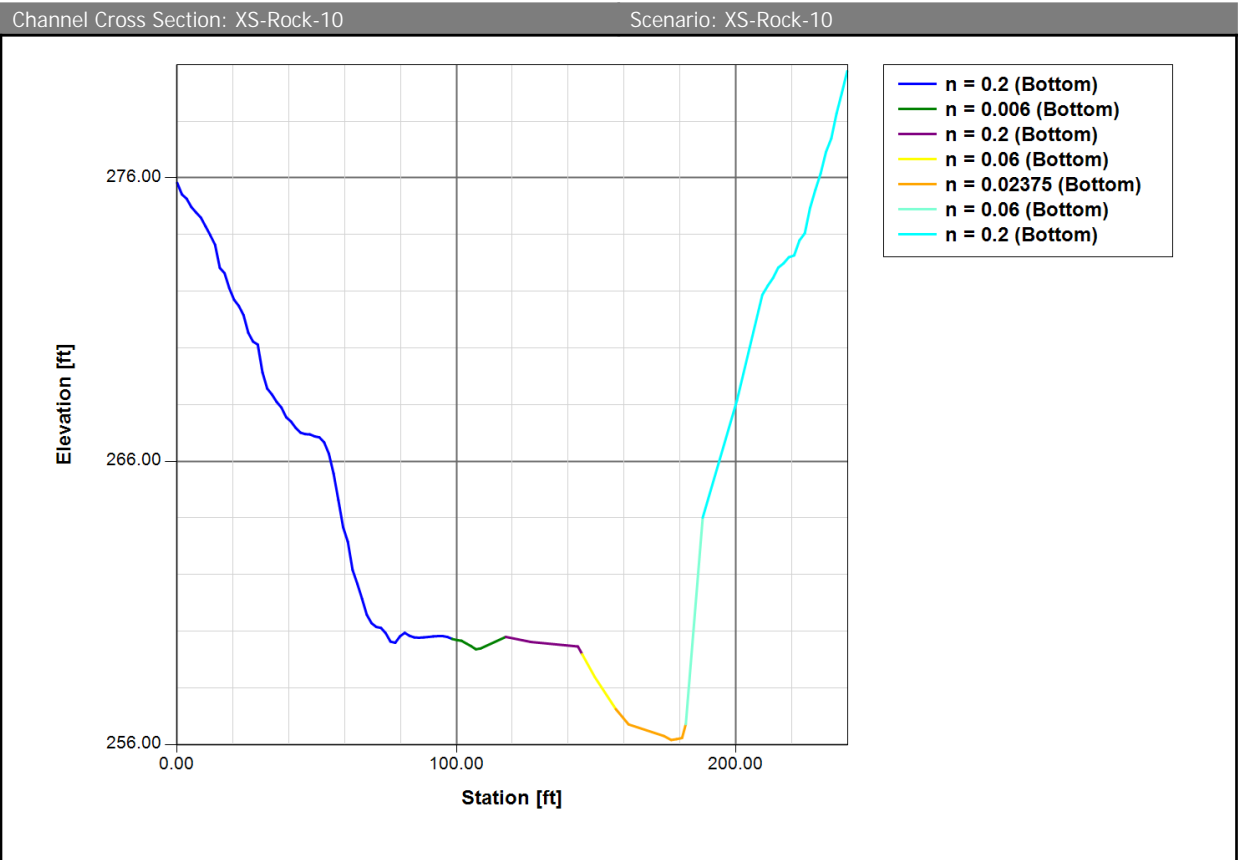


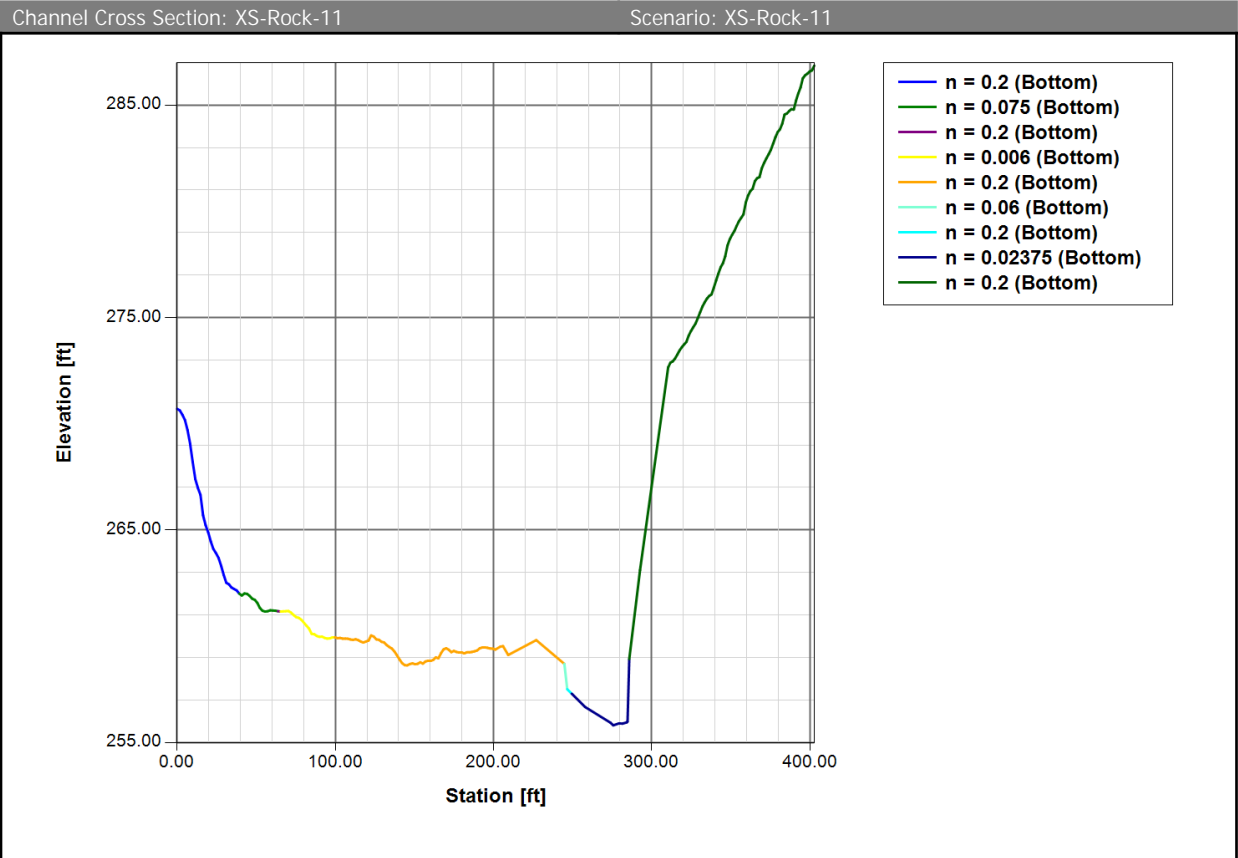


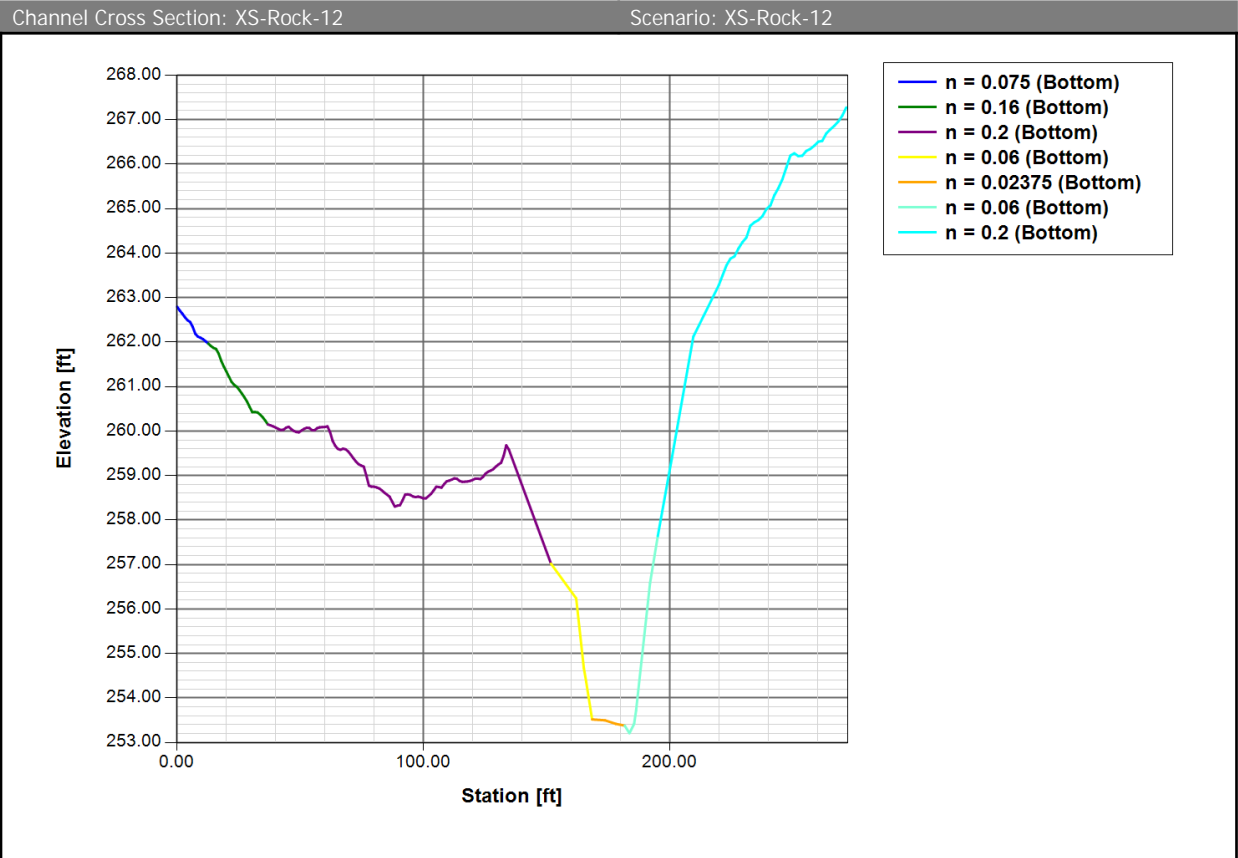






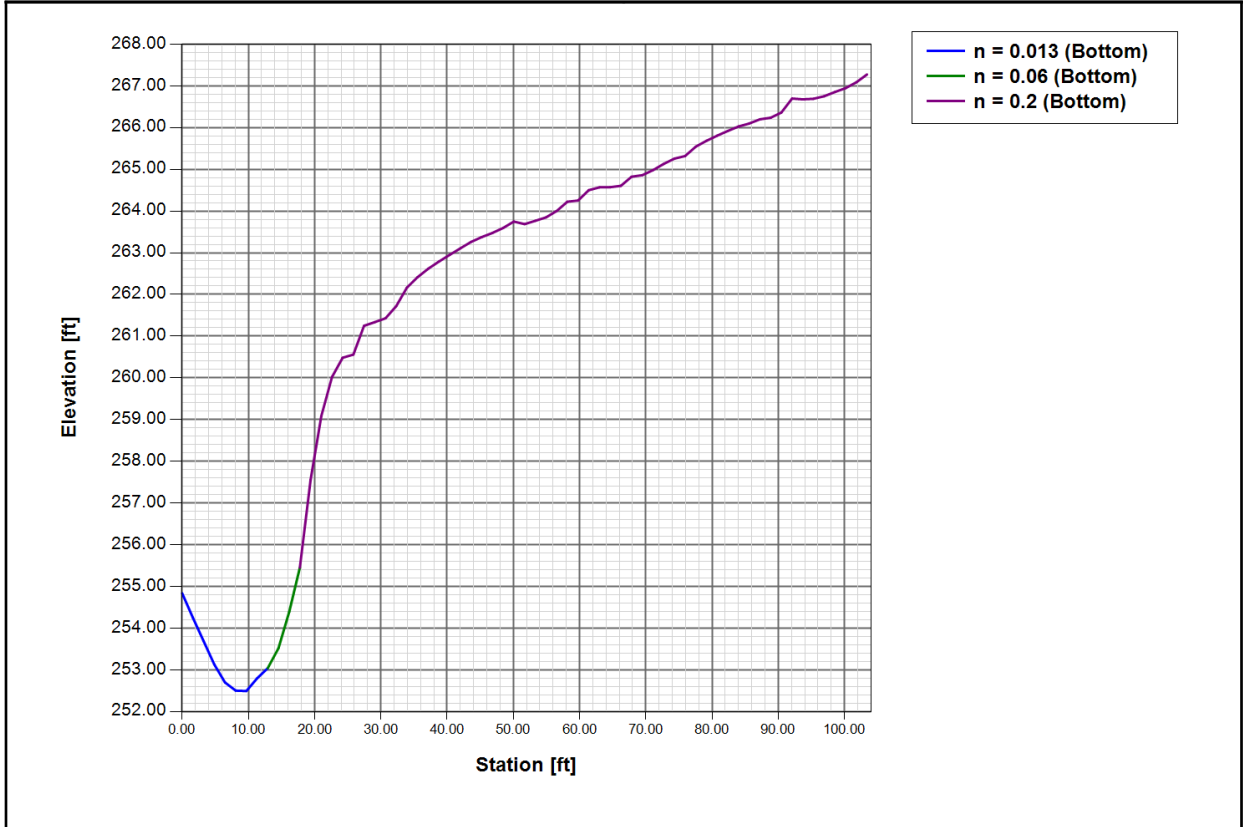






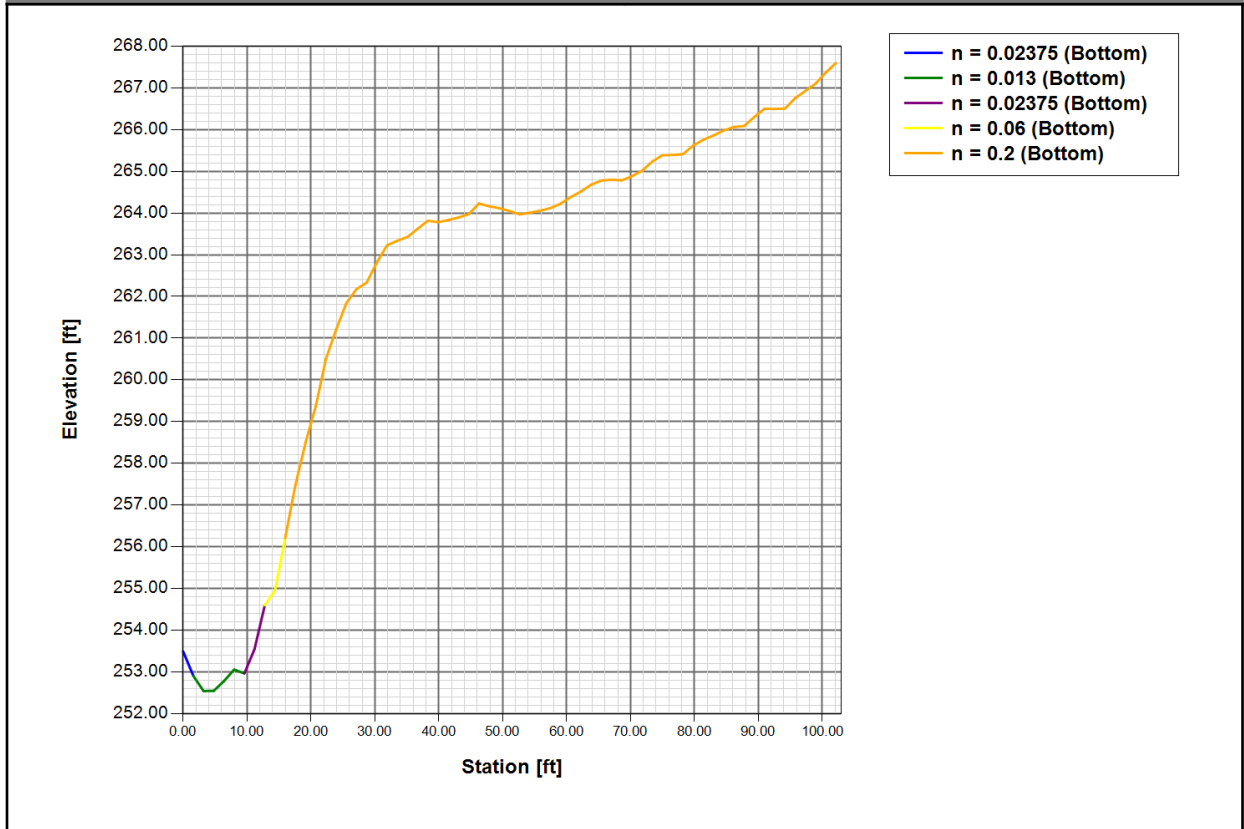
Channel Cross Section: XS-Rock-13

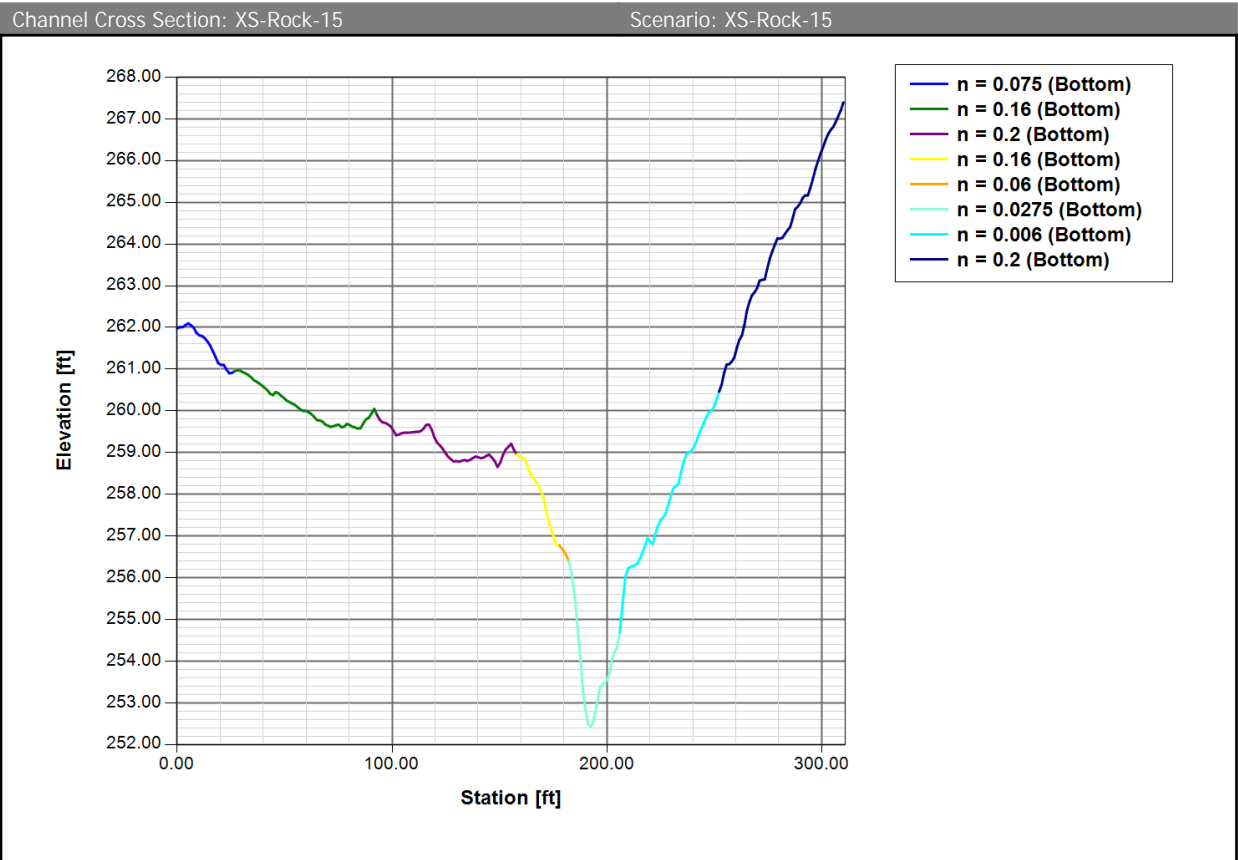
Scenario: XS-Rock-13



Channel Cross Section: XS-Rock-14

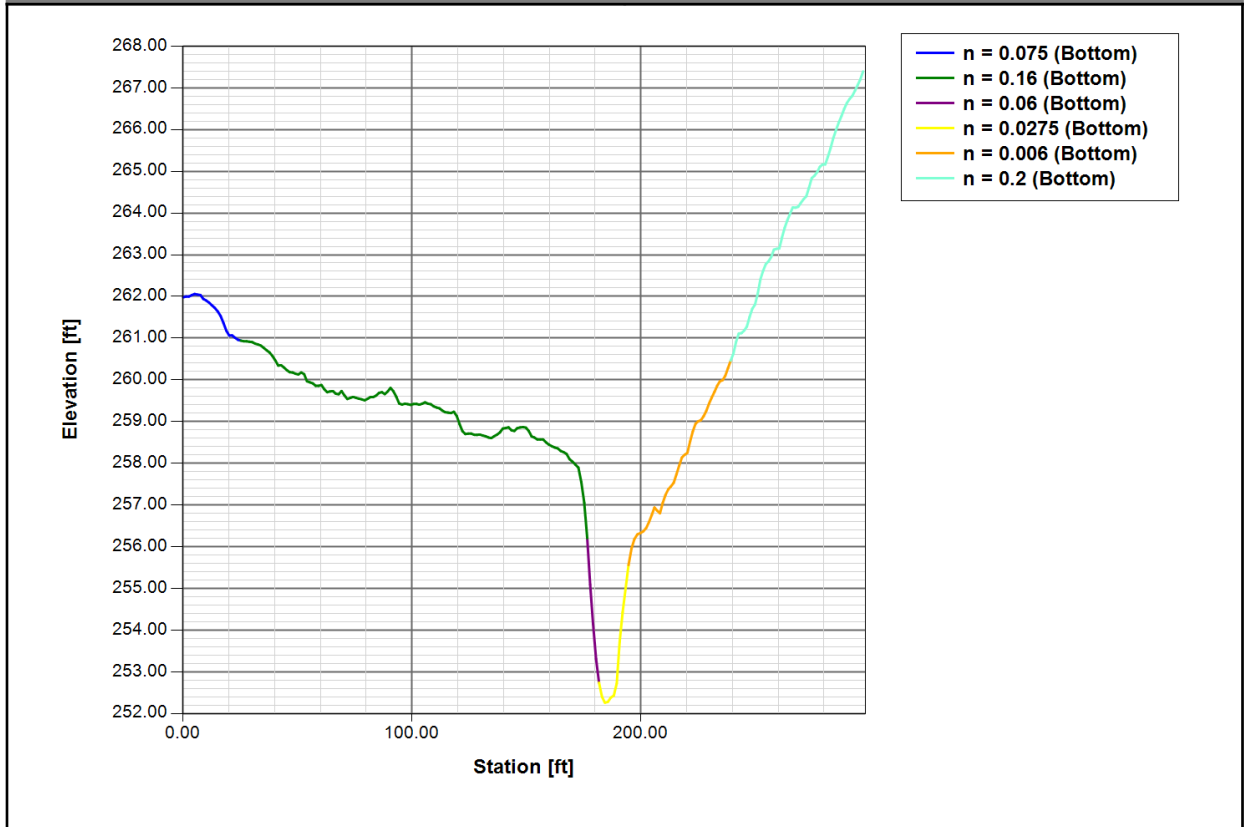
Scenario: XS-Rock-14





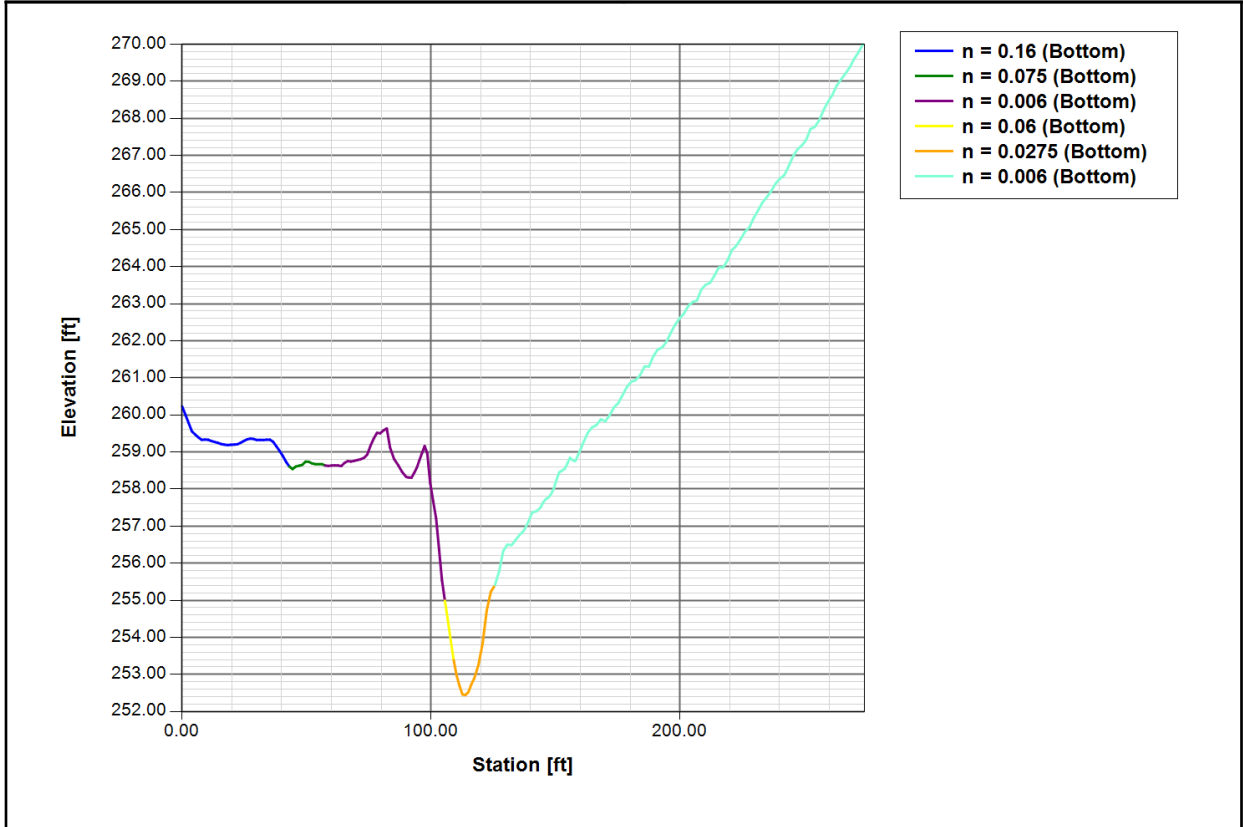
Channel Cross Section: XS-Rock-16

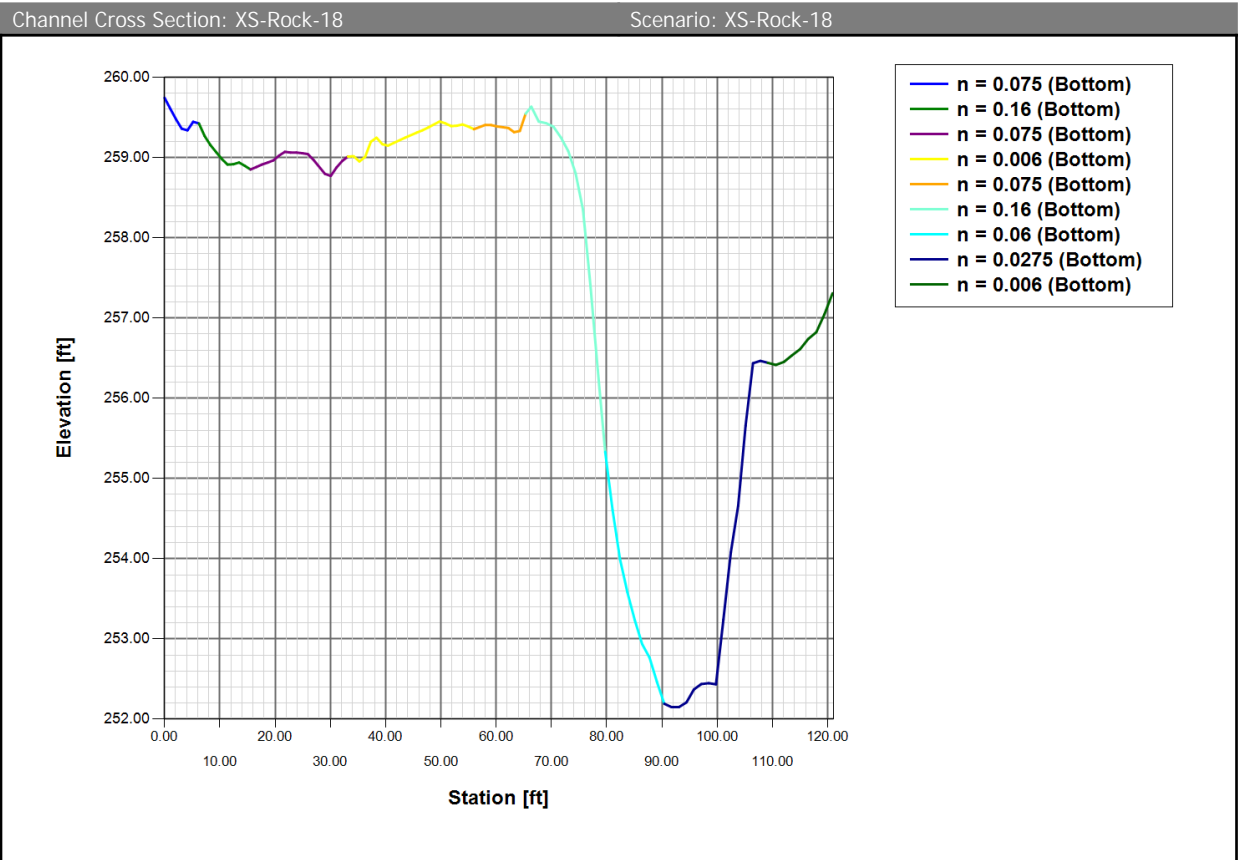
Scenario: XS-Rock-16



Channel Cross Section: XS-Rock-17

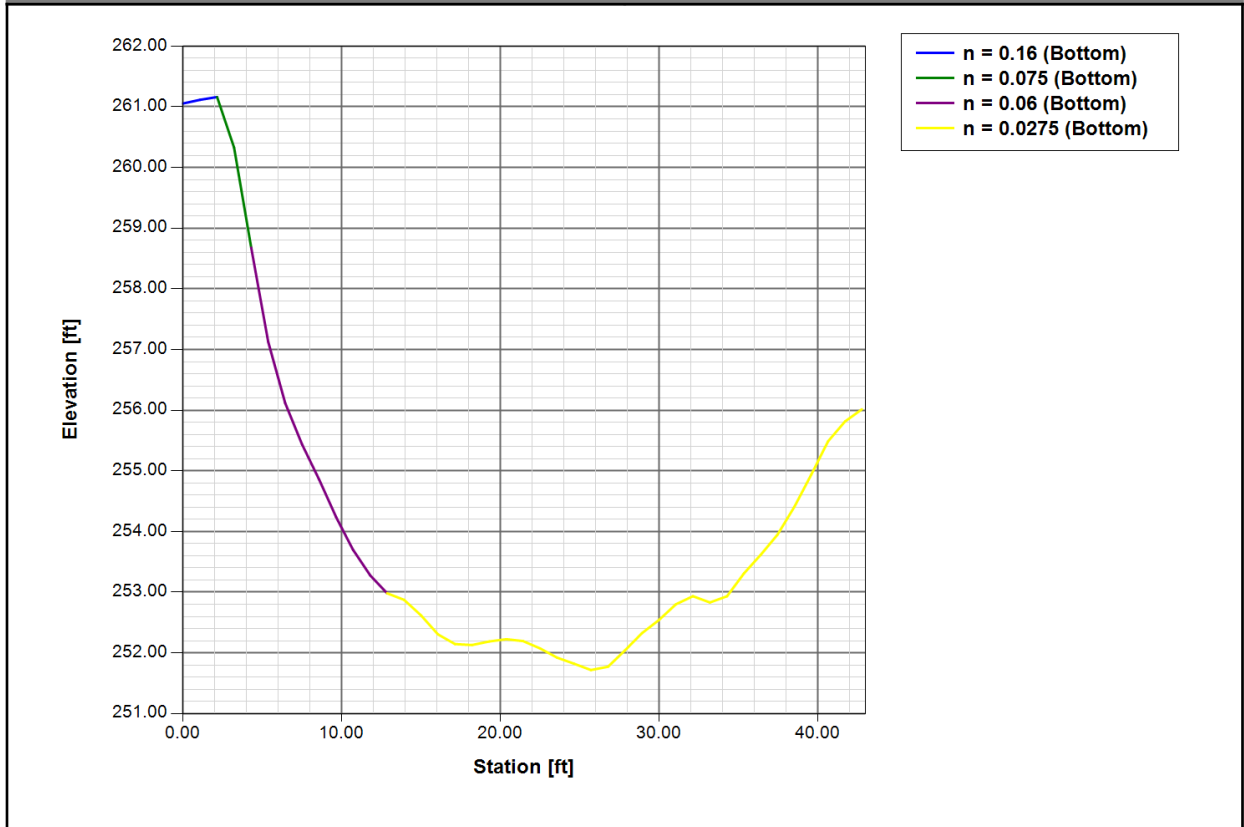
Scenario: XS-Rock-17





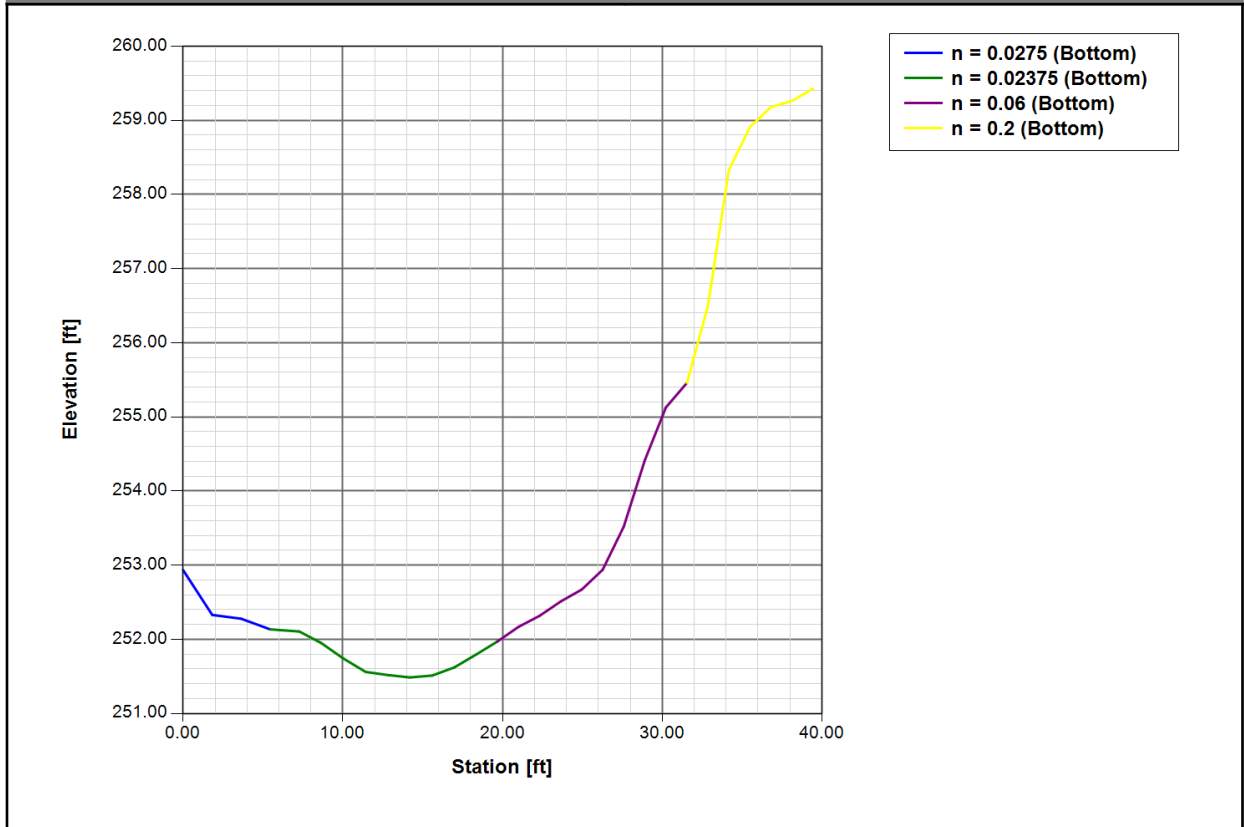
Channel Cross Section: XS-Rock-19

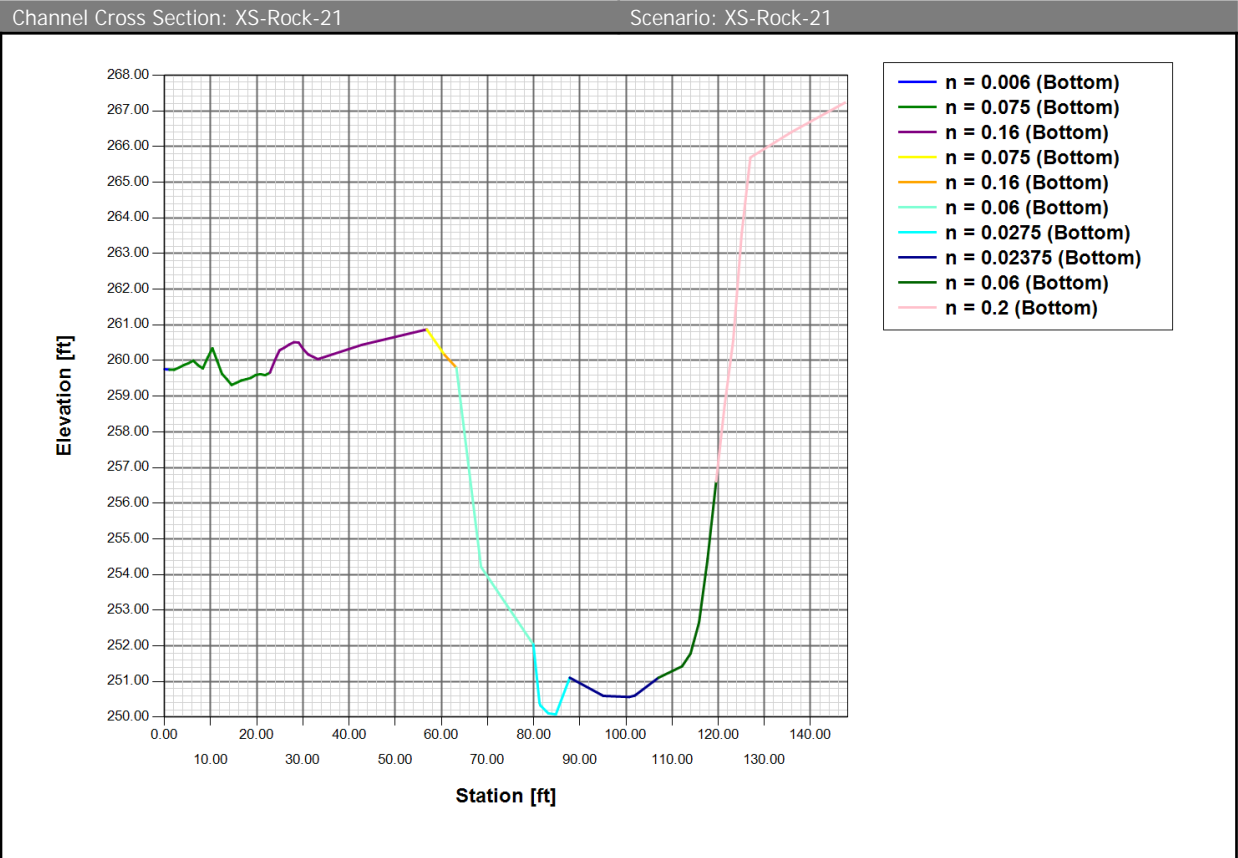
Scenario: XS-Rock-19



Channel Cross Section: XS-Rock-20

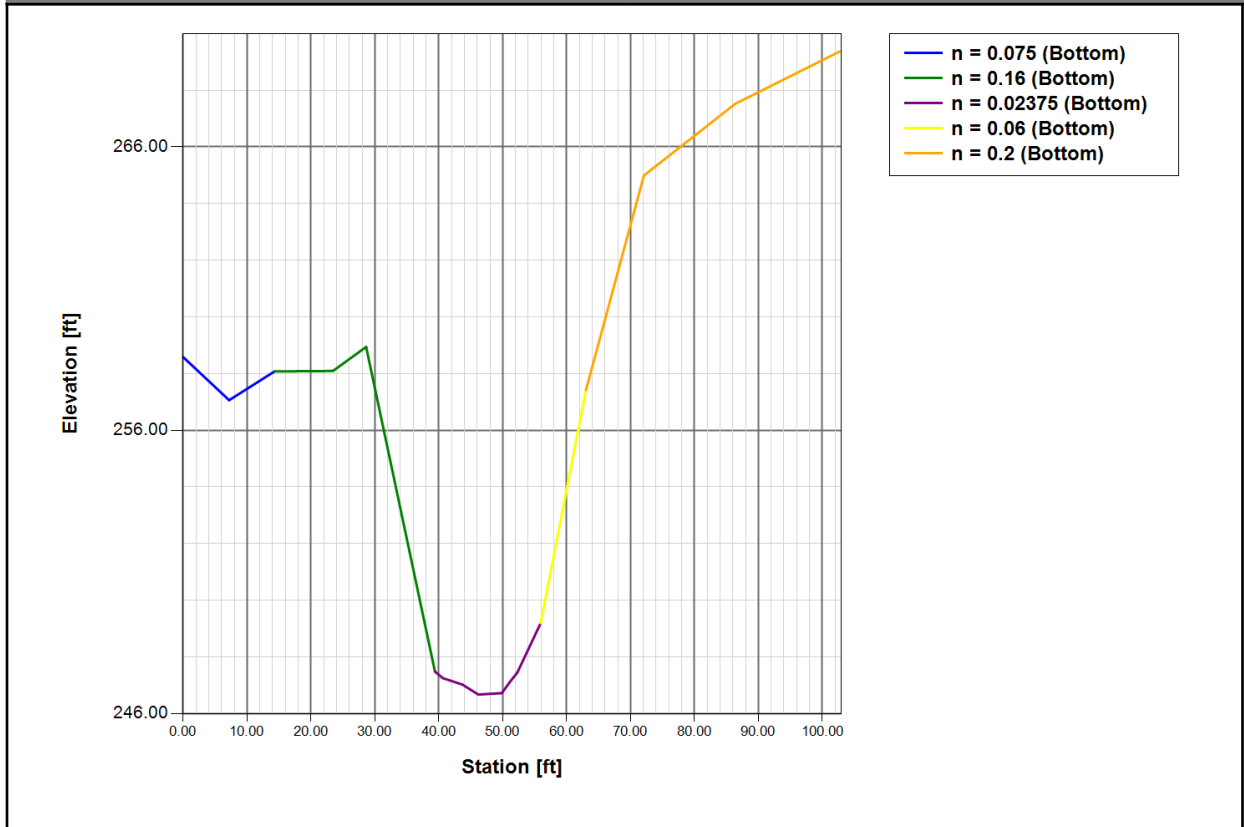
Scenario: XS-Rock-20





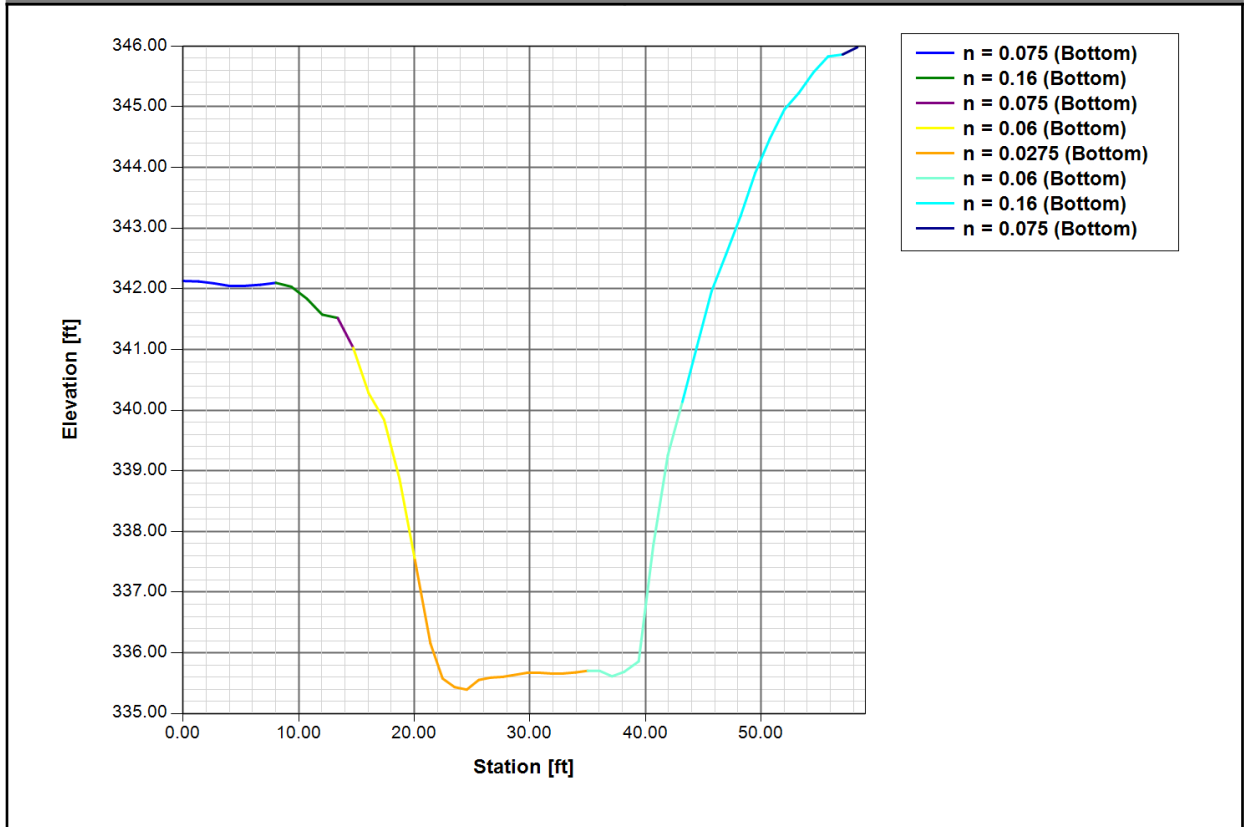
Channel Cross Section: XS-Rock-22

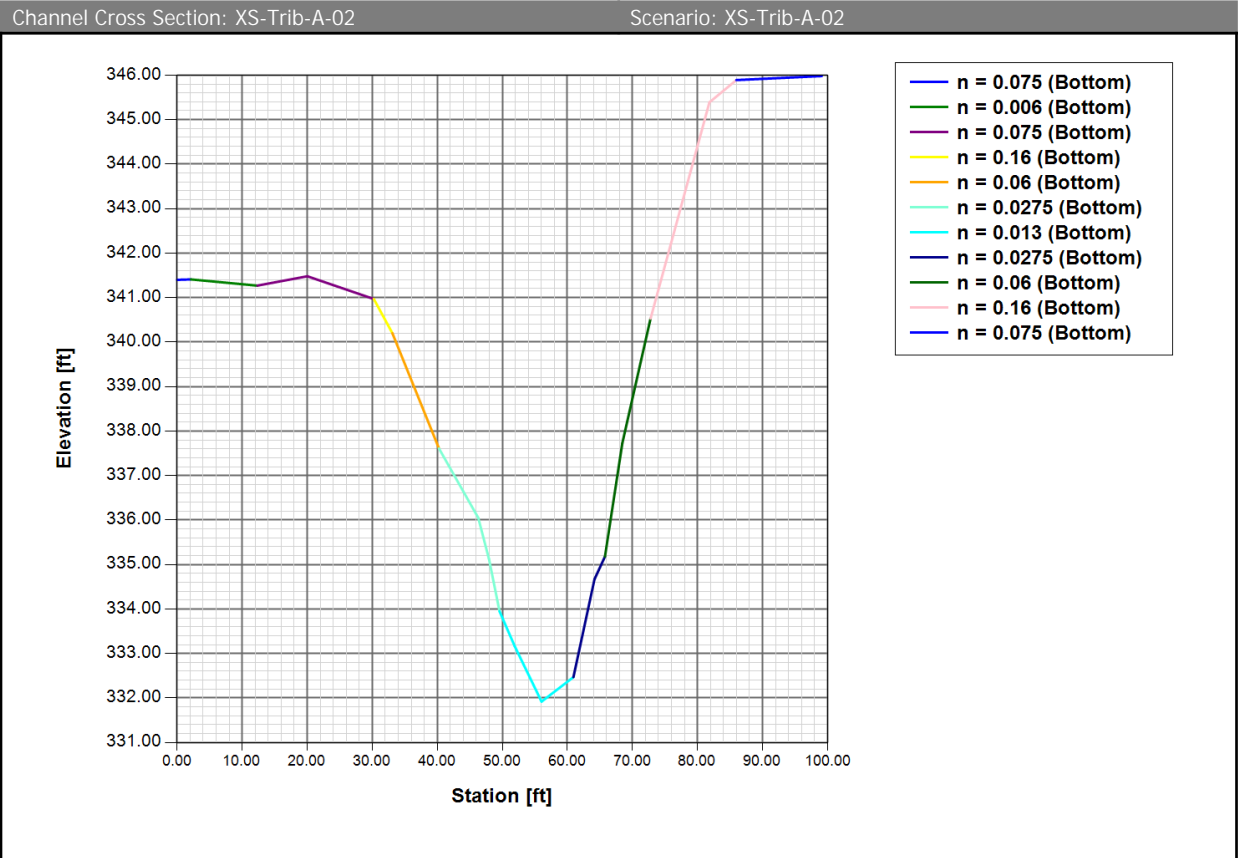
Scenario: XS-Rock-22



Channel Cross Section: XS-Trib-A-01

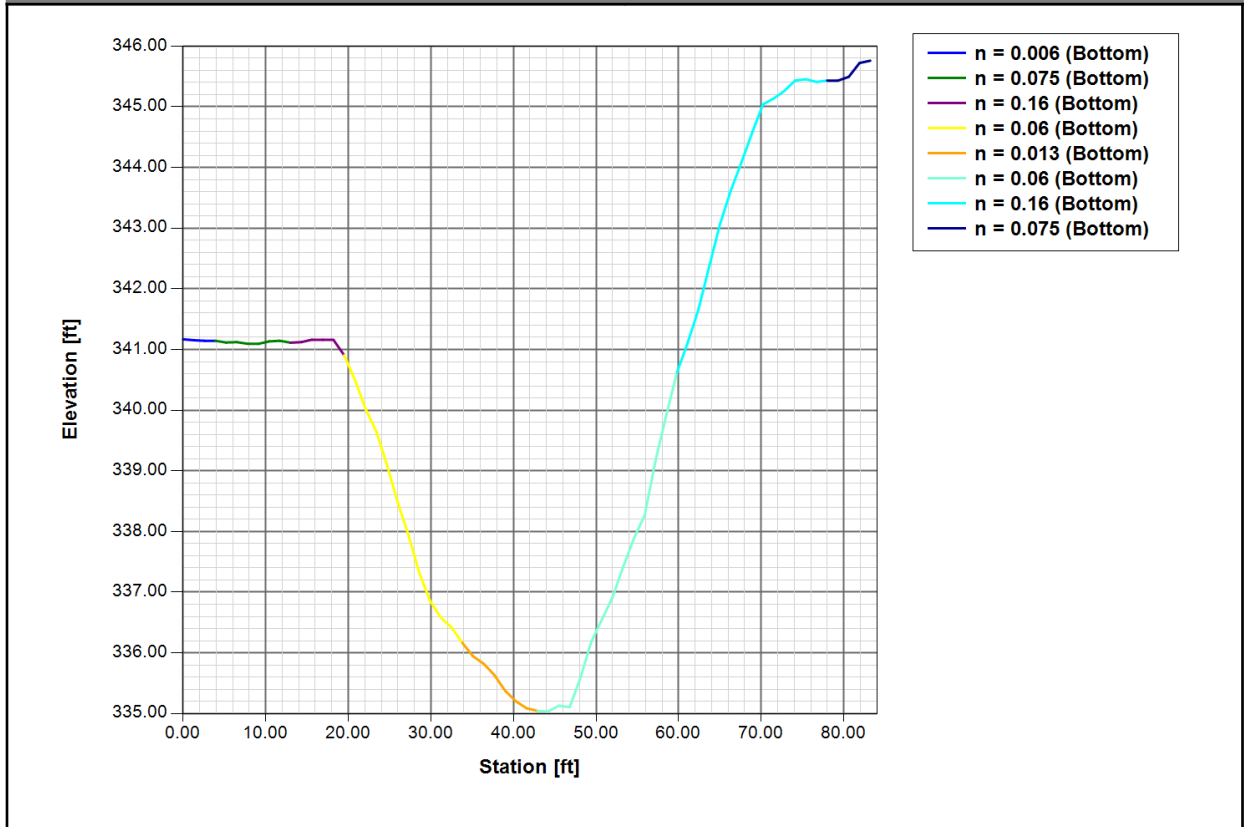
Scenario: XS-Trib-A-01





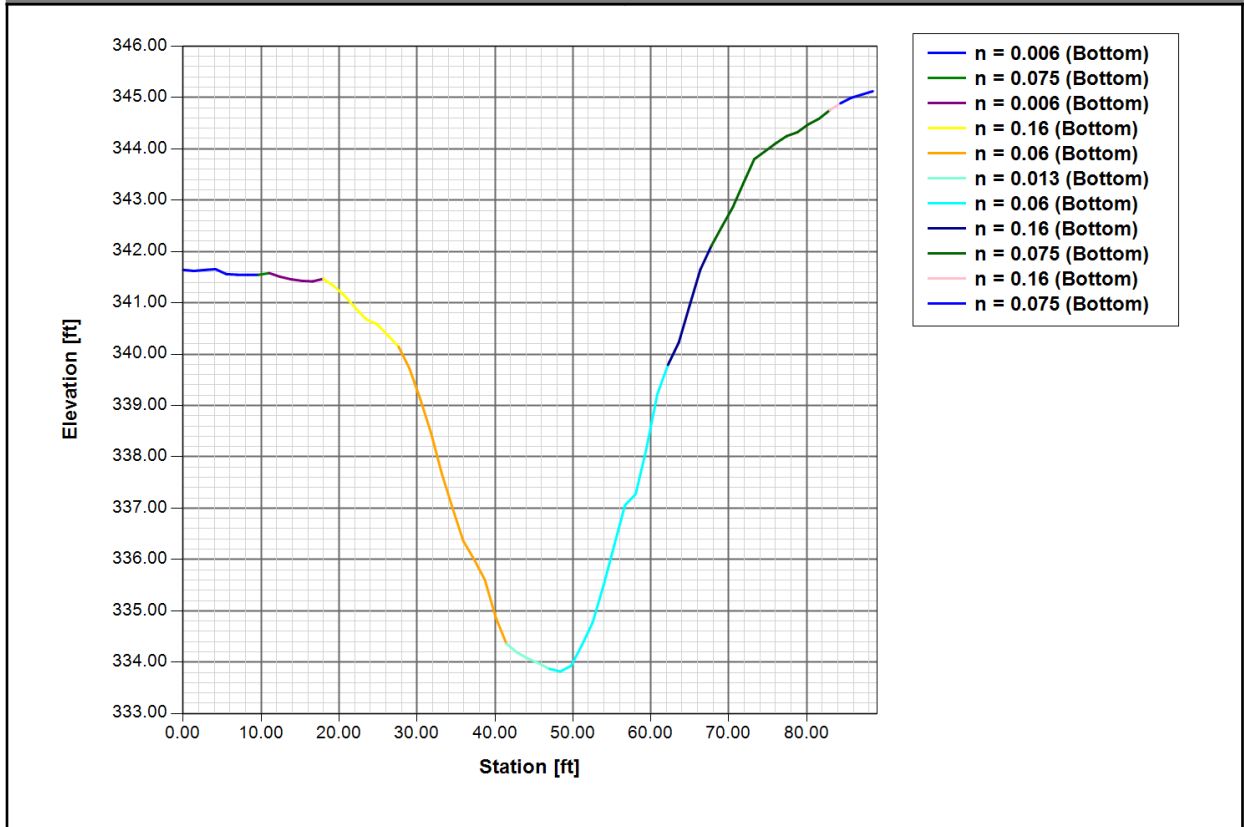
Channel Cross Section: XS-Trib-A-03

Scenario: XS-Trib-A-03



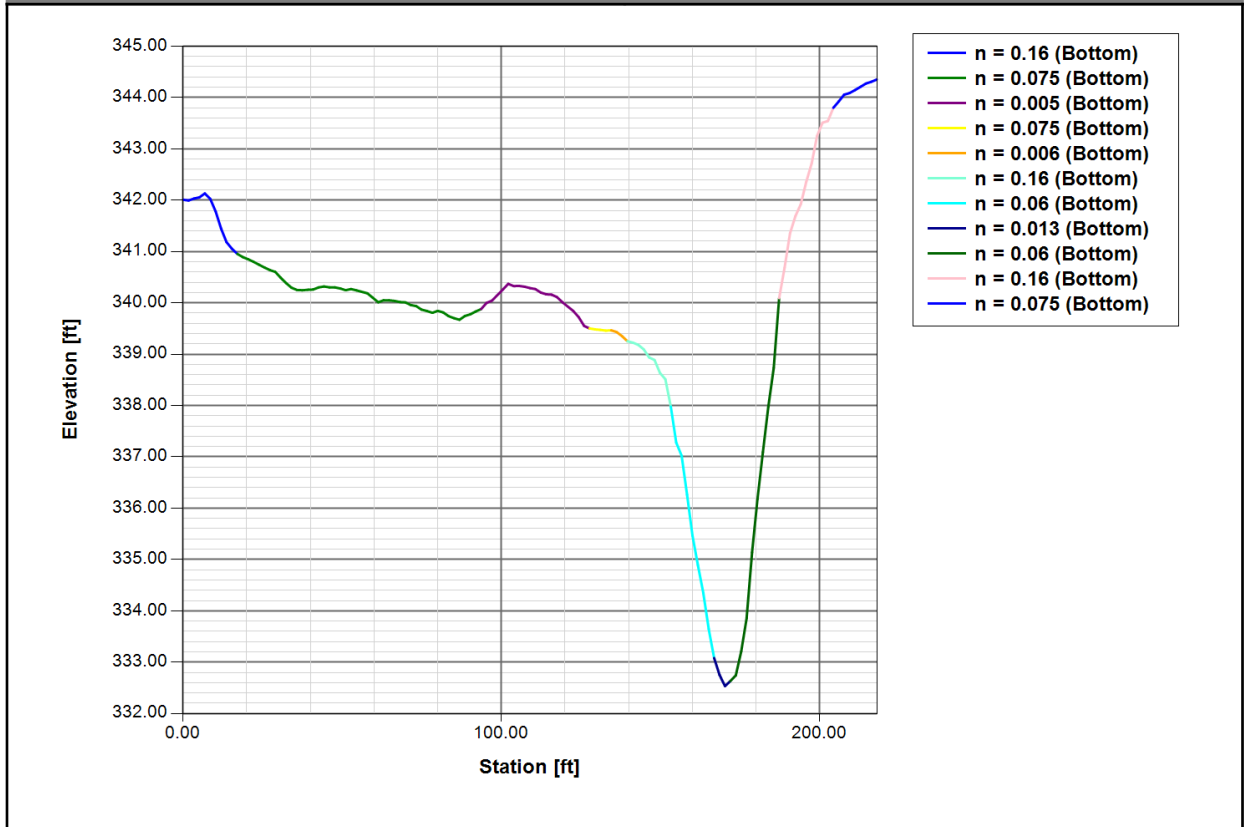
Channel Cross Section: XS-Trib-A-04

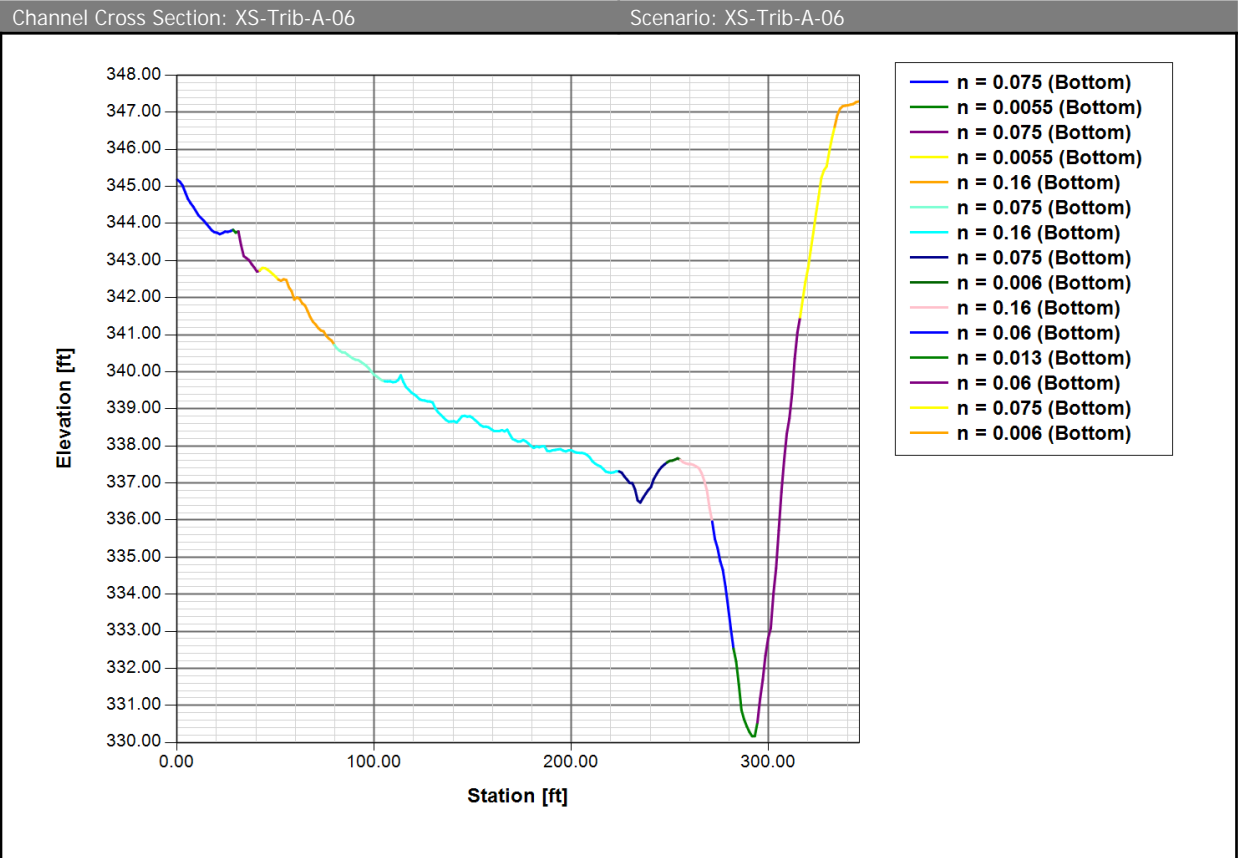
Scenario: XS-Trib-A-04

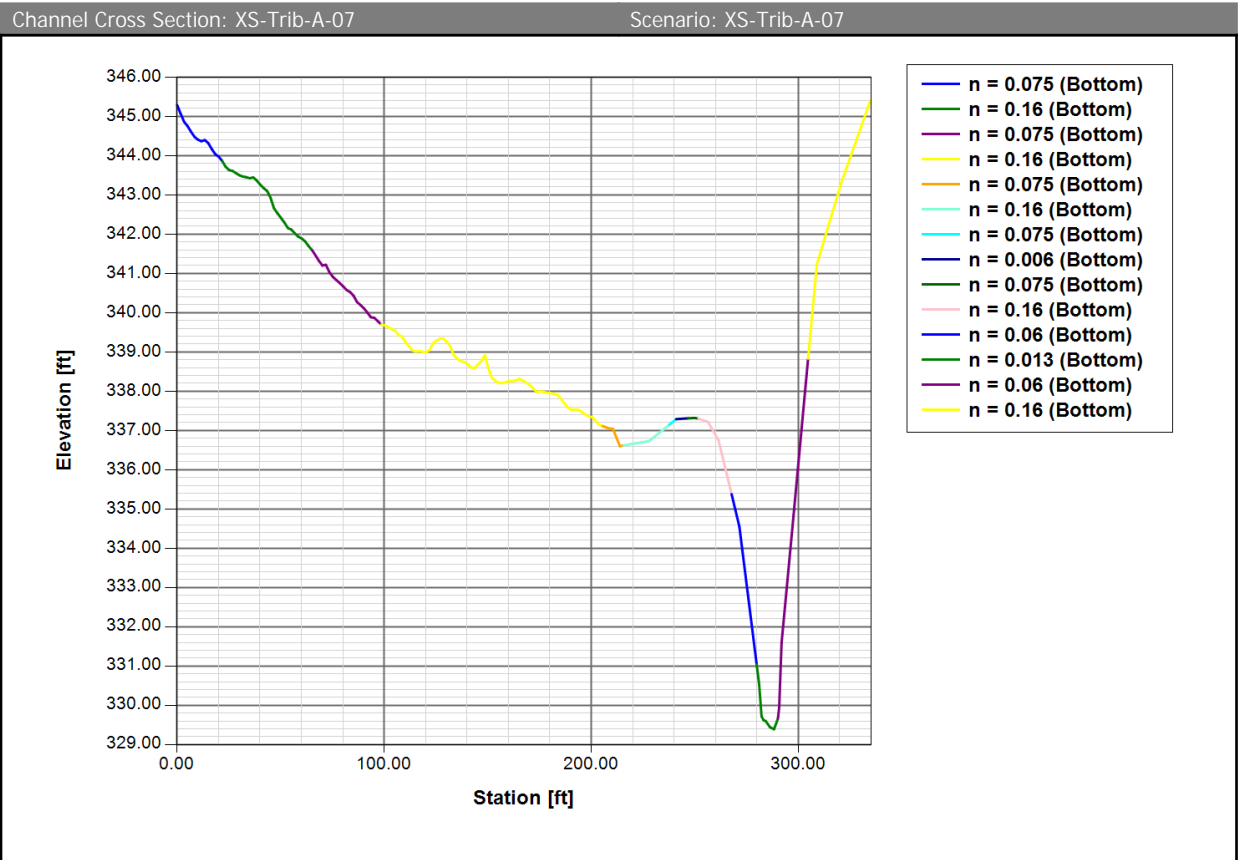


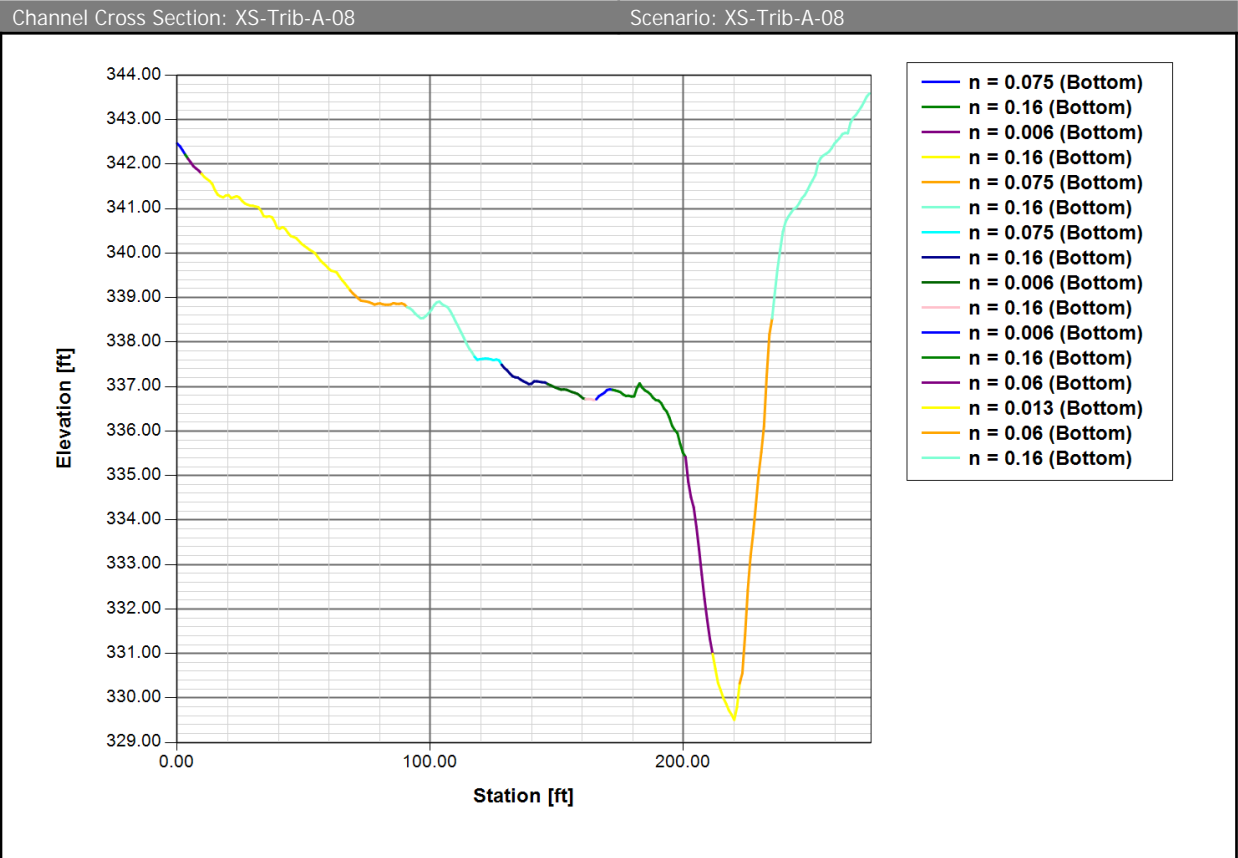
Channel Cross Section: XS-Trib-A-05

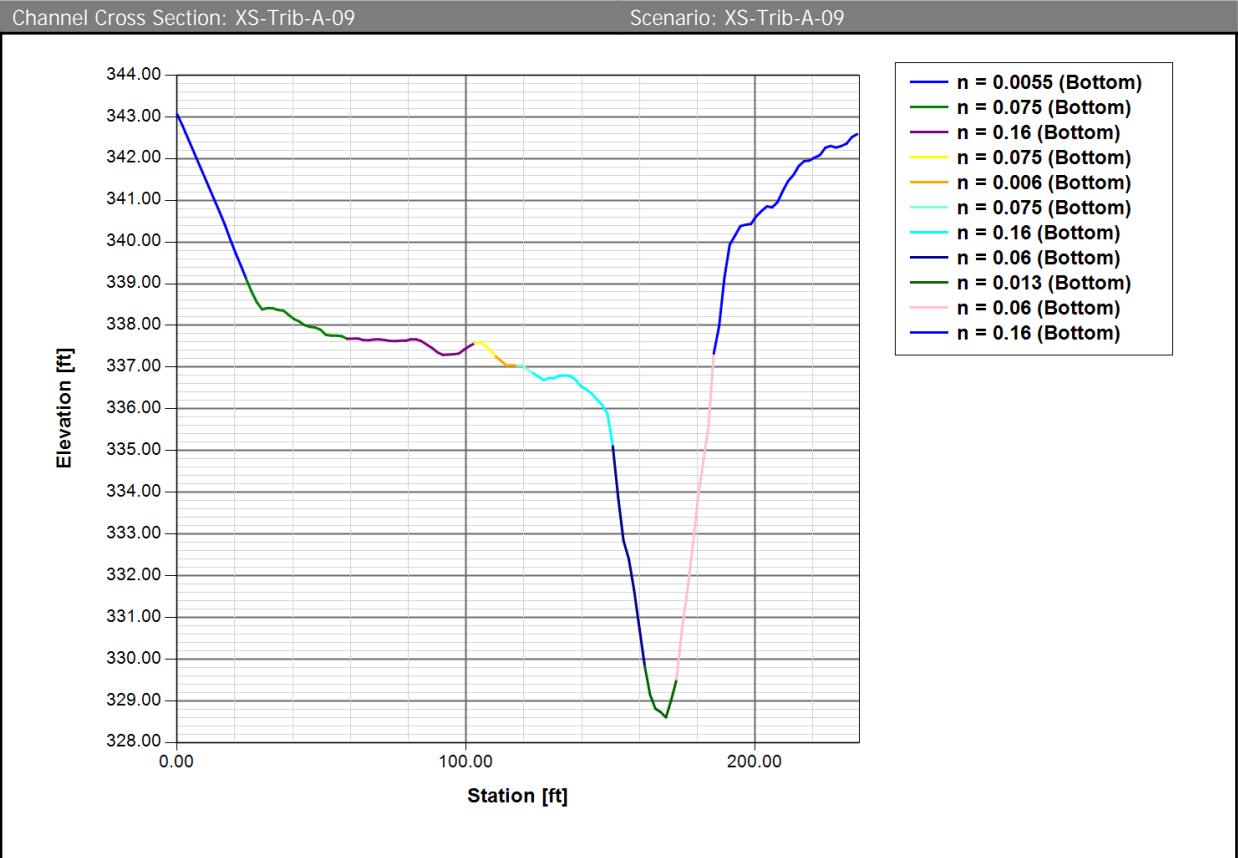
Scenario: XS-Trib-A-05

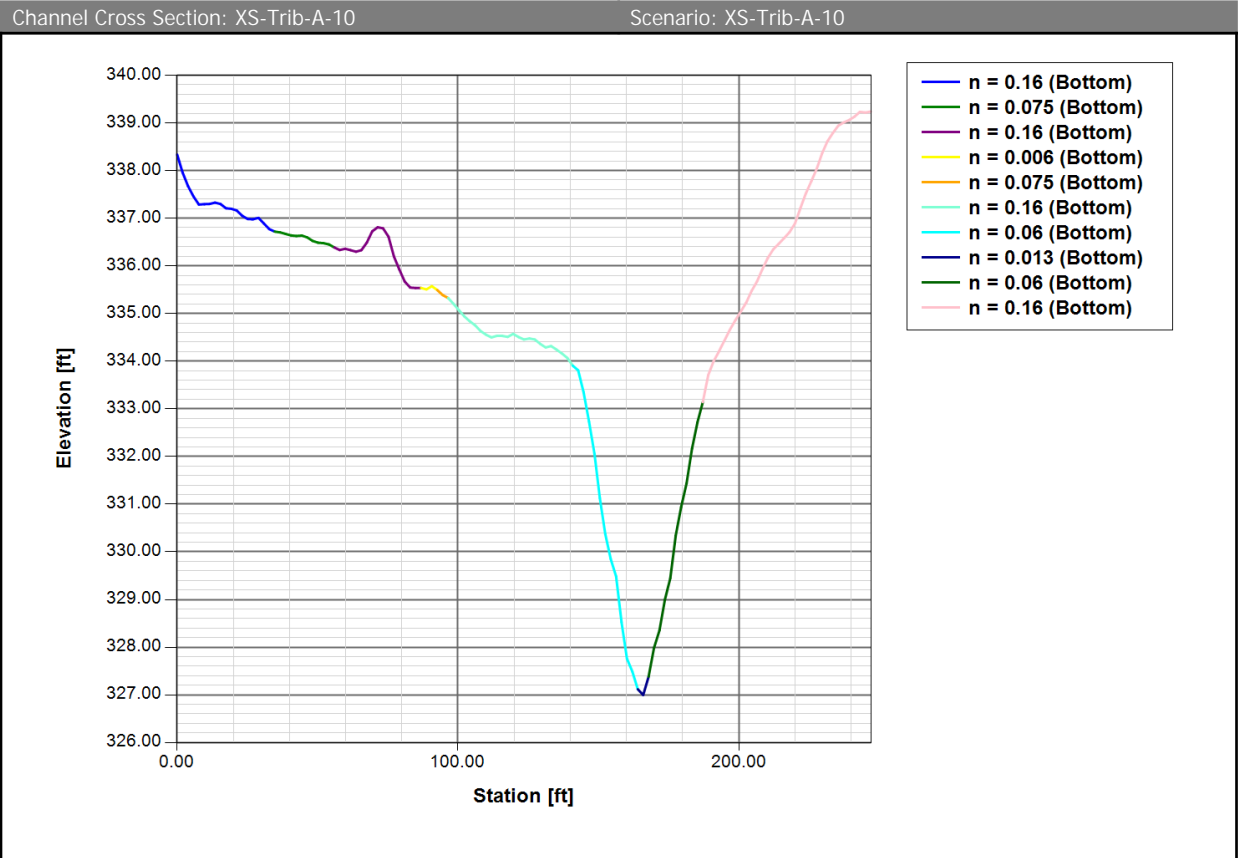


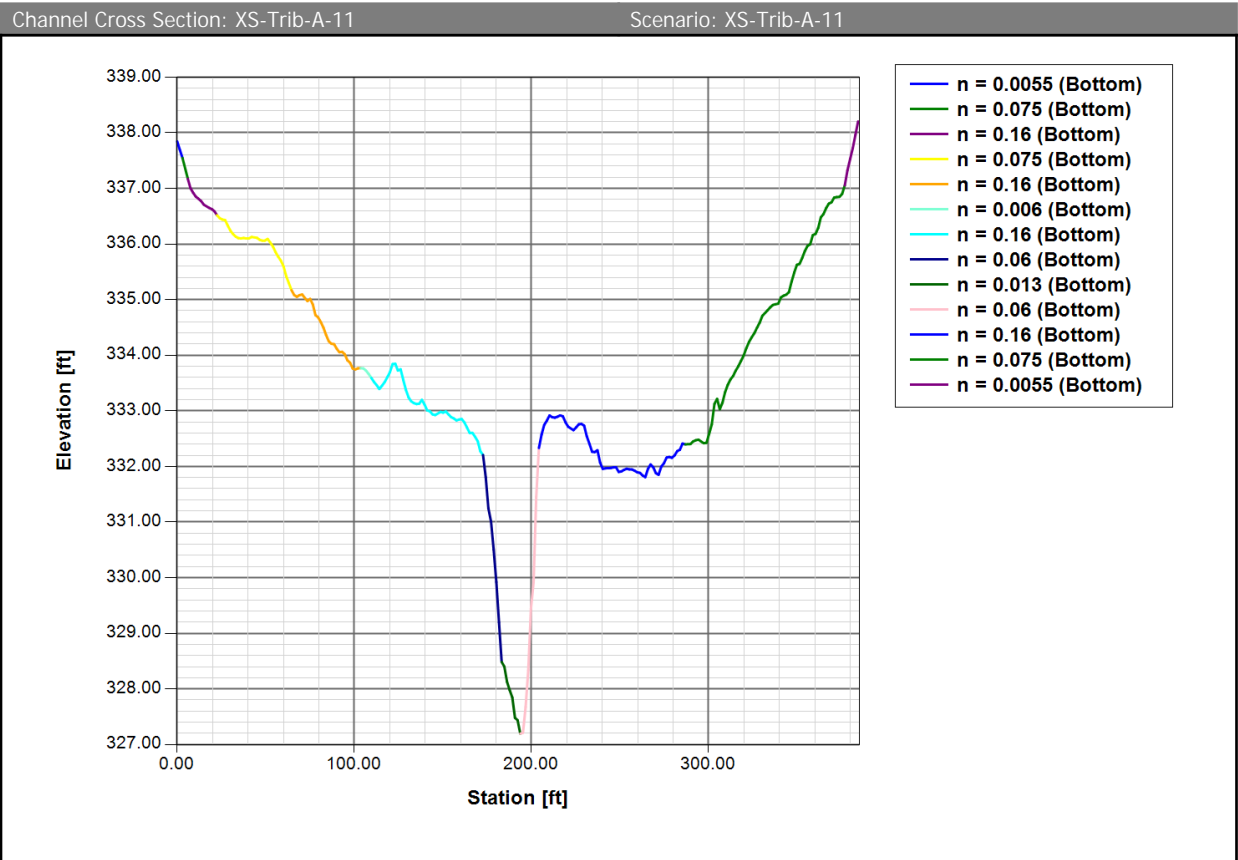


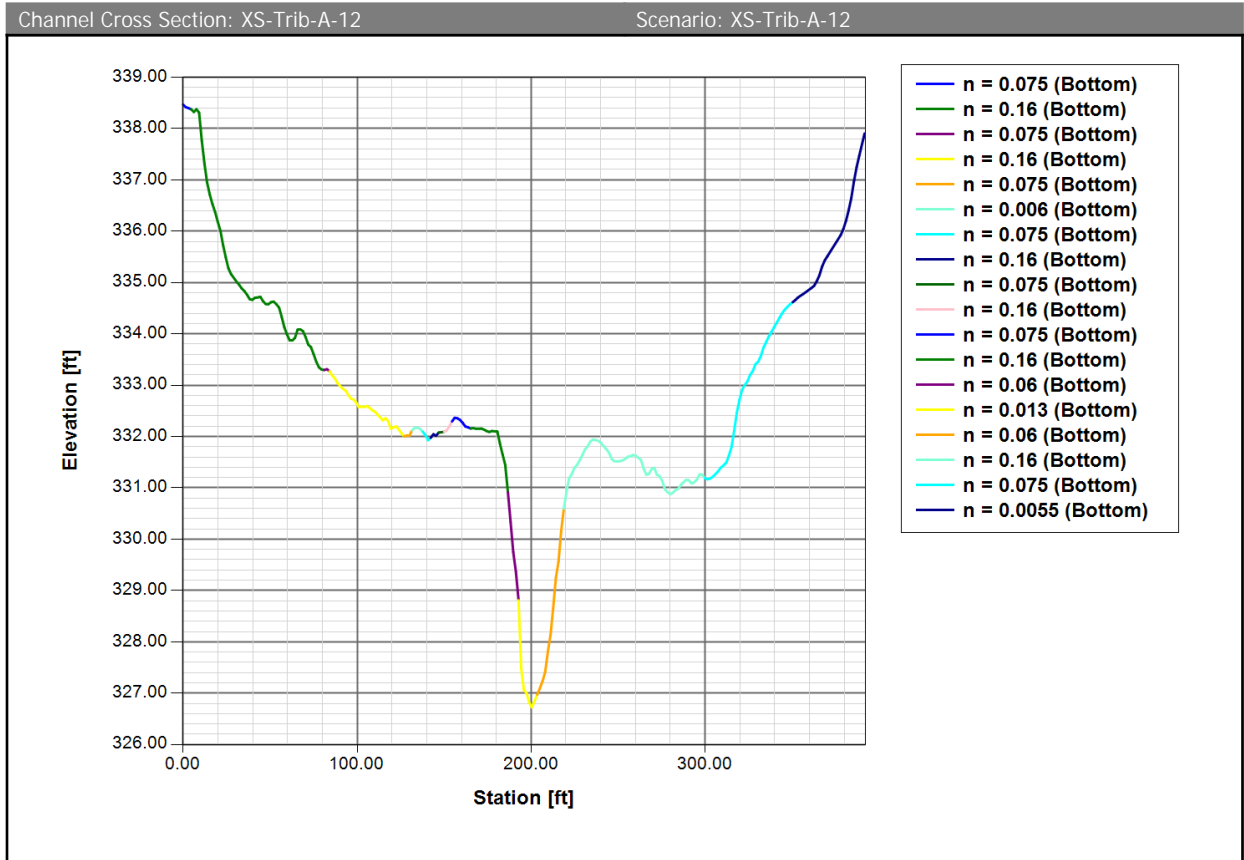


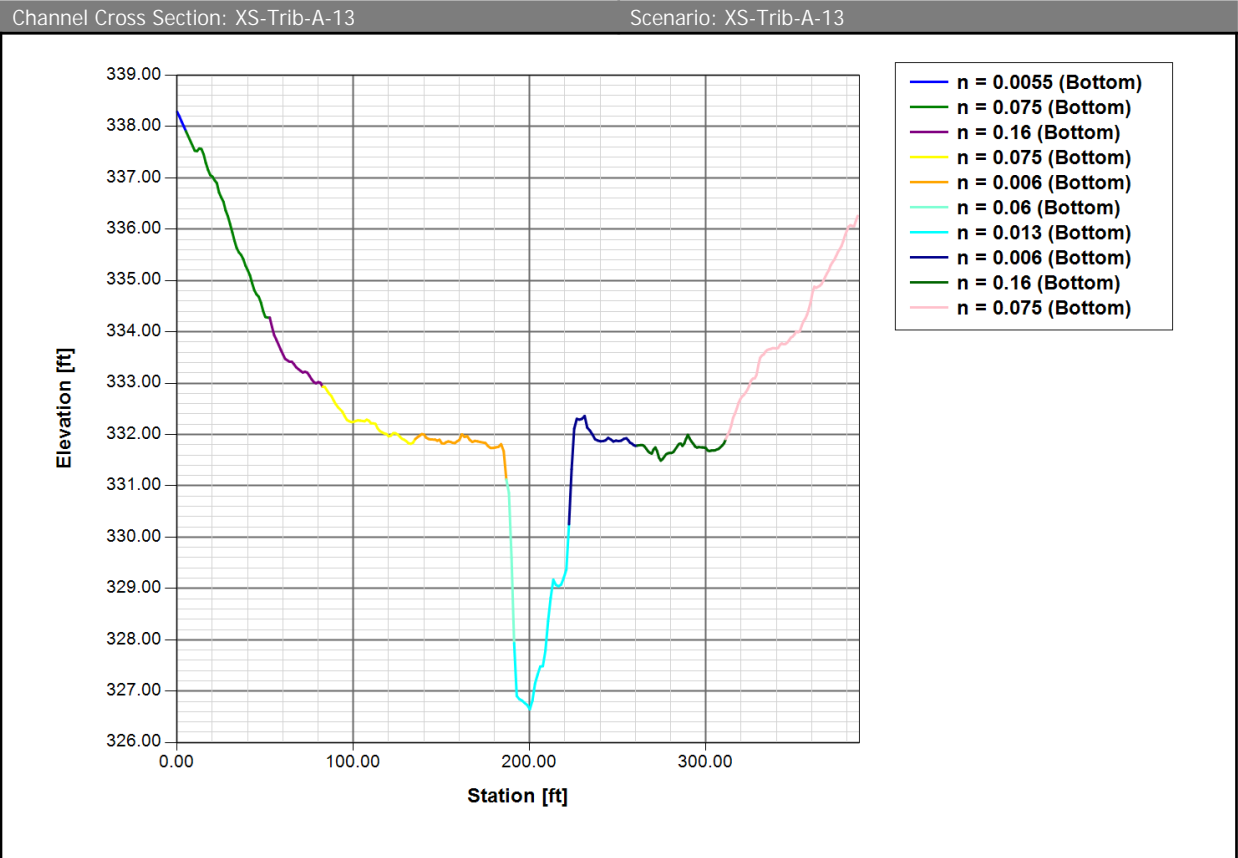


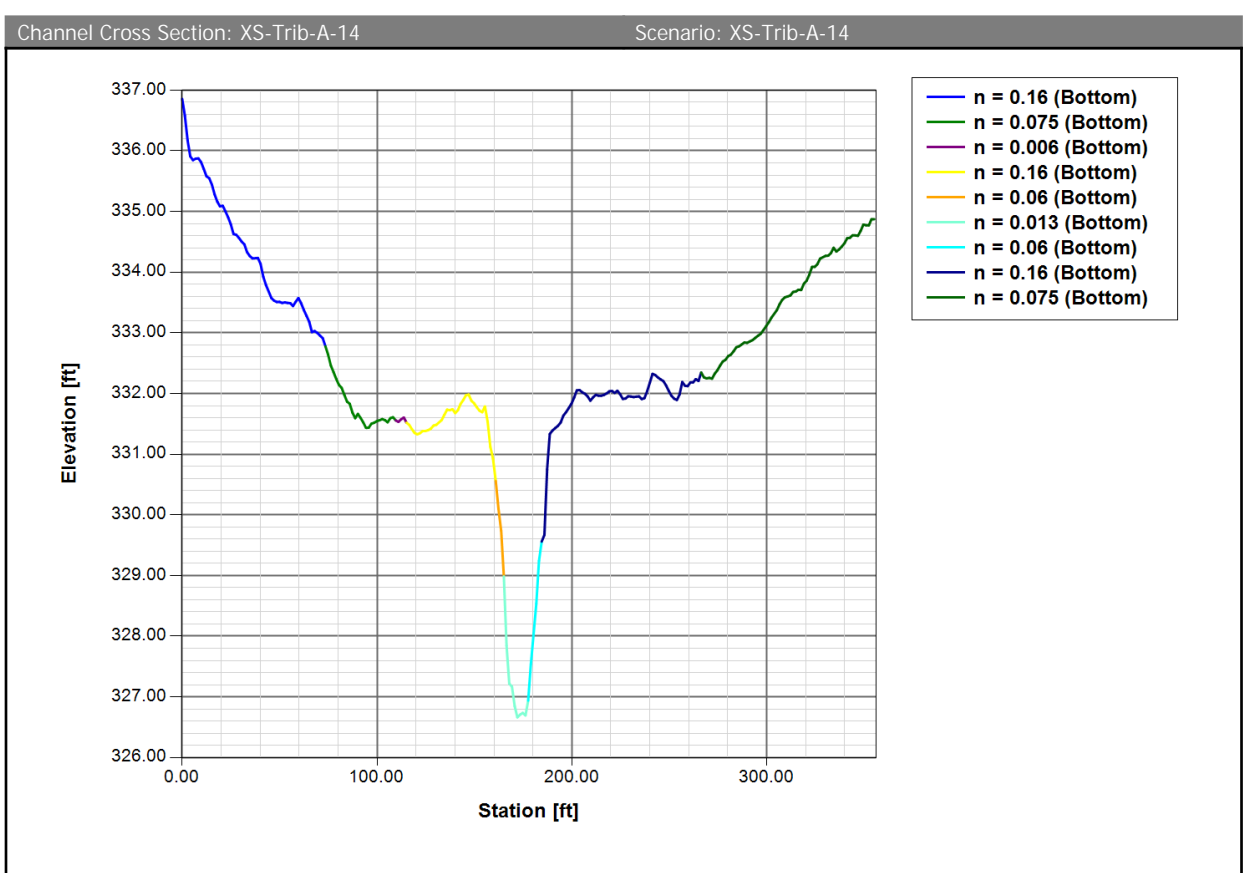


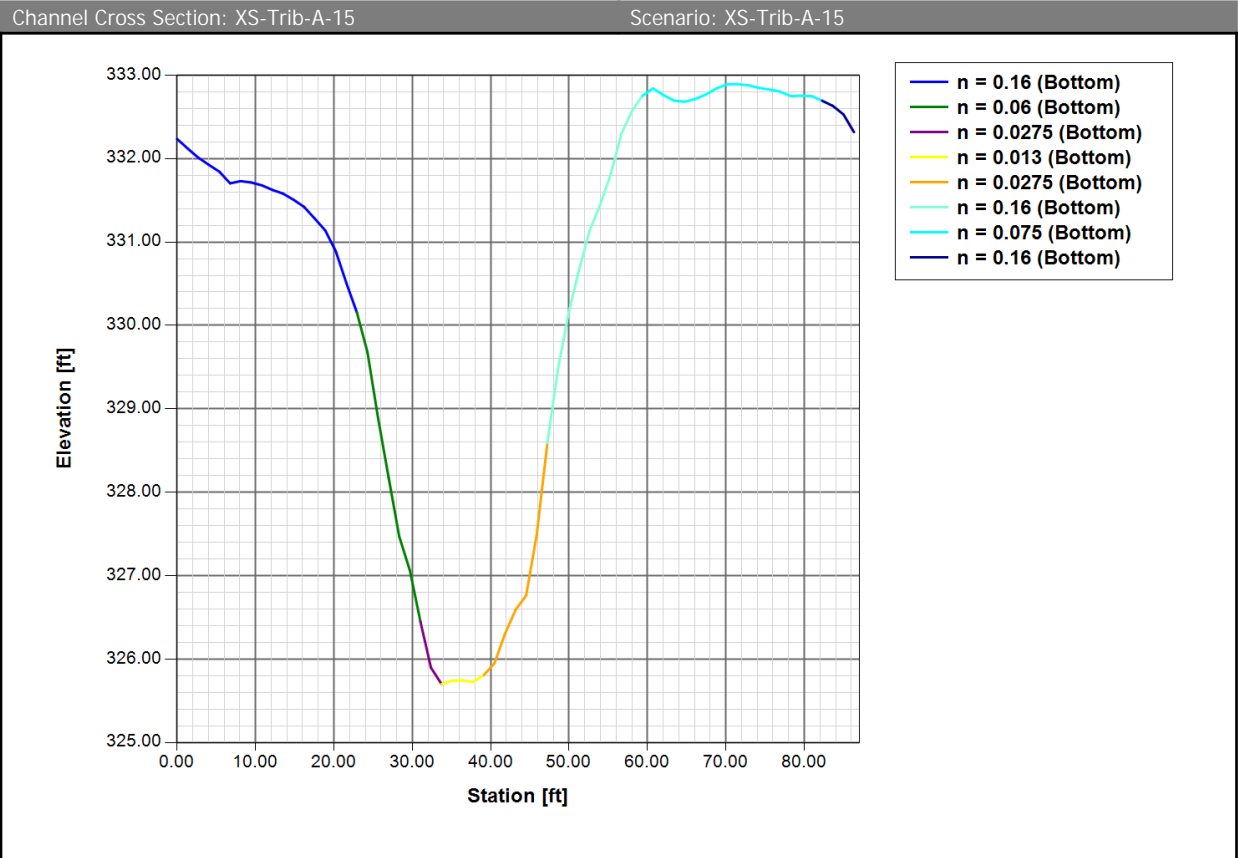






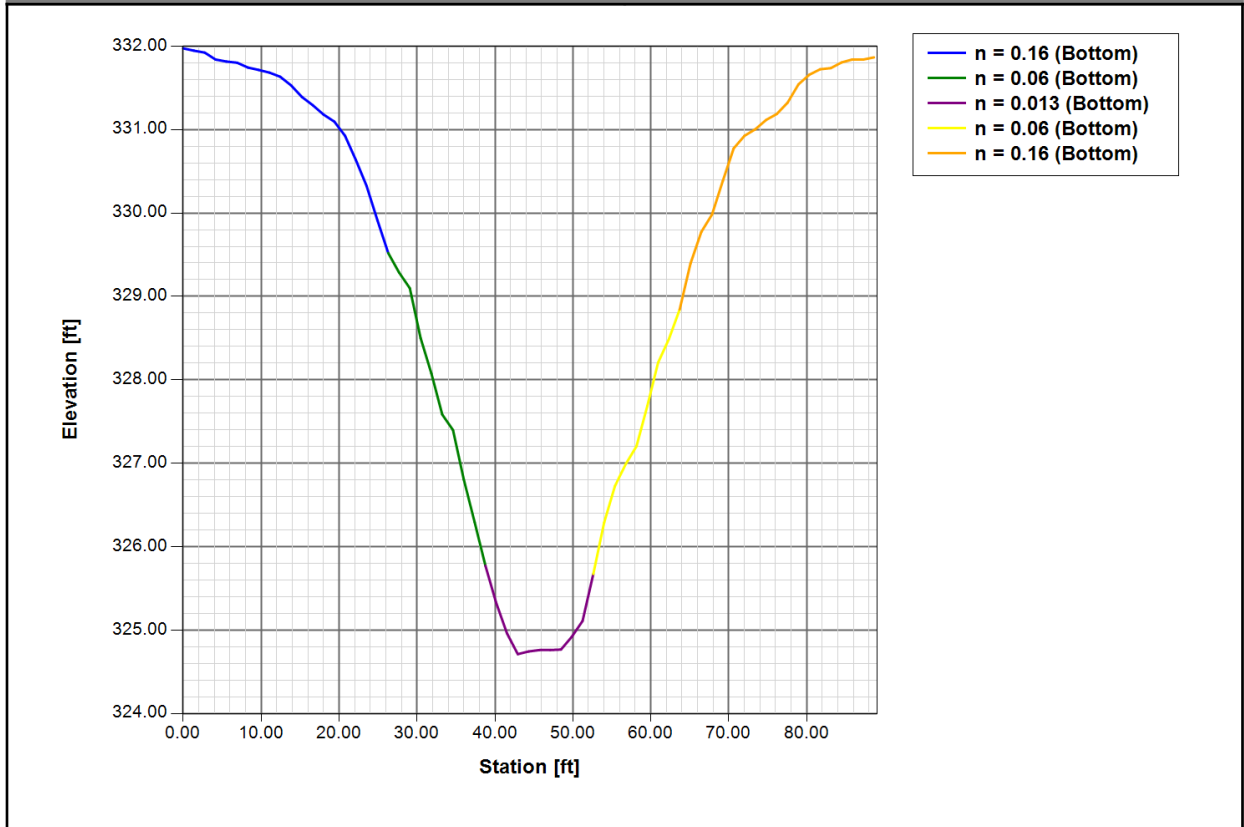


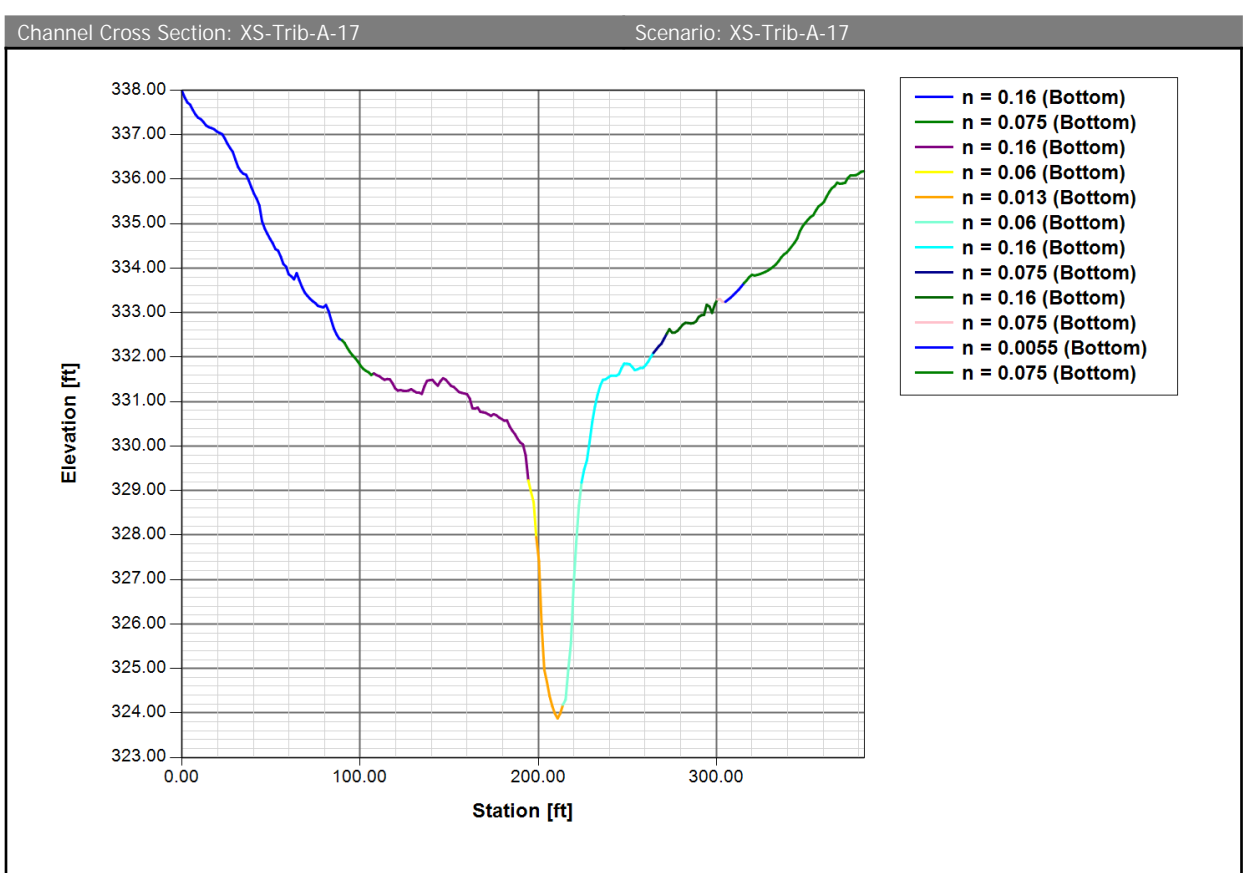




Channel Cross Section: XS-Trib-A-16

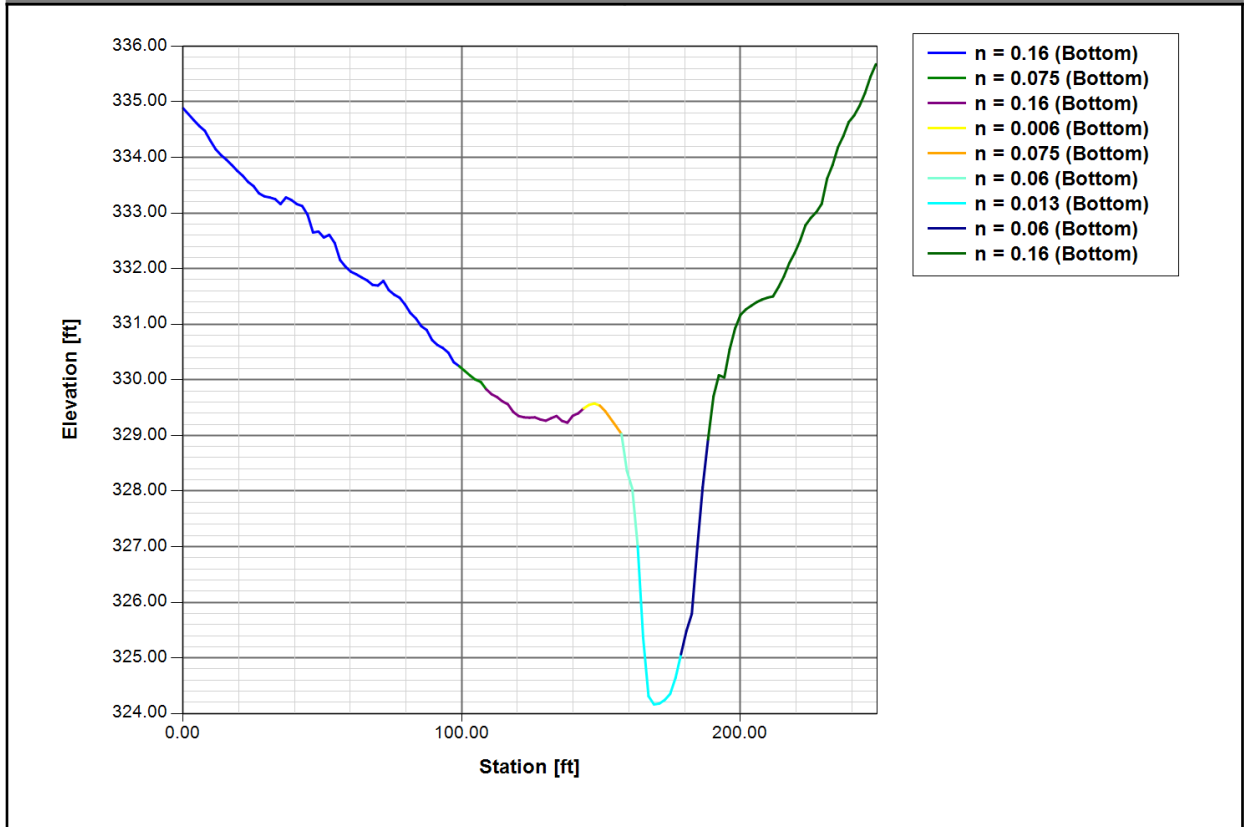
Scenario: XS-Trib-A-16

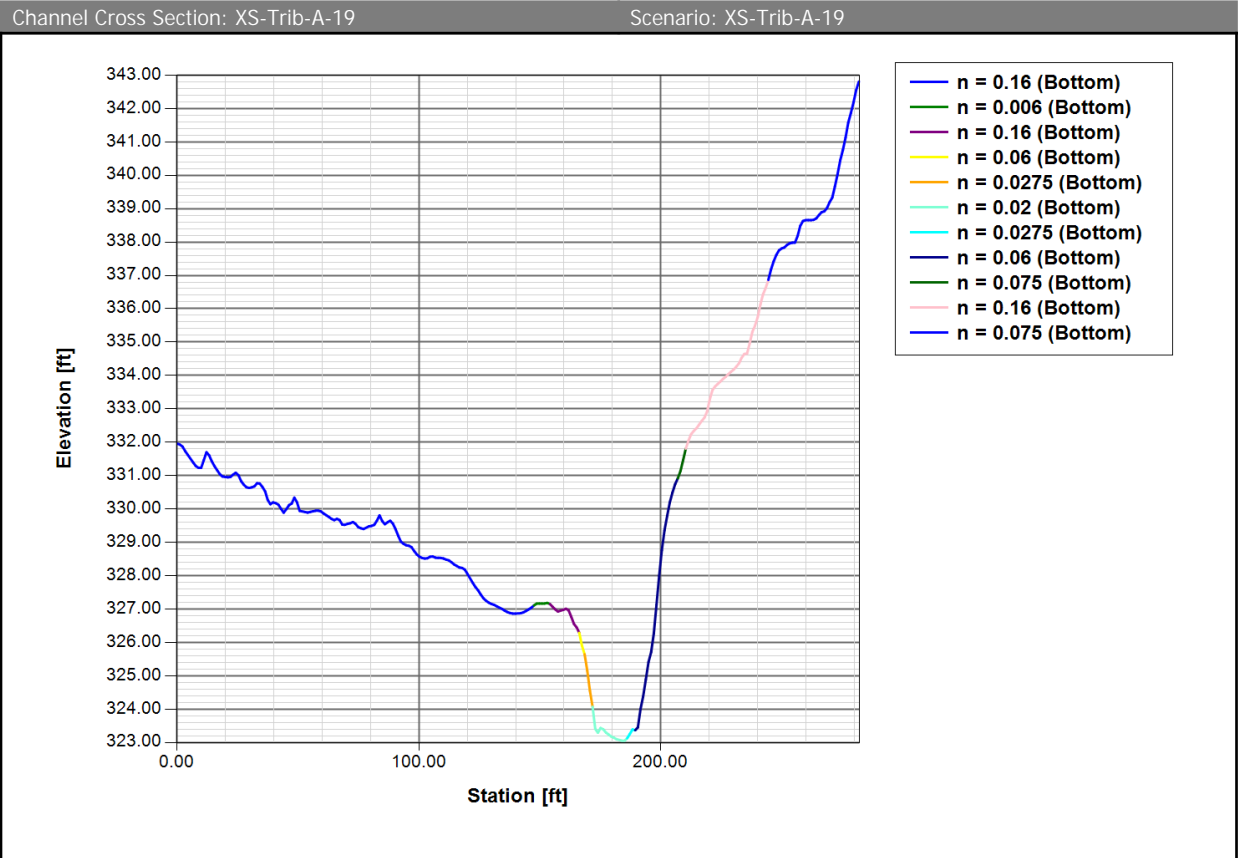




Channel Cross Section: XS-Trib-A-18

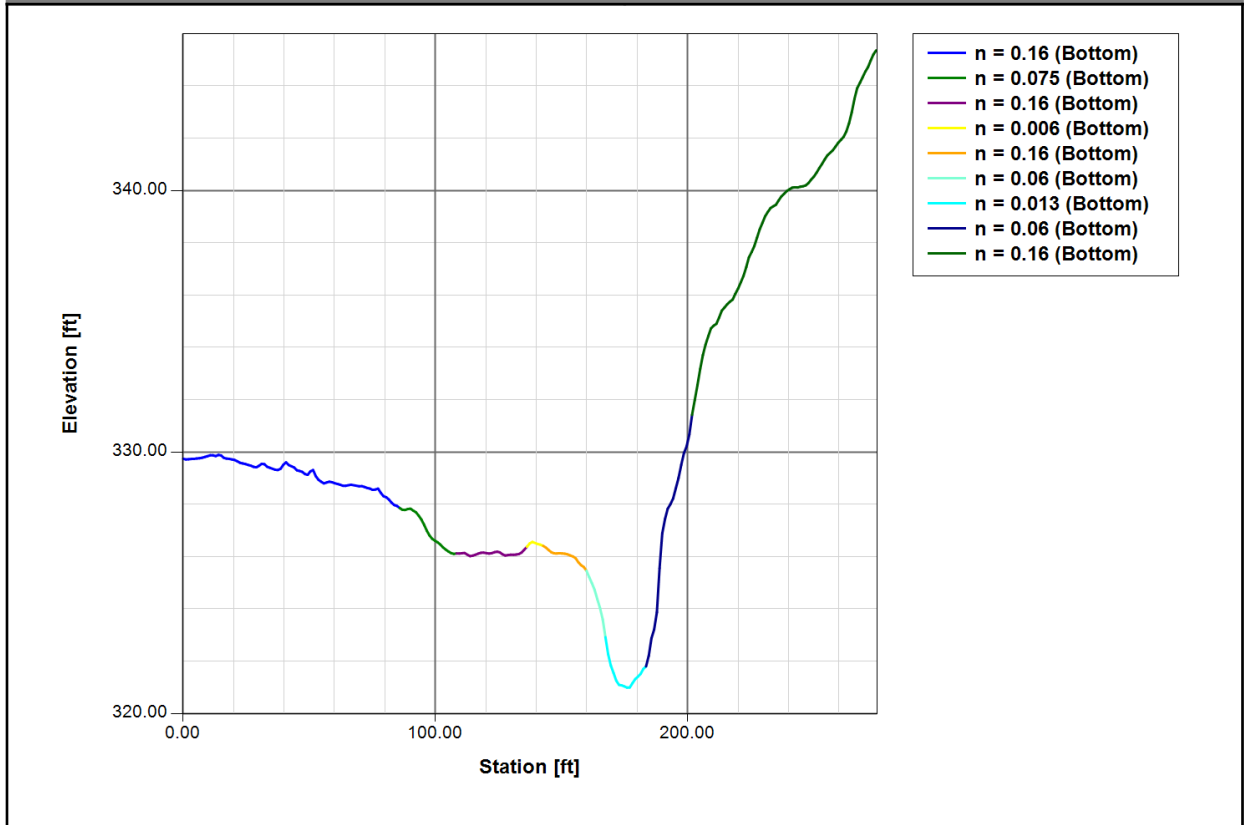
Scenario: XS-Trib-A-18

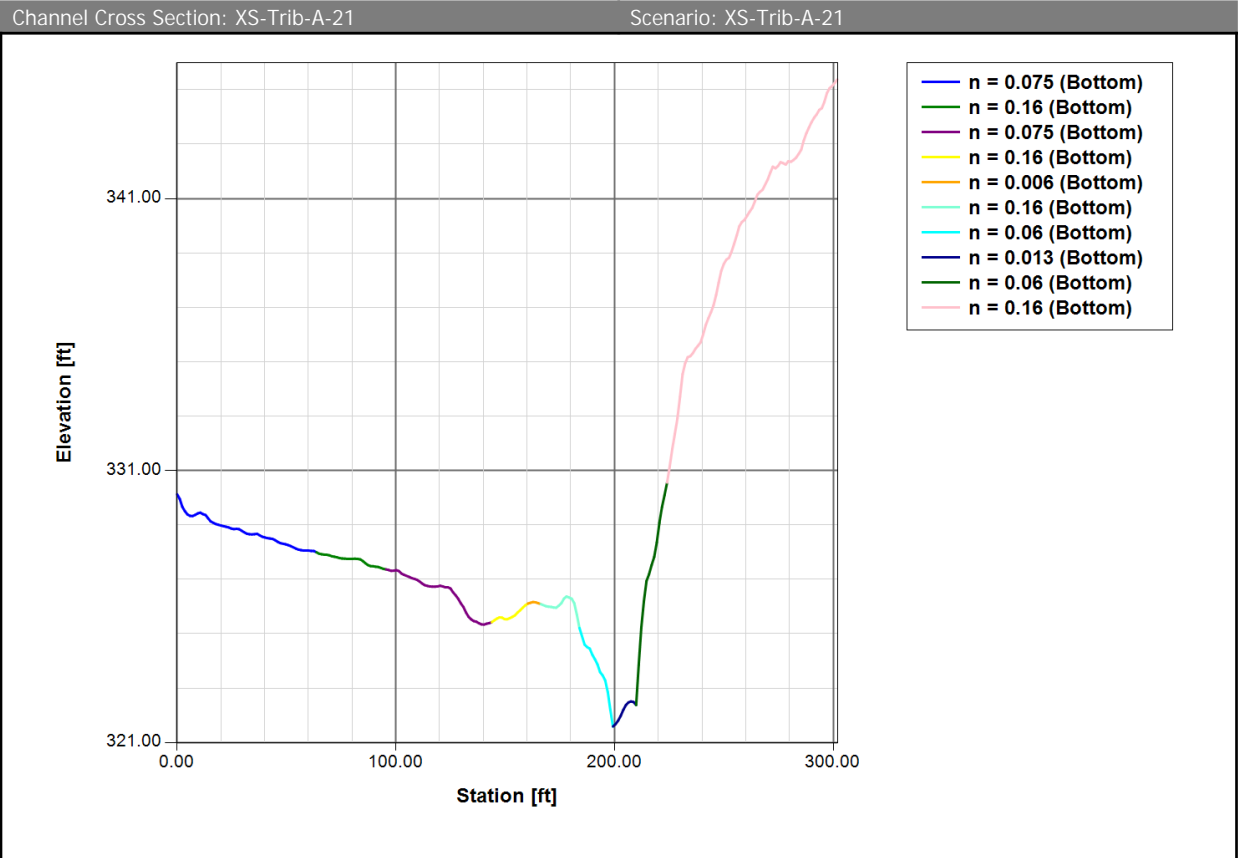




Channel Cross Section: XS-Trib-A-20

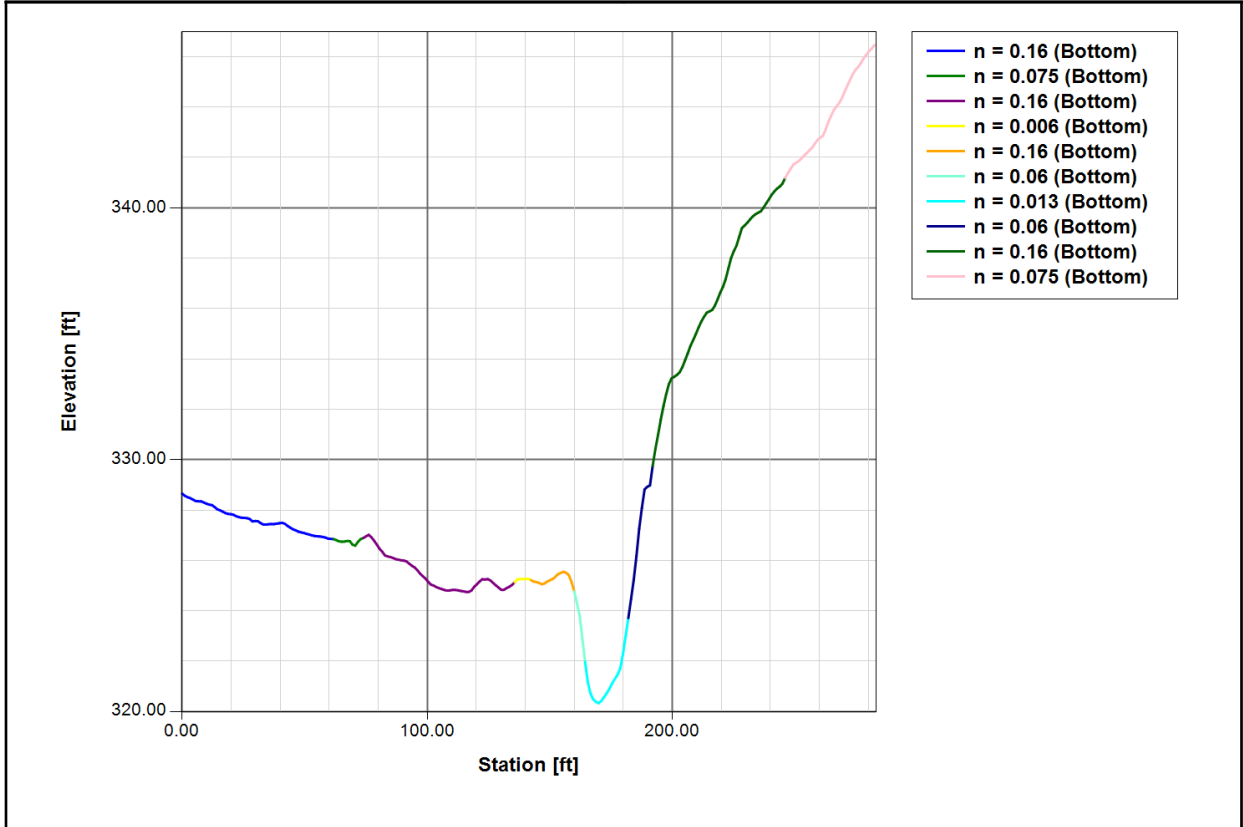
Scenario: XS-Trib-A-20





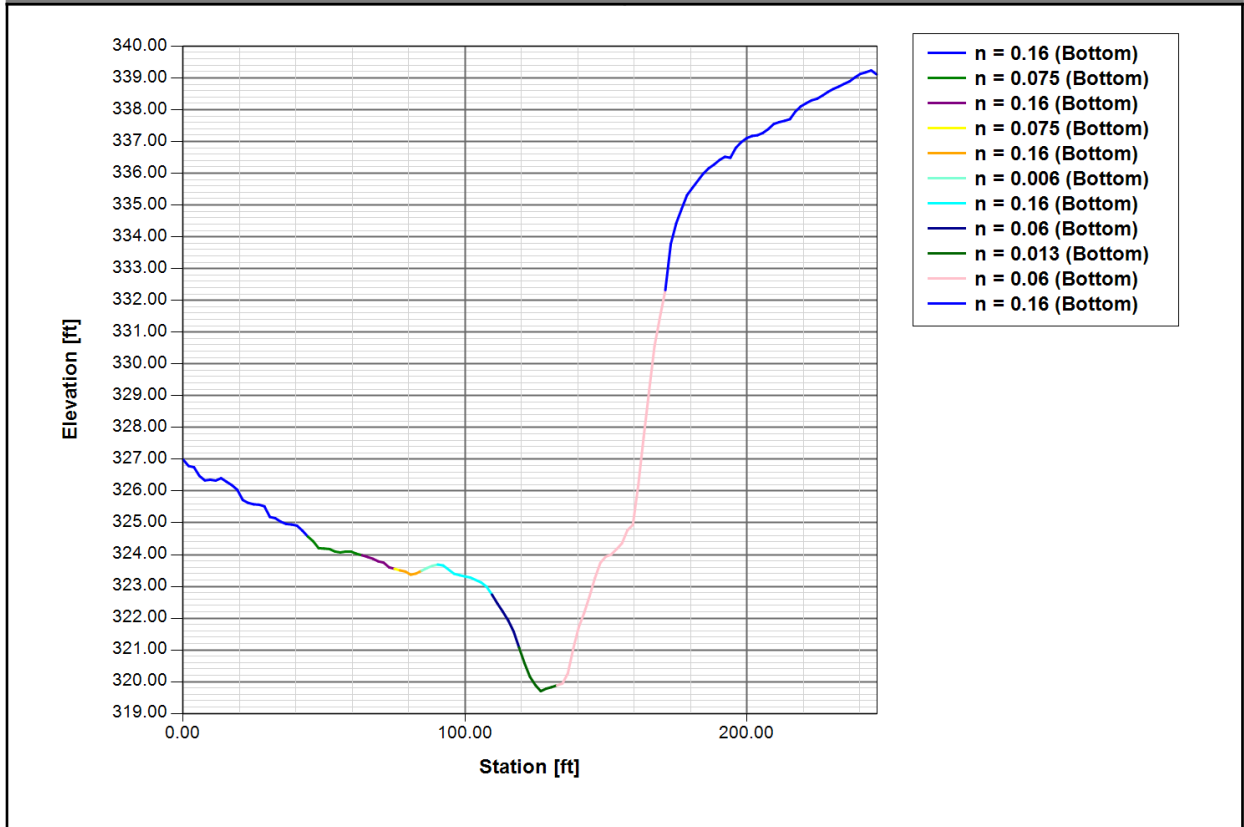
Channel Cross Section: XS-Trib-A-22

Scenario: XS-Trib-A-22



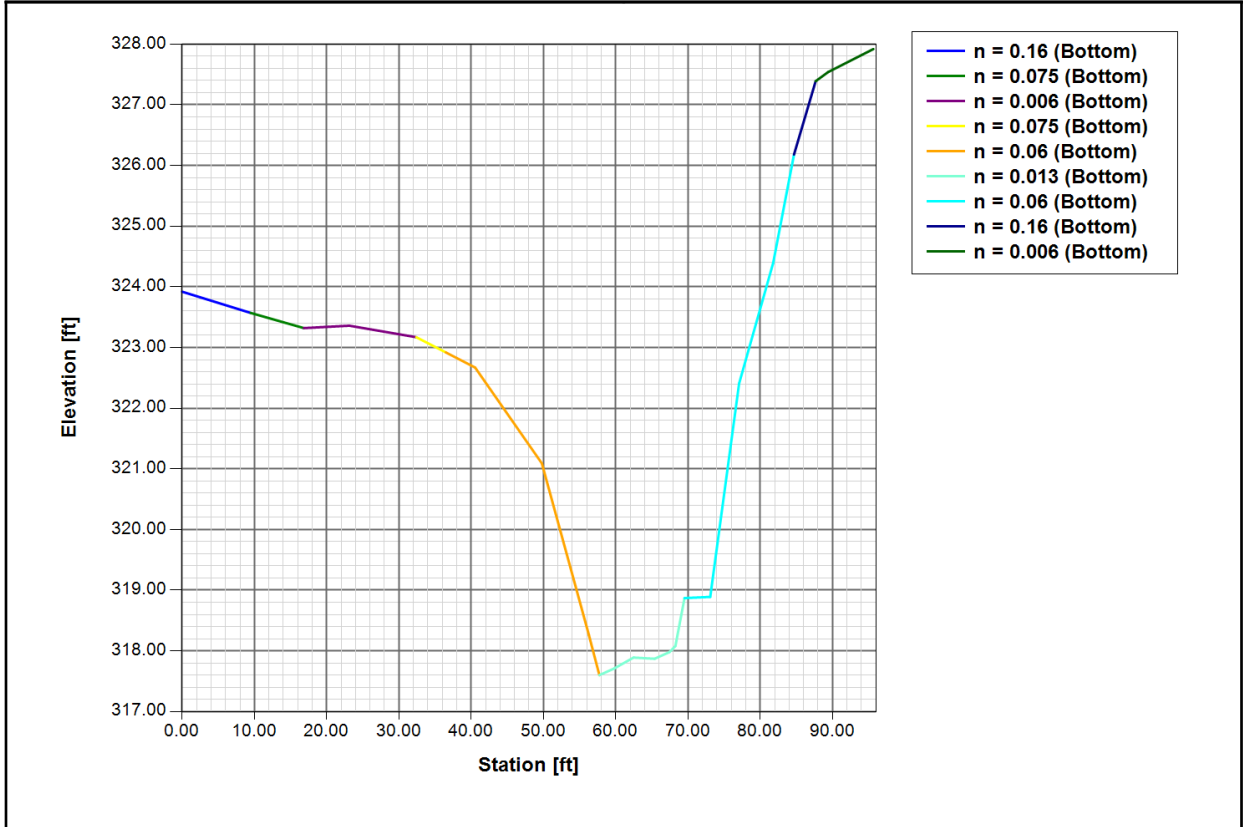
Channel Cross Section: XS-Trib-A-23

Scenario: XS-Trib-A-23



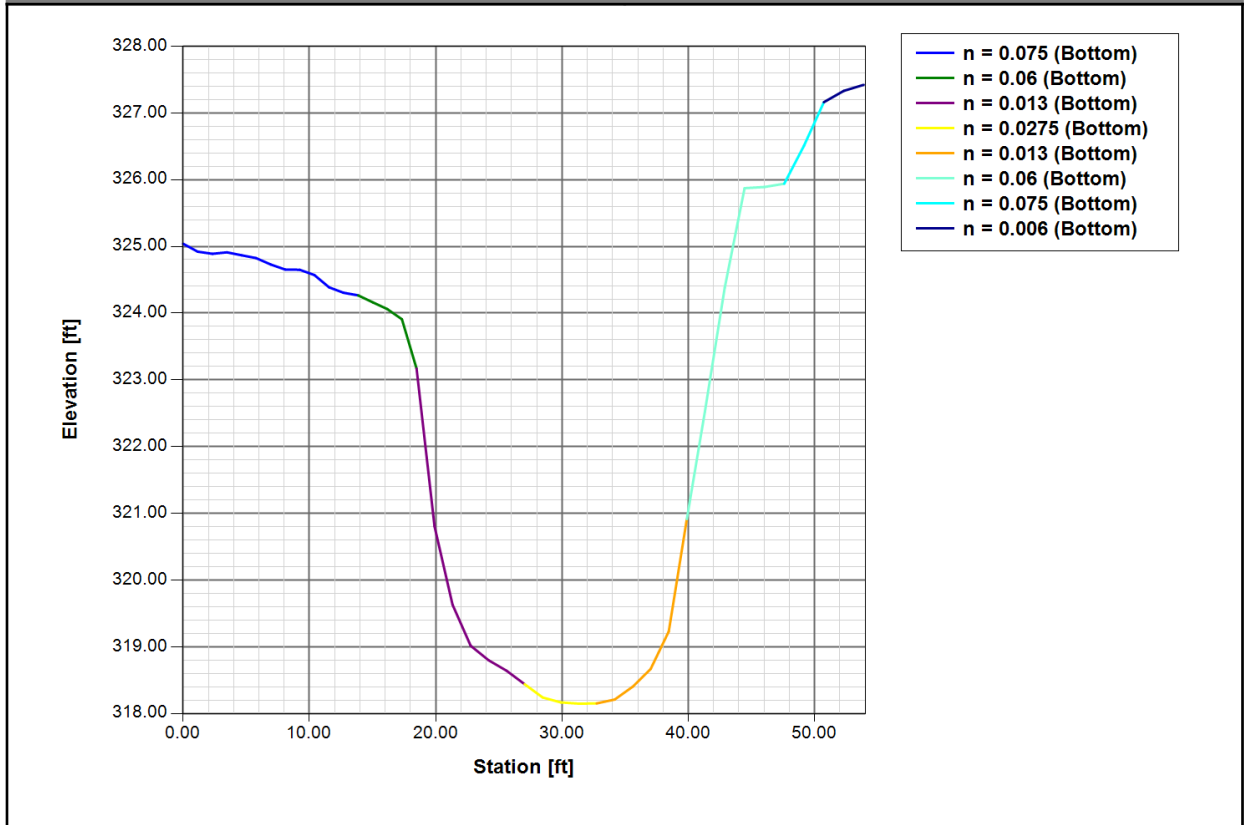
Channel Cross Section: XS-Trib-A-24

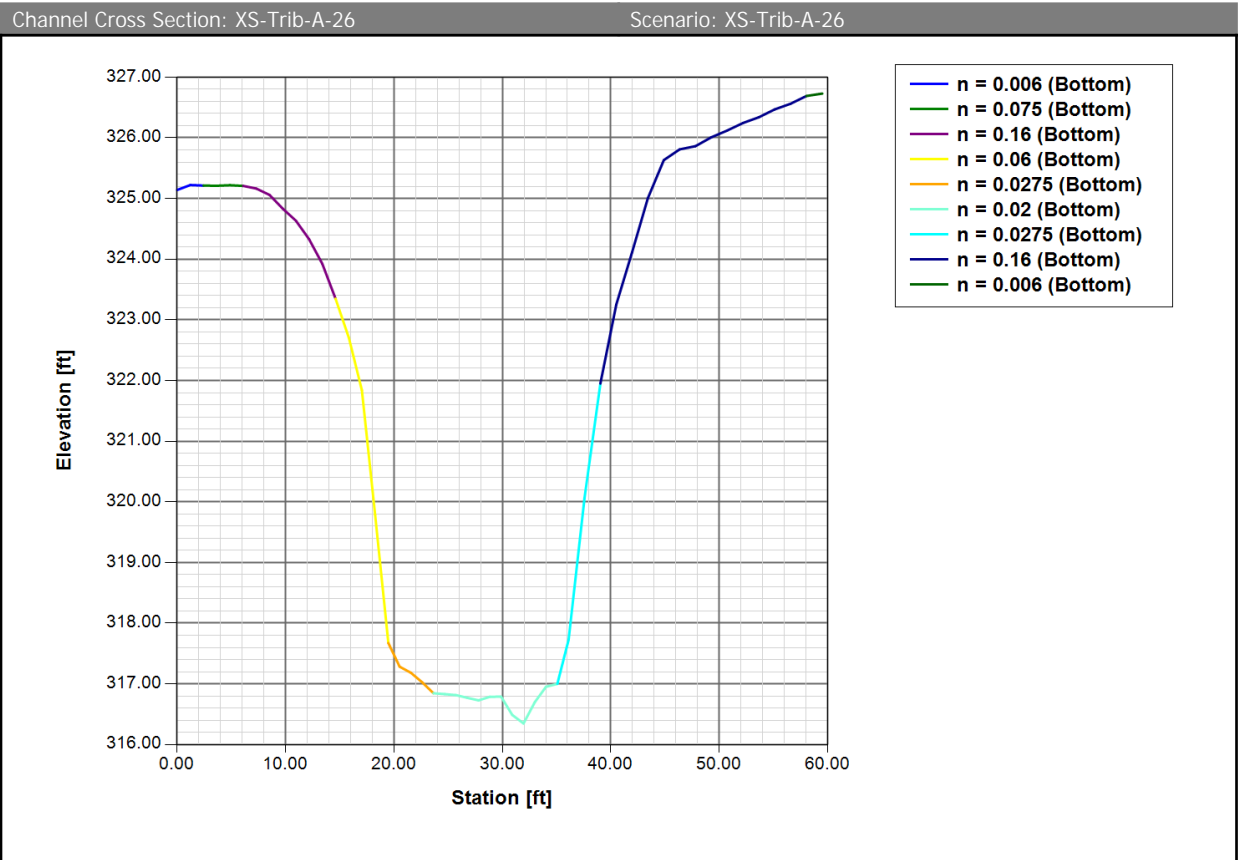
Scenario: XS-Trib-A-24

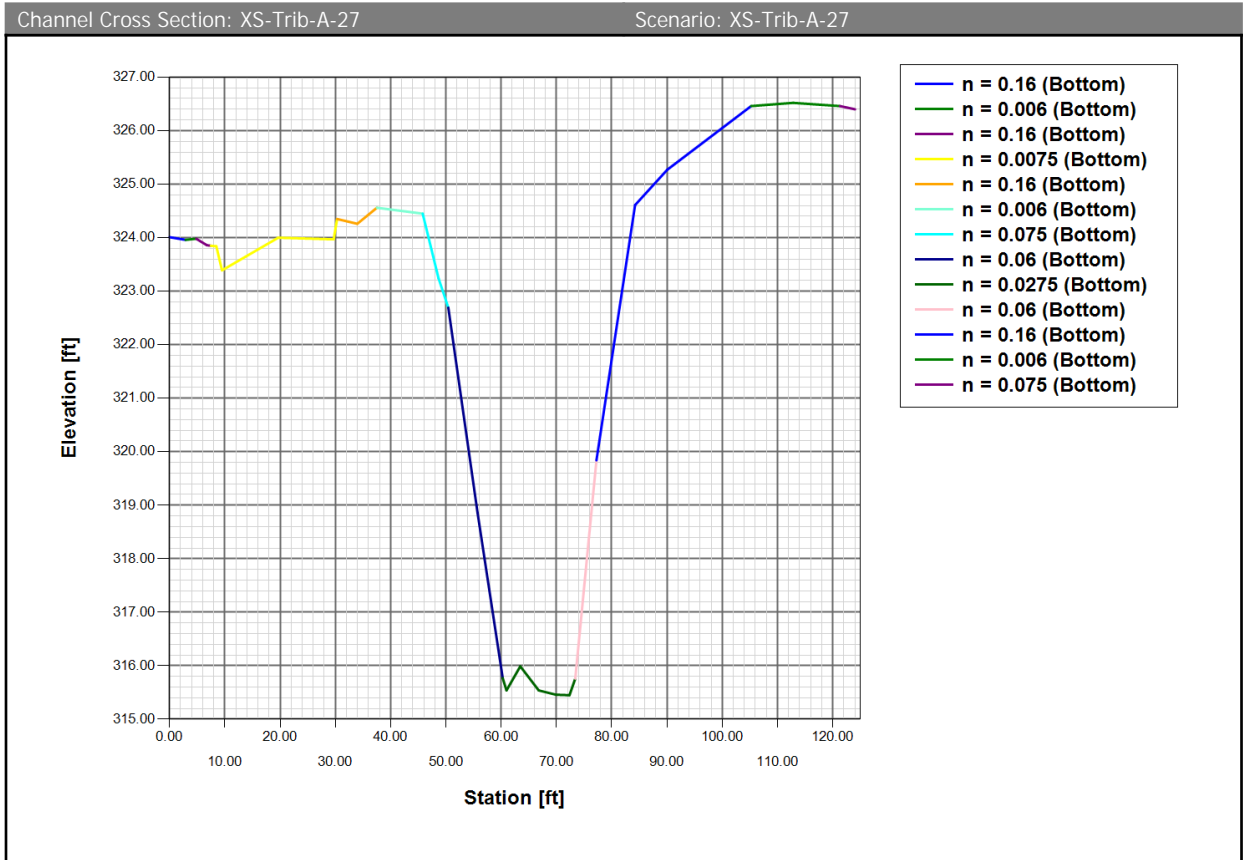


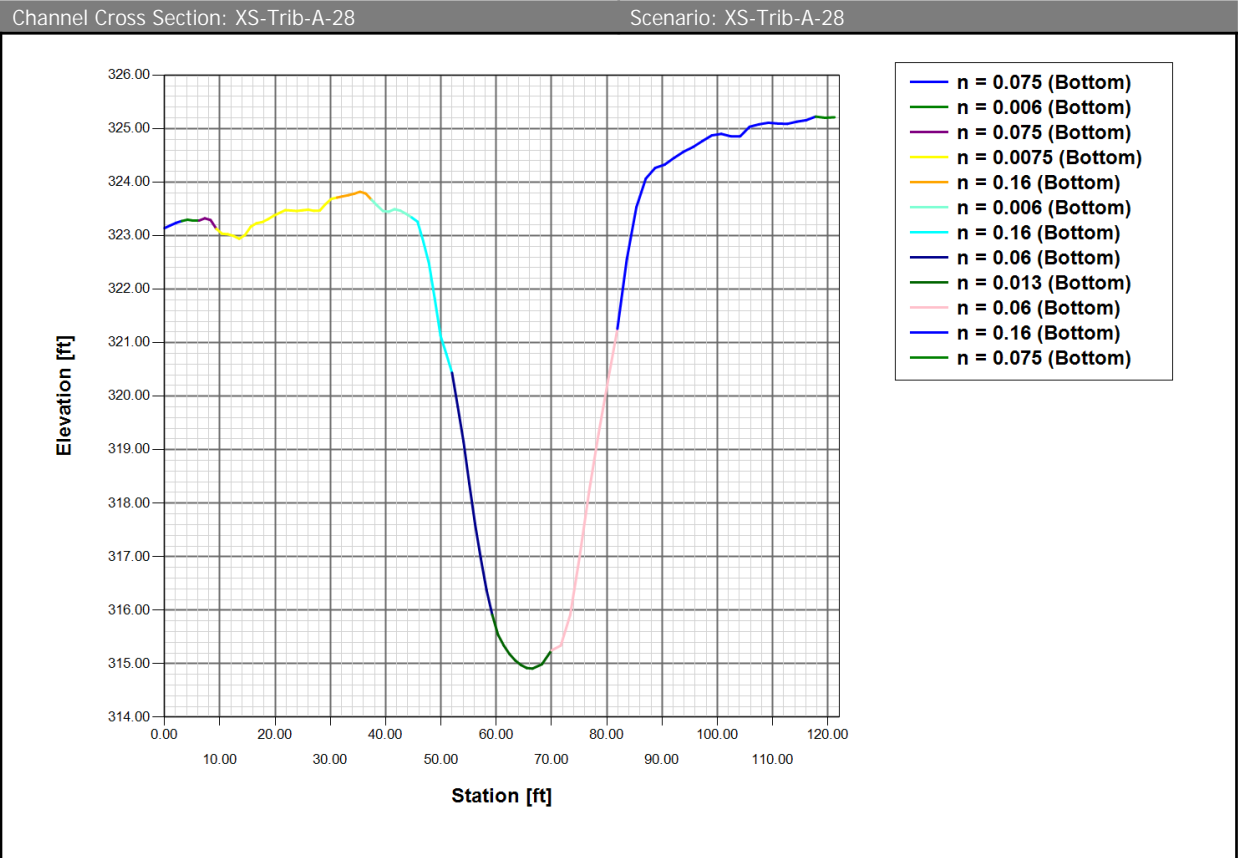
Channel Cross Section: XS-Trib-A-25

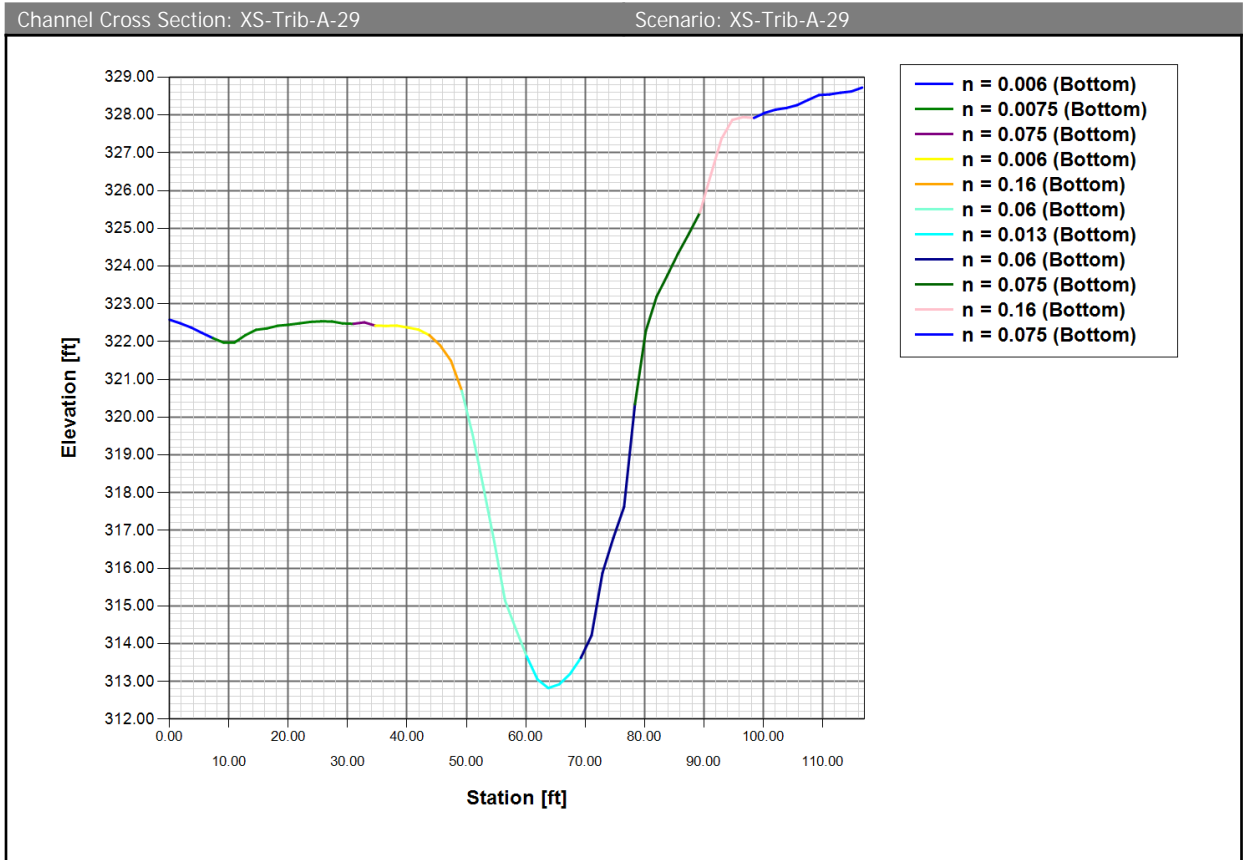
Scenario: XS-Trib-A-25

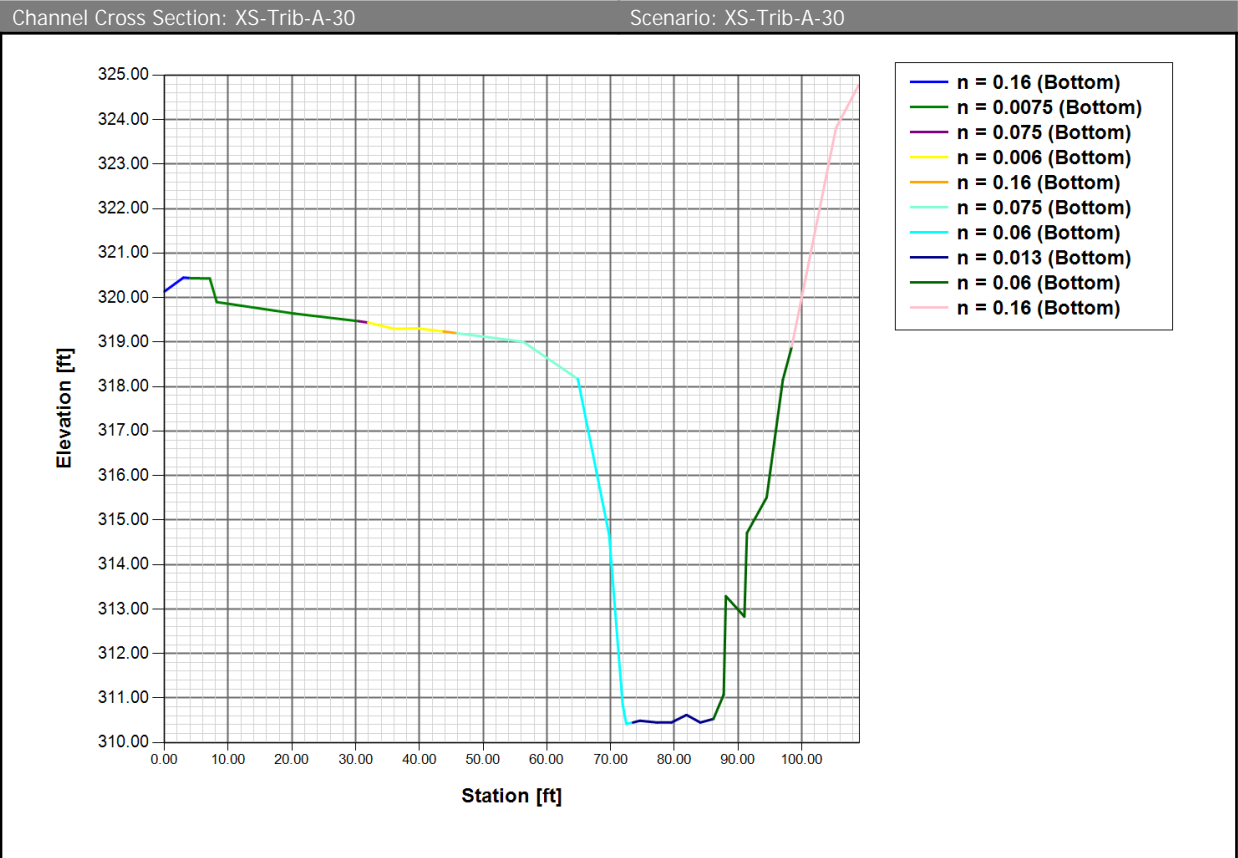


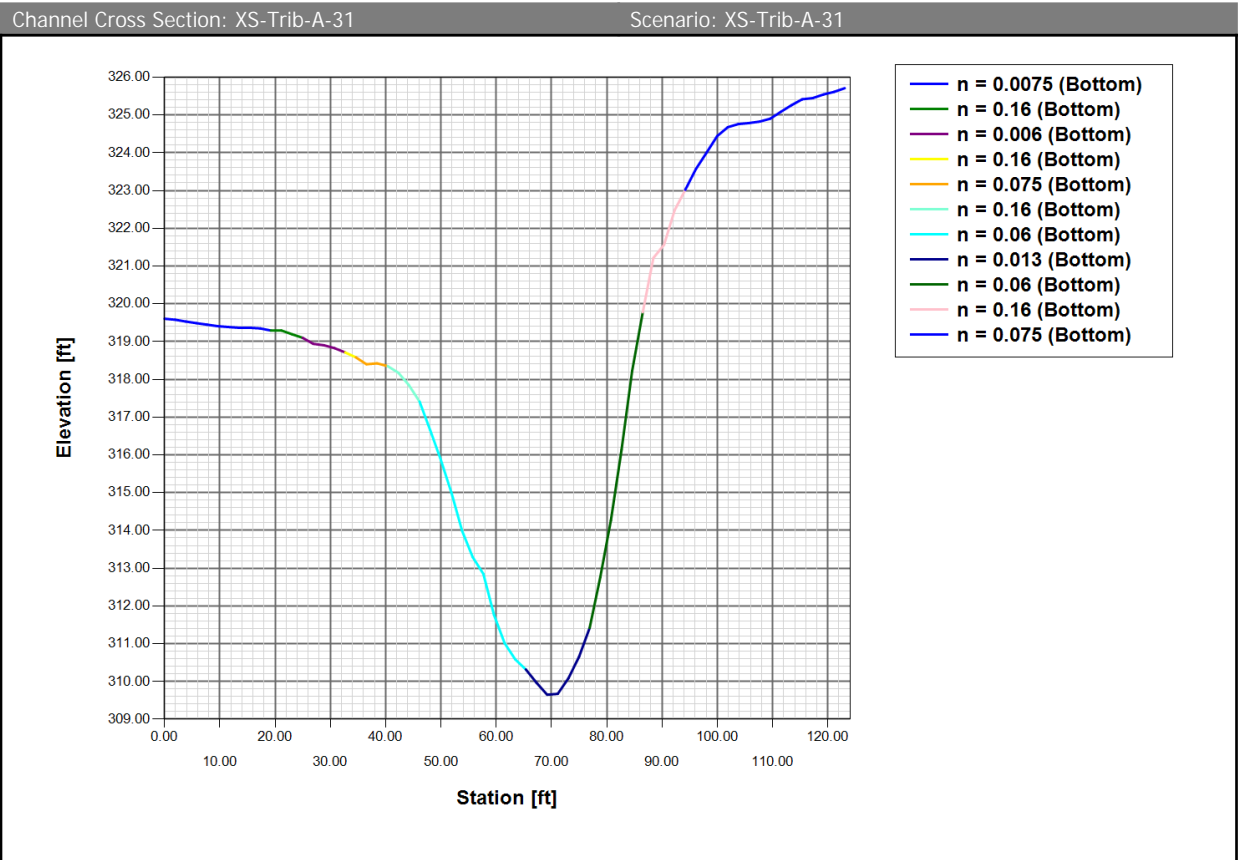


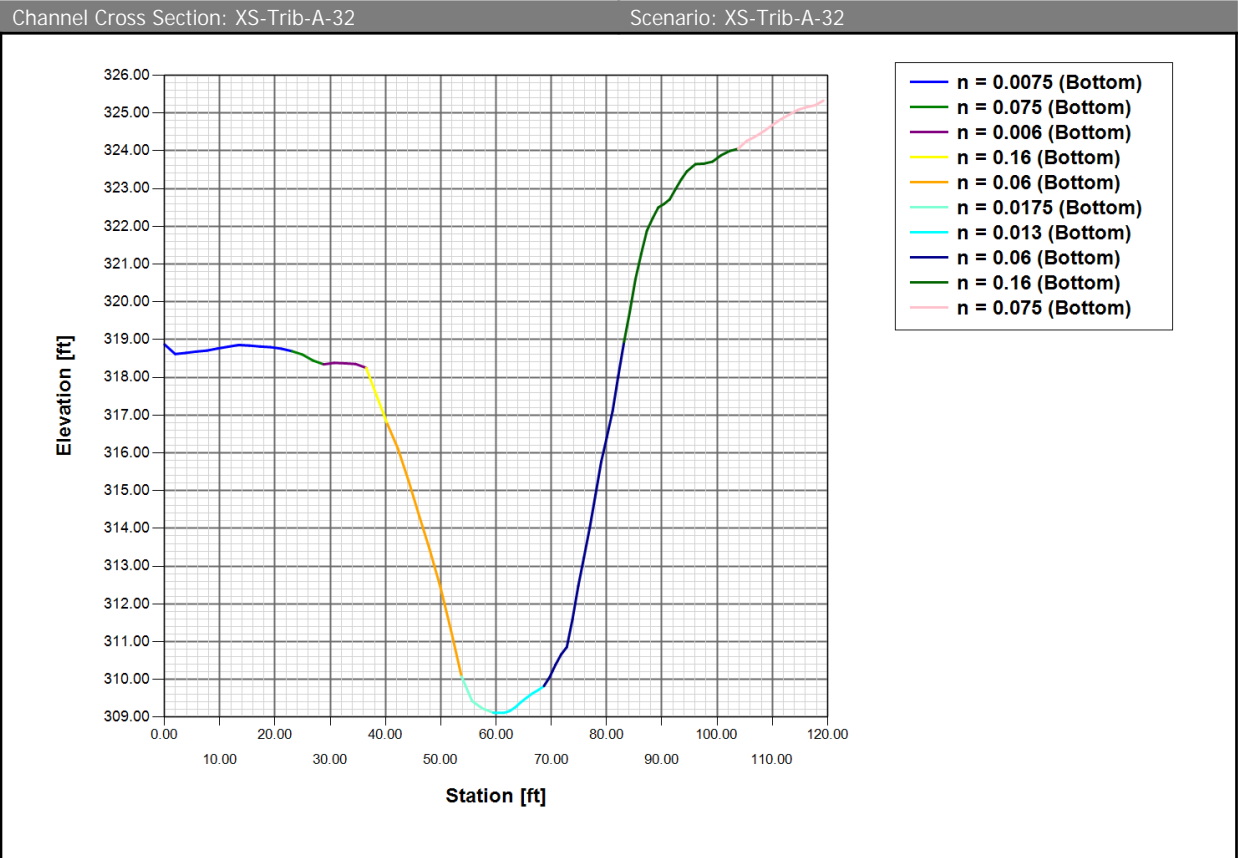


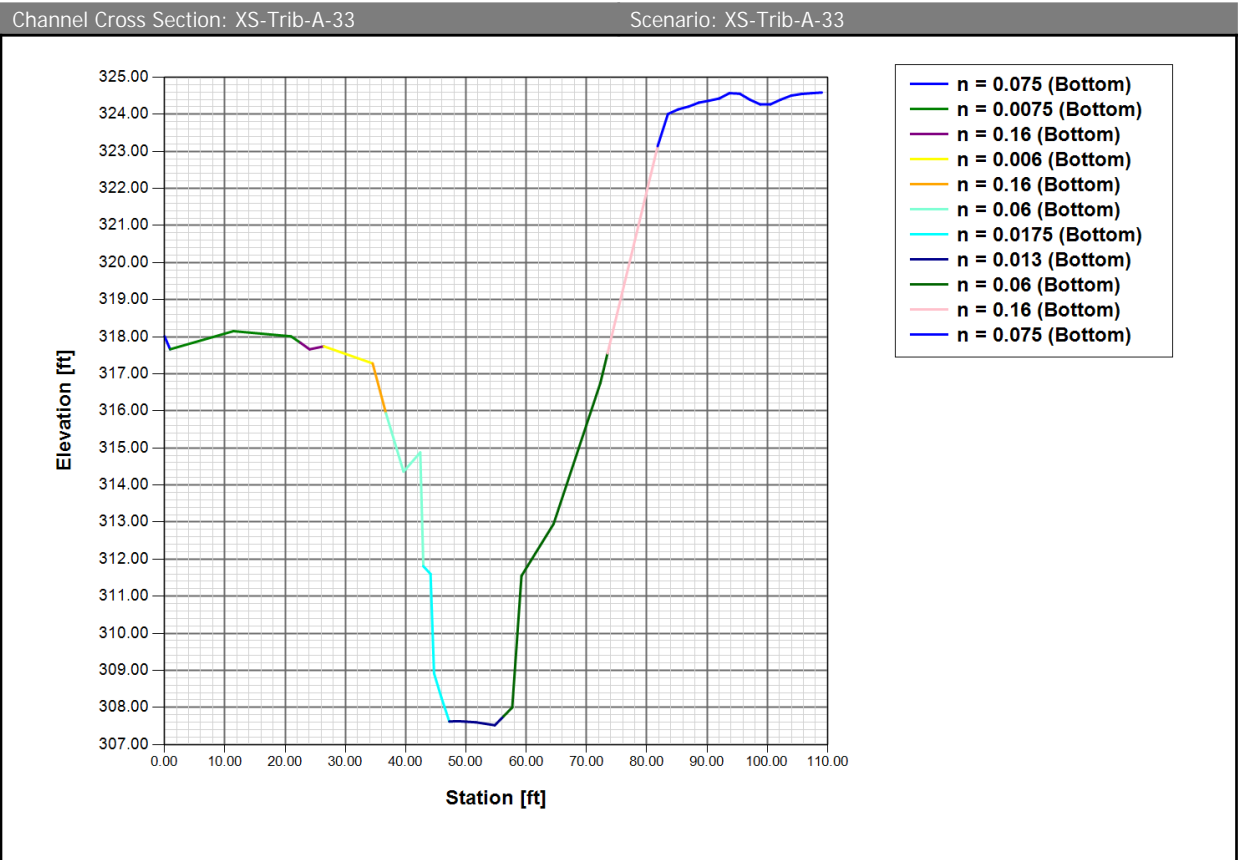


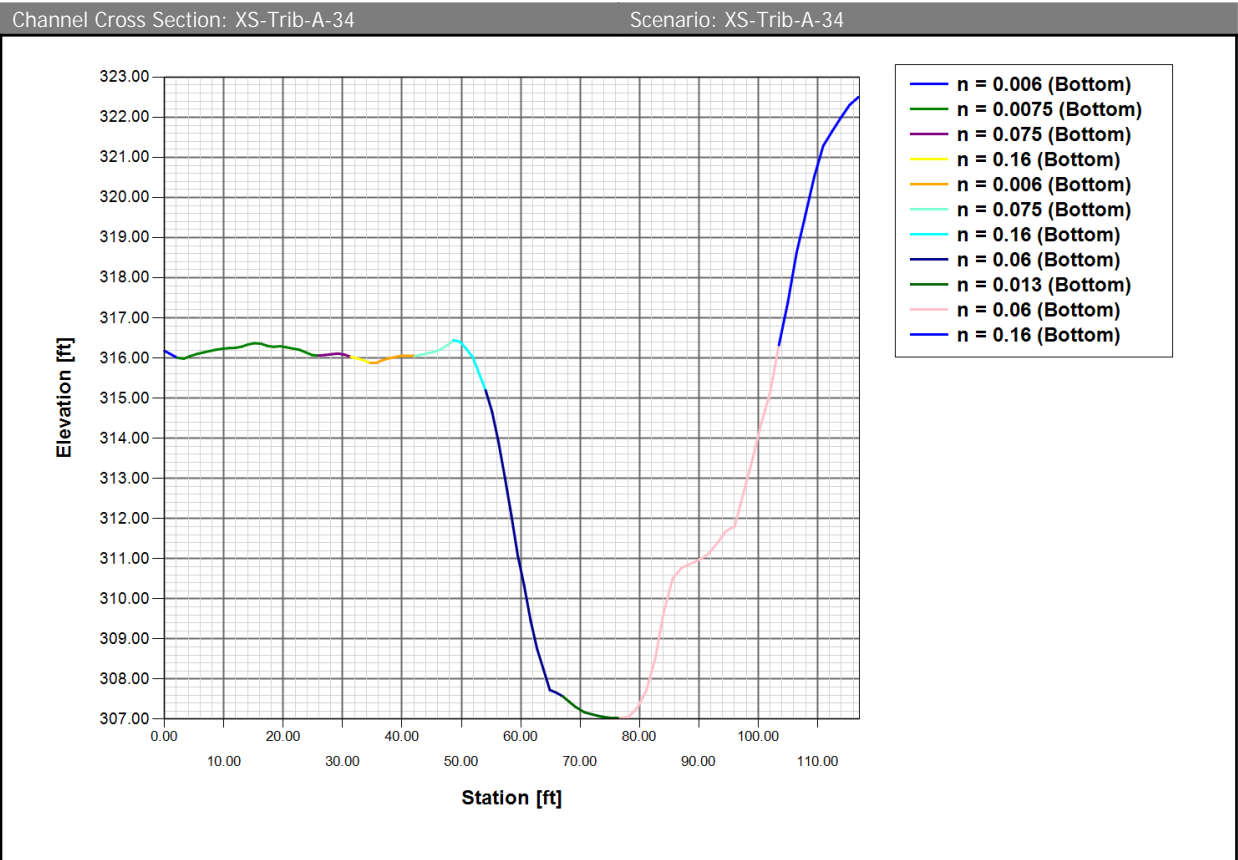


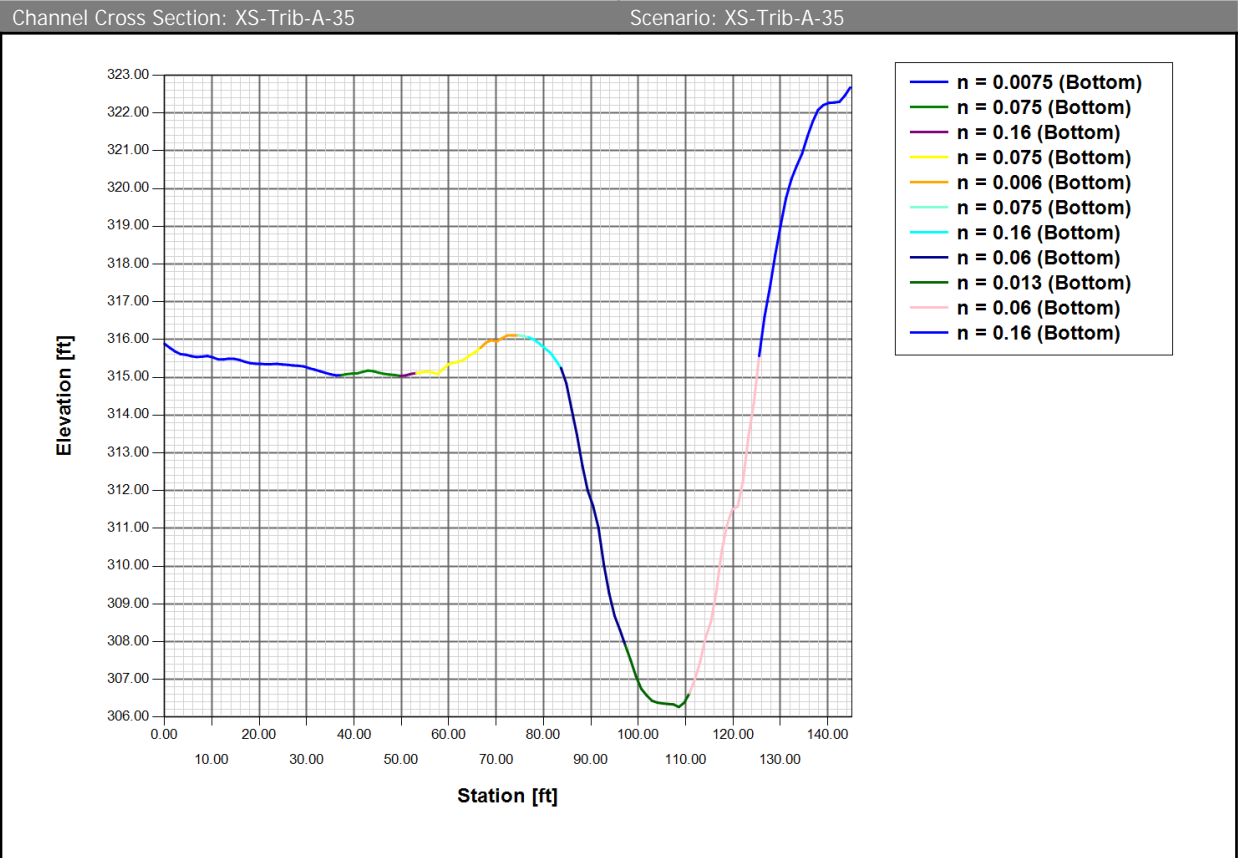


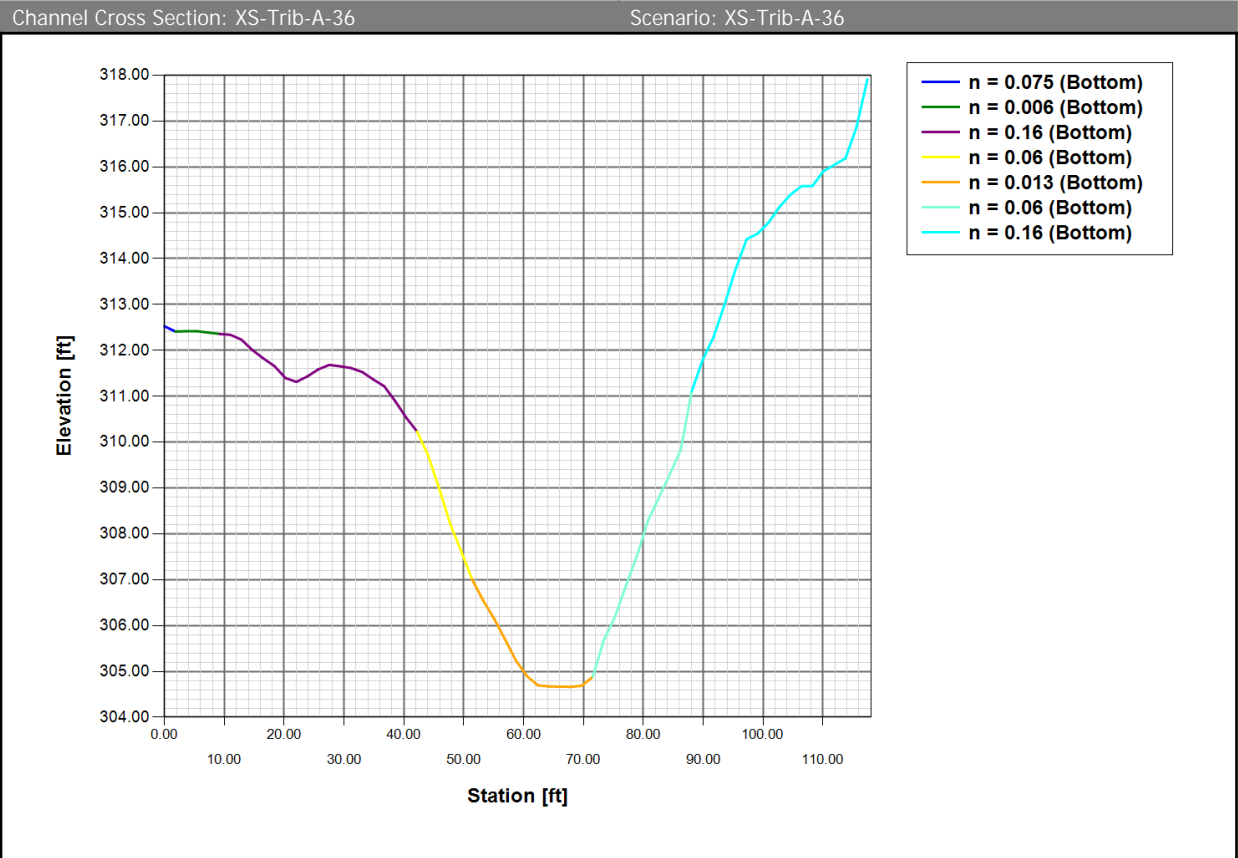






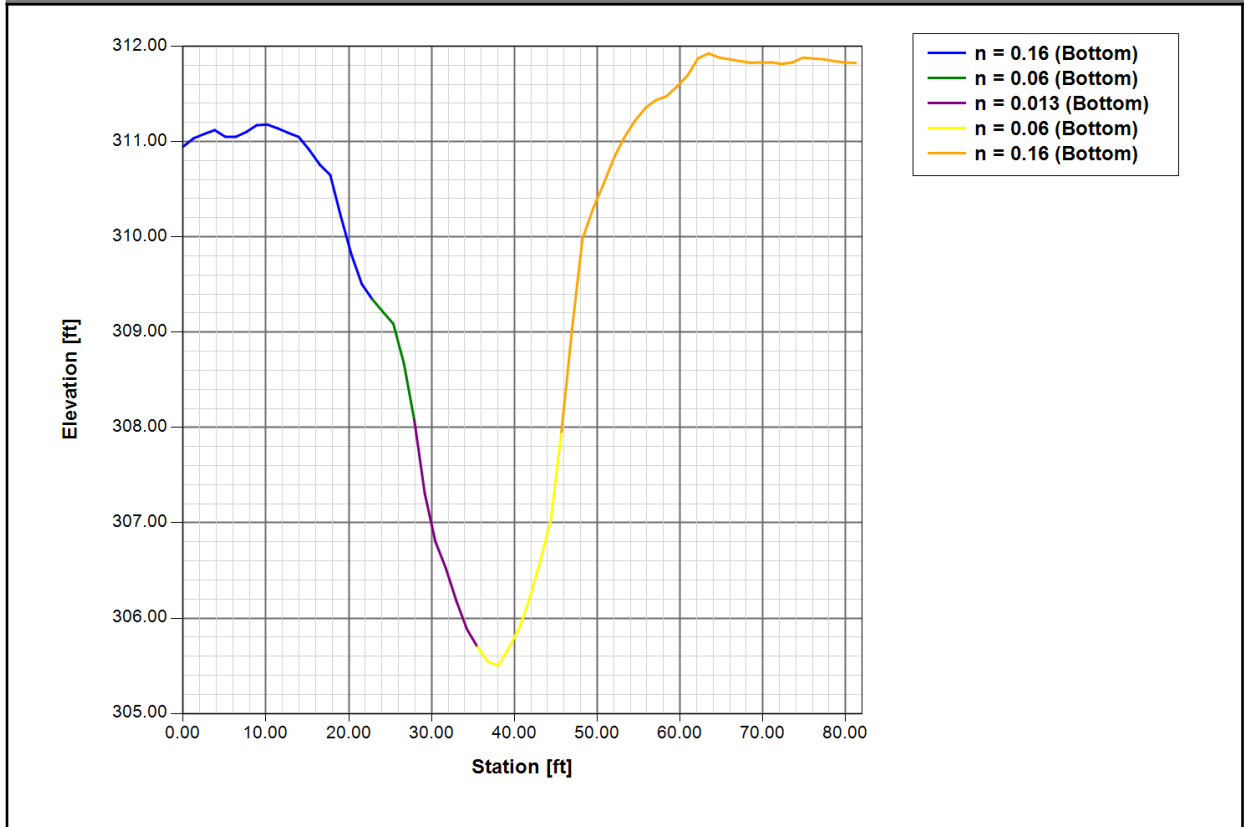


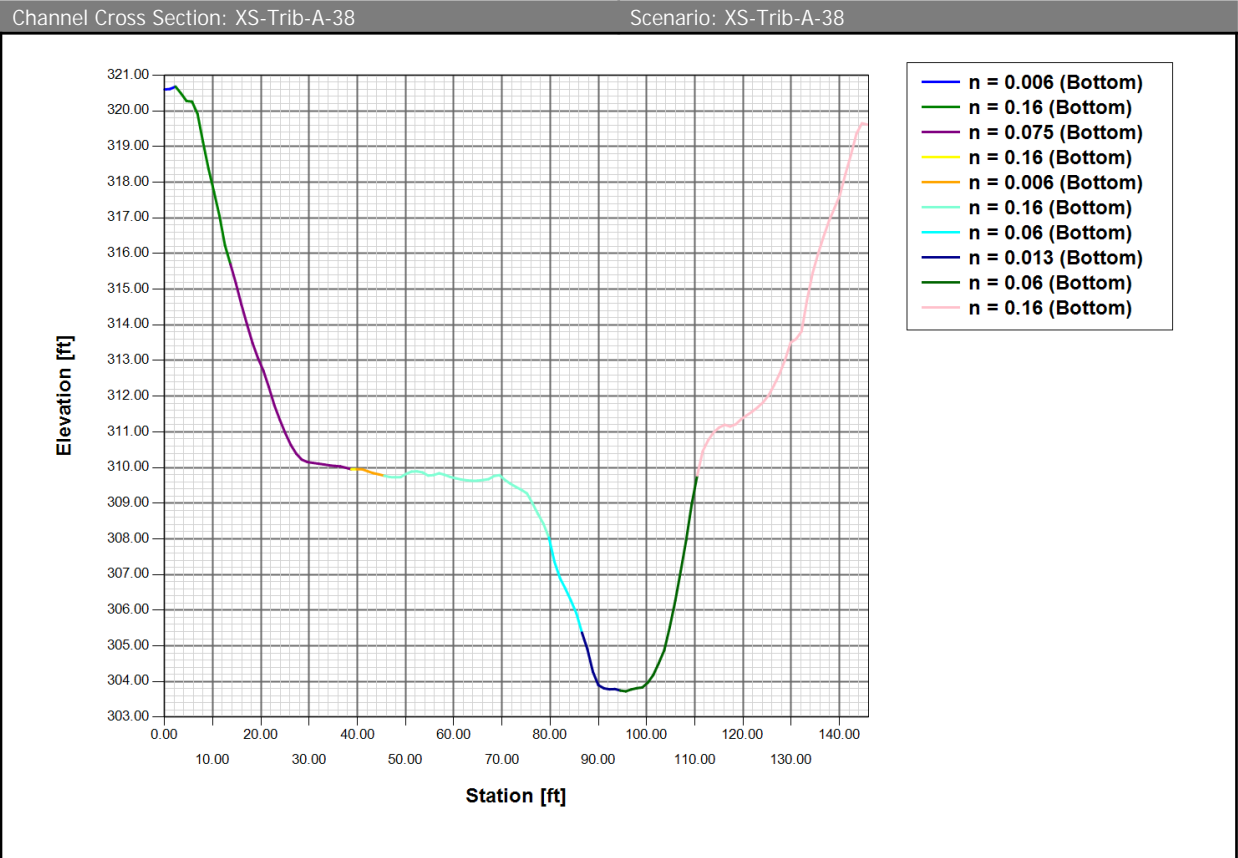


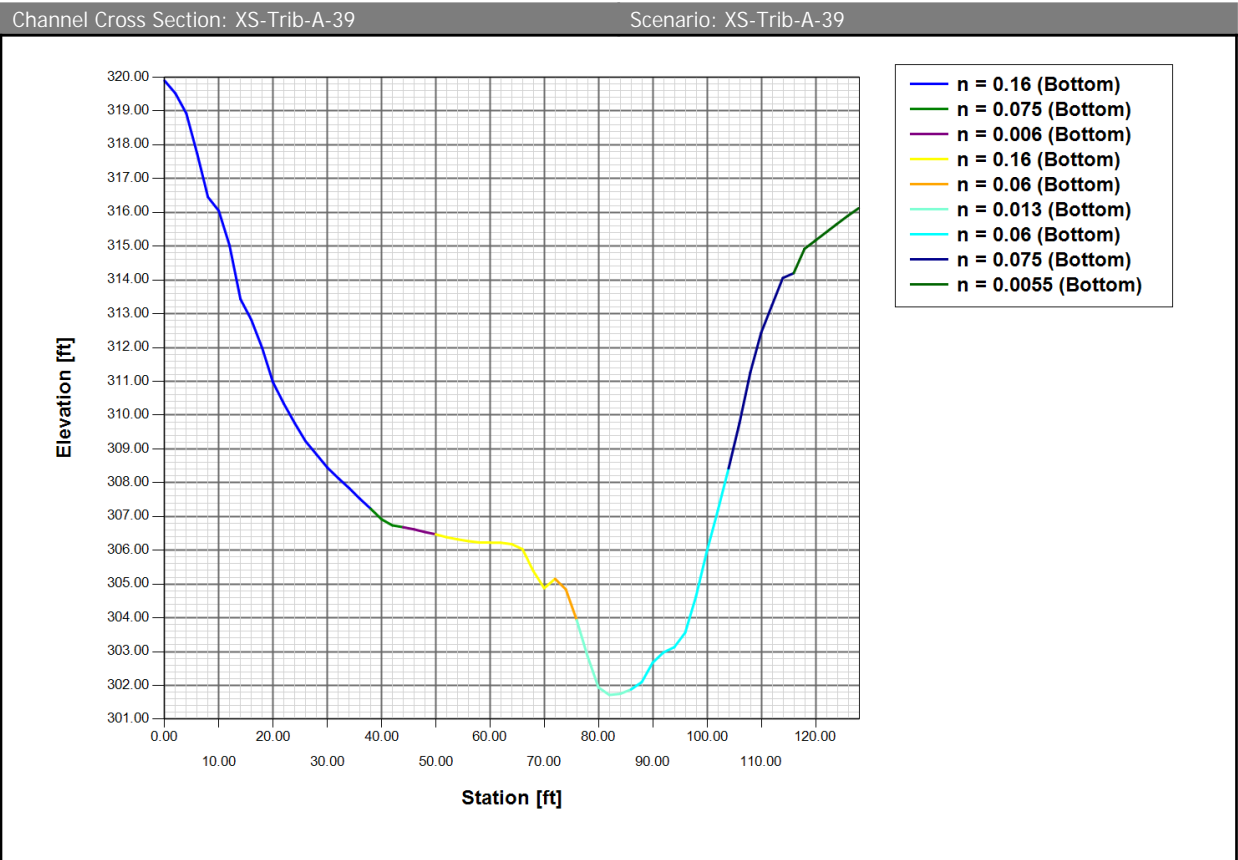


Channel Cross Section: XS-Trib-A-37

Scenario: XS-Trib-A-37

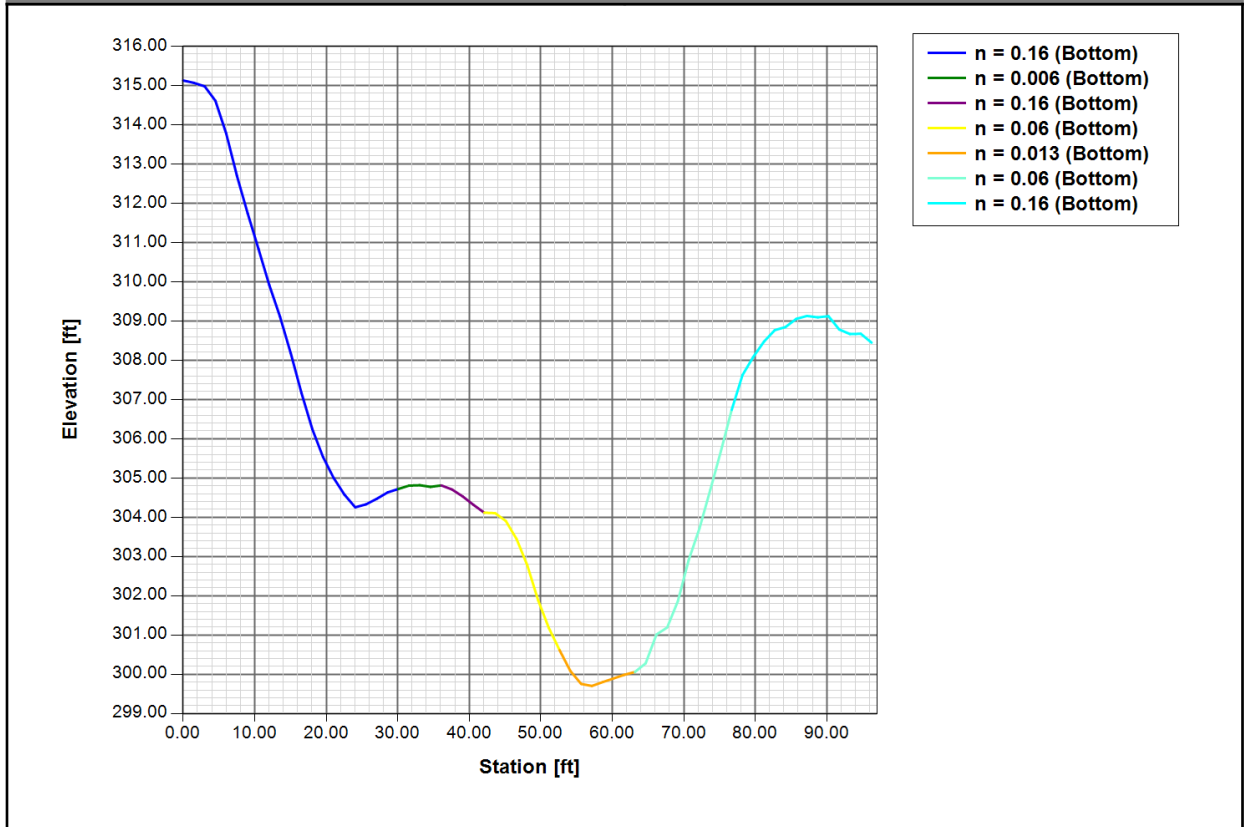


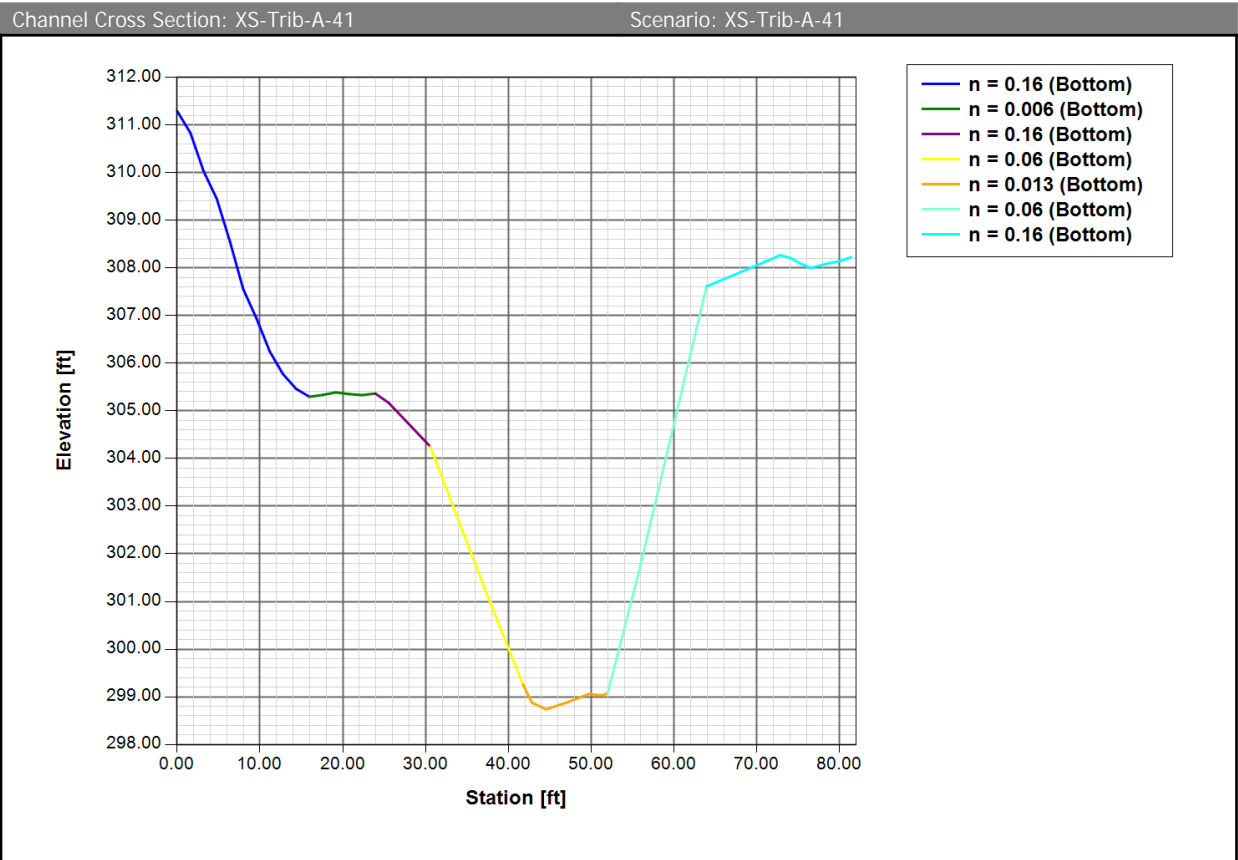


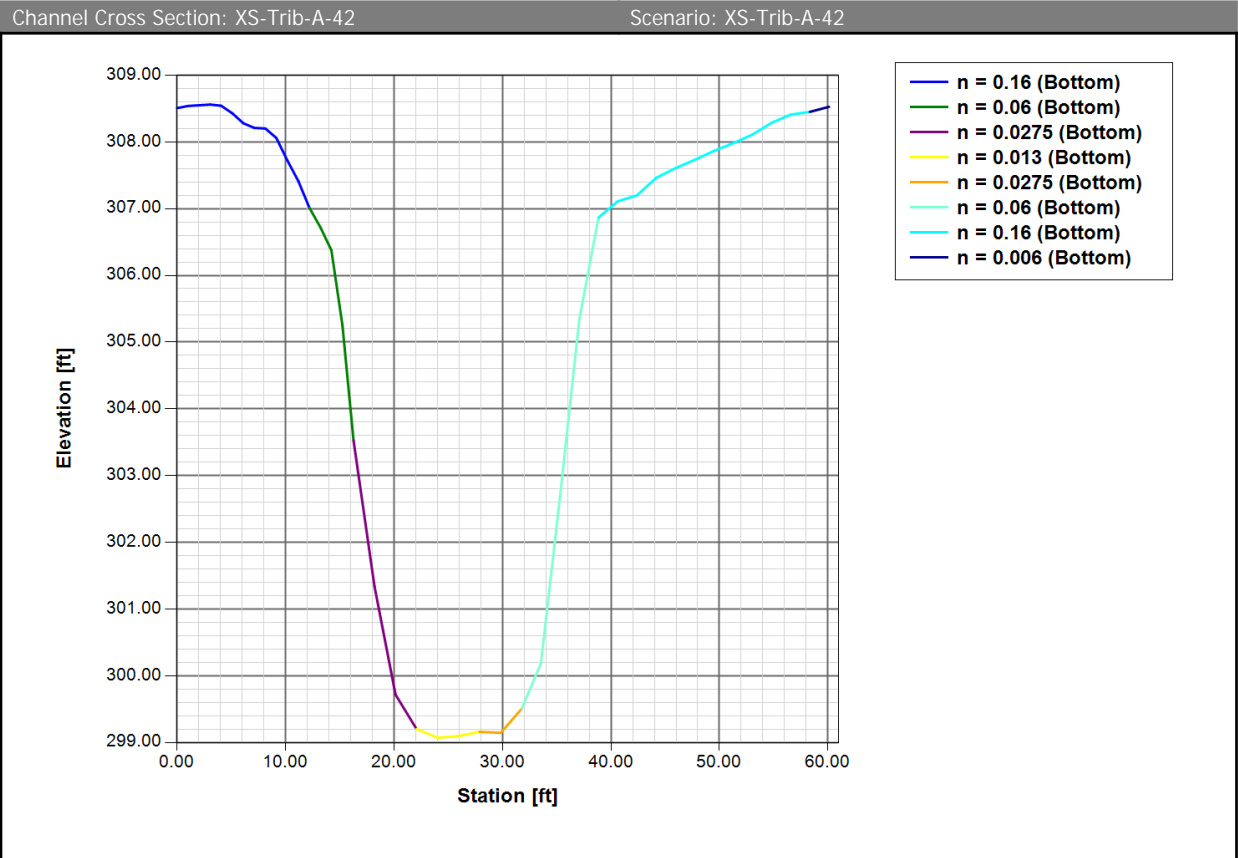


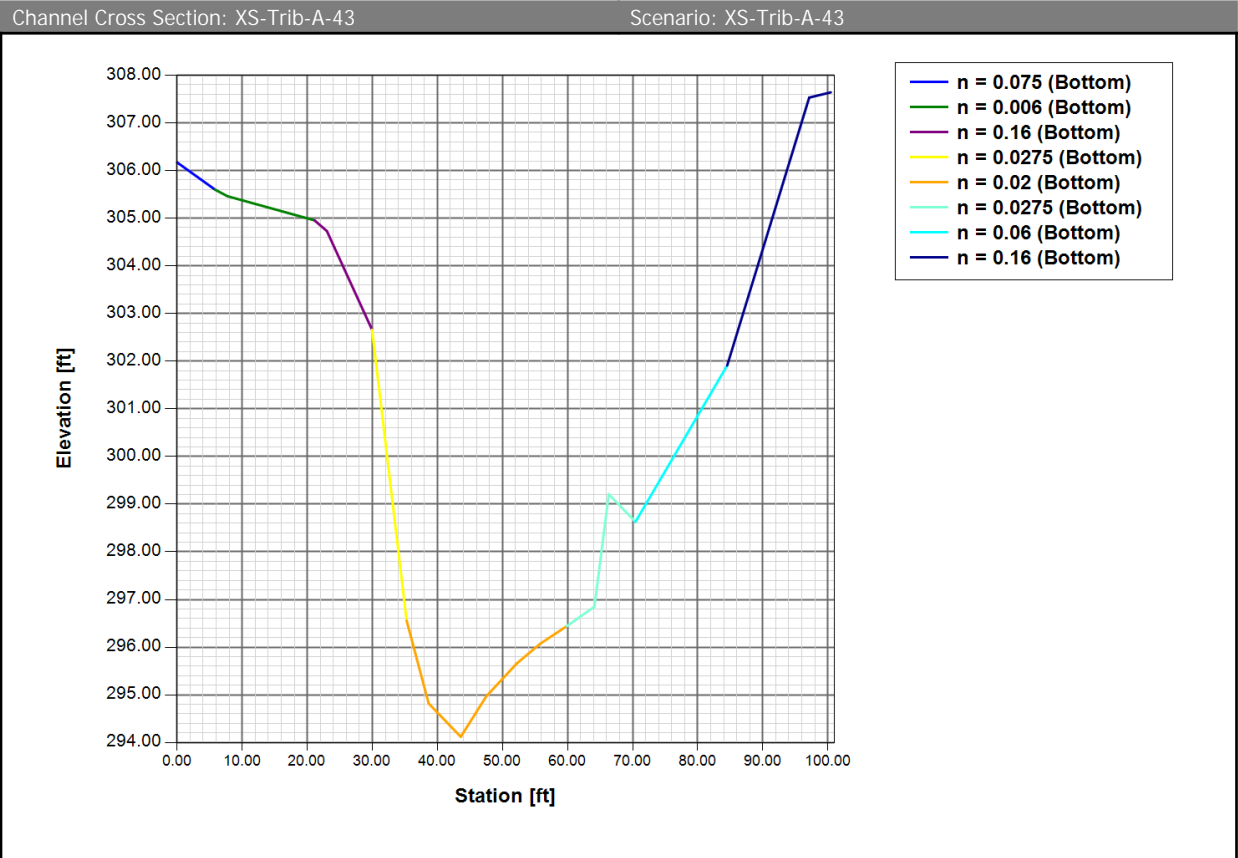
Channel Cross Section: XS-Trib-A-40

Scenario: XS-Trib-A-40



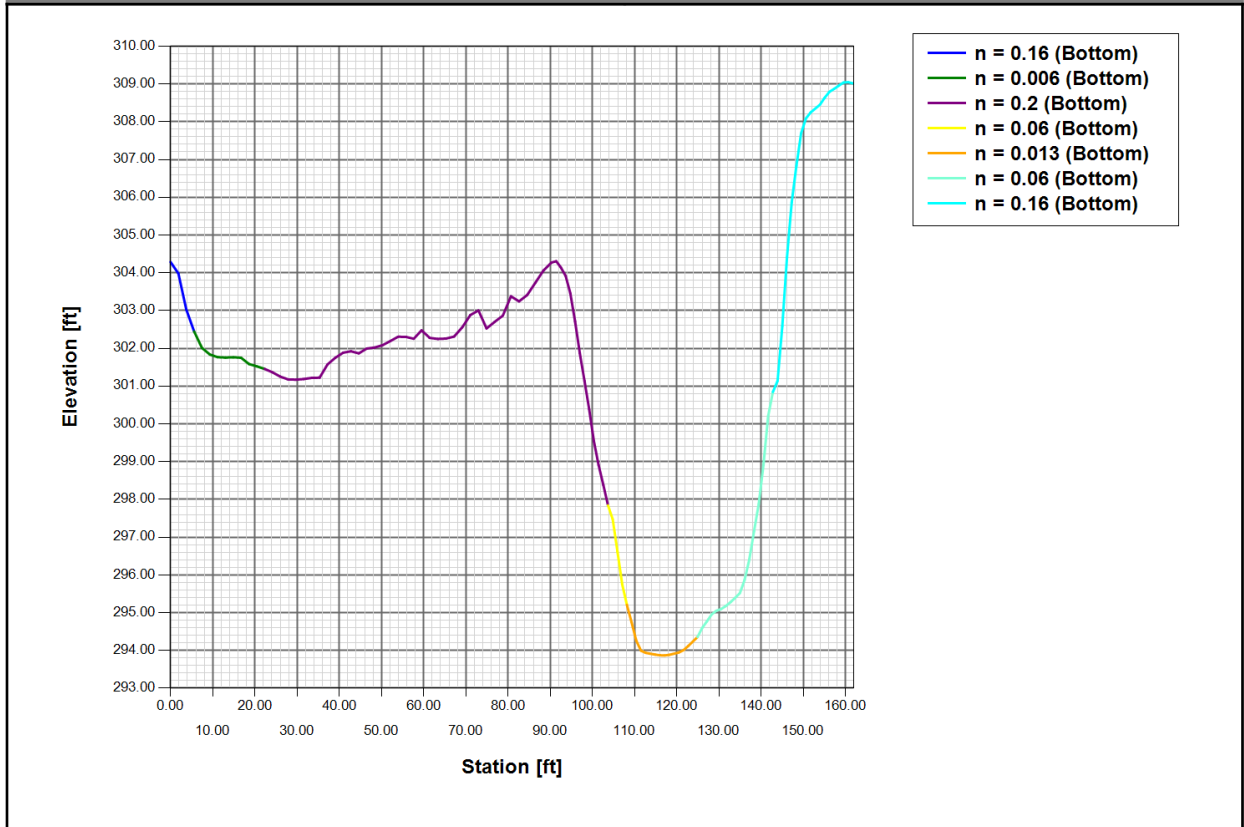


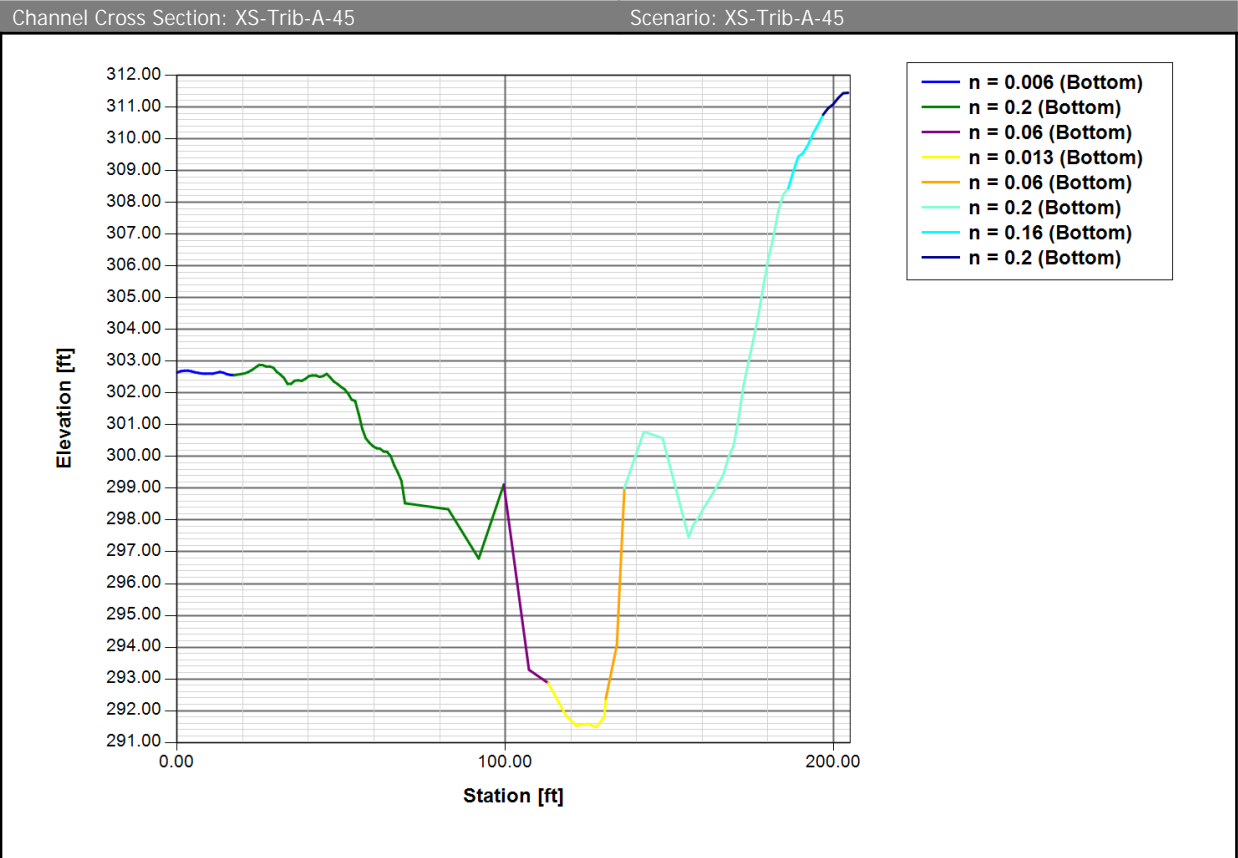


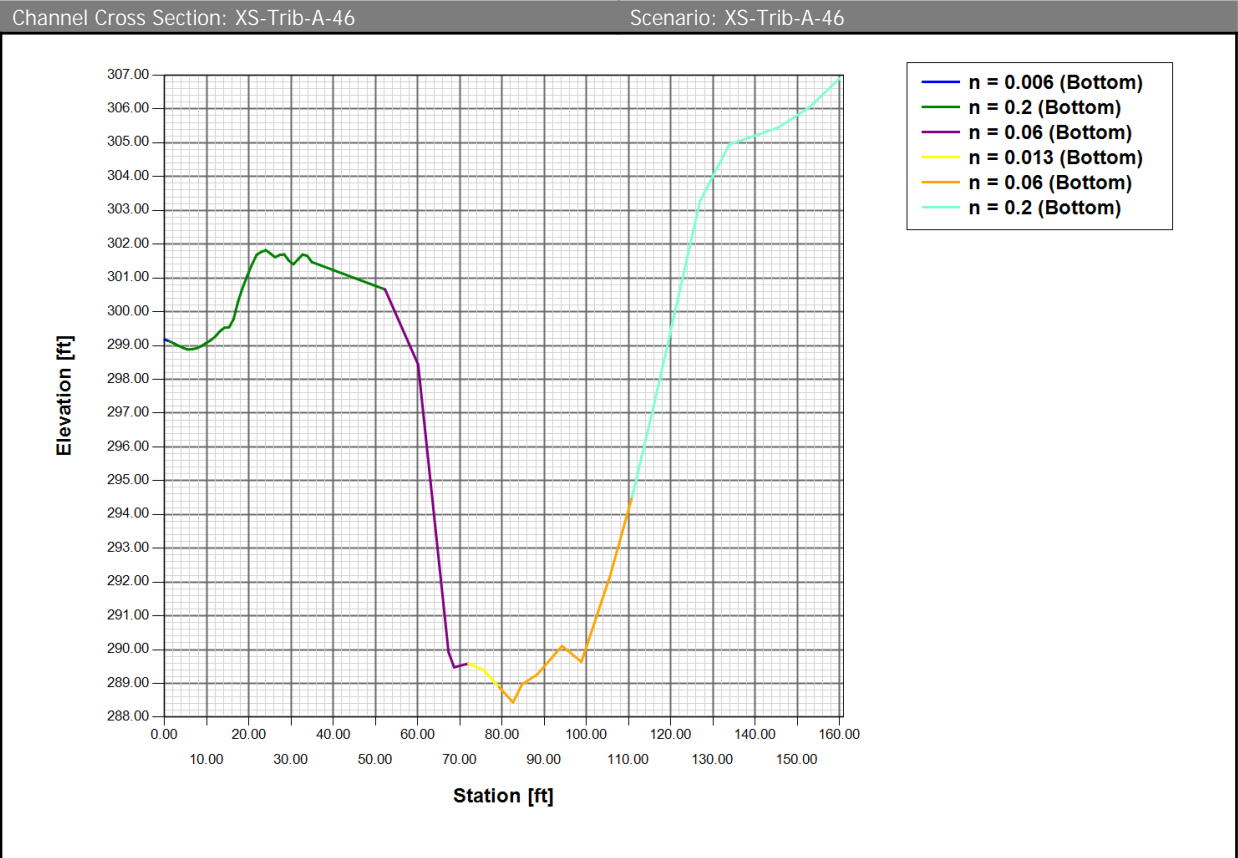


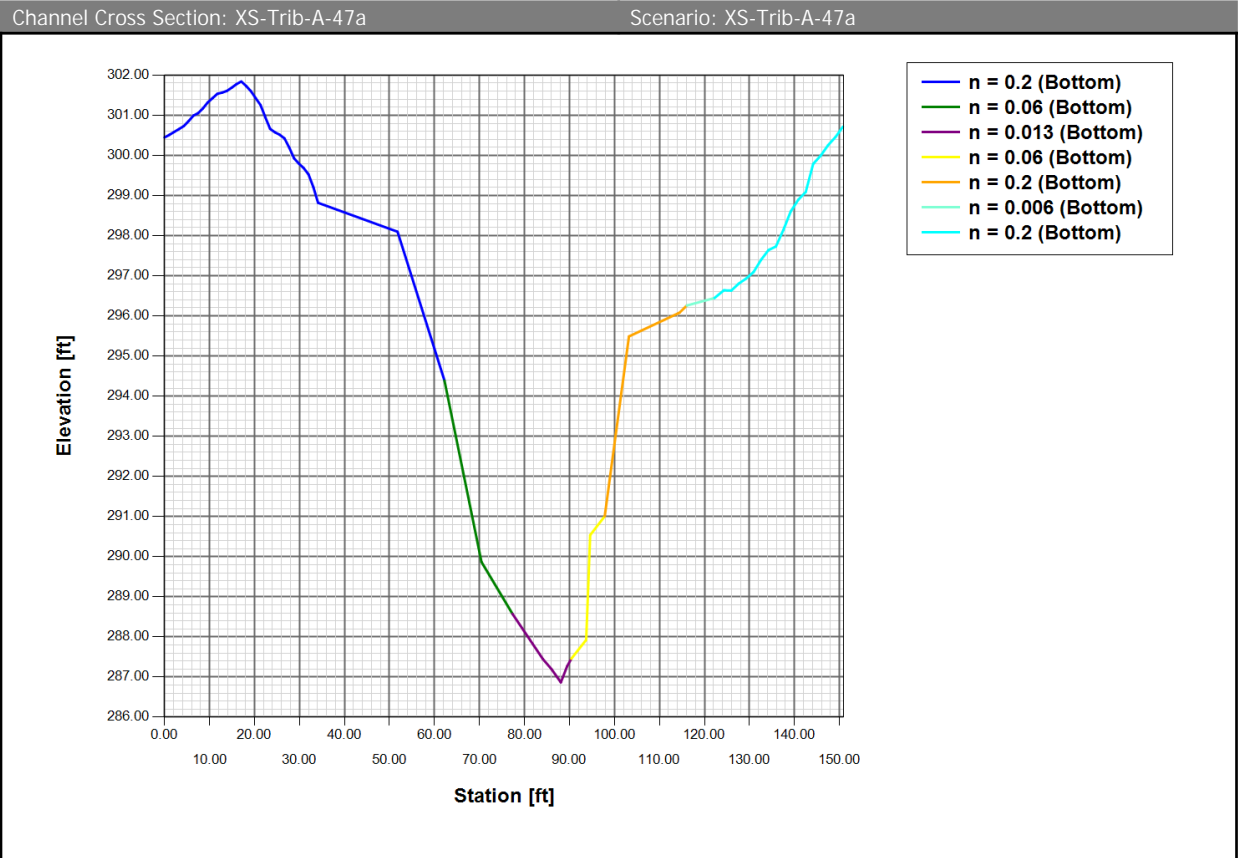
Channel Cross Section: XS-Trib-A-44

Scenario: XS-Trib-A-44



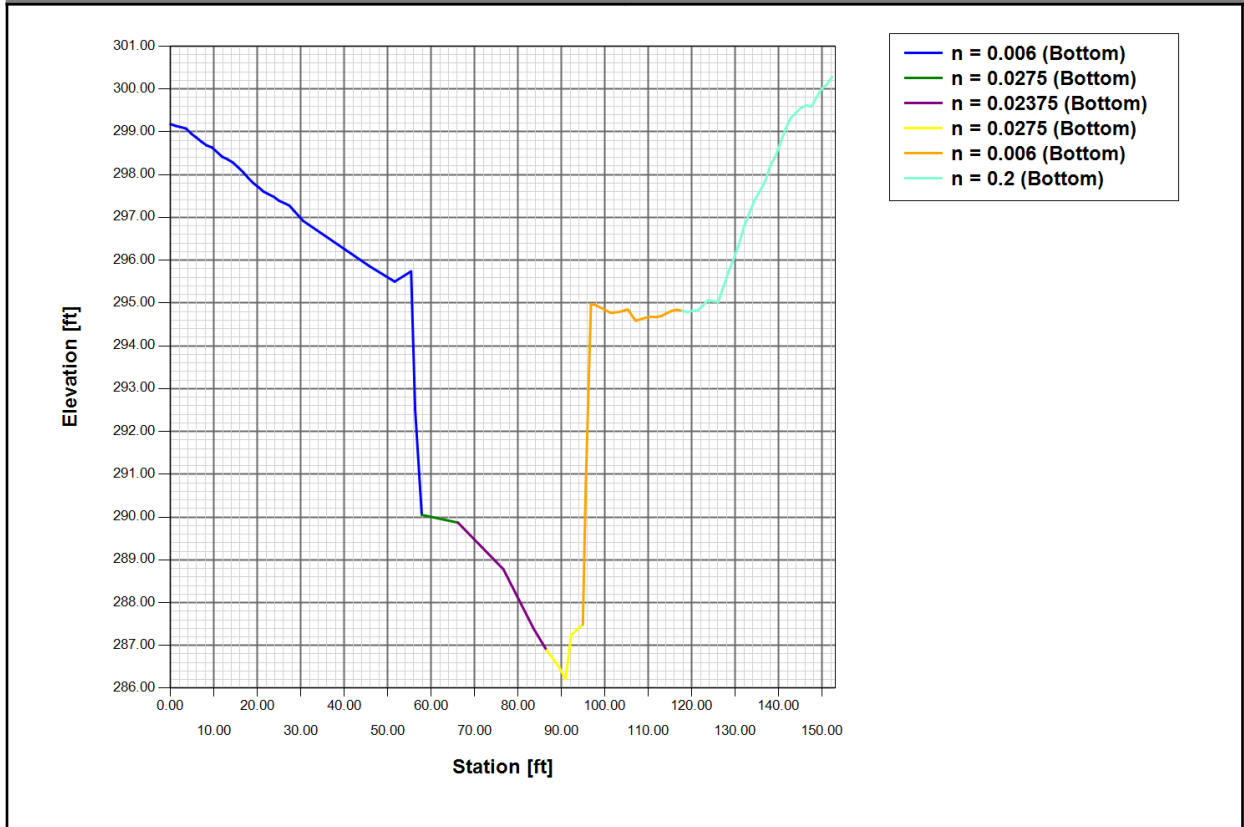


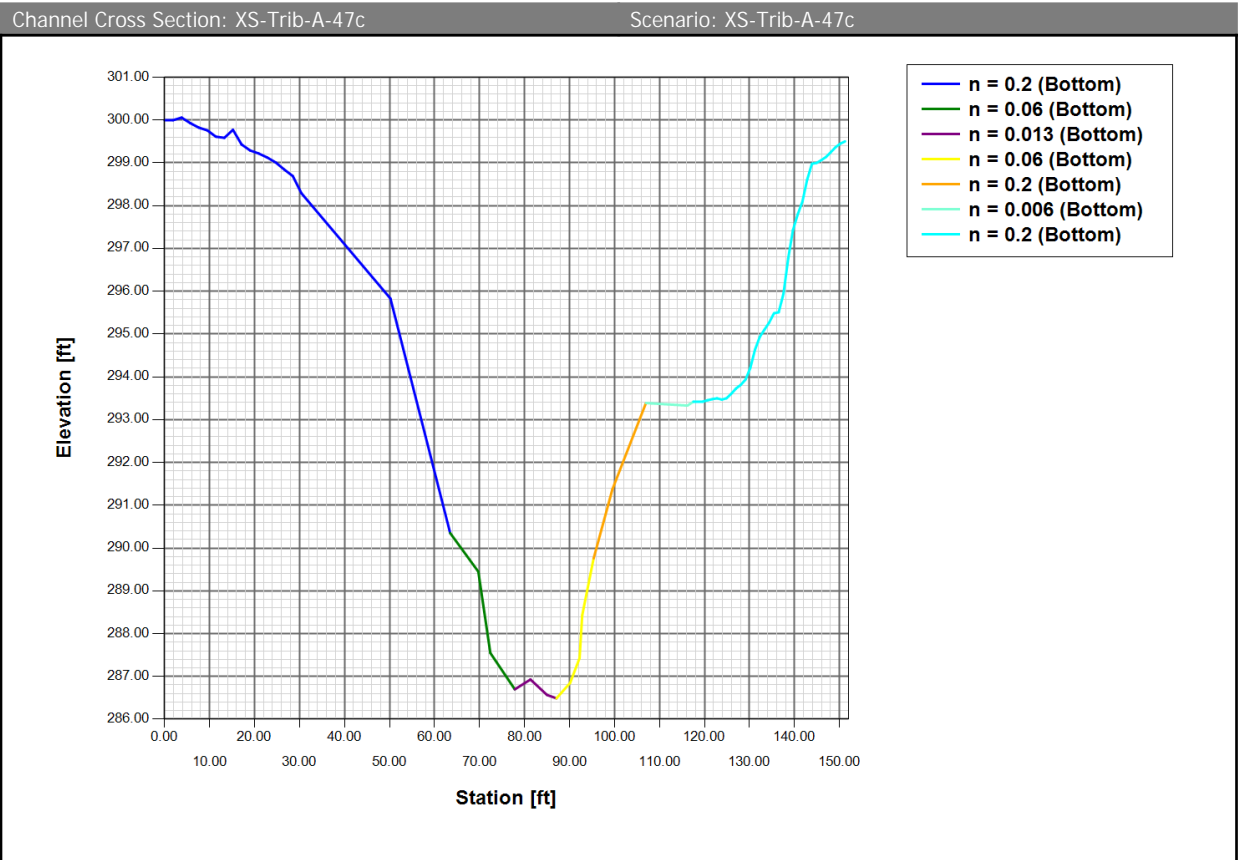


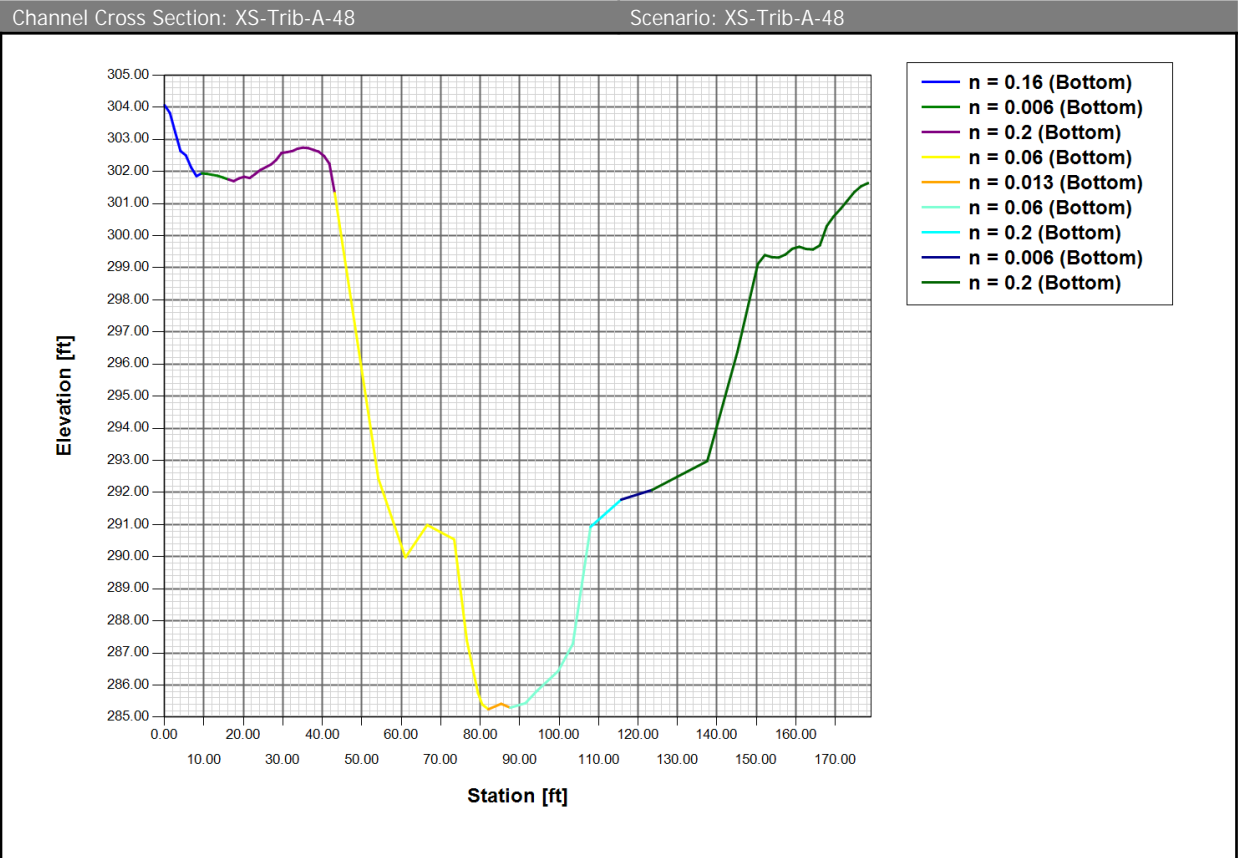


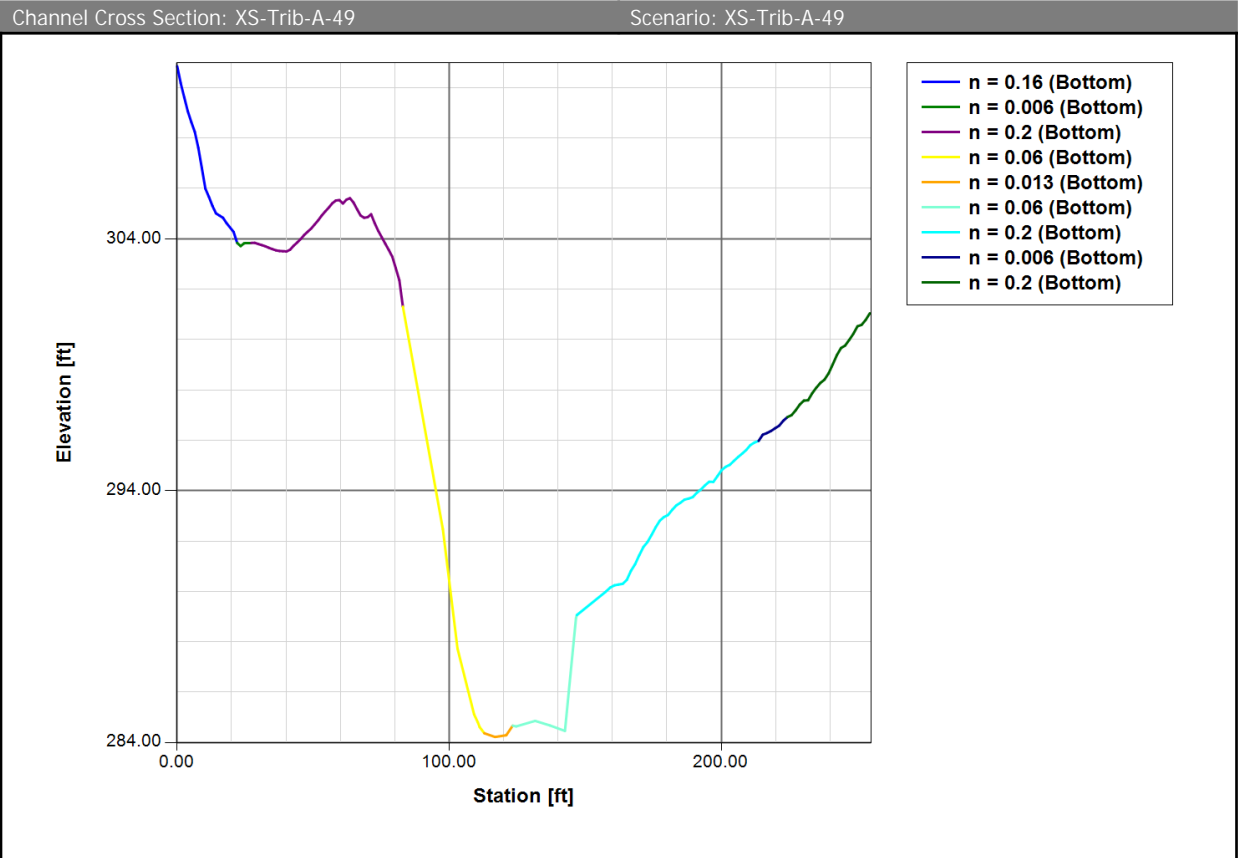
Channel Cross Section: XS-Trib-A-47b

Scenario: XS-Trib-A-47b



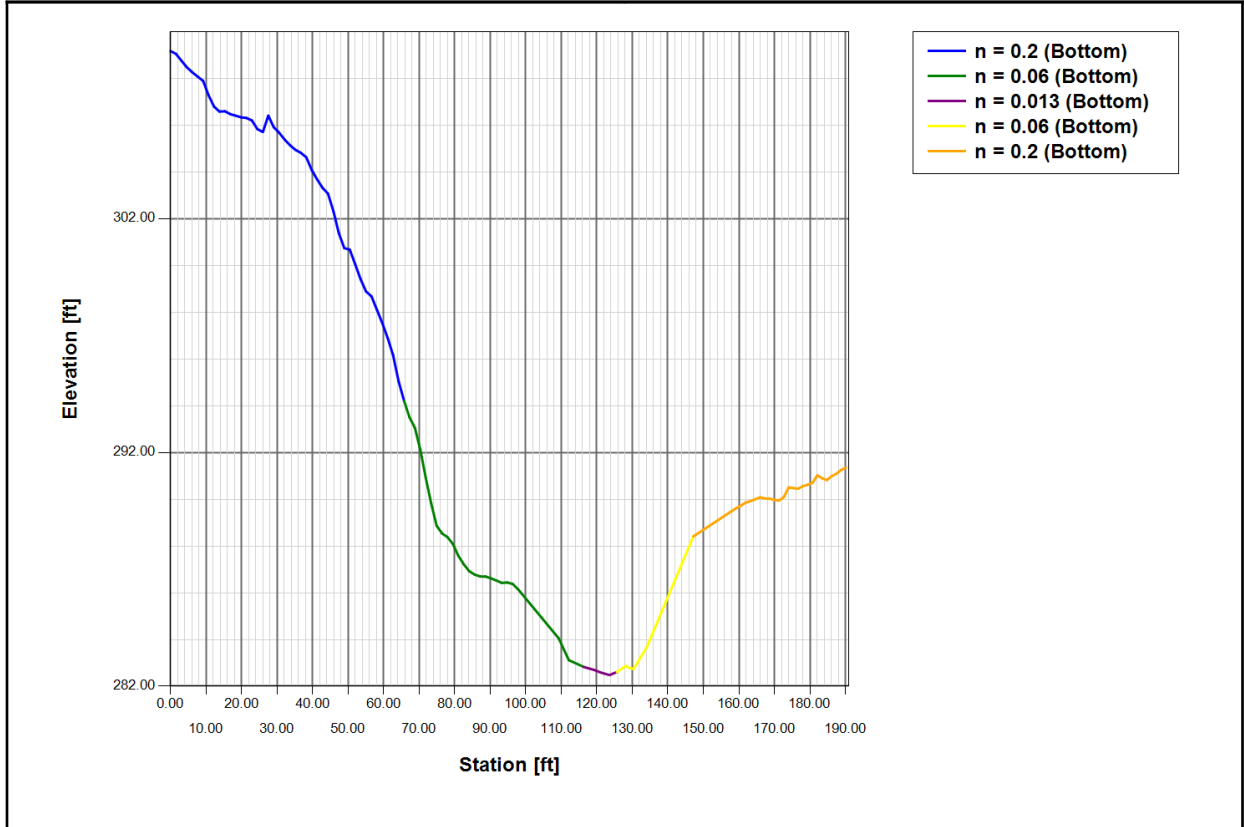


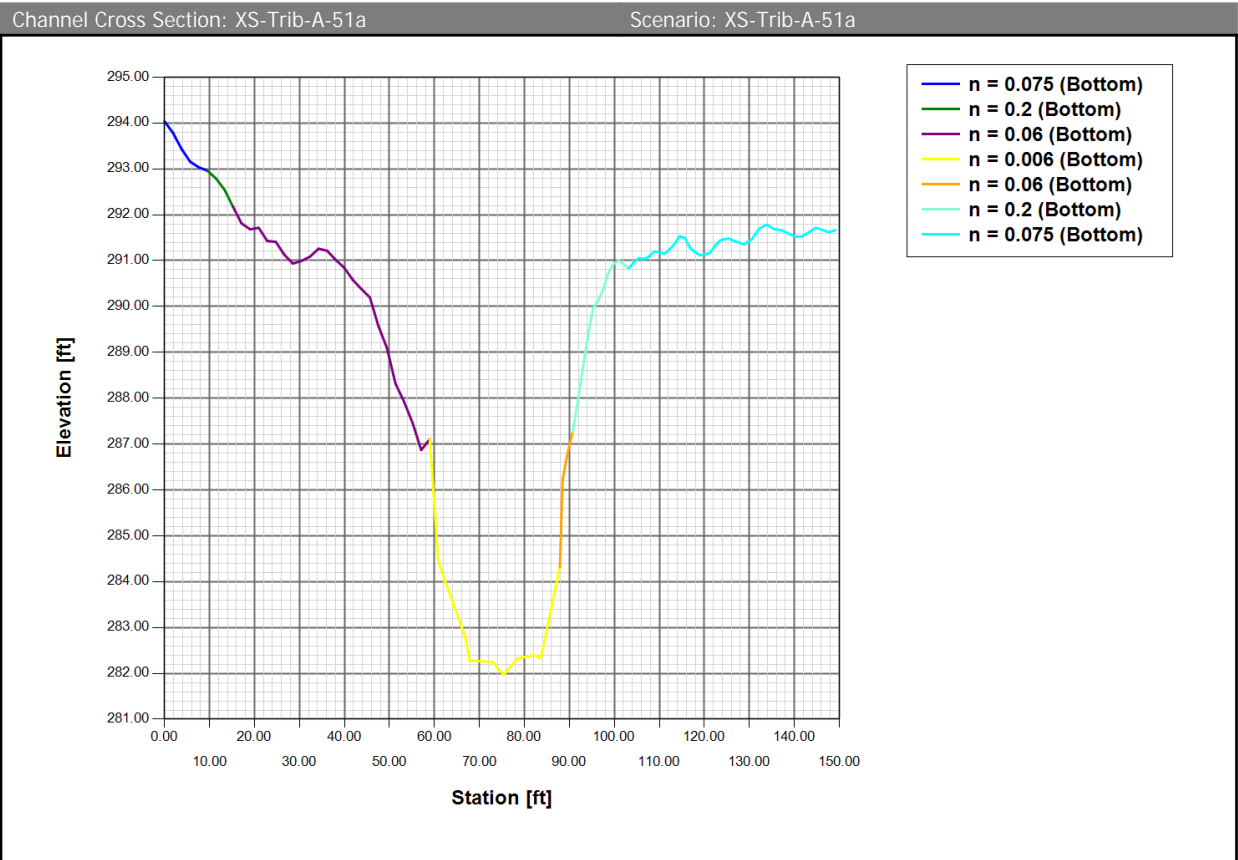


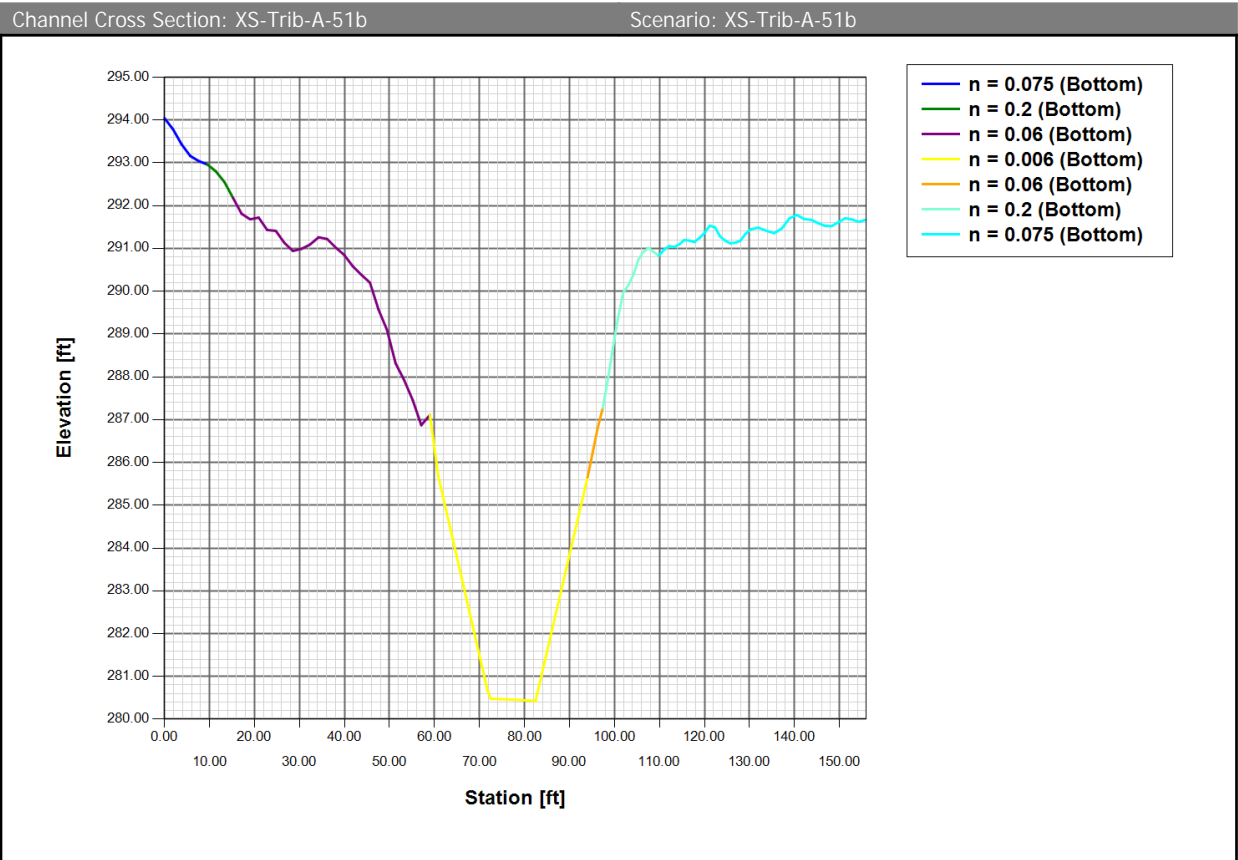


Channel Cross Section: XS-Trib-A-50

Scenario: XS-Trib-A-50

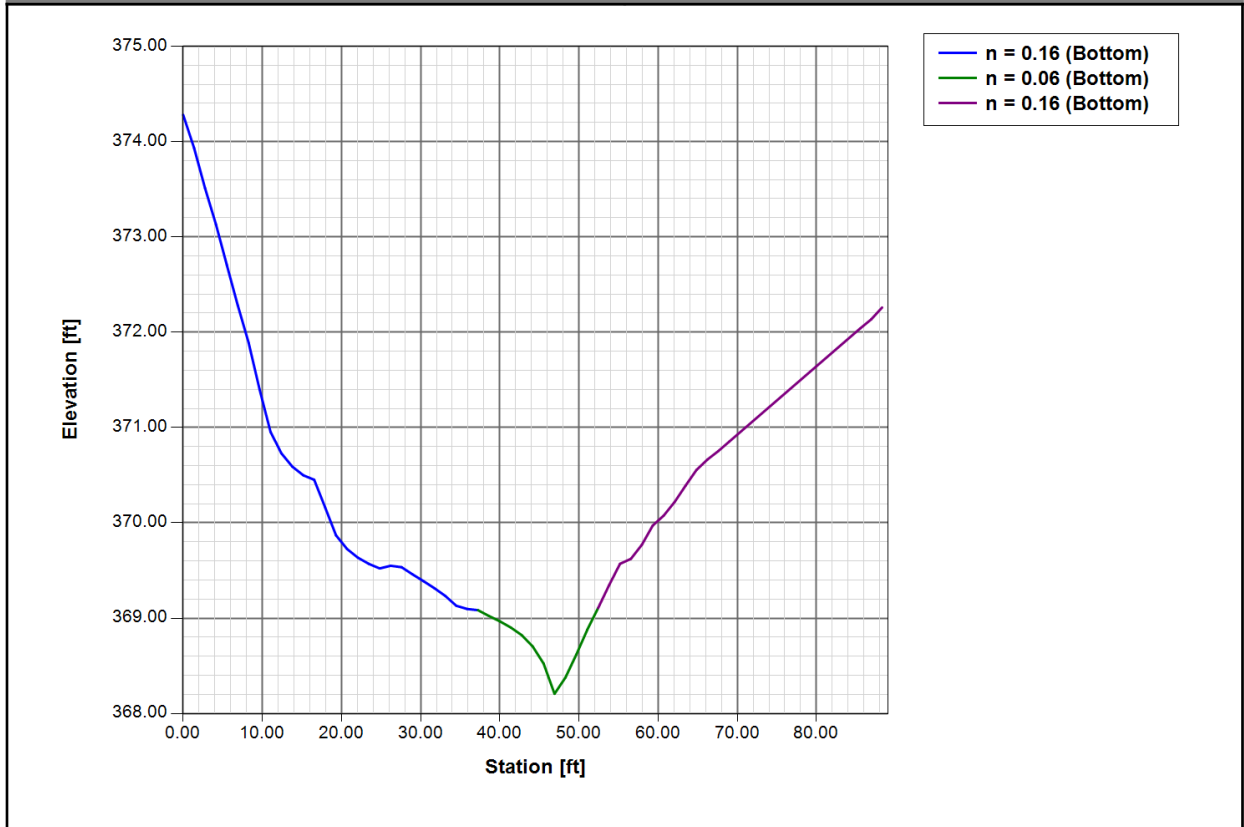


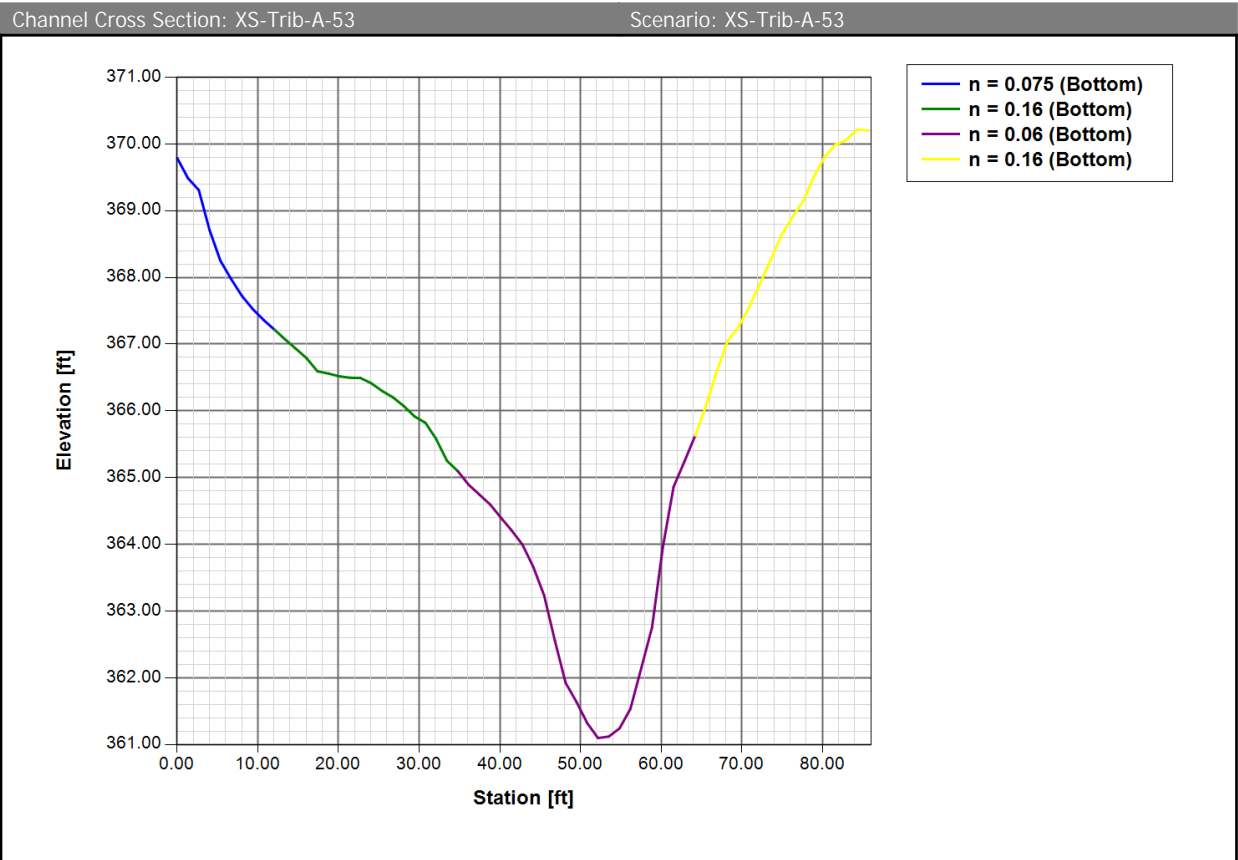


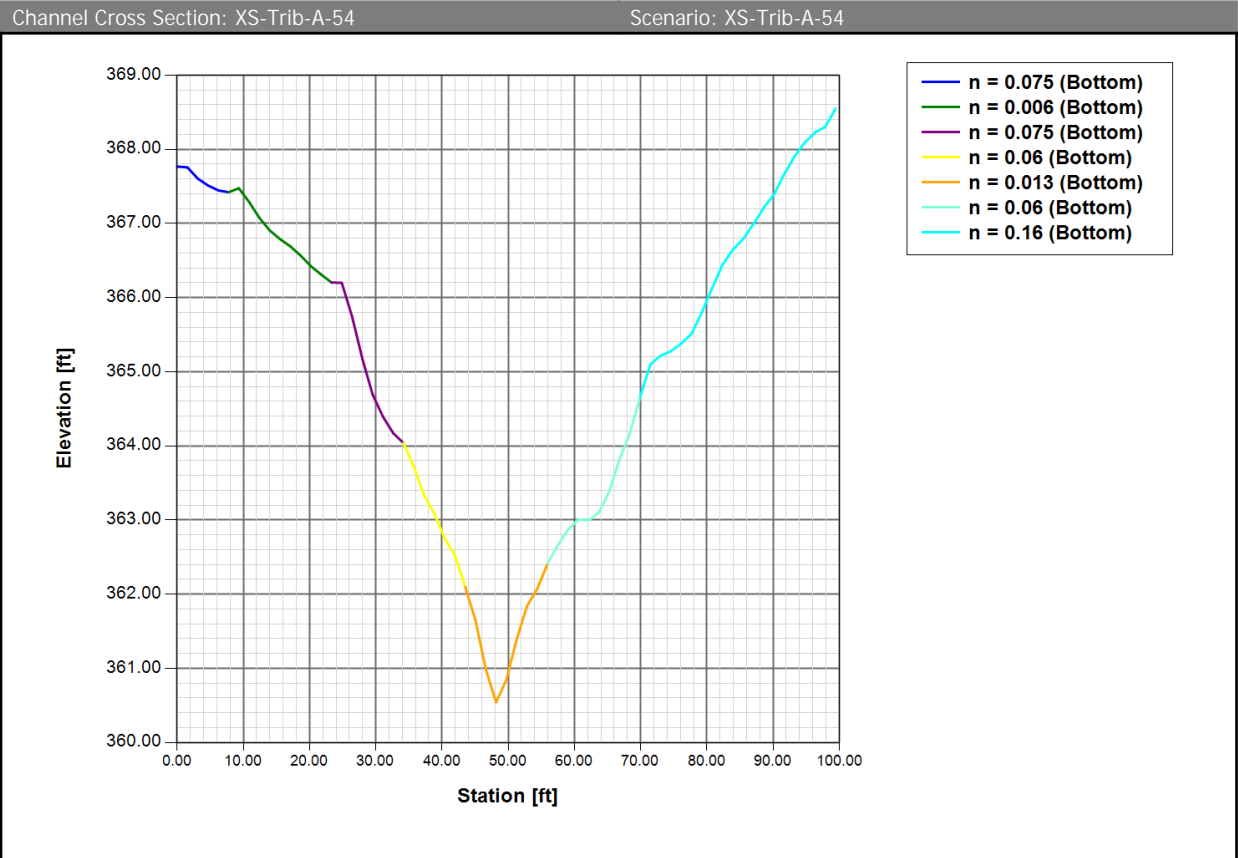


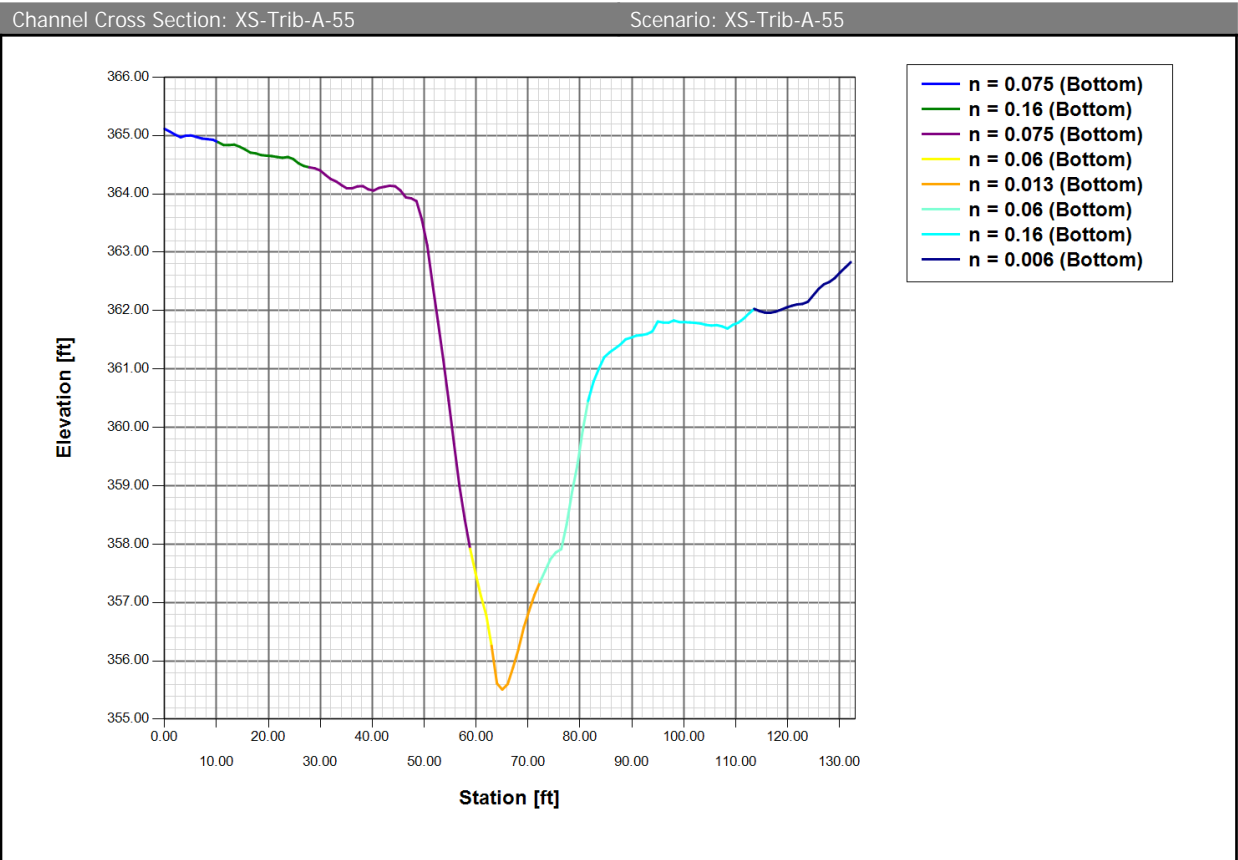
Channel Cross Section: XS-Trib-A-52

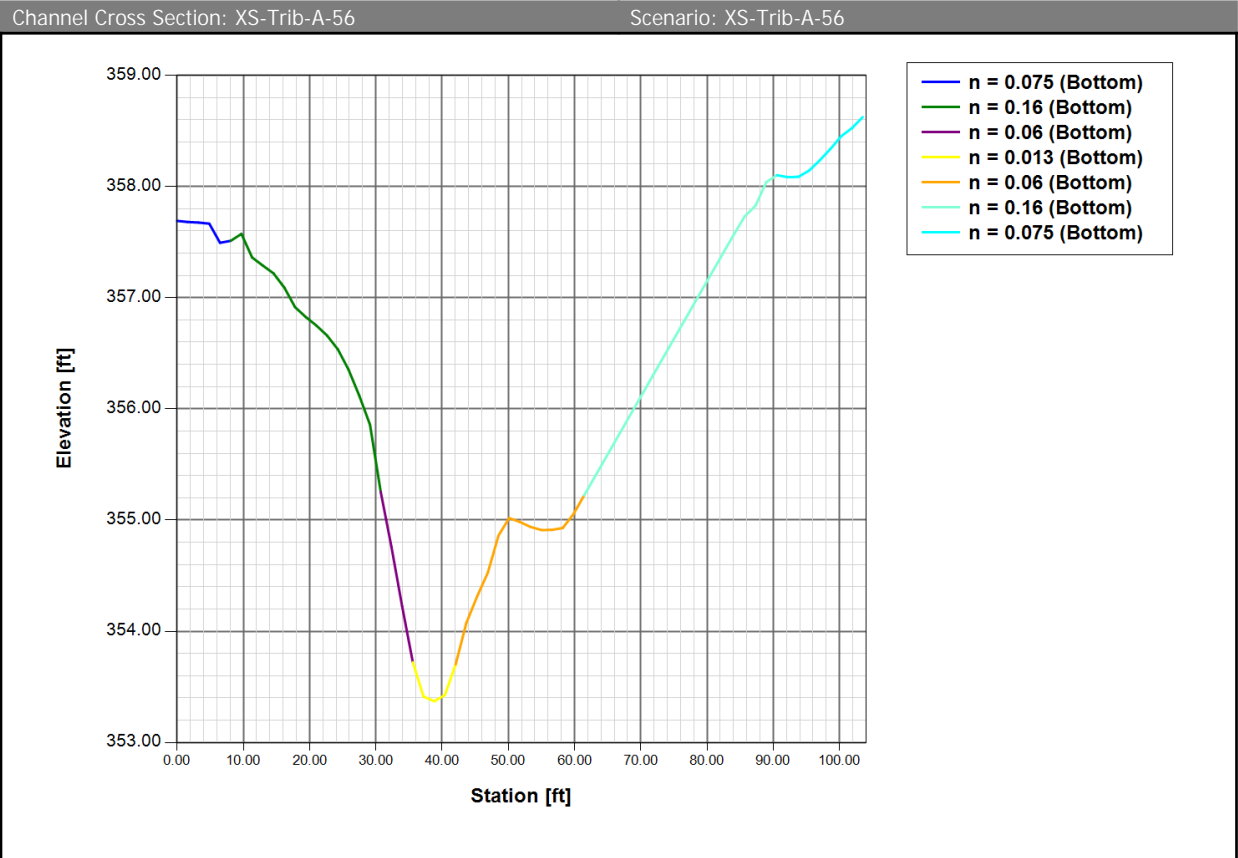
Scenario: XS-Trib-A-52





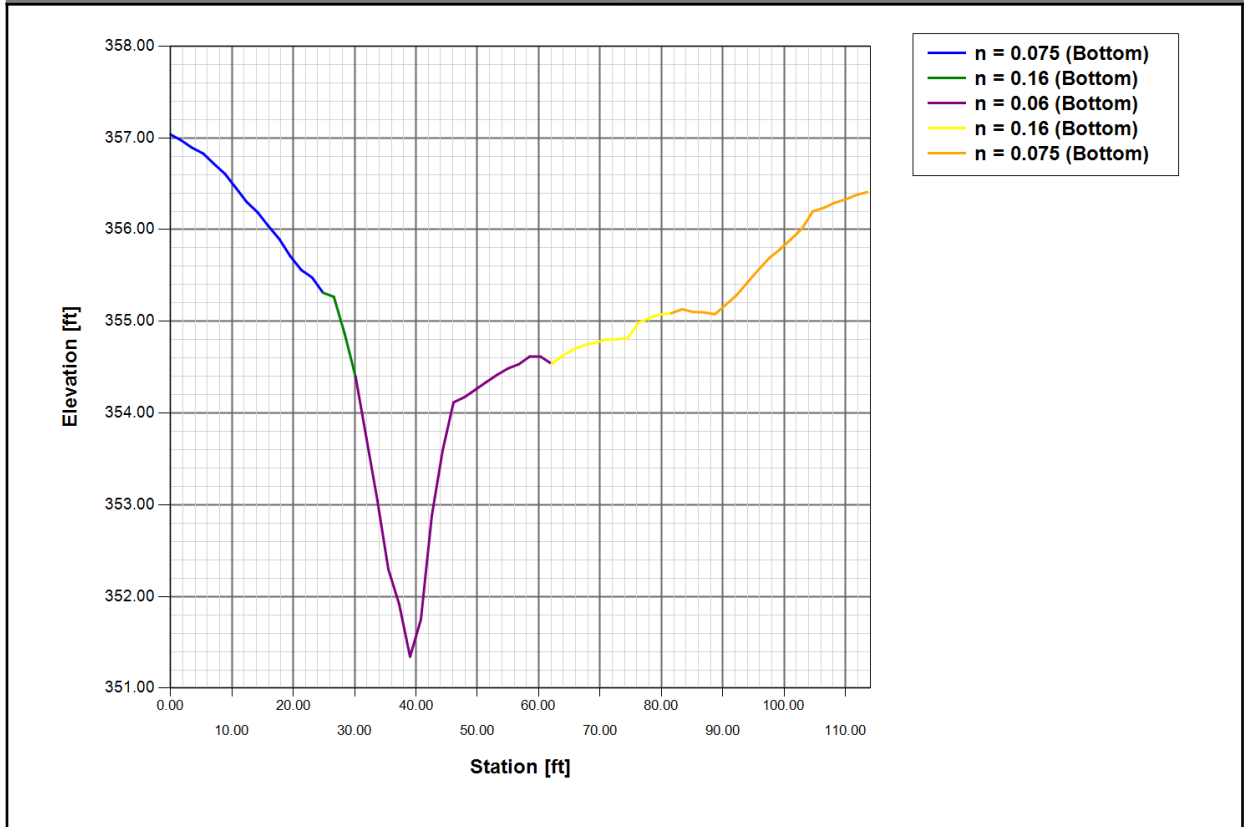


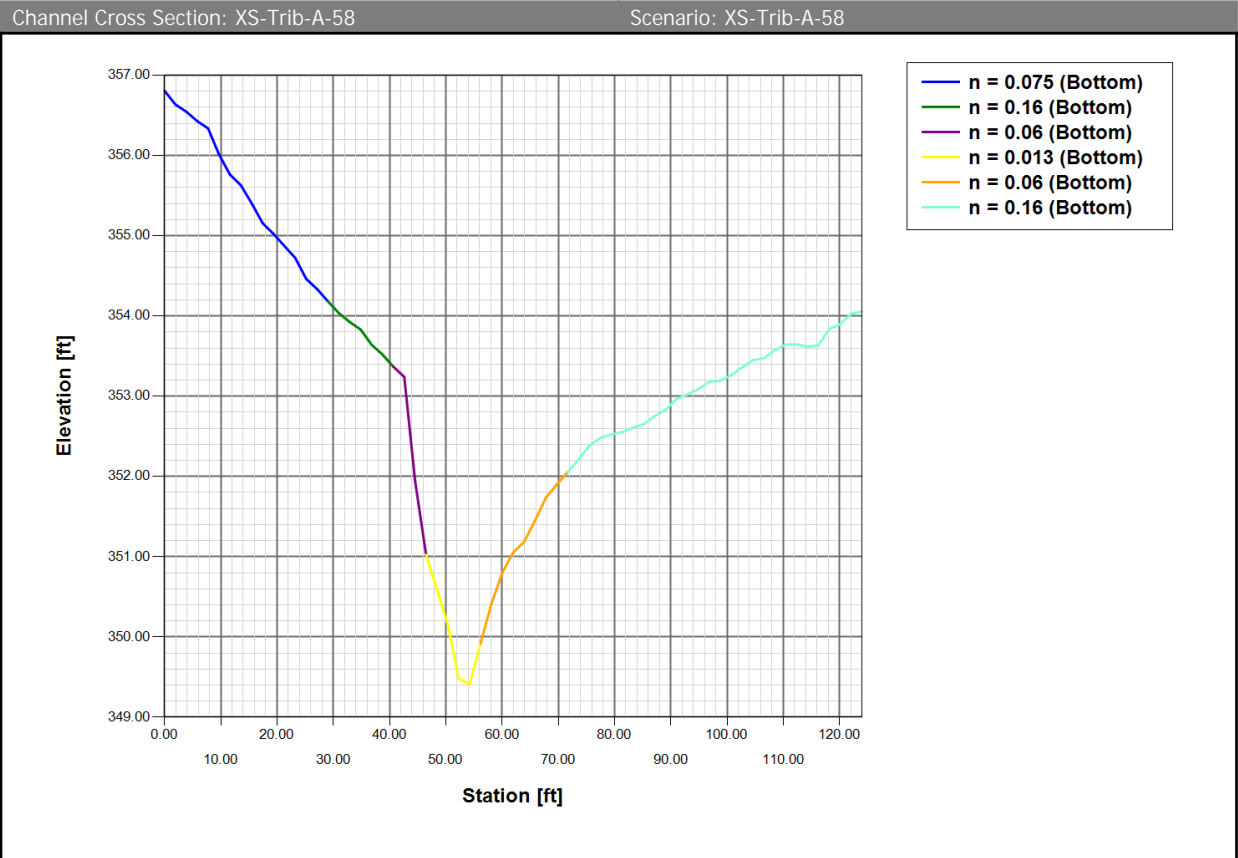


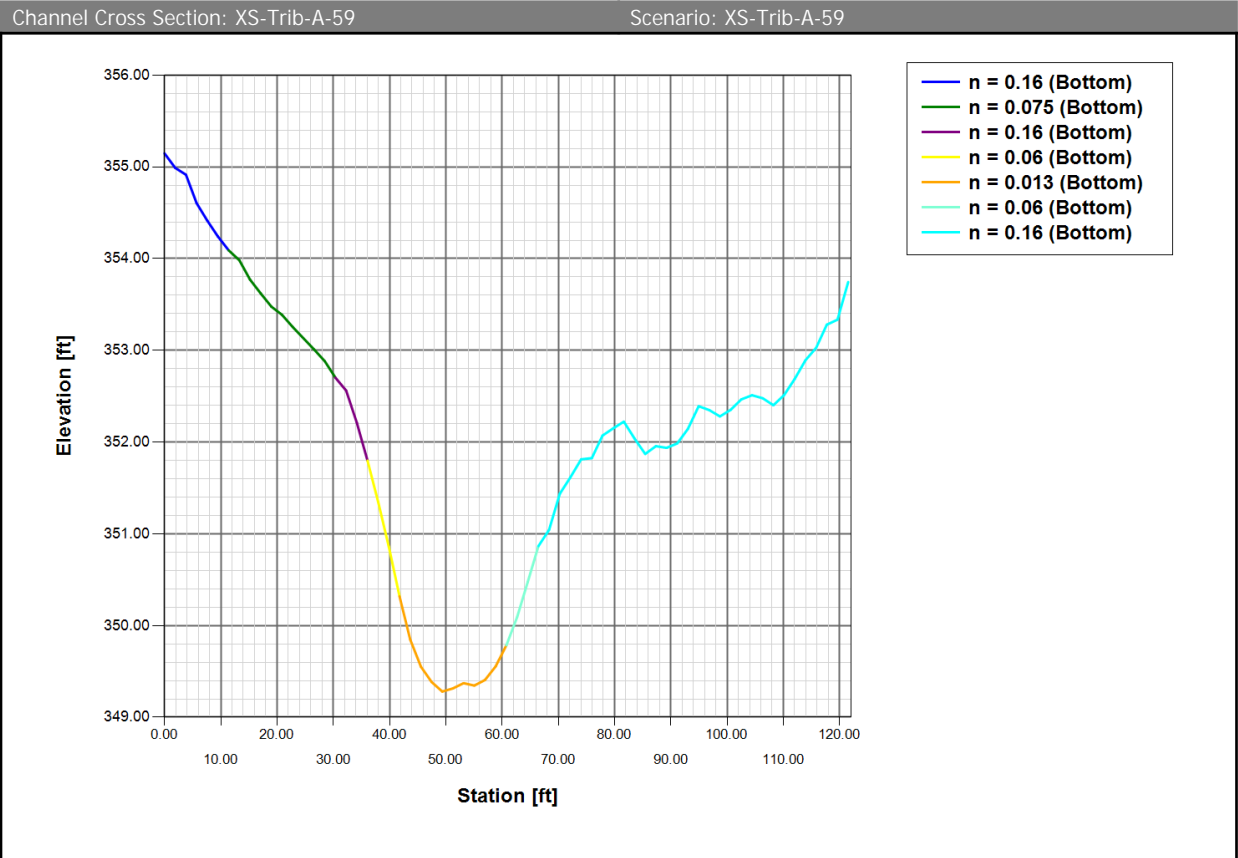


Channel Cross Section: XS-Trib-A-57

Scenario: XS-Trib-A-57

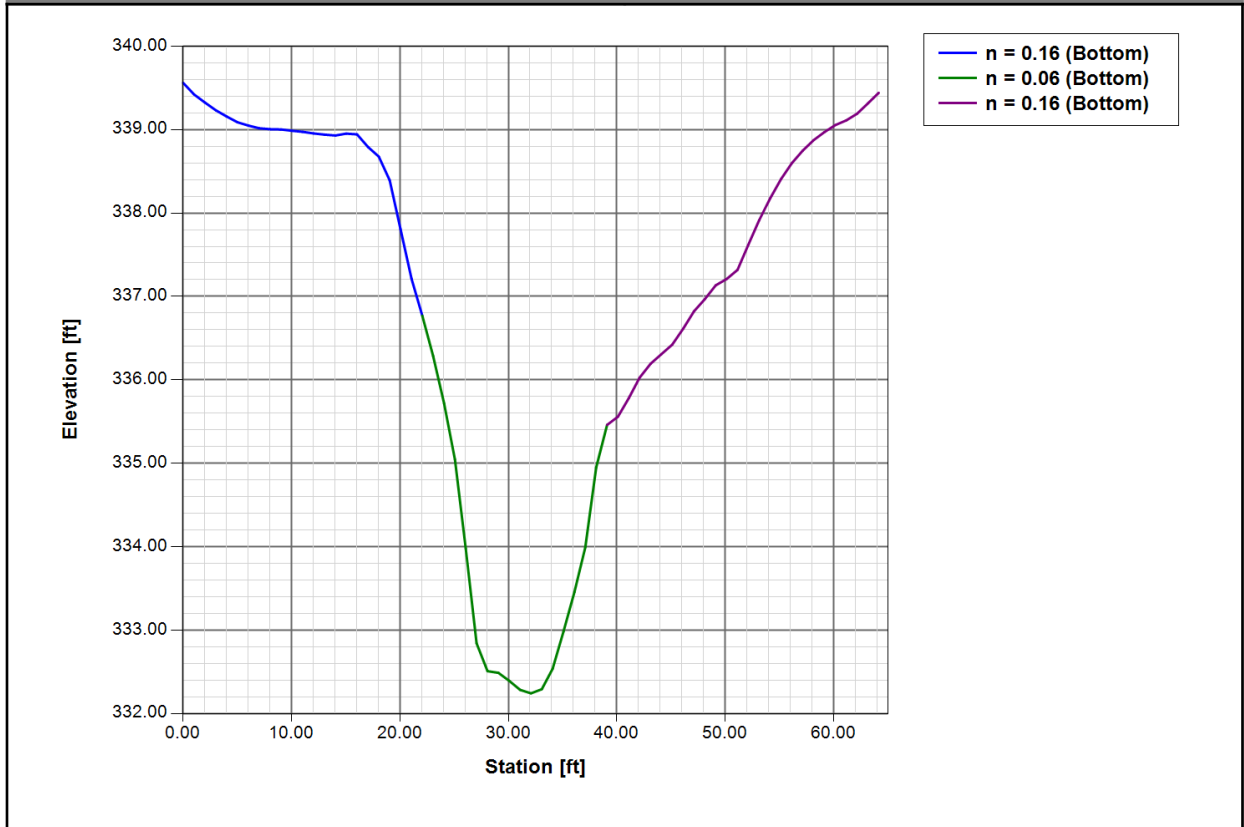


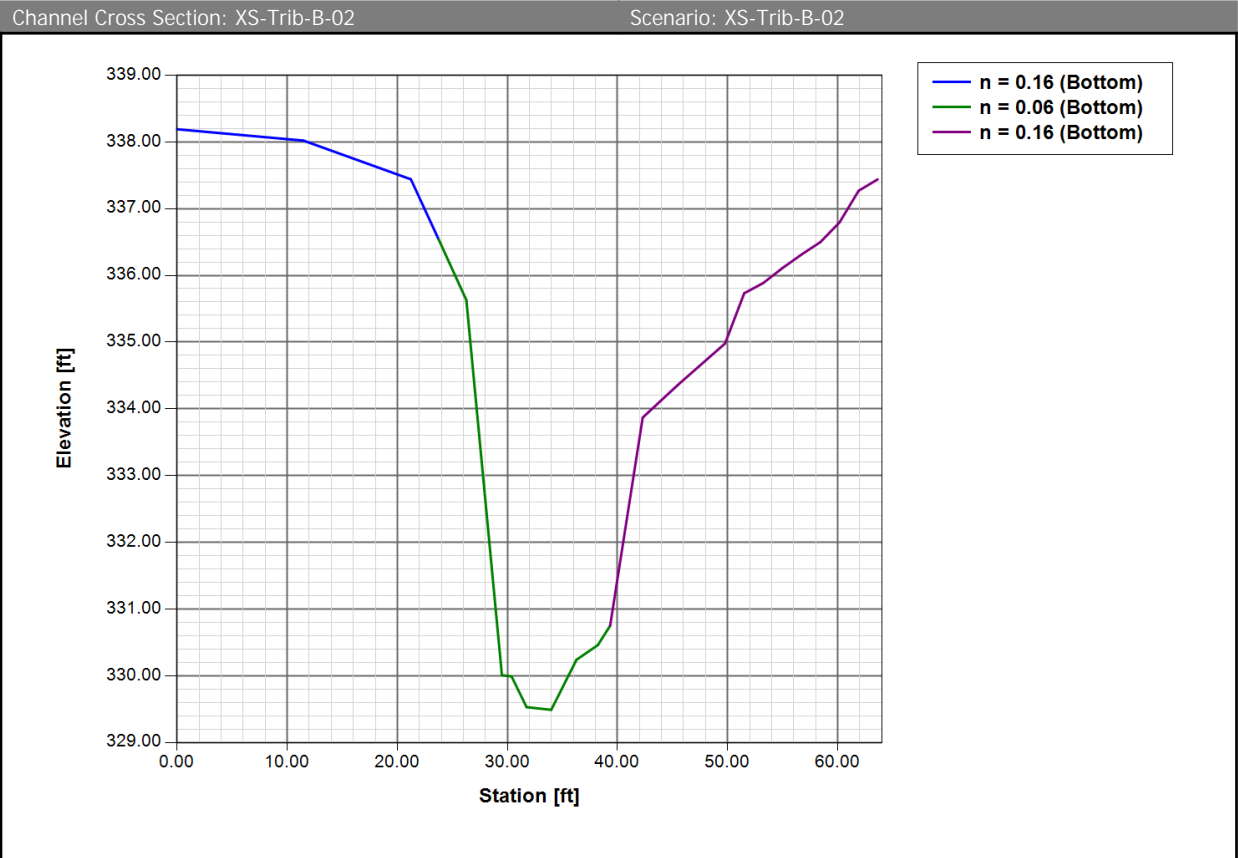


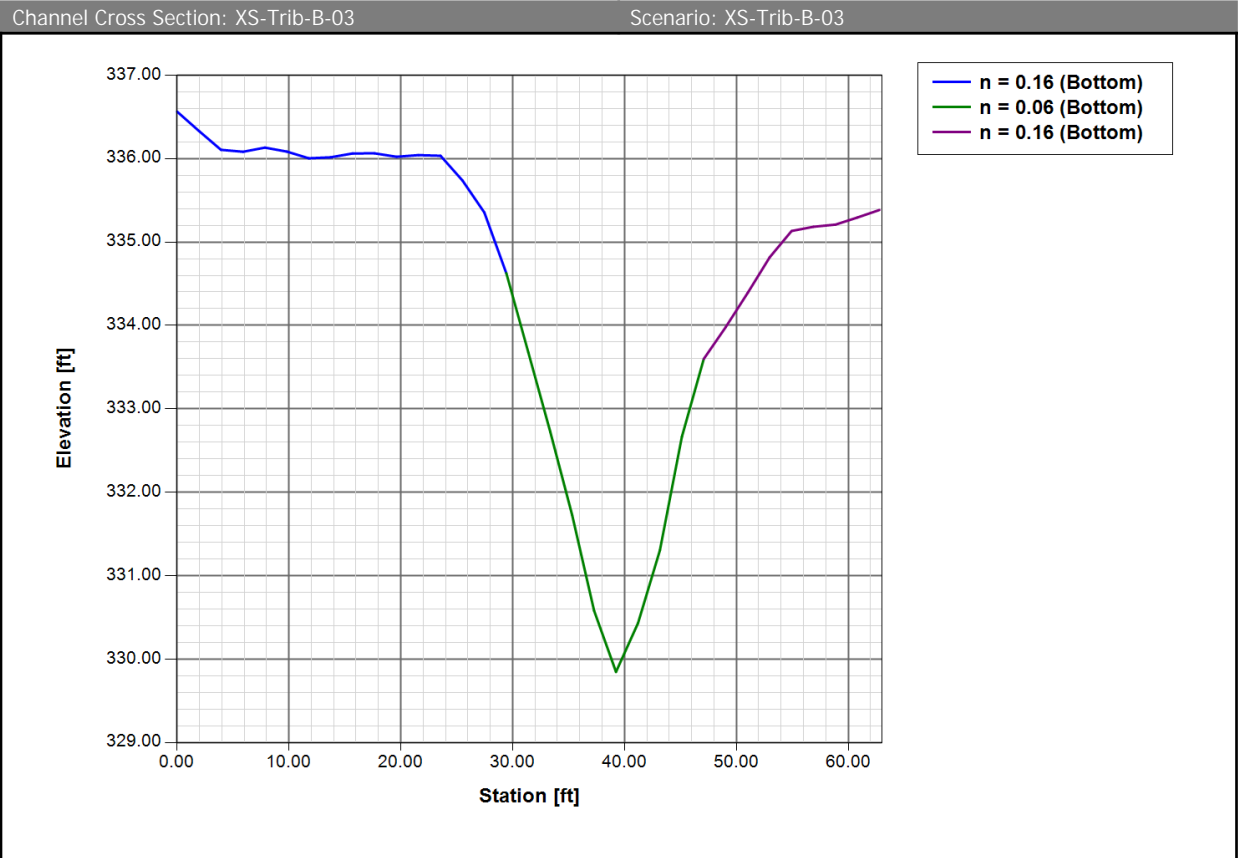


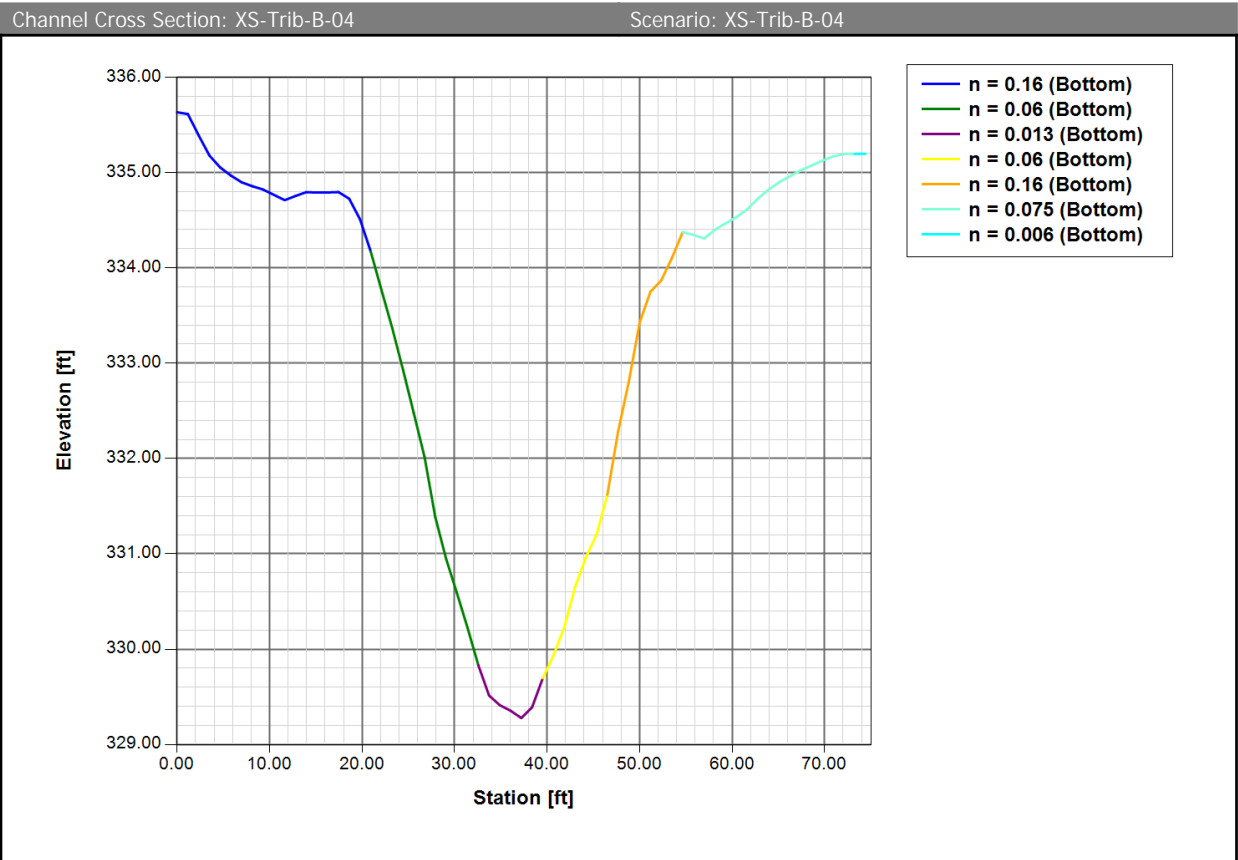
Channel Cross Section: XS-Trib-B-01

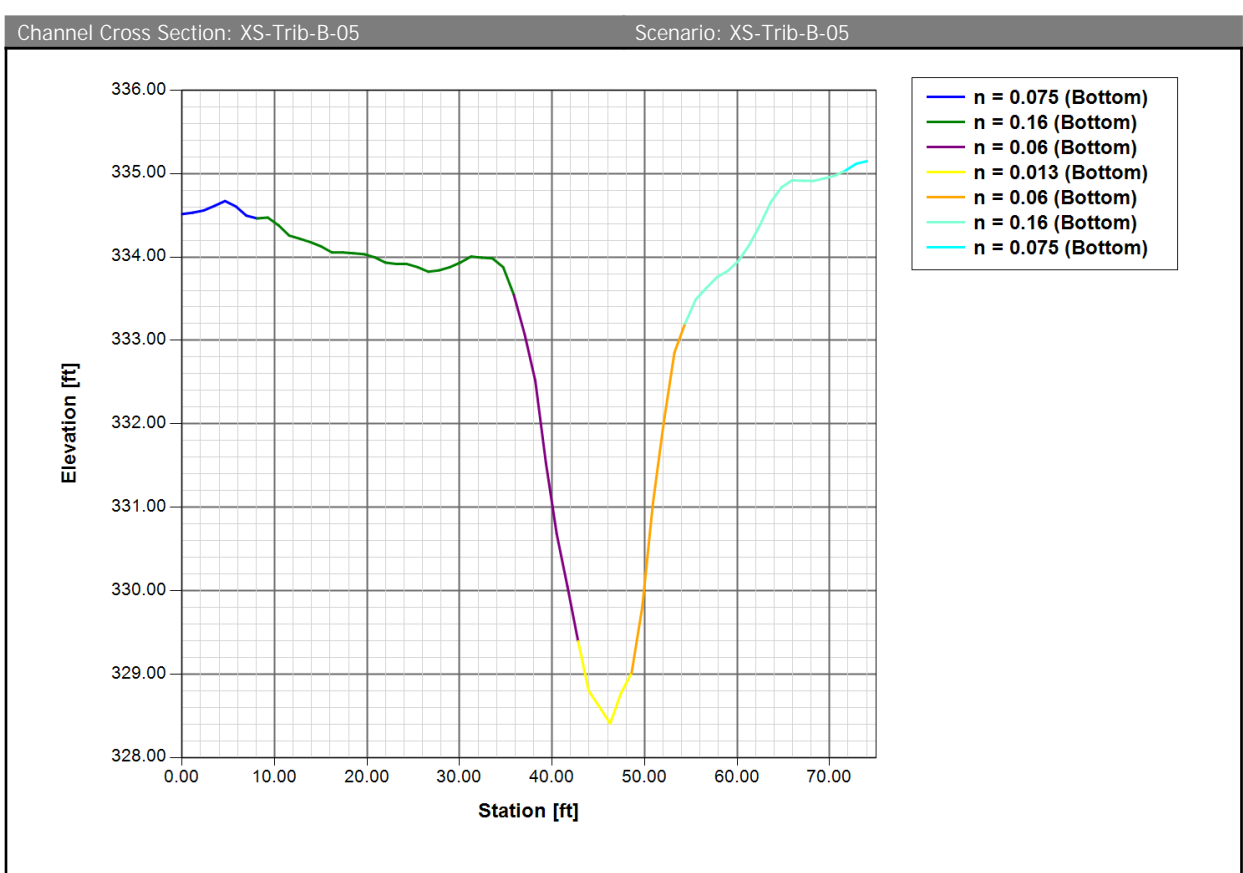
Scenario: XS-Trib-B-01





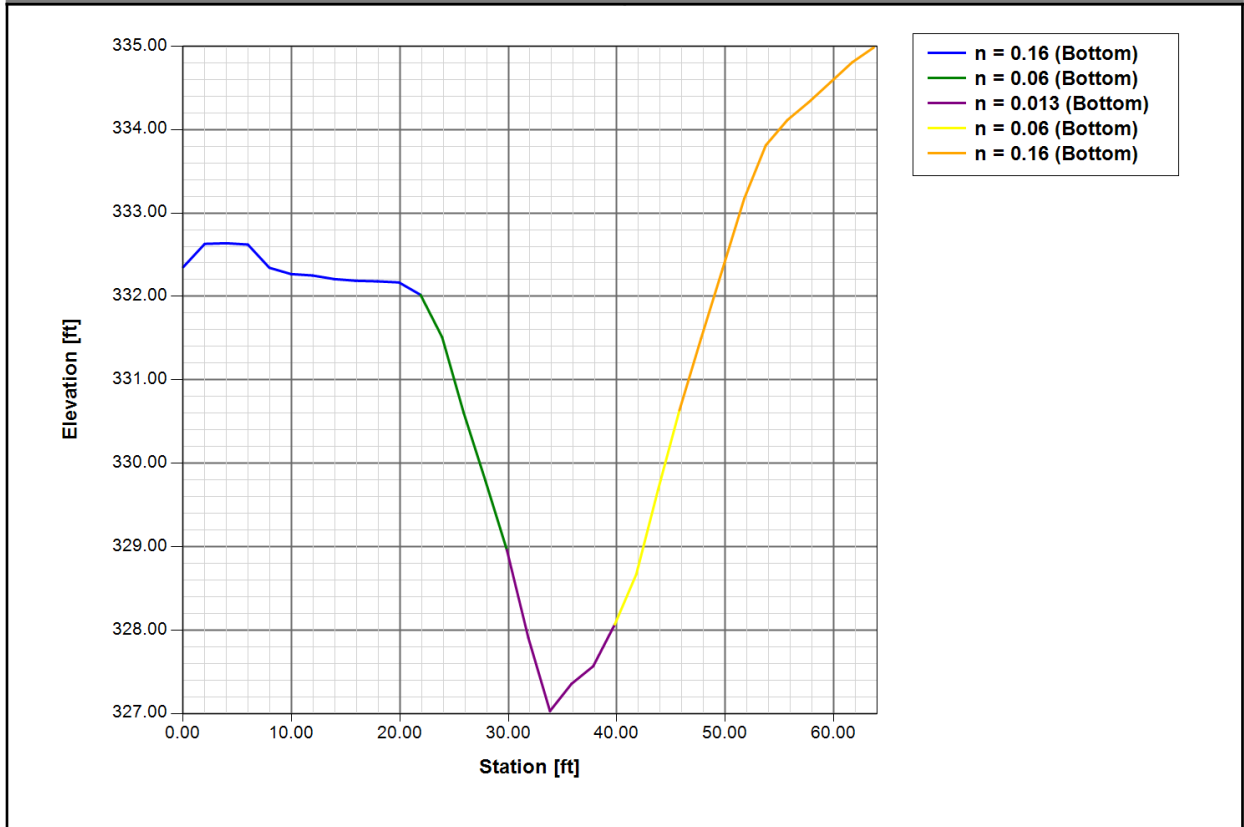


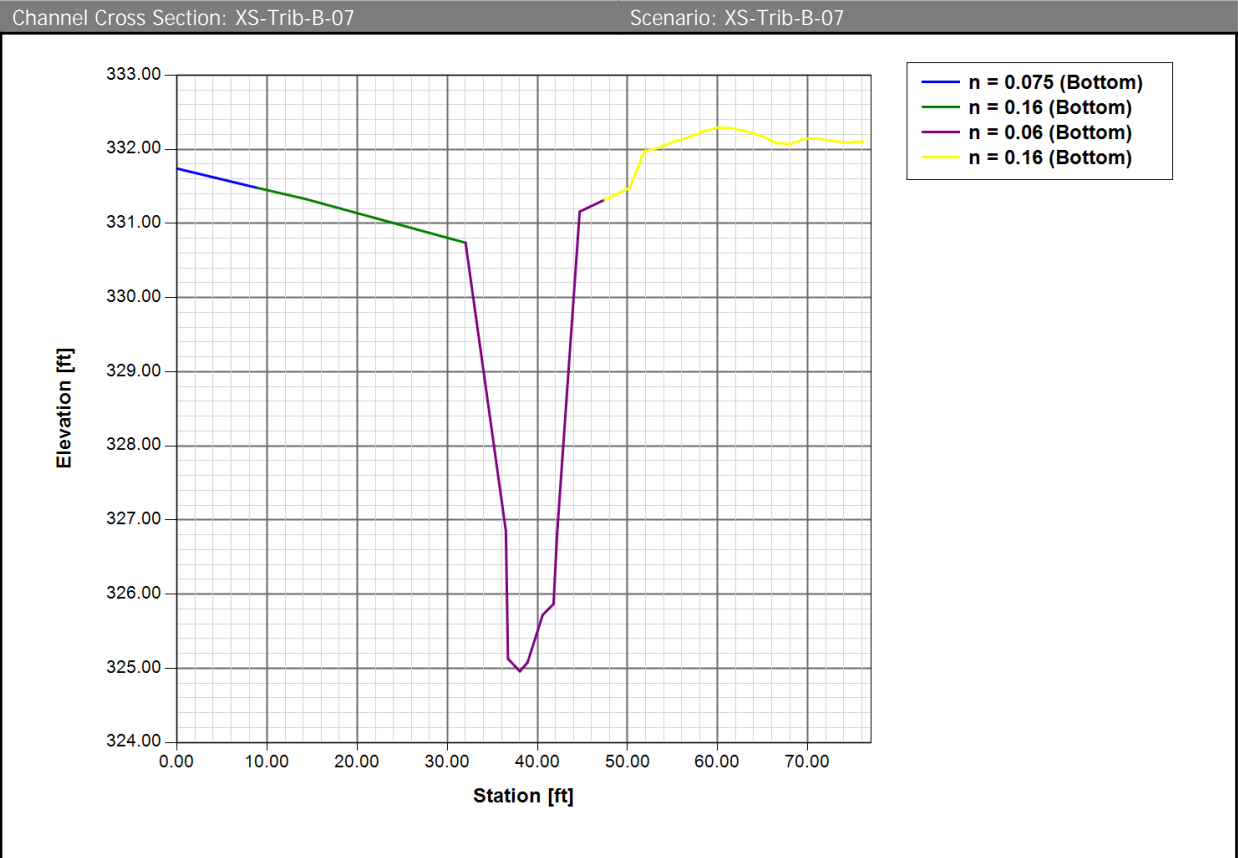




Channel Cross Section: XS-Trib-B-06

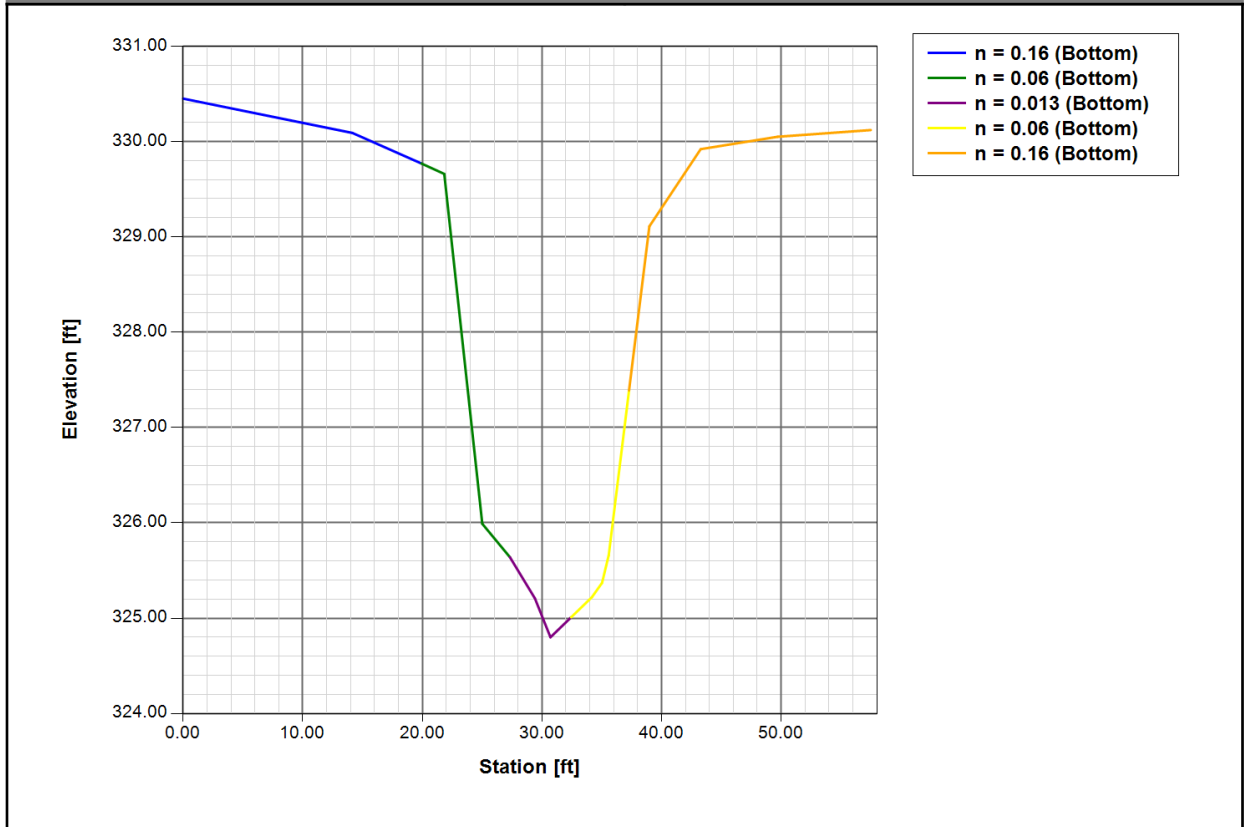
Scenario: XS-Trib-B-06





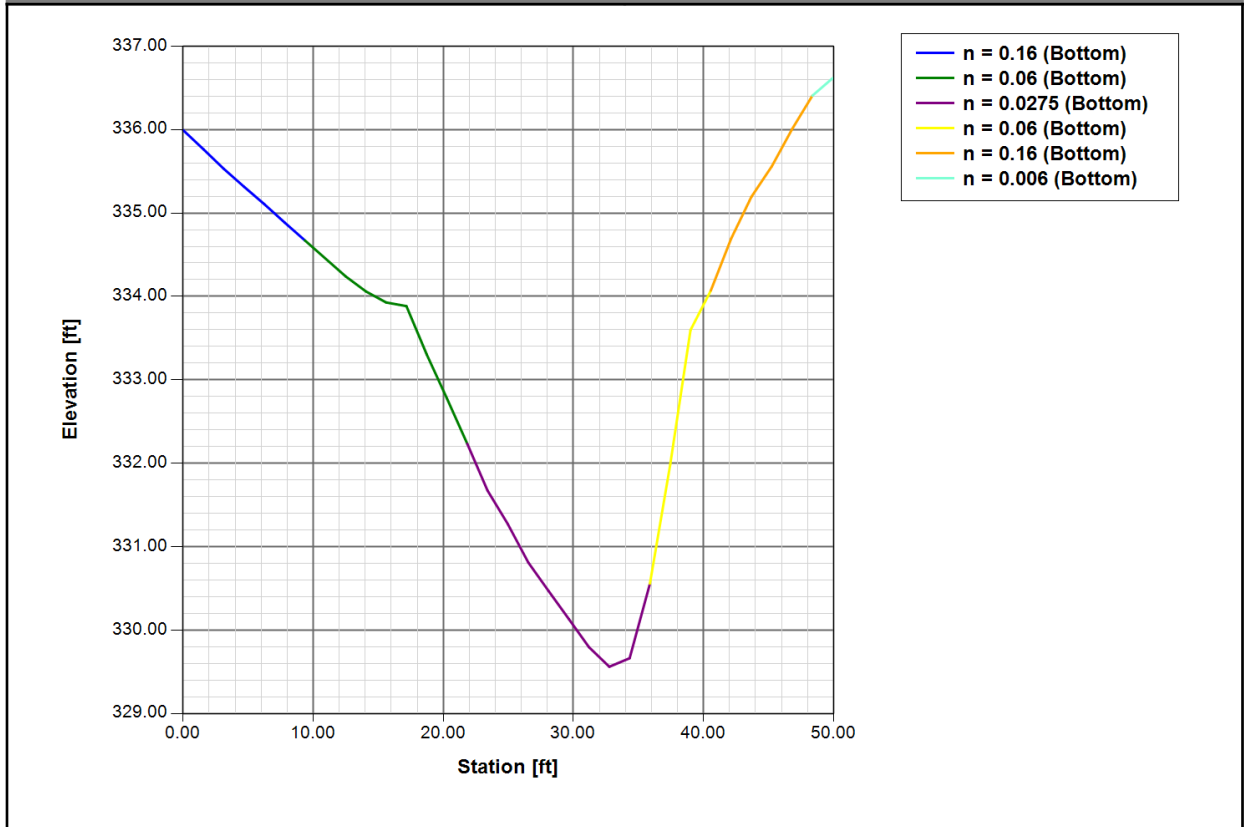
Channel Cross Section: XS-Trib-B-08

Scenario: XS-Trib-B-08



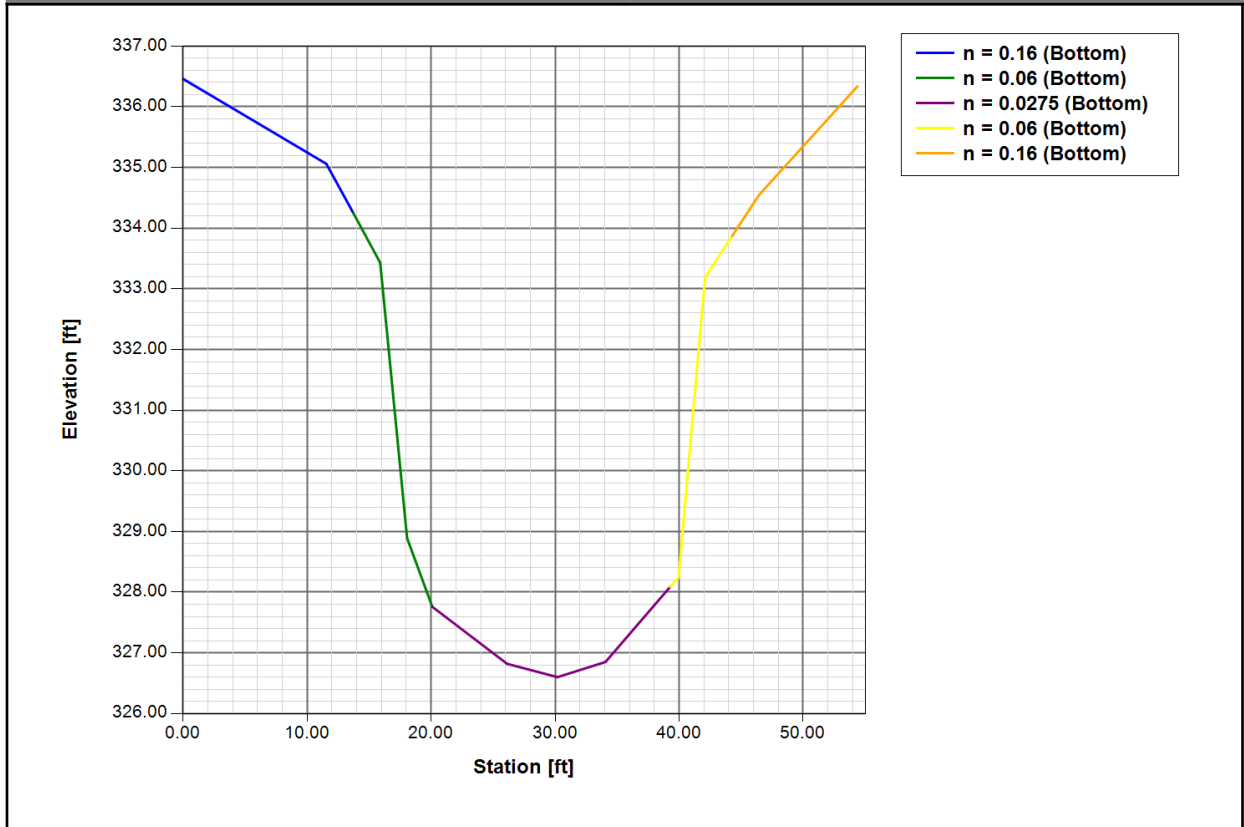
Channel Cross Section: XS-Trib-B-09

Scenario: XS-Trib-B-09



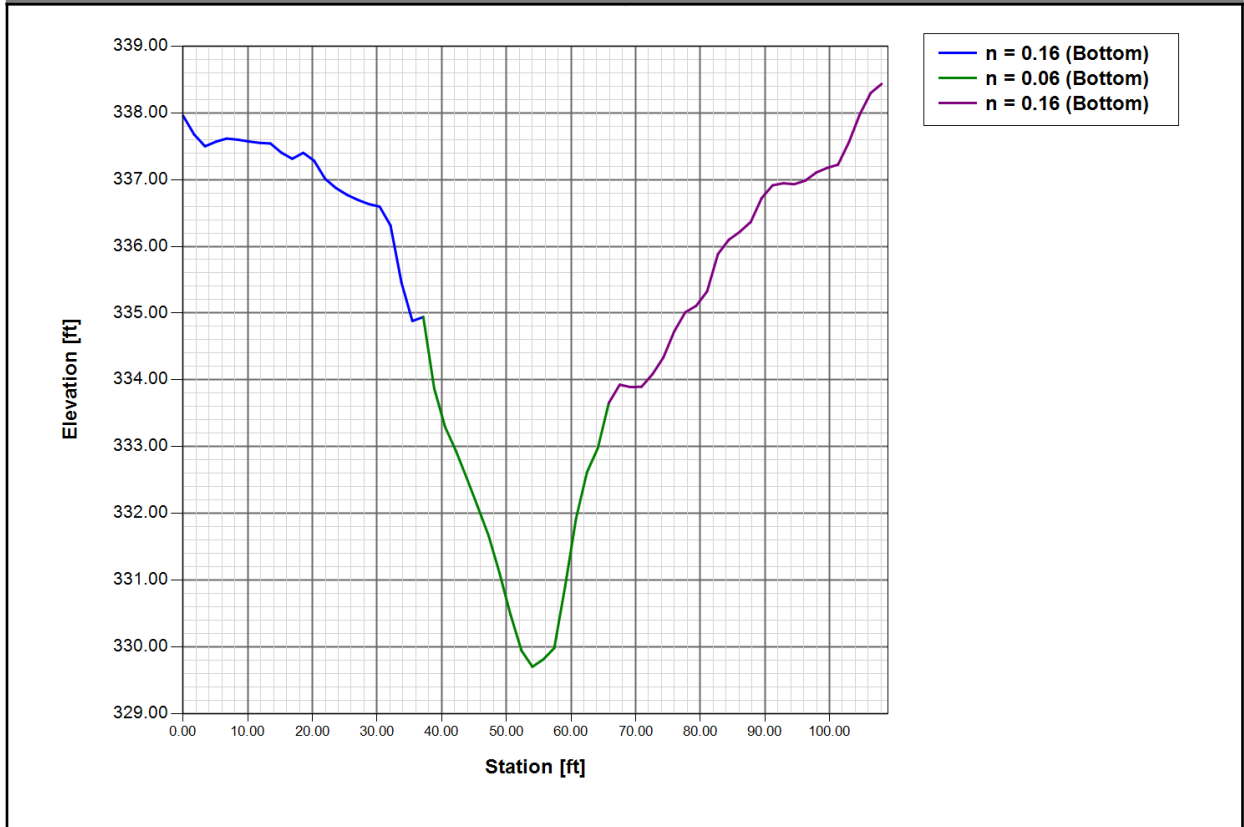
Channel Cross Section: XS-Trib-B-10

Scenario: XS-Trib-B-10



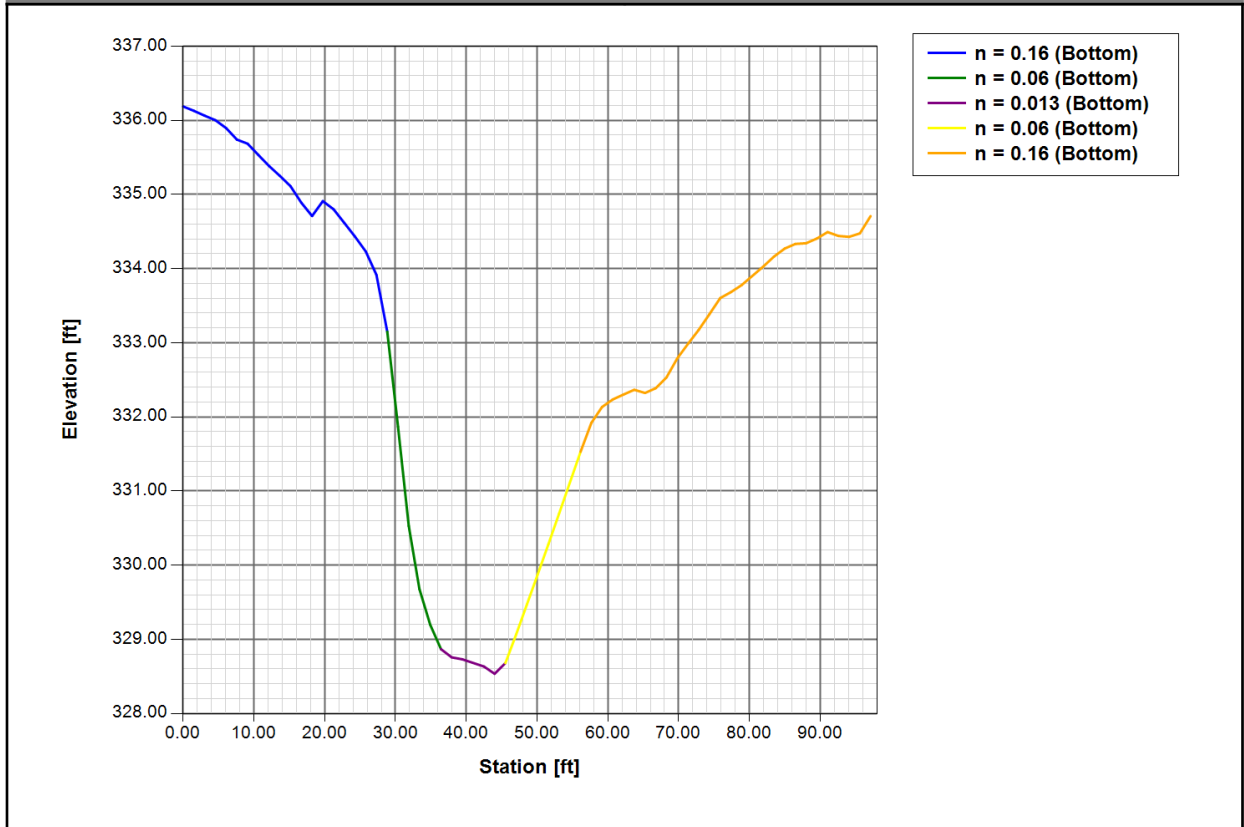
Channel Cross Section: XS-Trib-B-11

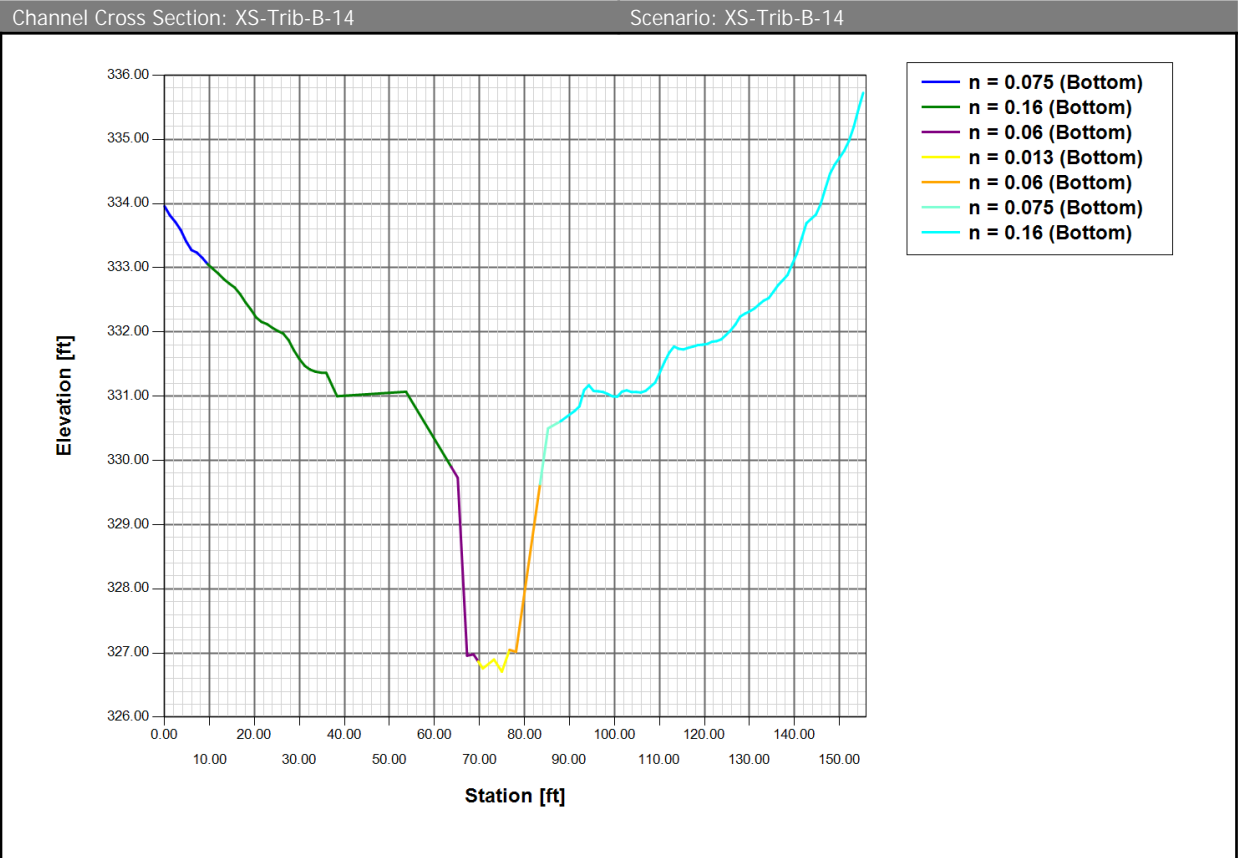
Scenario: XS-Trib-B-11

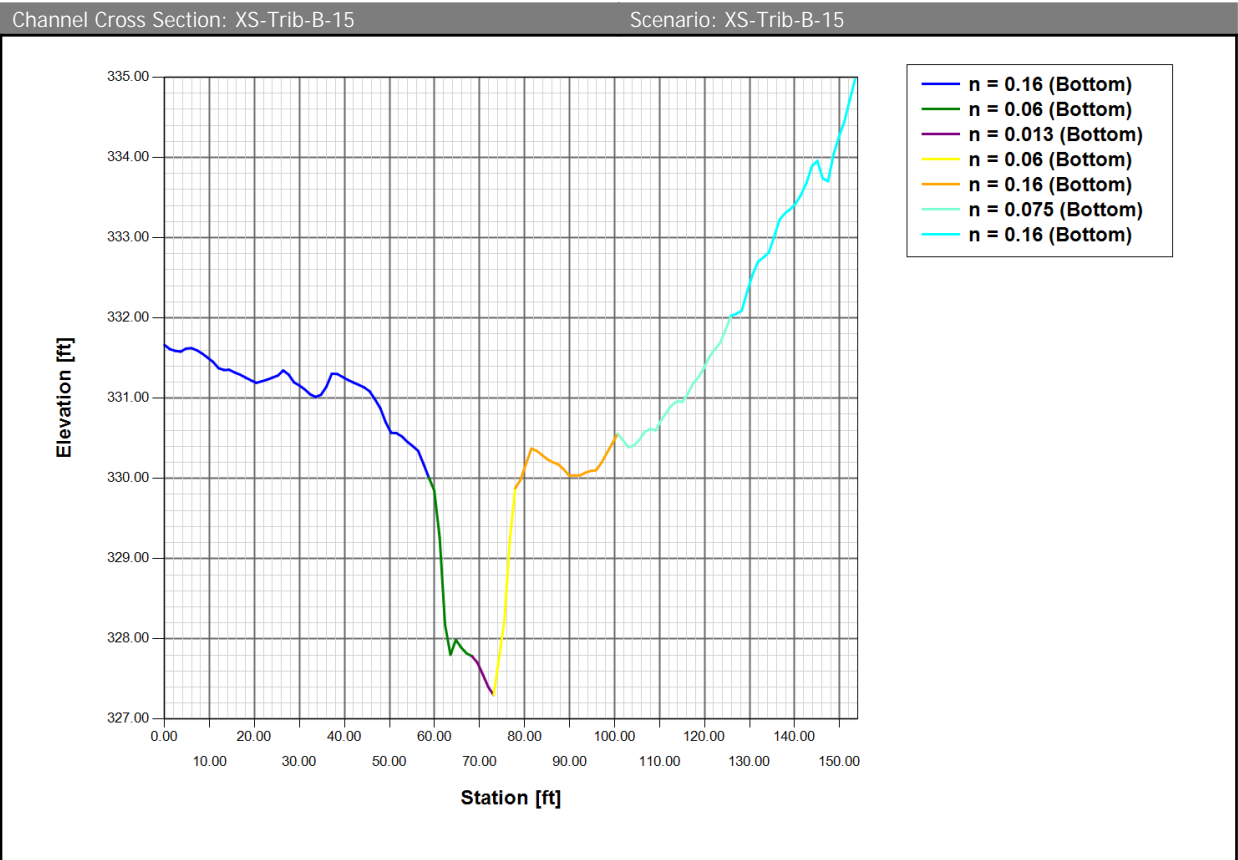


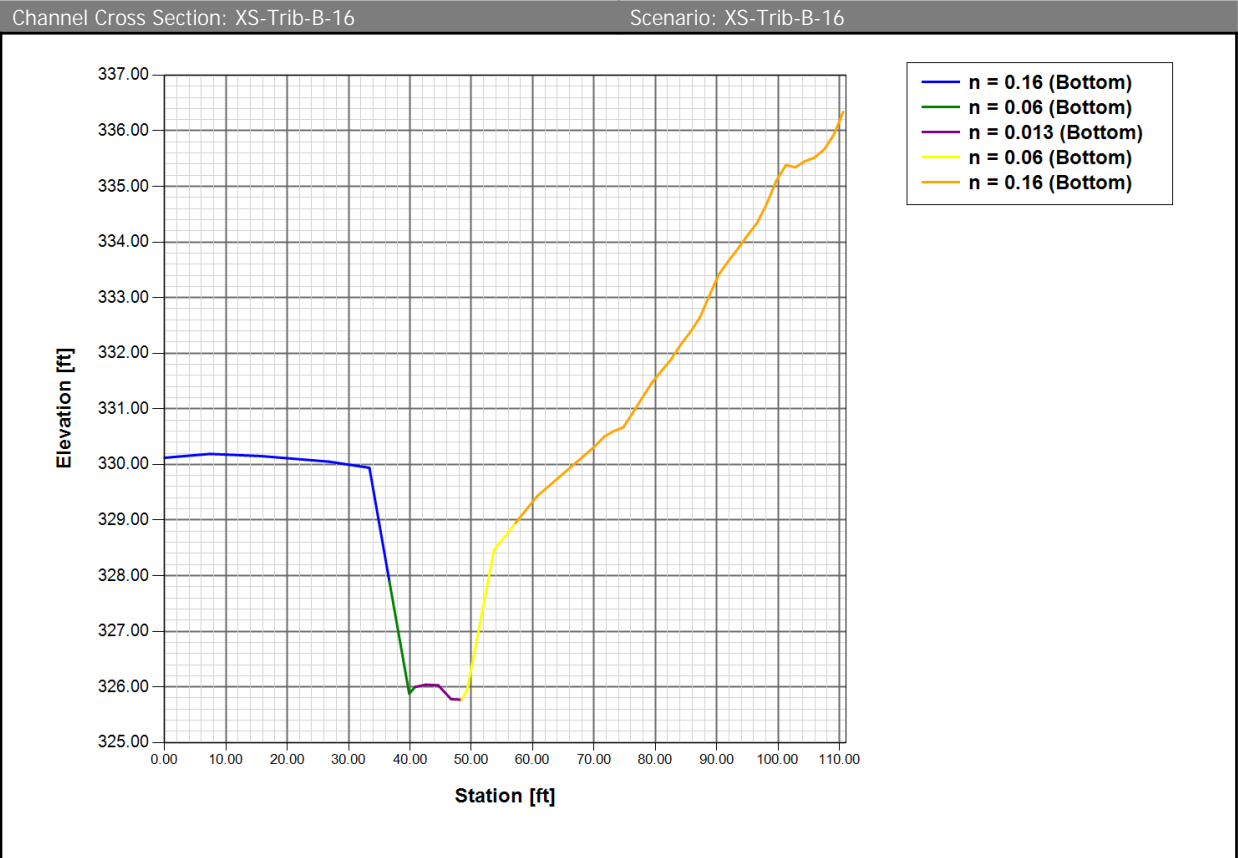
Channel Cross Section: XS-Trib-B-13

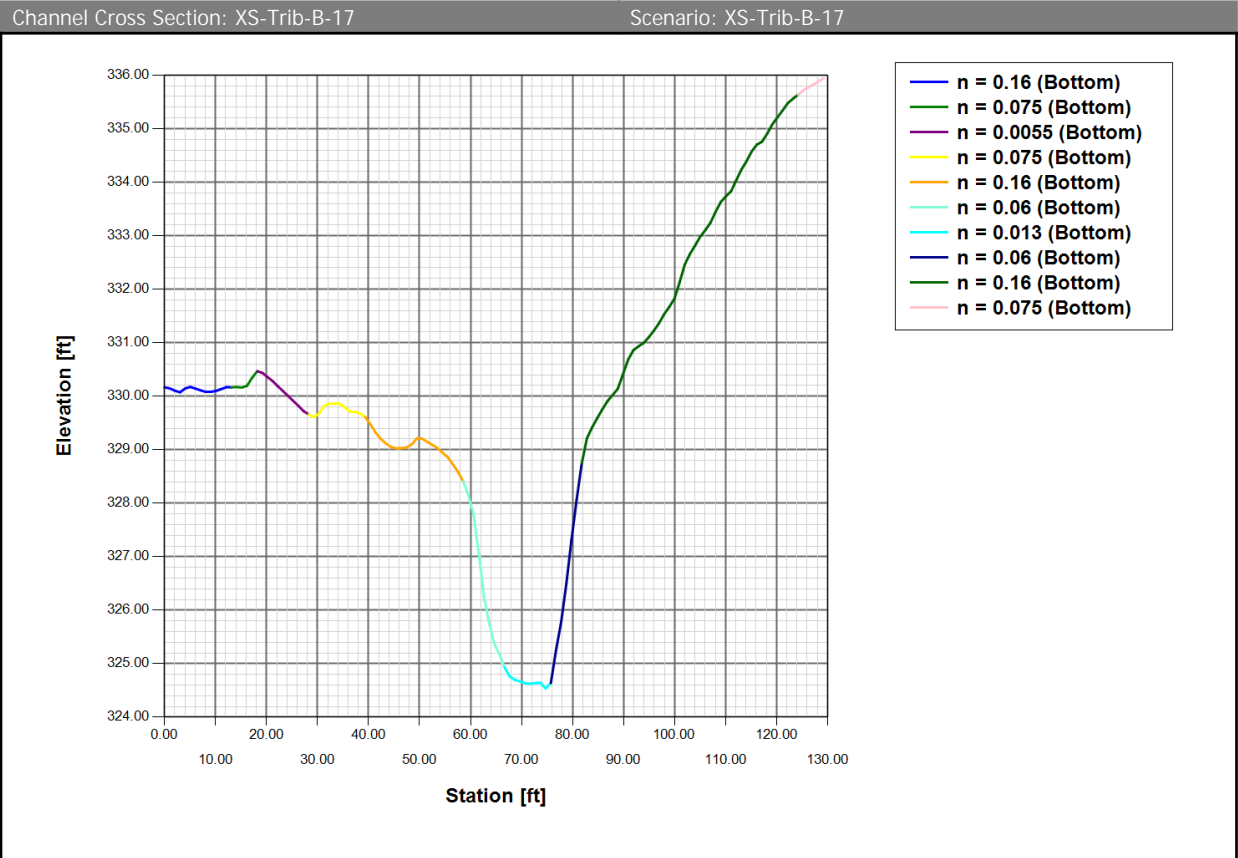
Scenario: XS-Trib-B-13

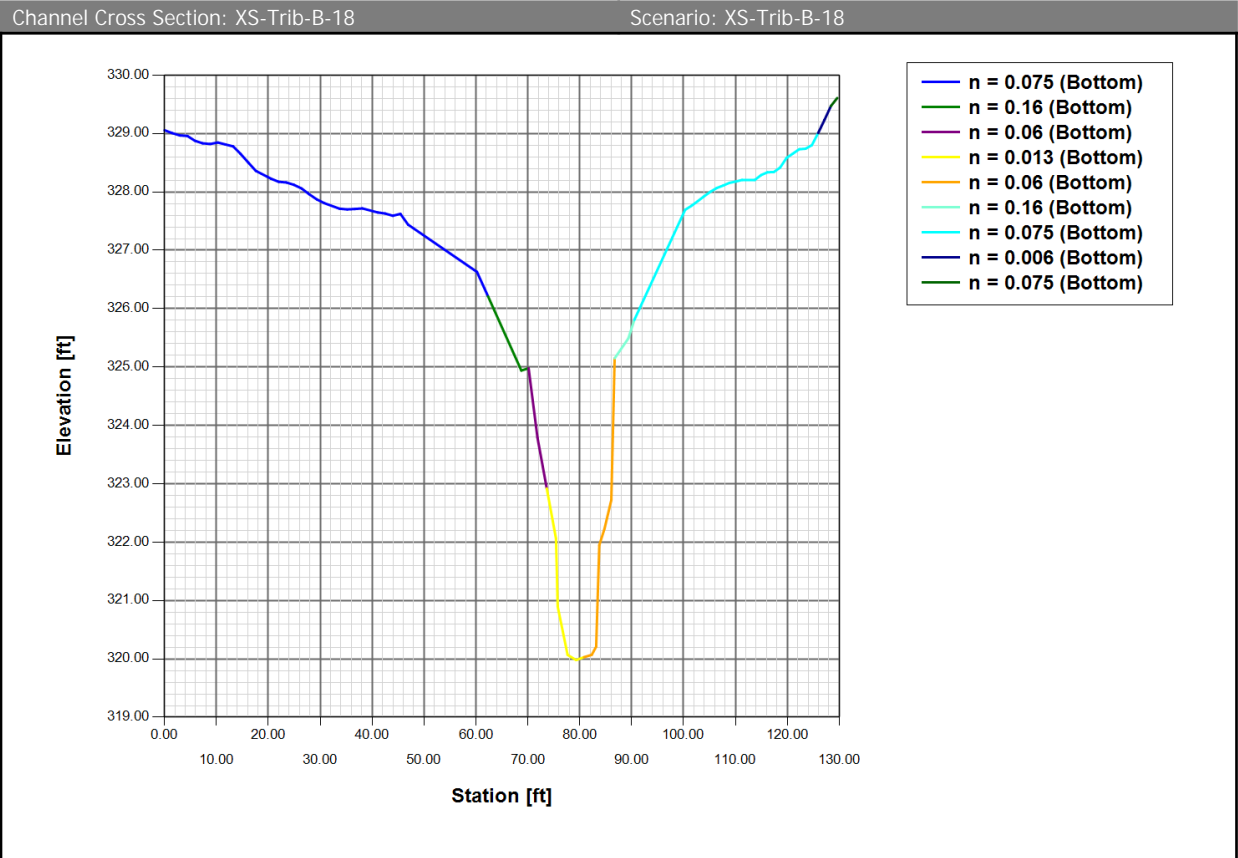


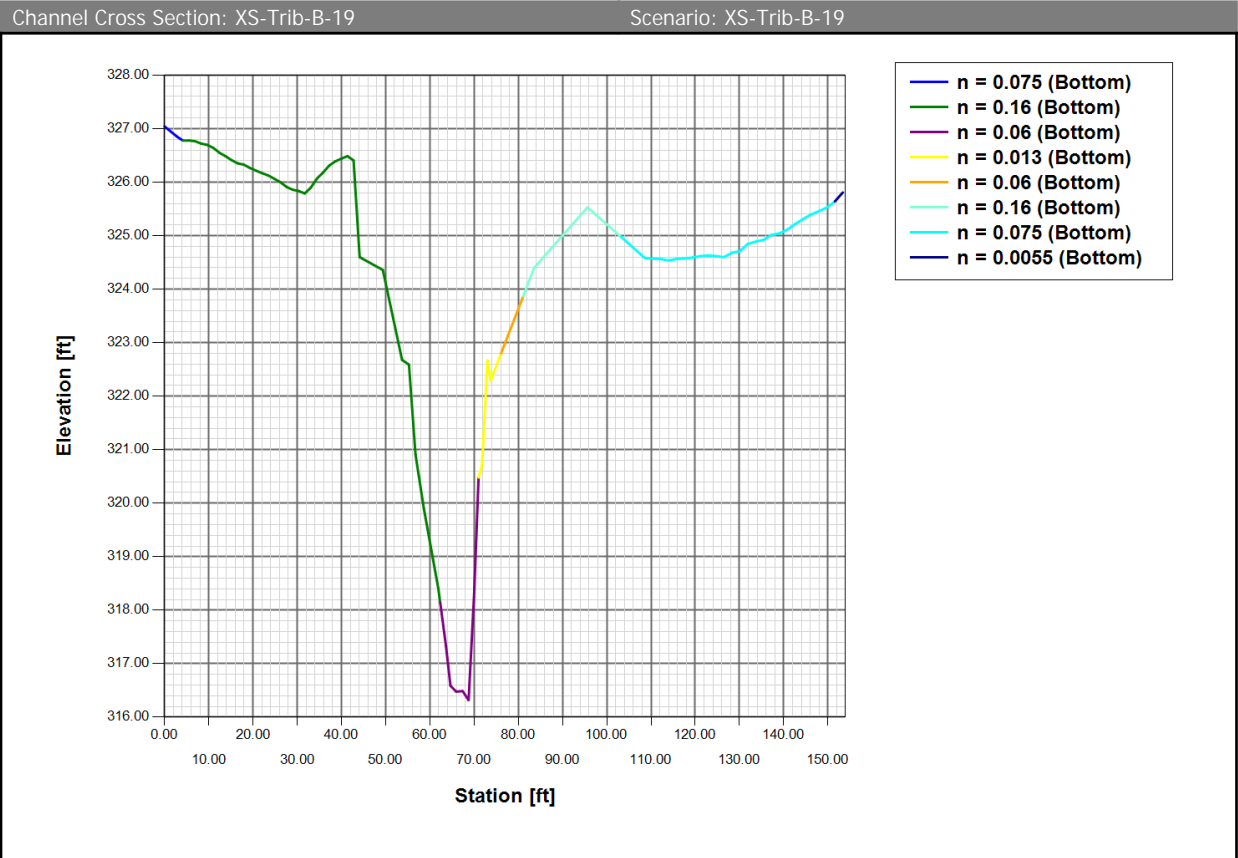






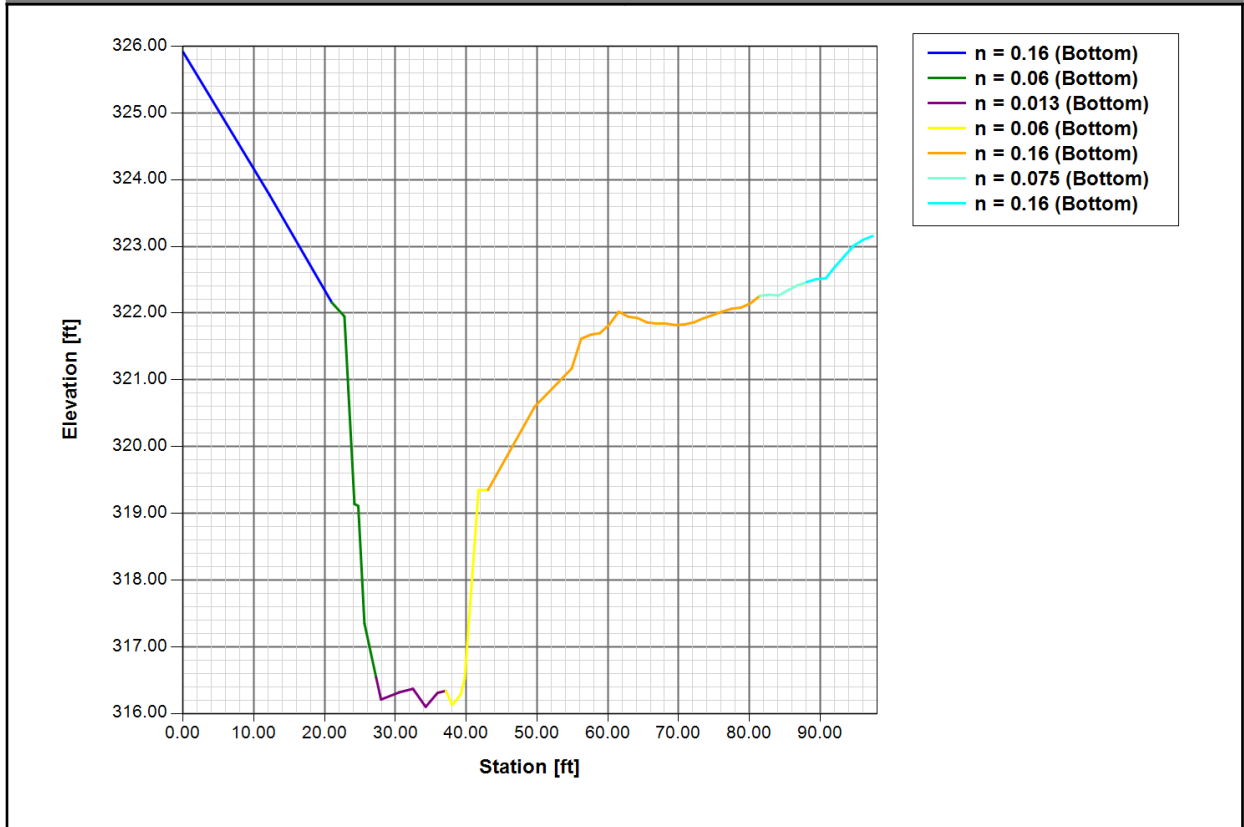


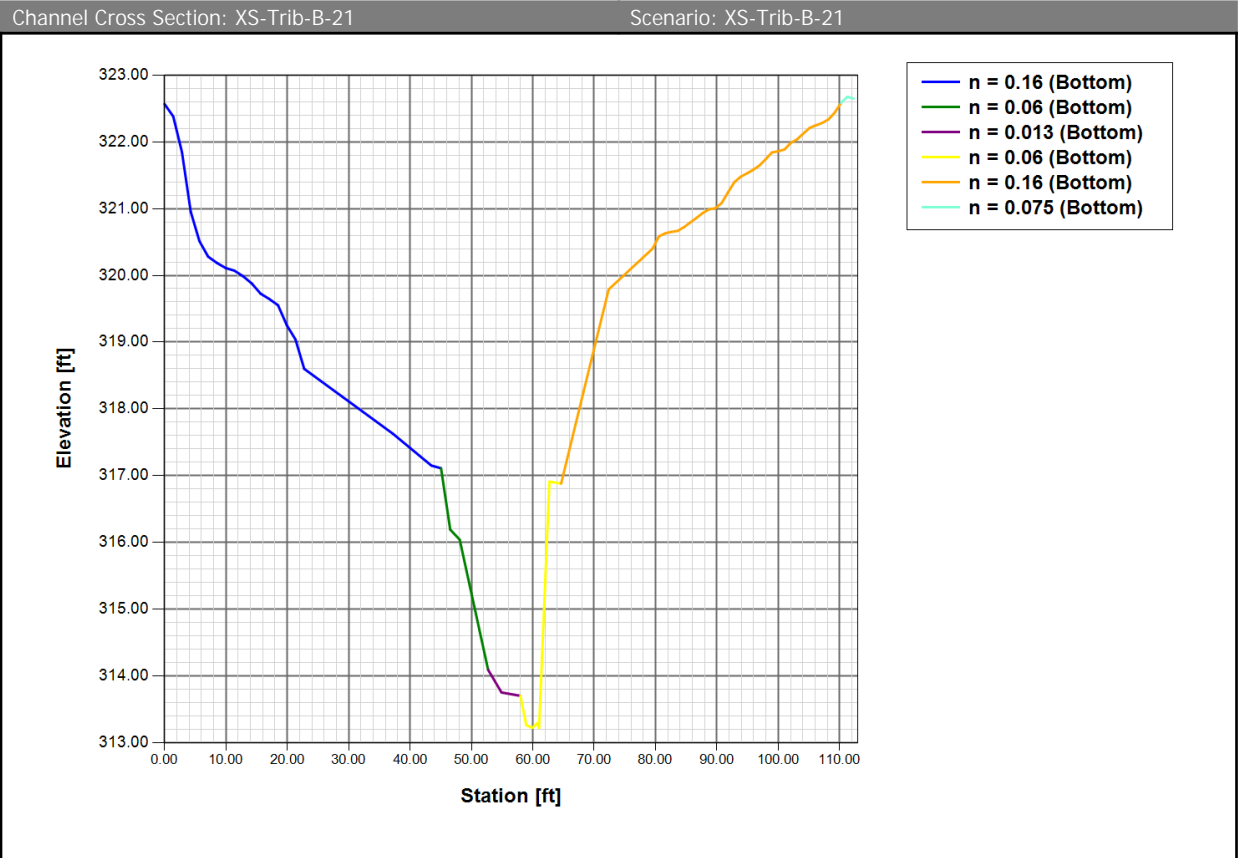


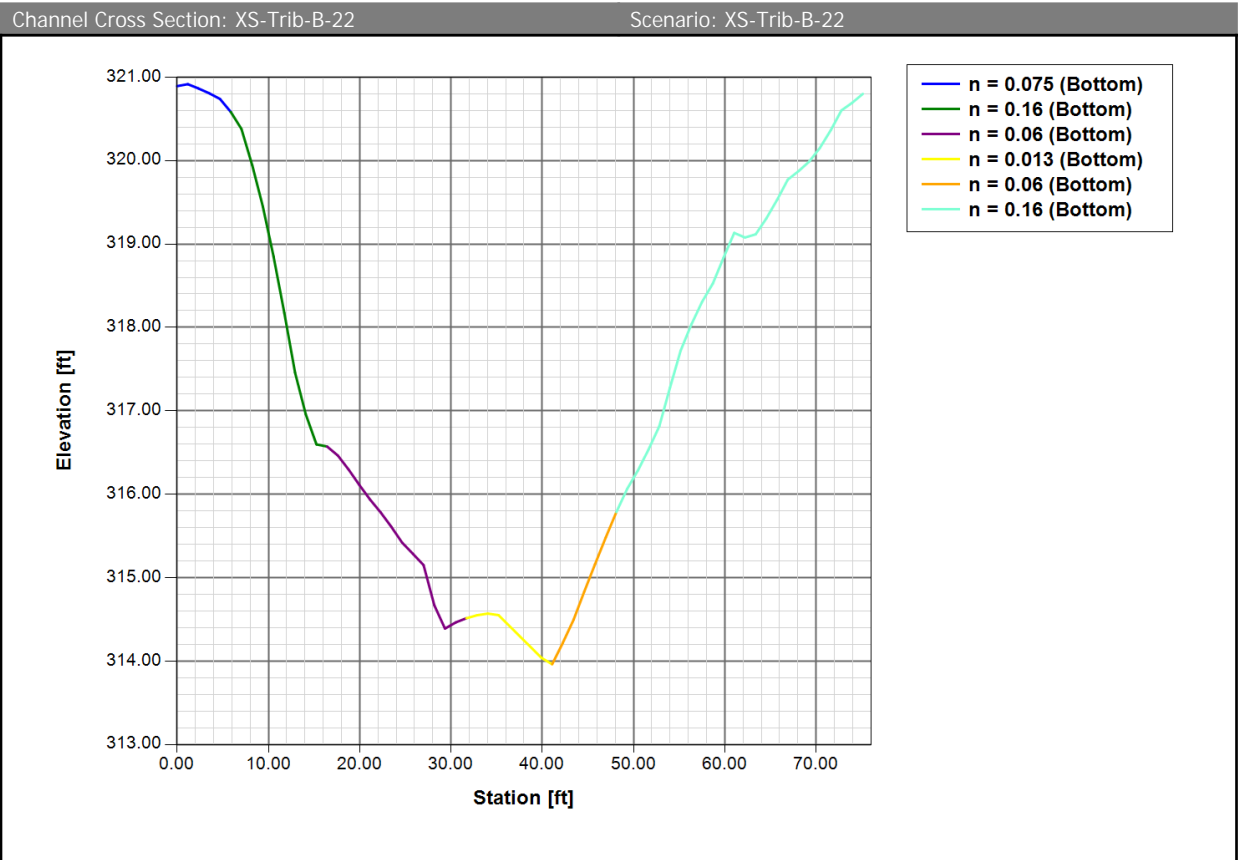


Channel Cross Section: XS-Trib-B-20

Scenario: XS-Trib-B-20

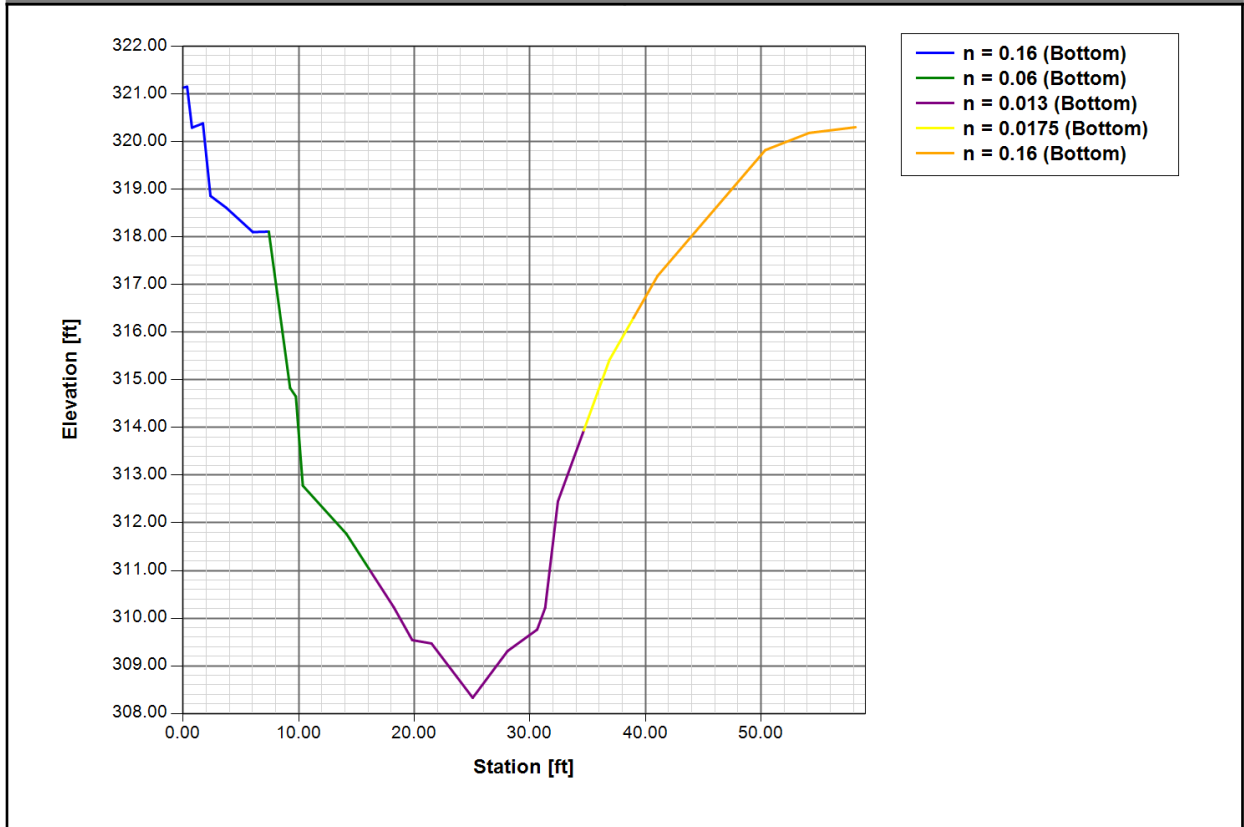


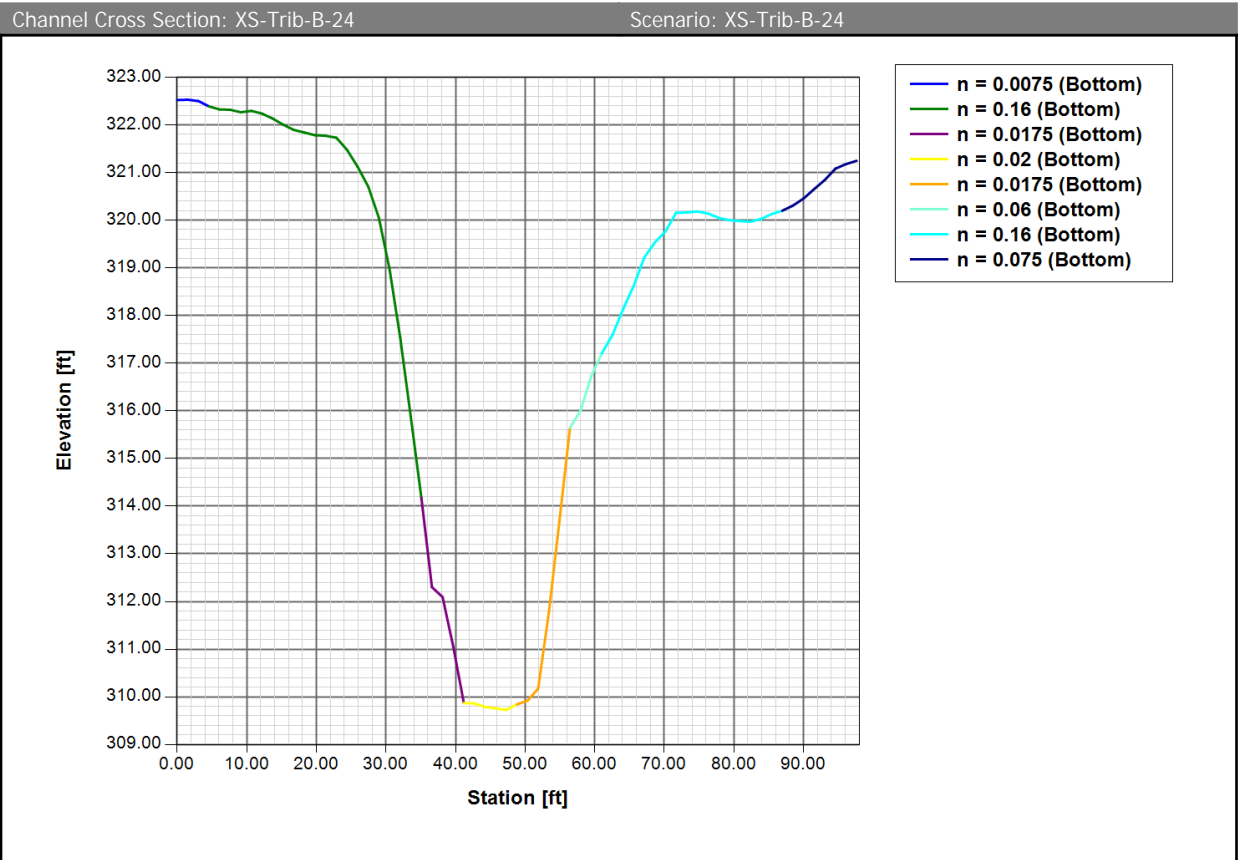


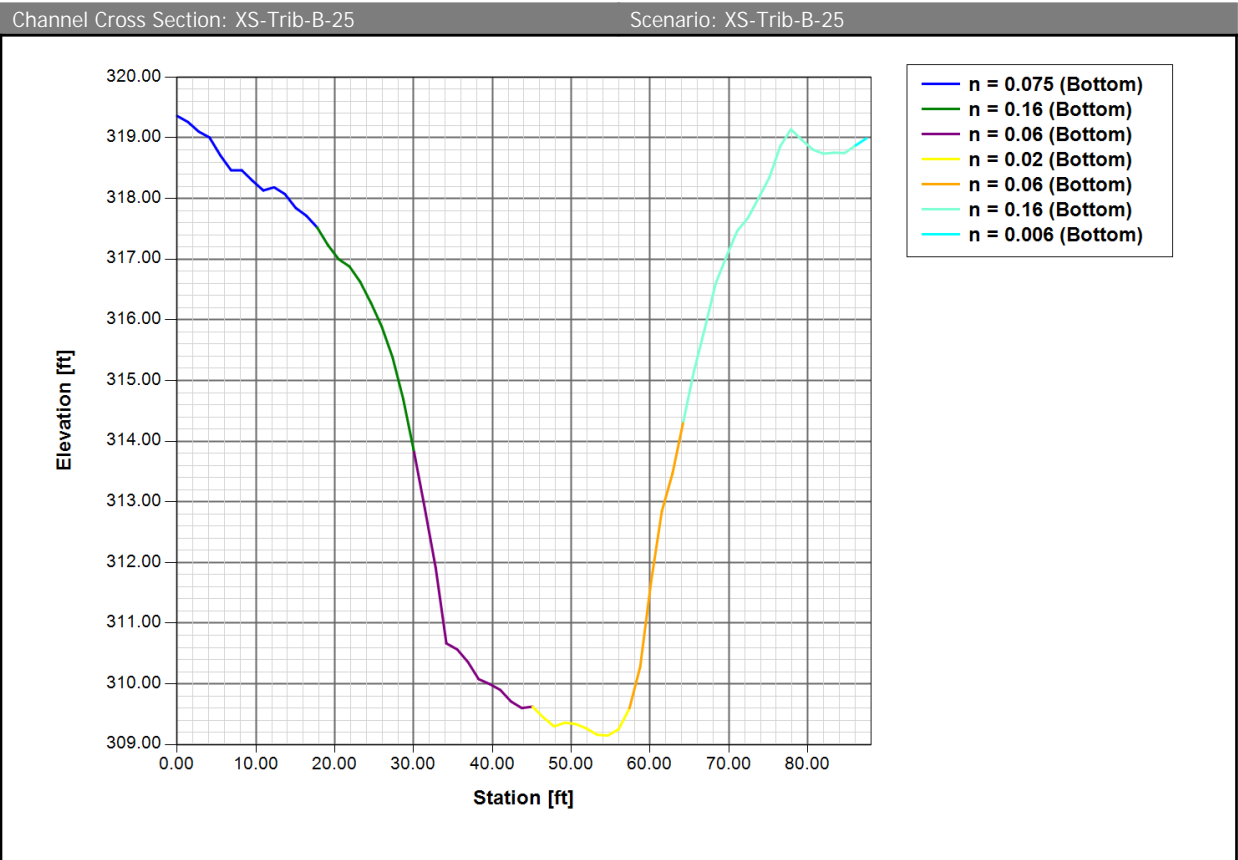


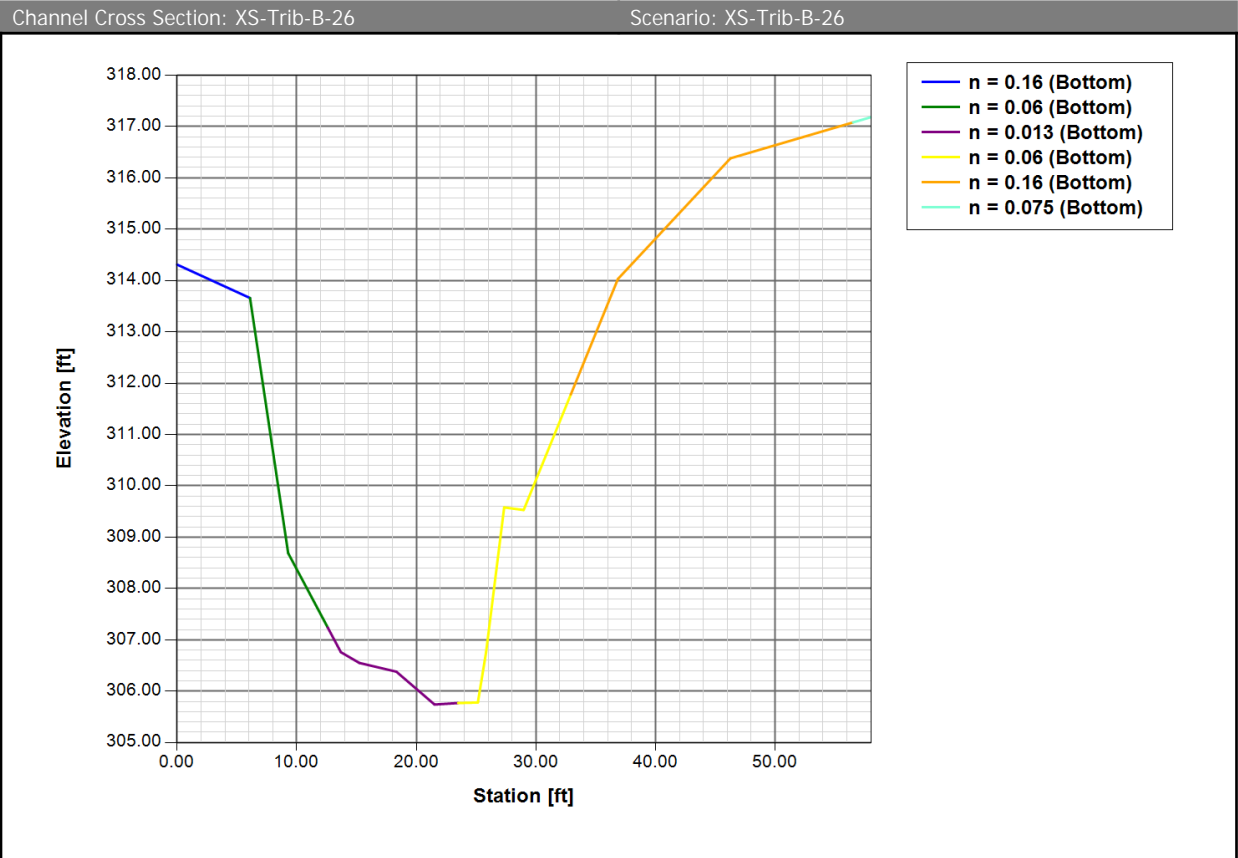
Channel Cross Section: XS-Trib-B-23

Scenario: XS-Trib-B-23



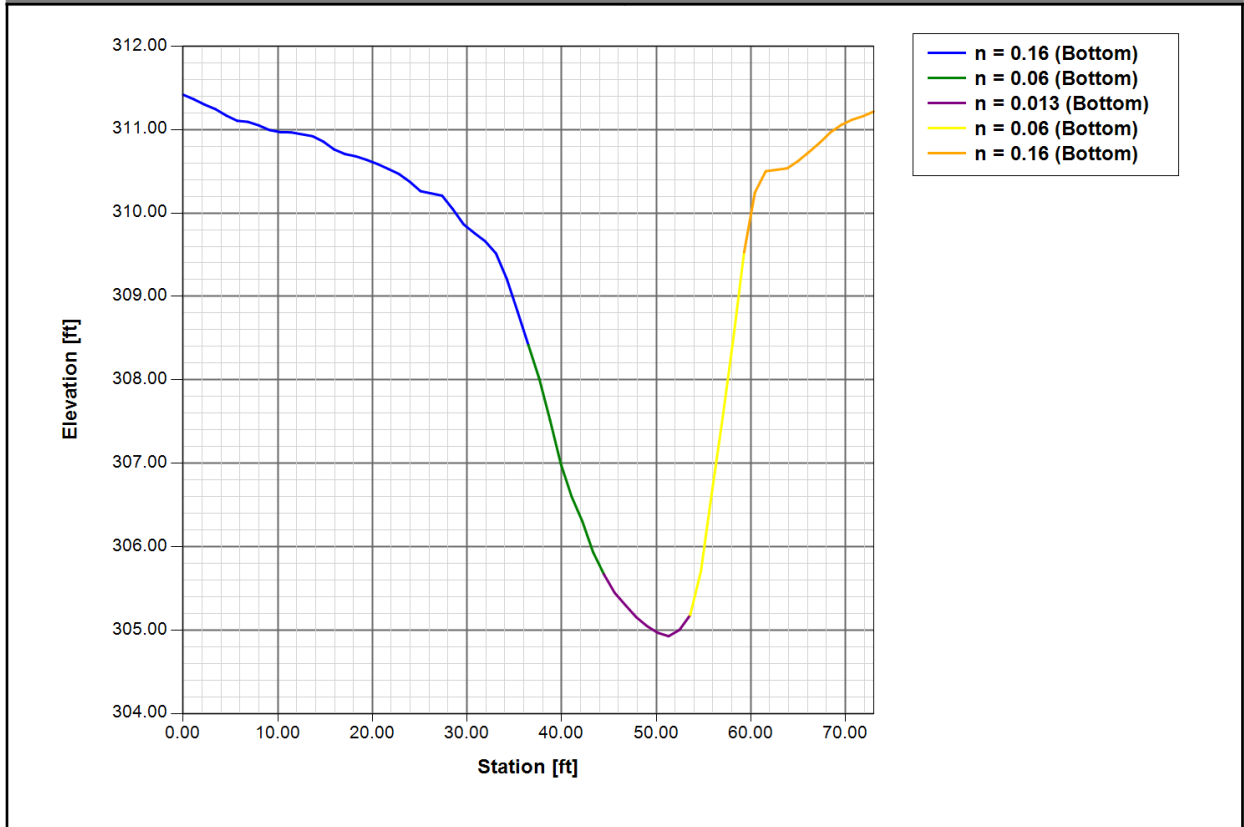


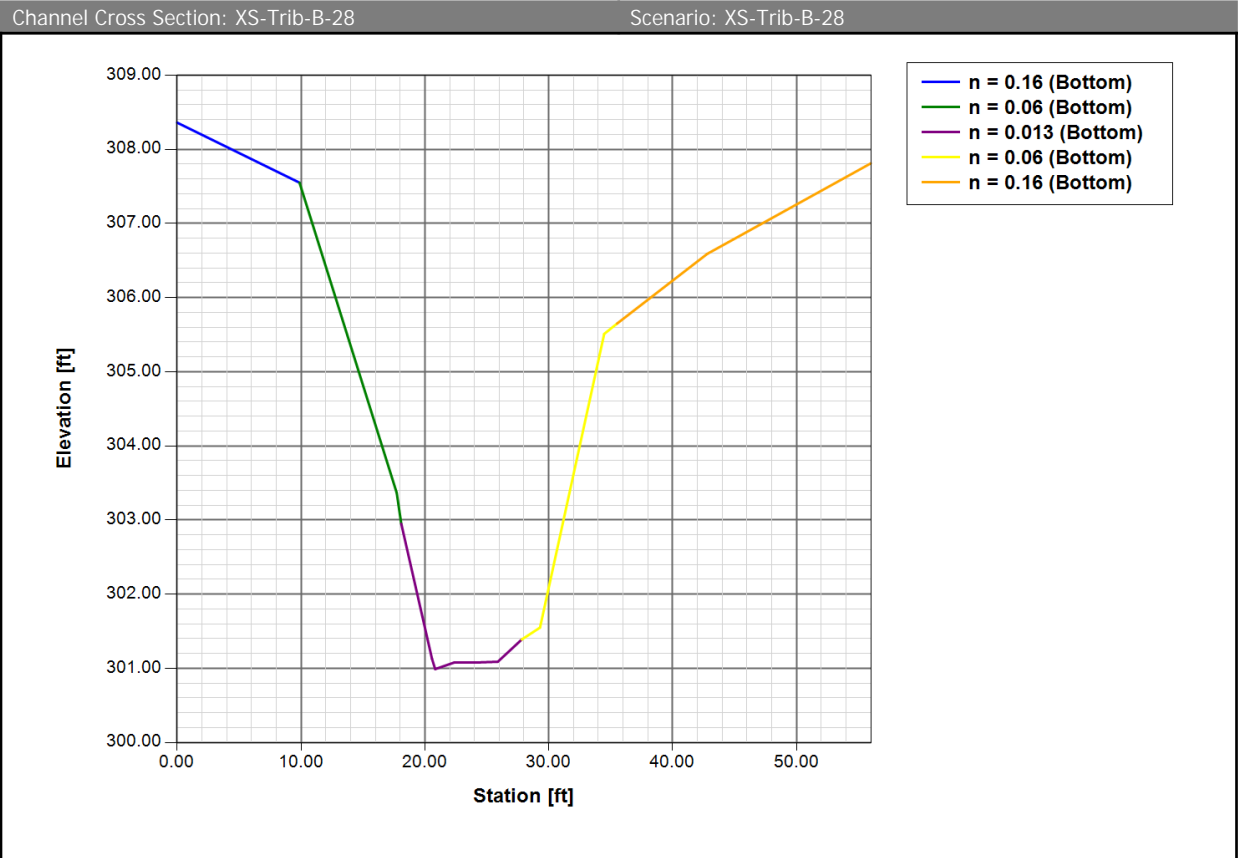


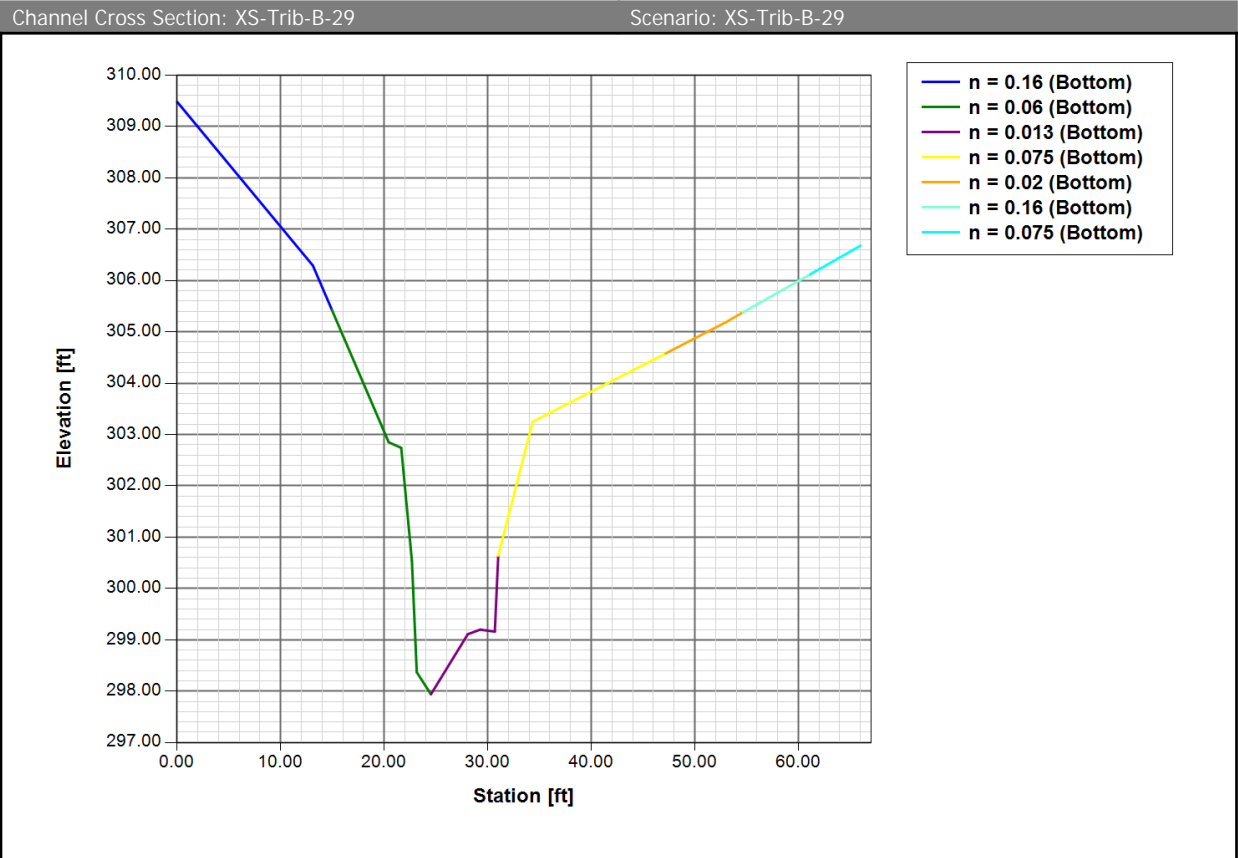


Channel Cross Section: XS-Trib-B-27

Scenario: XS-Trib-B-27

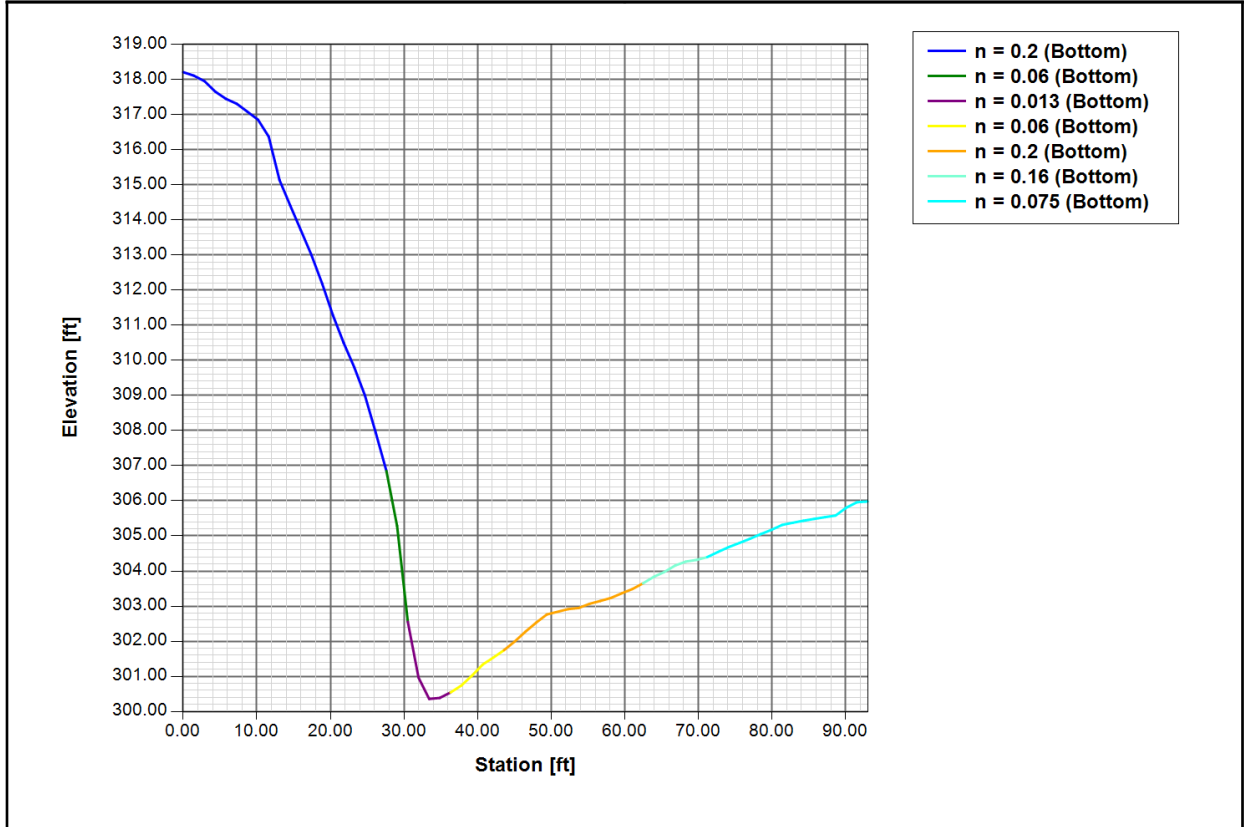


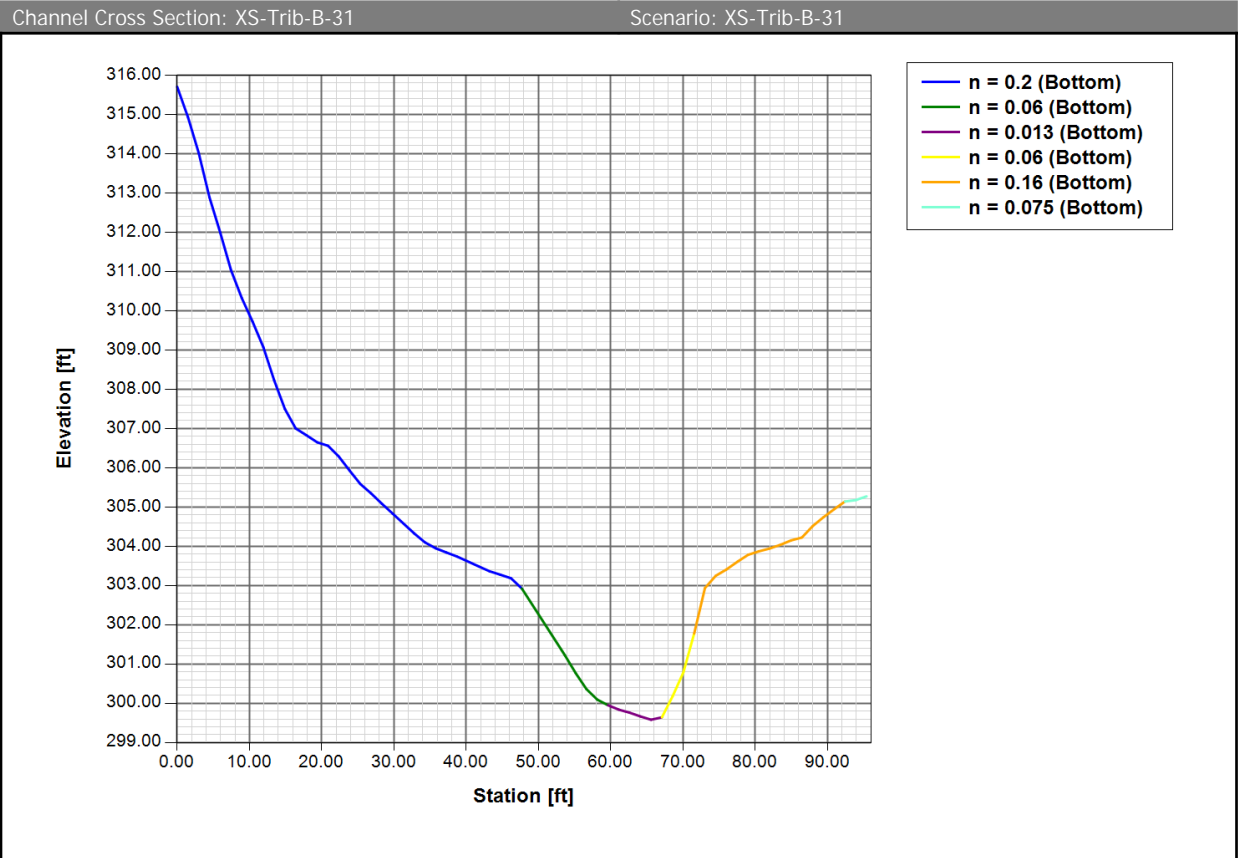




Channel Cross Section: XS-Trib-B-30

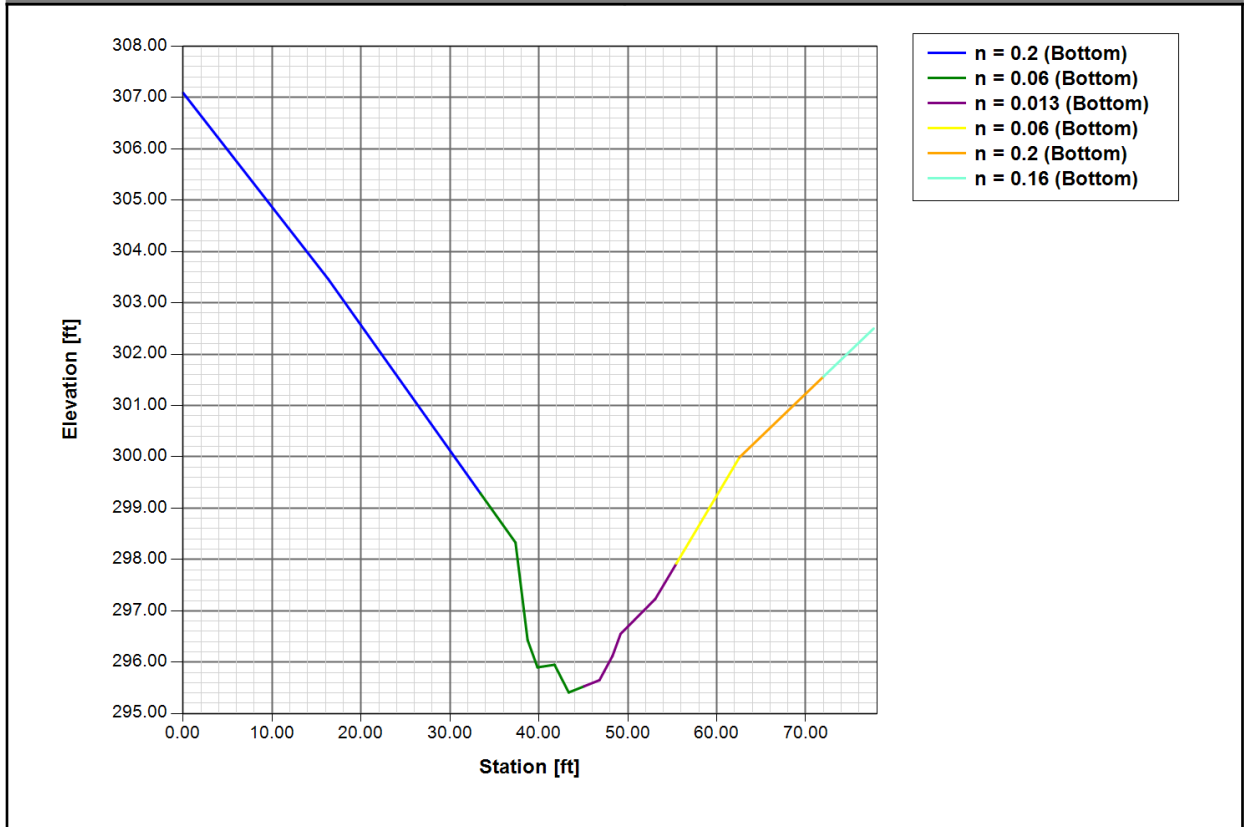
Scenario: XS-Trib-B-30





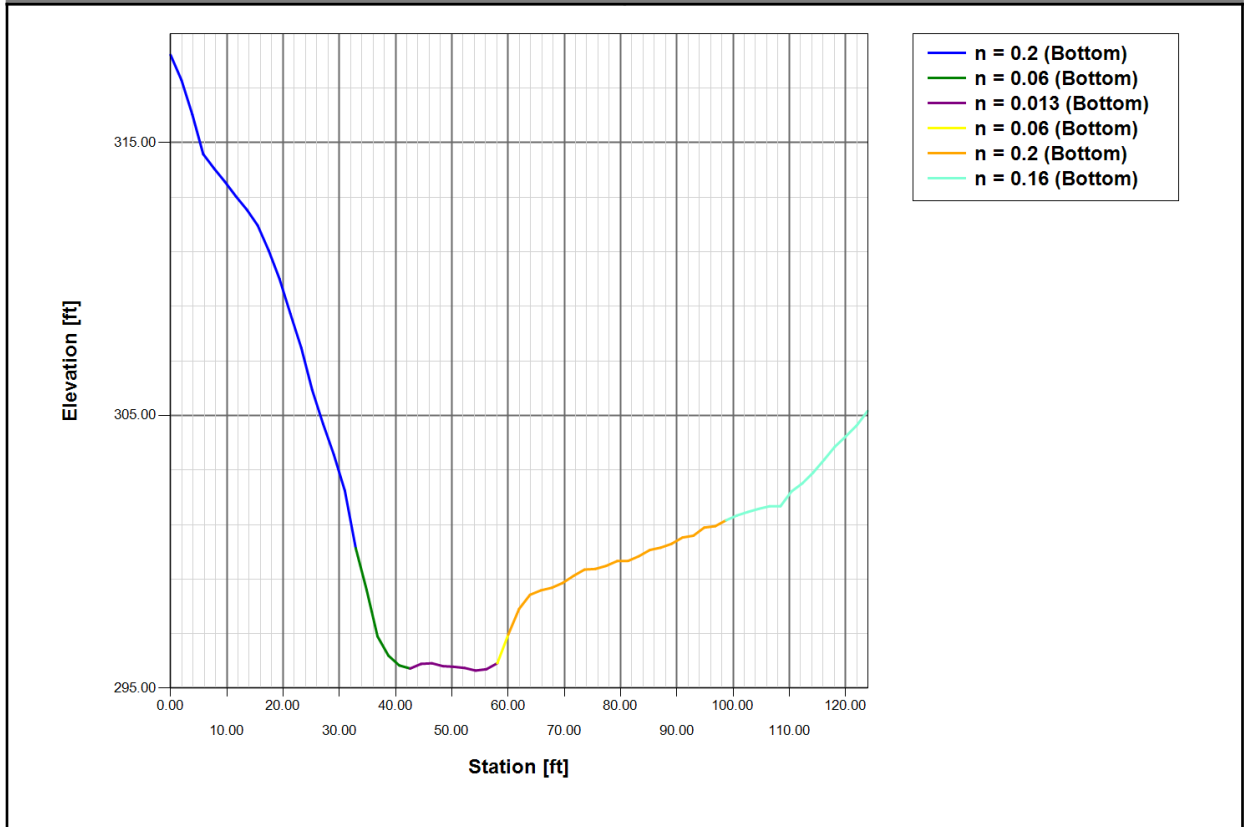
Channel Cross Section: XS-Trib-B-32

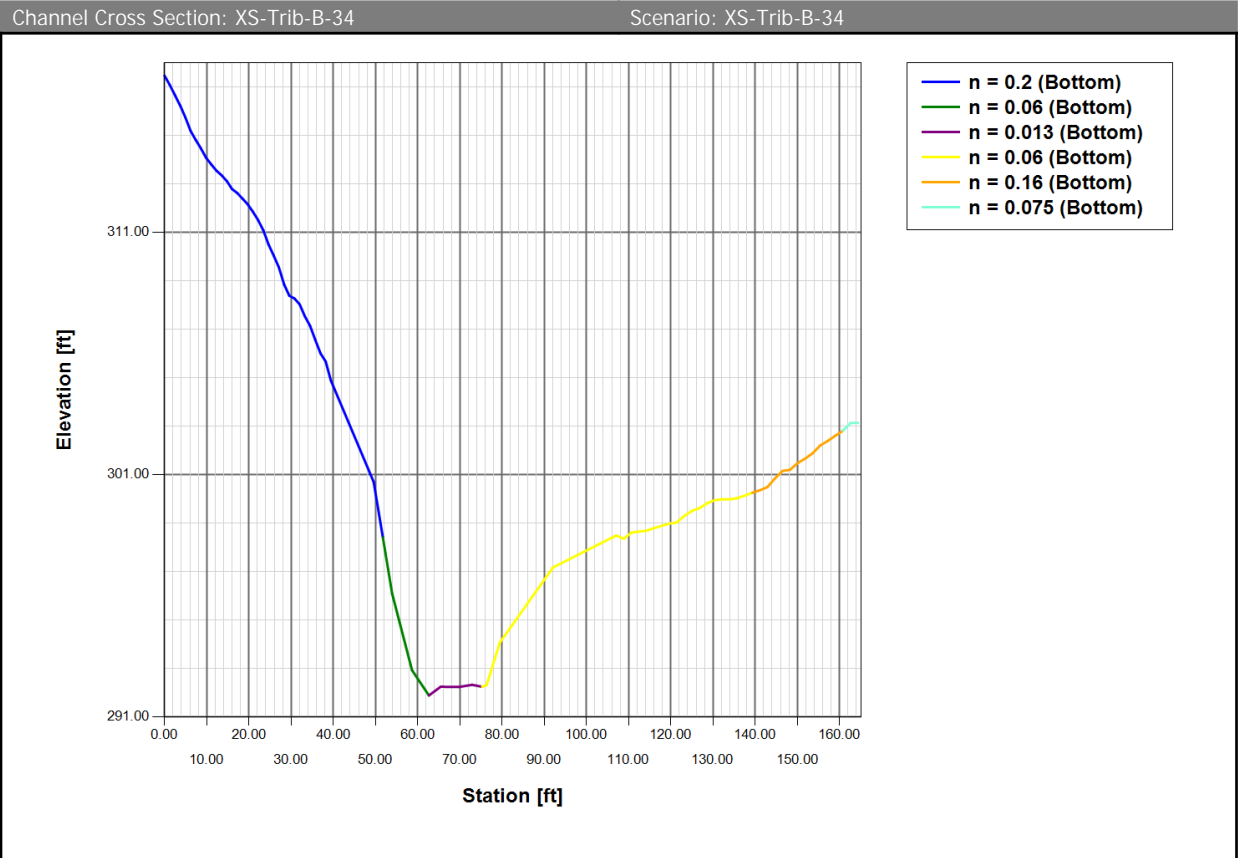
Scenario: XS-Trib-B-32

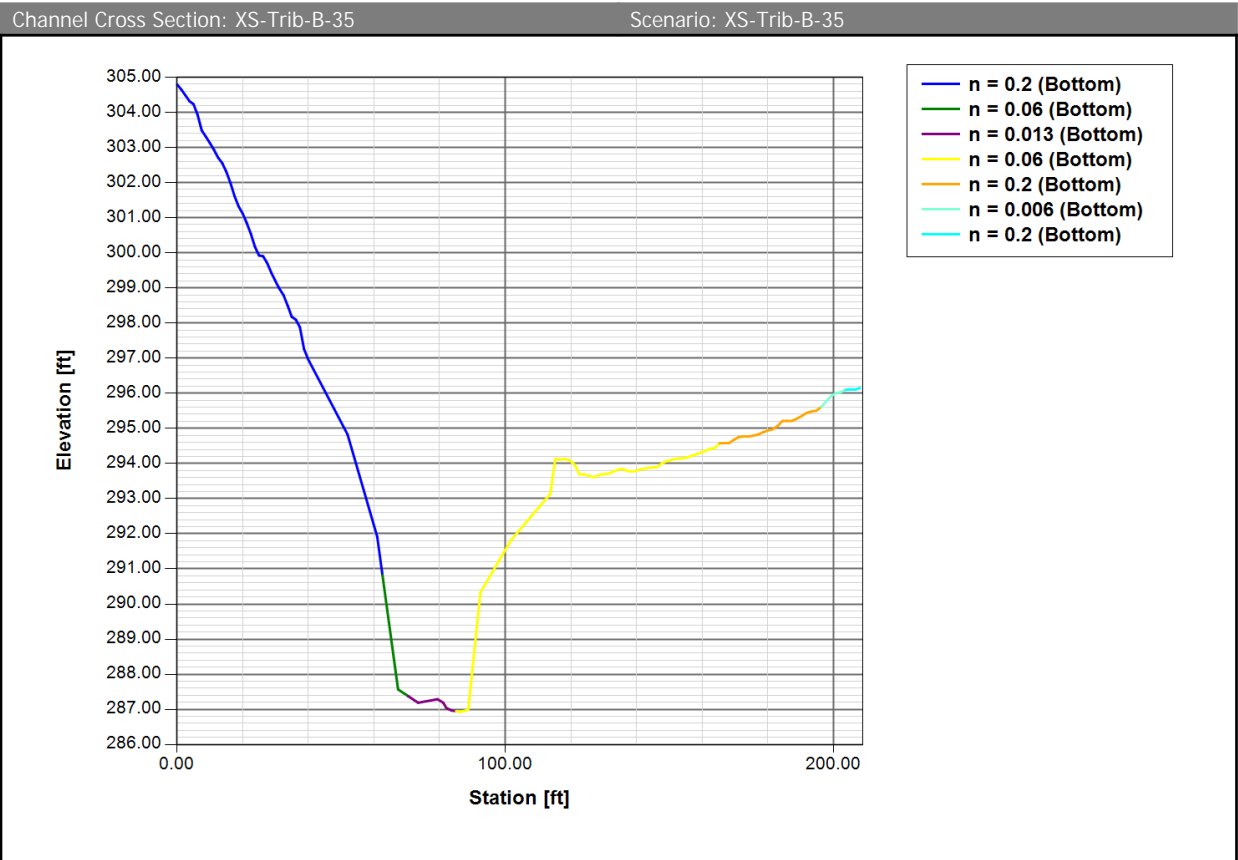


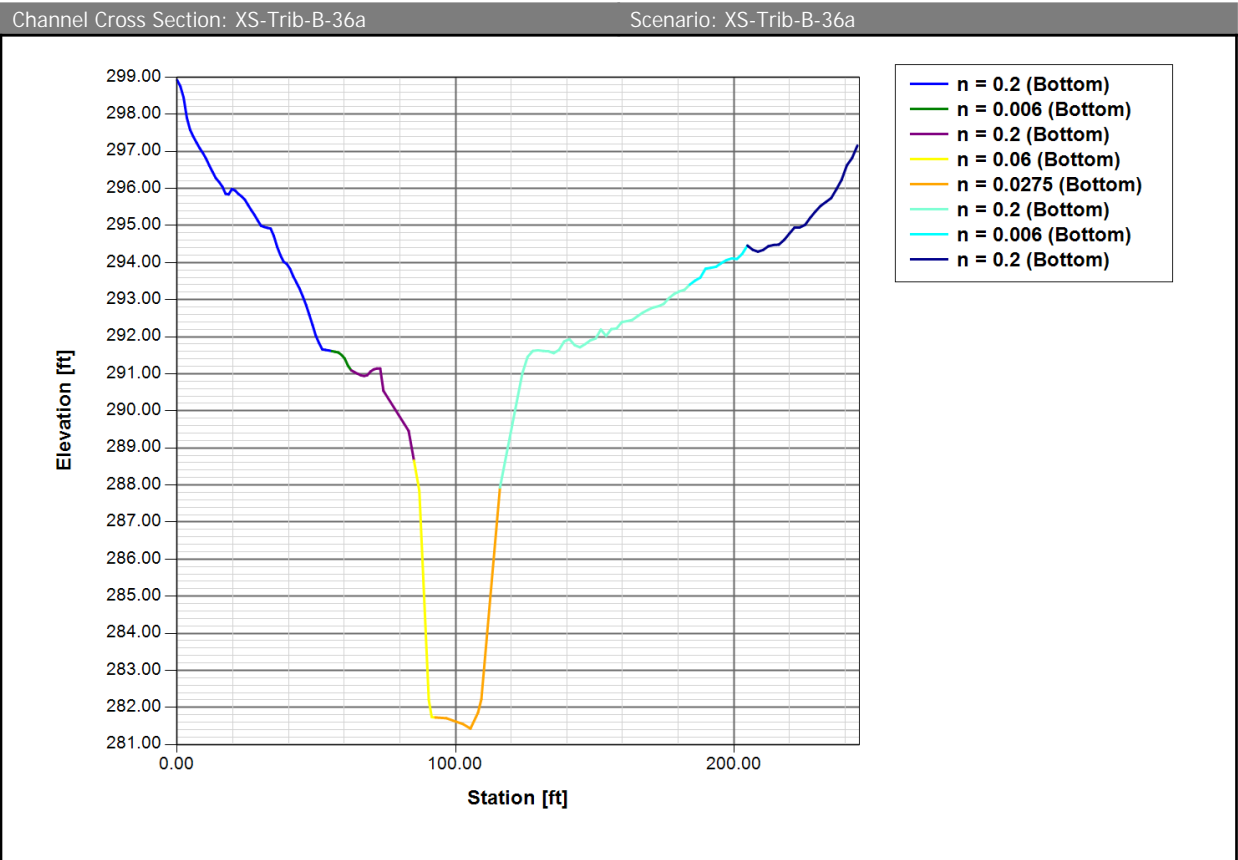
Channel Cross Section: XS-Trib-B-33

Scenario: XS-Trib-B-33



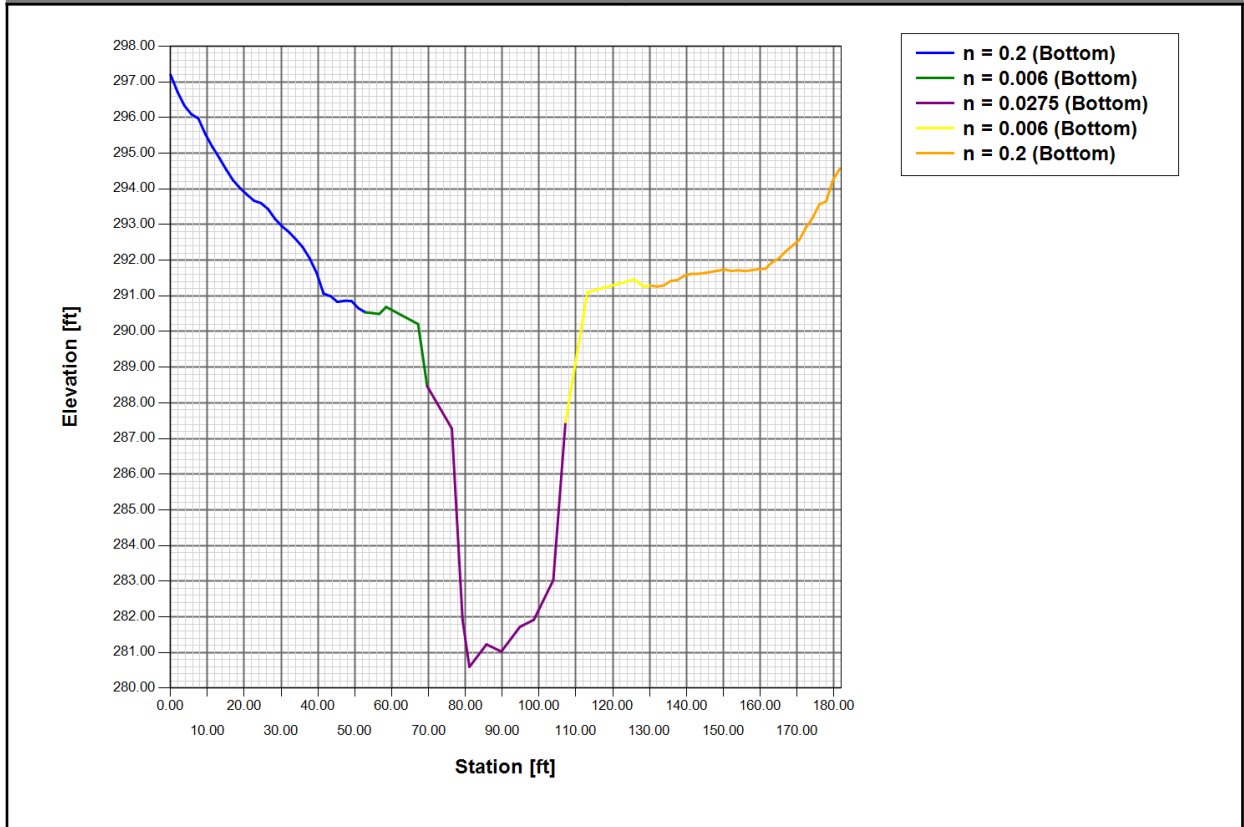






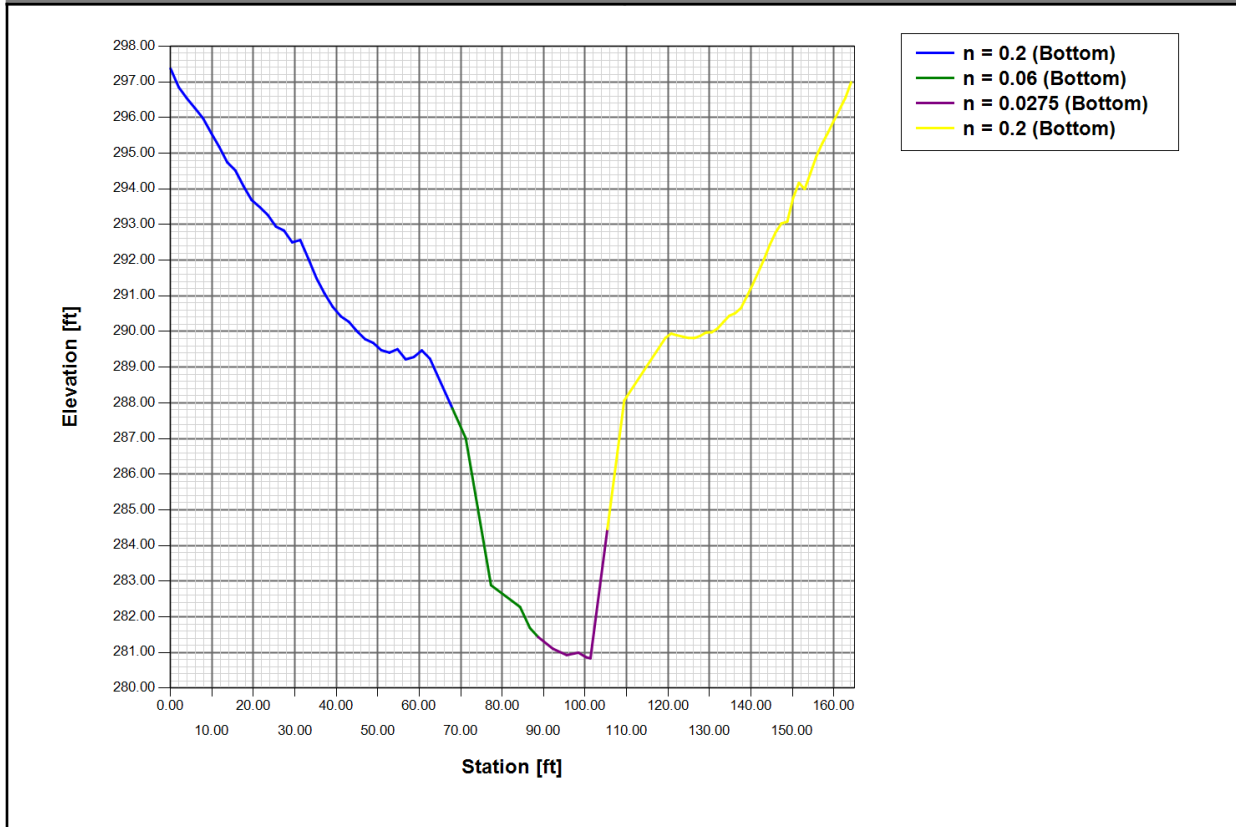
Channel Cross Section: XS-Trib-B-36b

Scenario: XS-Trib-B-36b



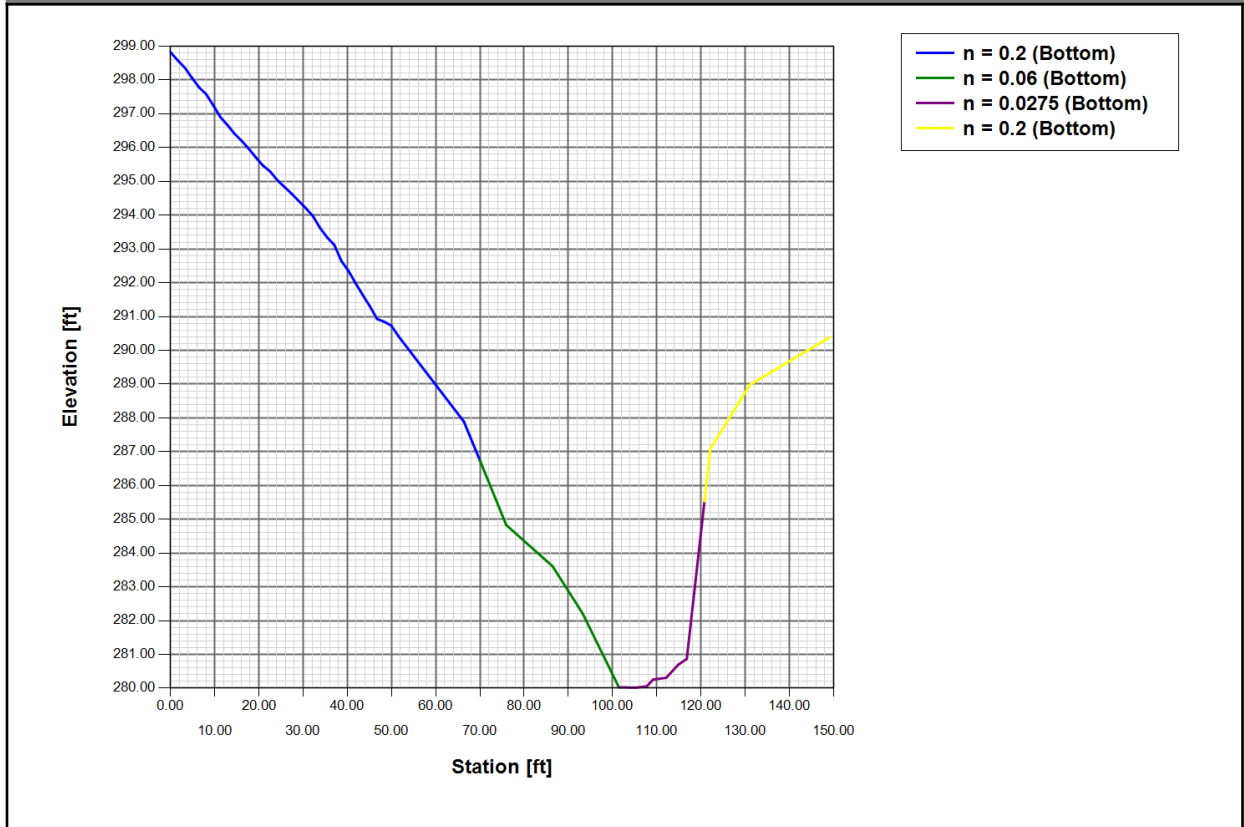
Channel Cross Section: XS-Trib-B-36c

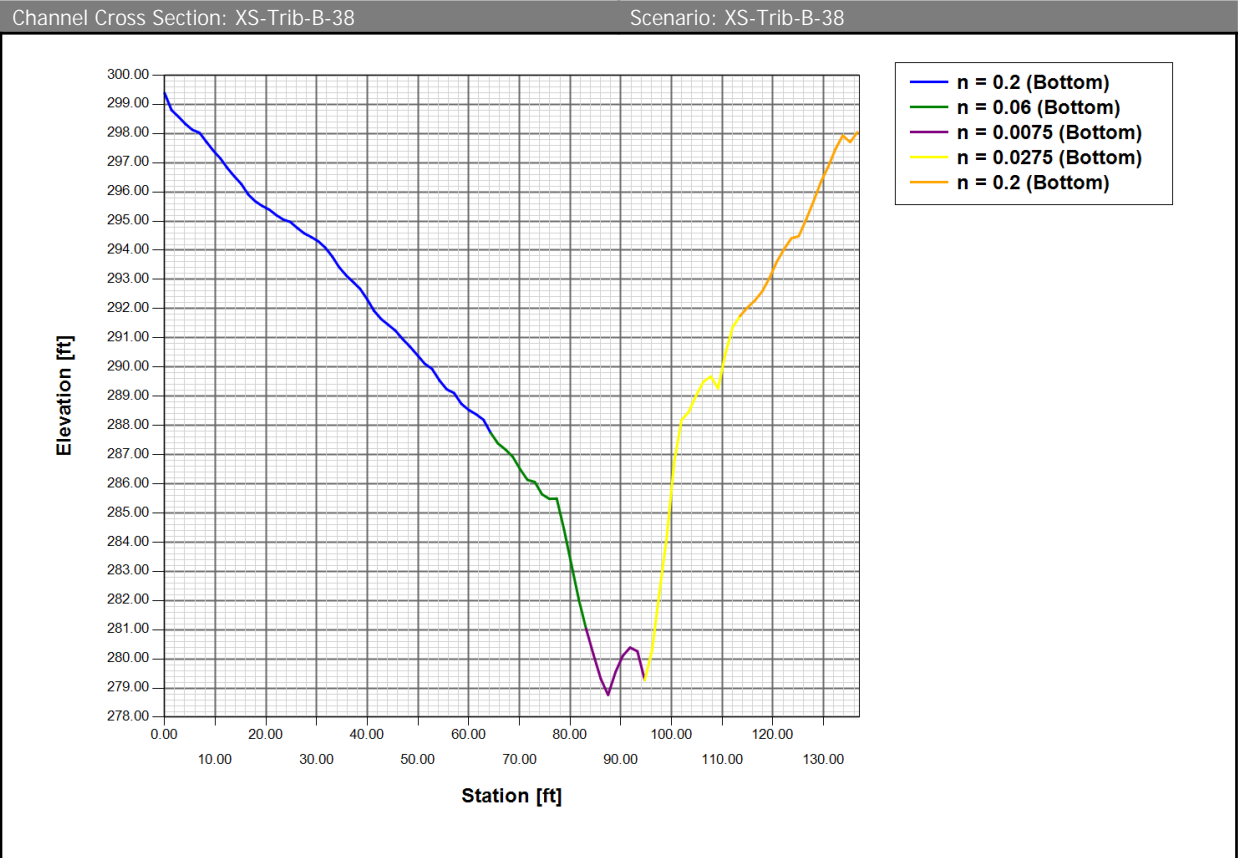
Scenario: XS-Trib-B-36c



Channel Cross Section: XS-Trib-B-37

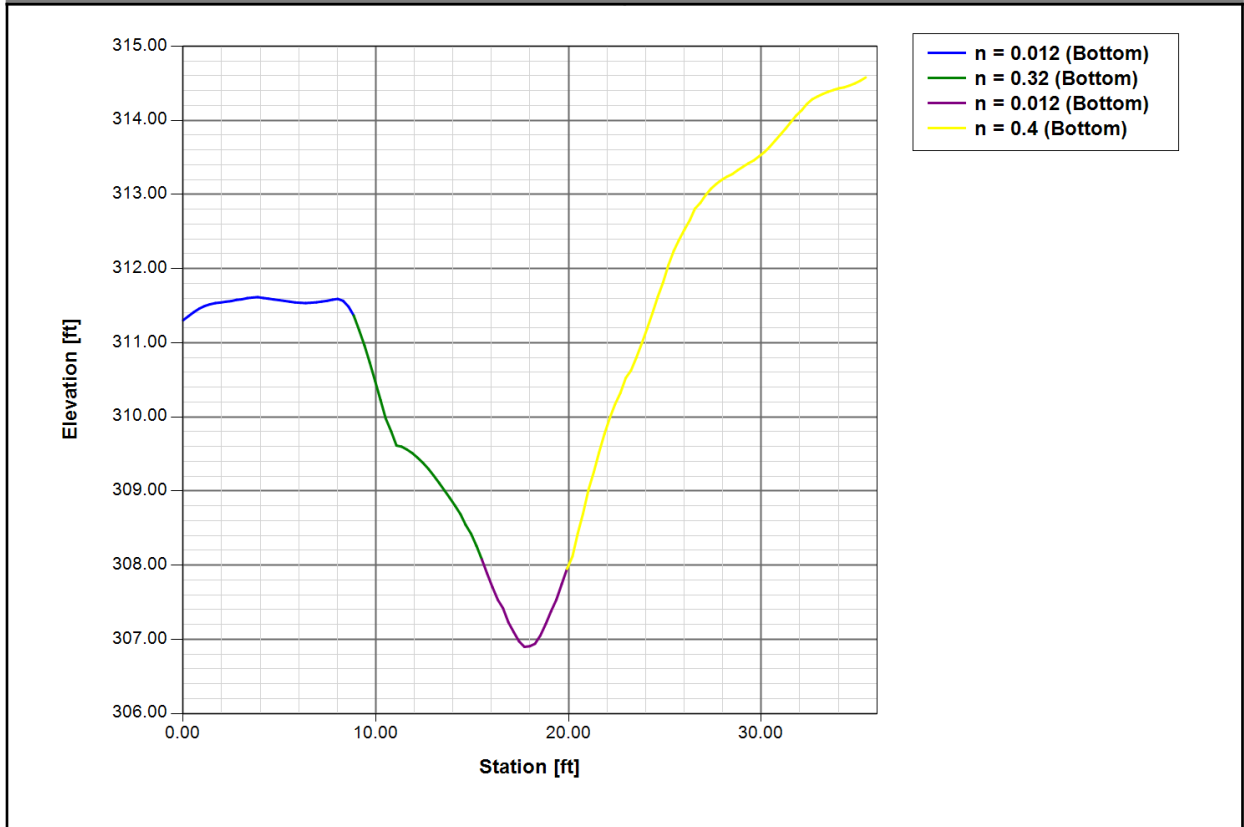
Scenario: XS-Trib-B-37

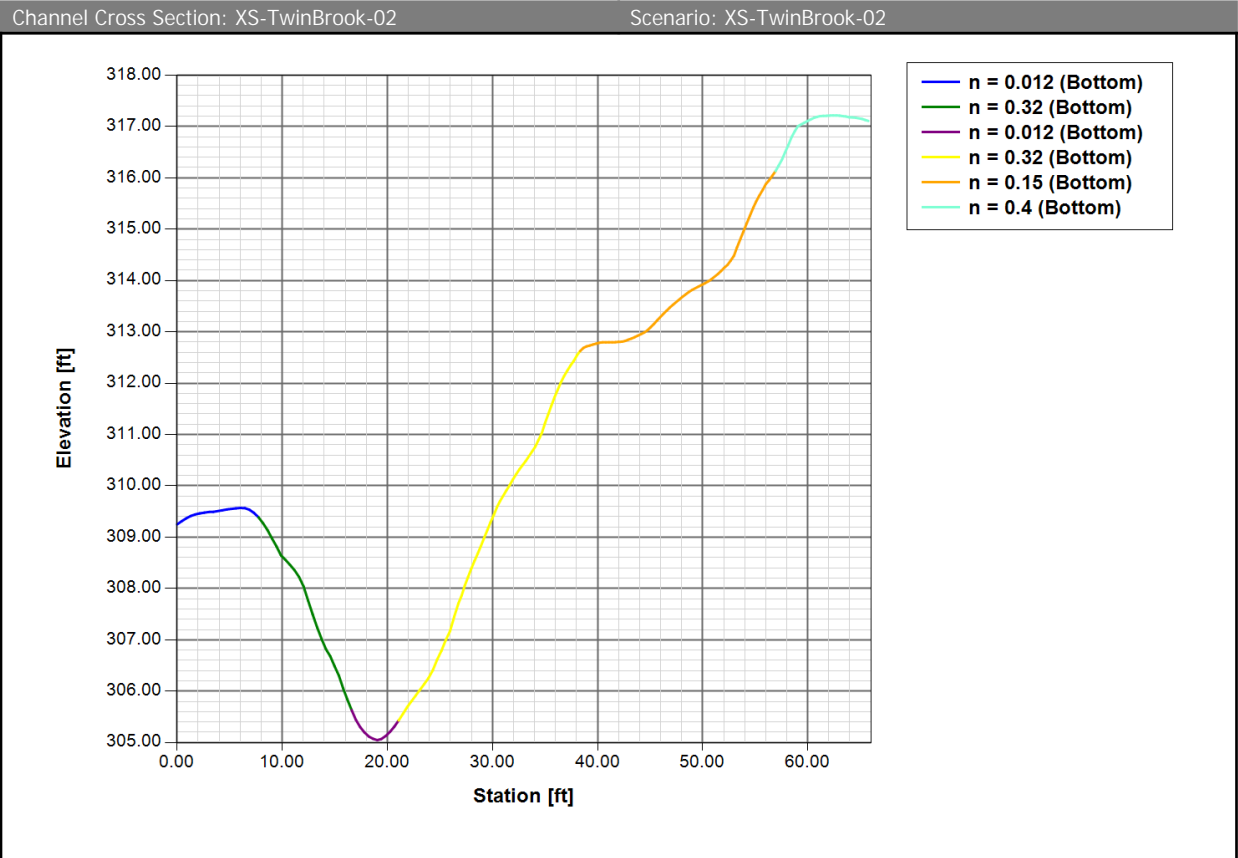


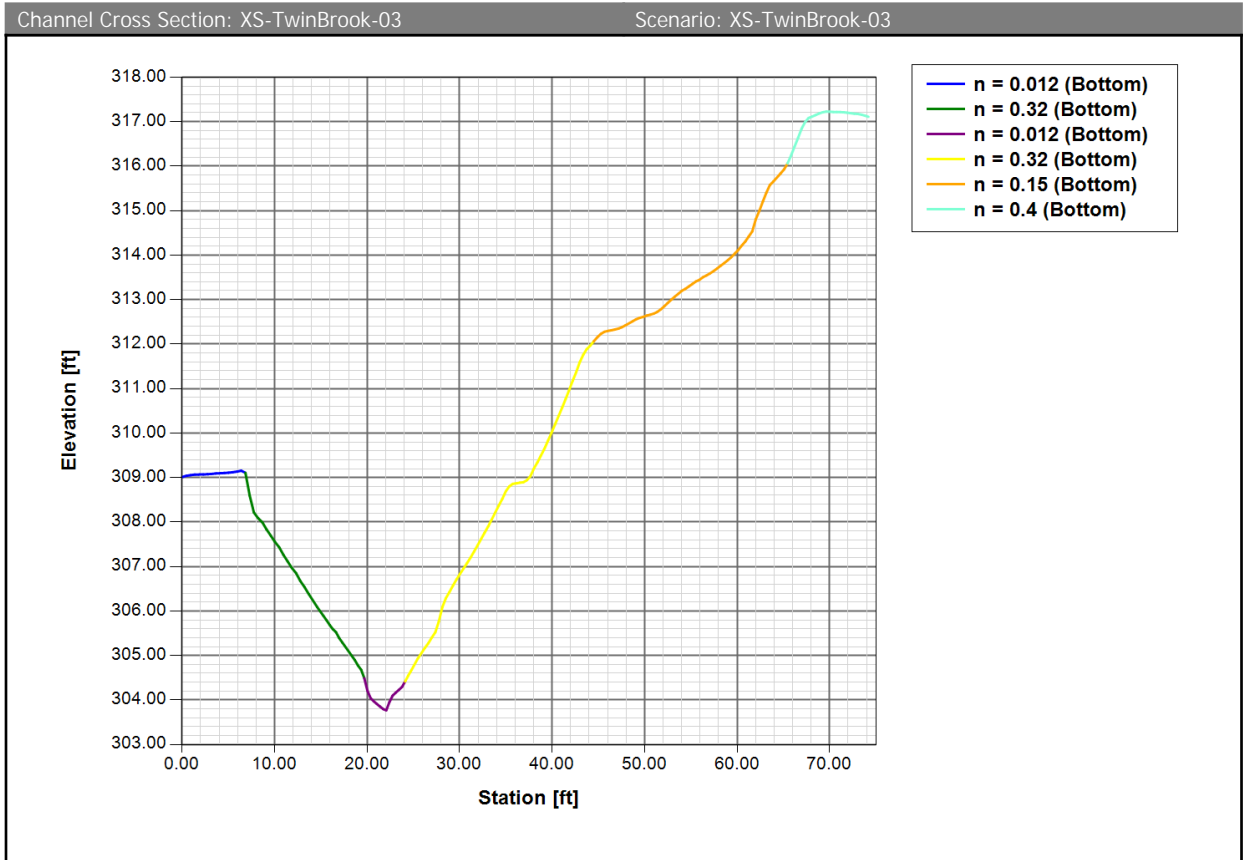


Channel Cross Section: XS-TwinBrook-01

Scenario: XS-TwinBrook-01







Manual Basin: Onsite-S1

Scenario: 1D
 Node: N057
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.3280 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1487	Tree Canopy	D			
0.1987	Road	D			
0.0944	Grass/Shrub	D			
0.0540	Other Paved	D			
0.4129	Tree Canopy	B			
0.1555	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1820	Road	B			
0.4597	Grass/Shrub	B			
0.0413	Building	D			
0.3004	Building	B			
0.1435	Grass/Shrub	C			
0.0649	Building	C			
0.0336	Other Paved	C			
0.0387	Tree Canopy	C			

Comment:

Manual Basin: Onsite-S10

Scenario: 1D
 Node: N195
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.4713 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4578	Grass/Shrub	B			
0.3371	Tree Canopy	B			
0.2872	Road	B			
0.1715	Other Paved	B			
0.2079	Building	B			
0.0097	Road	D			

Comment:

Manual Basin: Onsite-S11

Scenario: 1D
 Node: N210
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 23.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 4.7269 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4857	Grass/Shrub	B			
0.0859	Forest	B			
0.7047	Tree Canopy	B			
0.1527	Building	B			
0.2332	Other Paved	B			
0.4119	Road	B			
0.0506	Forest	D			
0.6445	Tree Canopy	D			
0.6277	Grass/Shrub	D			
0.2804	Building	D			
0.3256	Other Paved	D			
0.7240	Road	D			

Comment:

Manual Basin: Onsite-S12

Scenario: 1D
 Node: Pkwy-Gutter-2
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.7734 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4350	Grass/Shrub	B			
0.1385	Other Paved	B			
0.8002	Road	B			
0.0016	Building	B			
0.1187	Tree Canopy	B			
0.0326	Other Paved	D			
0.0056	Grass/Shrub	D			
0.2137	Road	D			
0.0038	Building	D			
0.0237	Tree Canopy	D			

Comment:

Manual Basin: Onsite-S13

Scenario: 1D
Node: N530b
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9723 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0589	Other Paved	B			
0.1579	Grass/Shrub	B			
0.5167	Road	B			
0.1184	Forest	B			
0.0583	Tree Canopy	B			
0.0012	Forest	C/D			
0.0144	Grass/Shrub	C/D			
0.0428	Road	C/D			
0.0001	Water	B			
0.0036	Other Paved	C/D			

Comment:

Manual Basin: Onsite-S14

Scenario: 1D
Node: N007
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.1285 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3031	Road	B			
0.3351	Grass/Shrub	B			
0.1975	Other Paved	B			
0.9246	Tree Canopy	B			
0.3520	Building	B			
0.2881	Road	D			
0.1271	Other Paved	D			
0.1379	Grass/Shrub	D			
0.1871	Tree Canopy	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0315	Building	D			
0.4899	Grass/Shrub	C			
0.2097	Building	C			
0.0151	Other Paved	C			
0.5296	Tree Canopy	C			

Comment:

Manual Basin: Onsite-S15

Scenario: 1D
 Node: N542
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2860 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1287	Grass/Shrub	B			
0.0001	Building	B			
0.0189	Other Paved	B			
0.0223	Road	B			
0.1160	Tree Canopy	B			

Comment:

Manual Basin: Onsite-S16

Scenario: 1D
 Node: N538
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2236 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1071	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0116	Other Paved	B			
0.1048	Grass/Shrub	B			
0.0001	Road	B			

Comment:

Manual Basin: Onsite-S17

Scenario: 1D
 Node: Trib-B-27
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.4689 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0063	Road	C/D			
0.4501	Tree Canopy	C/D			
0.0078	Creek Bank Riprap	C/D			
0.0098	Creek Bed Cobble	C/D			
0.4853	Tree Canopy	B			
0.3812	Grass/Shrub	B			
0.1289	Creek Bank Grass/Shrub	C/D			
0.2235	Other Paved	B			
0.0756	Creek Bed Sand	C/D			
0.1300	Grass/Shrub	C/D			
0.1163	Building	B			
0.3713	Other Paved	C/D			
0.0759	Road	B			
0.0042	Creek Bed Boulder	C/D			
0.0028	Building	C/D			

Comment:

Manual Basin: Onsite-S2

Scenario: 1D
 Node: N175
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 17.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.8668 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4047	Road	B			
0.5596	Tree Canopy	B			
0.2548	Other Paved	B			
0.8046	Grass/Shrub	B			
0.3324	Building	B			
0.3965	Other Paved	D			
2.6400	Road	D			
0.2023	Tree Canopy	D			
0.1765	Grass/Shrub	D			
0.0953	Building	D			

Comment:

Manual Basin: Onsite-S20

Scenario: 1D
 Node: N052
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.5698 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2997	Grass/Shrub	B			
0.3621	Tree Canopy	B			
0.6884	Road	B			
0.0498	Other Paved	B			
0.1699	Forest	B			

Comment:

Manual Basin: Onsite-S21

Scenario: 1D
 Node: Trib-B-37

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.1455 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3872	Other Paved	B			
0.3765	Grass/Shrub	B			
0.1611	Tree Canopy	B			
1.2292	Forest	B			
0.0074	Wetland	B			
0.0454	Wetland	C/D			
0.3654	Forest	C/D			
0.0215	Other Paved	C/D			
0.0003	Grass/Shrub	C/D			
0.0513	Creek Bank Grass/Shrub	C/D			
0.0028	Creek Bed Sand	C/D			
0.0592	Creek Bed Boulder	C/D			
0.0072	Creek Bed Concrete	C/D			
0.2169	Road	B			
0.0124	Building	B			
0.2017	Water	B			

Comment:

Manual Basin: Onsite-S22

Scenario: 1D
 Node: Pkwy-Gutter-3
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.3801 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0273	Grass/Shrub	C/D			
0.0055	Other Paved	C/D			
0.0199	Road	C/D			
0.0389	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0984	Road	B			
0.0868	Other Paved	B			
0.0796	Grass/Shrub	B			
0.0168	Forest	B			
0.0069	Building	B			

Comment:

Manual Basin: Onsite-S23

Scenario: 1D
 Node: N531
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2079 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0182	Grass/Shrub	B			
0.1888	Building	B			
0.0009	Other Paved	B			

Comment:

Manual Basin: Onsite-S24

Scenario: 1D
 Node: N549
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2095 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0243	Grass/Shrub	B			
0.1852	Building	B			

Comment:

Manual Basin: Onsite-S25

Scenario: 1D
 Node: N540
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2017 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1036	Grass/Shrub	B			
0.0001	Building	B			
0.0921	Tree Canopy	B			
0.0059	Other Paved	B			

Comment:

Manual Basin: Onsite-S28

Scenario: 1D
 Node: N539
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.0694 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0372	Grass/Shrub	B			
0.0280	Tree Canopy	B			
0.0042	Other Paved	B			

Comment:

Manual Basin: Onsite-S29

Scenario: 1D
Node: N543
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.0717 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0001	Water	B			
0.0714	Grass/Shrub	B			
0.0001	Grass/Shrub	C/D			

Comment:

Manual Basin: Onsite-S3

Scenario: 1D
Node: N071
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3716 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0091	Forest	B			
0.0377	Tree Canopy	B			
0.0090	Other Paved	B			
0.0649	Grass/Shrub	B			
0.1987	Road	B			
0.0066	Tree Canopy	C/D			
0.0394	Road	C/D			
0.0056	Grass/Shrub	C/D			
0.0006	Other Paved	C/D			

Comment:

Manual Basin: Onsite-S30

Scenario: 1D

Node: N550
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4406 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1542	Grass/Shrub	B			
0.0567	Other Paved	B			
0.1808	Road	B			
0.0488	Tree Canopy	B			
0.0002	Water	B			
0.0000	Building	B			

Comment:

Manual Basin: Onsite-S31

Scenario: 1D
 Node: N537
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2074 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1413	Road	B			
0.0192	Other Paved	B			
0.0060	Tree Canopy	B			
0.0409	Grass/Shrub	B			
0.0001	Building	B			

Comment:

Manual Basin: Onsite-S32

Scenario: 1D
 Node: N544
 Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2491 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0068	Tree Canopy	B			
0.2214	Building	B			
0.0116	Grass/Shrub	B			
0.0093	Other Paved	B			

Comment:

Manual Basin: Onsite-S33

Scenario: 1D
 Node: N545
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1888 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1017	Grass/Shrub	B			
0.0823	Tree Canopy	B			
0.0043	Other Paved	B			
0.0005	Building	B			

Comment:

Manual Basin: Onsite-S34

Scenario: 1D
 Node: N536
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0
 Area: 0.1866 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0089	Other Paved	B			
0.1448	Road	B			
0.0317	Tree Canopy	B			
0.0012	Grass/Shrub	B			

Comment:

Manual Basin: Onsite-S36

Scenario: 1D
 Node: N547
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4840 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1984	Building	B			
0.1394	Grass/Shrub	B			
0.1446	Tree Canopy	B			
0.0016	Other Paved	B			

Comment:

Manual Basin: Onsite-S4

Scenario: 1D
 Node: N094
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3983 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1092	Tree Canopy	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0390	Other Paved	D			
0.2421	Road	D			
0.0080	Grass/Shrub	D			

Comment:

Manual Basin: Onsite-S40

Scenario: 1D
 Node: N176
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.9068 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0050	Other Paved	B			
0.1867	Road	B			
0.0041	Grass/Shrub	B			
3.0203	Road	D			
0.2835	Grass/Shrub	D			
0.1281	Other Paved	D			
0.1942	Tree Canopy	D			
0.0849	Building	D			

Comment:

Manual Basin: Onsite-S42

Scenario: 1D
 Node: N061
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.0619 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8469	Road	D			
0.0725	Tree Canopy	D			
0.0725	Grass/Shrub	D			
0.0679	Other Paved	D			
0.0020	Building	D			

Comment:

Manual Basin: Onsite-S43

Scenario: 1D
 Node: N060
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4604 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0890	Road	D			
0.0511	Grass/Shrub	D			
0.0259	Tree Canopy	D			
0.0141	Other Paved	D			
0.2803	Building	D			

Comment:

Manual Basin: Onsite-S44

Scenario: 1D
 Node: N634
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4875 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0963	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0169	Grass/Shrub	B			
0.1706	Road	B			
0.0040	Other Paved	B			
0.0181	Building	B			
0.0429	Building	D			
0.0252	Grass/Shrub	D			
0.0096	Other Paved	D			
0.0976	Road	D			
0.0063	Tree Canopy	D			

Comment:

Manual Basin: Onsite-S45

Scenario: 1D
 Node: N548x
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1129 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0626	Tree Canopy	B			
0.0208	Other Paved	B			
0.0232	Forest	B			
0.0064	Grass/Shrub	B			
0.0000	Road	B			

Comment:

Manual Basin: Onsite-S46

Scenario: 1D
 Node: N241
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 1.8531 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3014	Building	B			
0.1660	Tree Canopy	B			
0.2944	Grass/Shrub	B			
0.1060	Other Paved	B			
0.0060	Forest	B			
0.6585	Road	B			
0.0031	Forest	B/D			
0.0674	Road	B/D			
0.0031	Forest	D			
0.2321	Road	D			
0.0110	Other Paved	D			
0.0023	Tree Canopy	B/D			
0.0014	Grass/Shrub	B/D			
0.0001	Other Paved	B/D			
0.0001	Grass/Shrub	D			
0.0000	Tree Canopy	D			

Comment:

Manual Basin: Onsite-S47

Scenario: 1D
 Node: N025
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.4158 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0055	Road	B			
0.4675	Grass/Shrub	B			
0.4513	Tree Canopy	B			
0.1673	Other Paved	B			
0.2003	Building	B			
0.0639	Tree Canopy	D			
0.0223	Grass/Shrub	D			
0.0053	Road	D			
0.0149	Other Paved	D			
0.0021	Forest	D			
0.0012	Grass/Shrub	B/D			
0.0019	Forest	B/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0124	Forest	B			

Comment:

Manual Basin: Onsite-S48

Scenario: 1D
Node: N653
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3772 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7546	Grass/Shrub	B			
0.2018	Other Paved	B			
0.1851	Building	B			
0.2357	Tree Canopy	B			

Comment:

Manual Basin: Onsite-S49

Scenario: 1D
Node: N666
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.7955 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3664	Building	B			
0.9274	Tree Canopy	B			
0.4707	Grass/Shrub	B			
0.0289	Other Paved	B			
0.0014	Tree Canopy	C/D			
0.0005	Other Paved	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0001	Road	B			

Comment:

Manual Basin: Onsite-S5

Scenario: 1D
 Node: N103
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 14.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.5272 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0120	Tree Canopy	D			
0.0279	Road	D			
0.1552	Building	C			
0.2349	Grass/Shrub	C			
0.0947	Other Paved	C			
0.4323	Tree Canopy	C			
0.0020	Other Paved	D			
0.0001	Grass/Shrub	D			
0.8020	Grass/Shrub	B			
0.6661	Tree Canopy	B			
0.2622	Other Paved	B			
0.4082	Road	B			
0.0813	Road	C			
0.3482	Building	B			

Comment:

Manual Basin: Onsite-S50

Scenario: 1D
 Node: Trib-A-44
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.8192 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0723	Grass/Shrub	B			
0.1818	Tree Canopy	B			
0.0036	Other Paved	B			
0.0245	Creek Bank Grass/Shrub	B			
0.0856	Creek Bank Grass/Shrub	C/D			
0.0153	Creek Bed Sand	C/D			
0.1160	Forest	C/D			
0.0271	Creek Bed Boulder	C/D			
0.1344	Tree Canopy	C/D			
0.0352	Creek Bed Cobble	C/D			
0.0763	Other Paved	C/D			
0.0178	Grass/Shrub	C/D			
0.0280	Building	B			
0.0014	Building	C/D			

Comment:

Manual Basin: Onsite-S51

Scenario: 1D

Node: Trib-A-46

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 1.8276 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1974	Road	B			
0.2811	Tree Canopy	B			
0.1374	Grass/Shrub	B			
0.0670	Other Paved	B			
0.6396	Forest	B			
0.0701	Building	B			
0.2339	Forest	C/D			
0.0349	Creek Bank Grass/Shrub	B			
0.0914	Creek Bank Grass/Shrub	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0748	Creek Bed Sand	C/D			

Comment:

Manual Basin: Onsite-S52

Scenario: 1D
 Node: Trib-A-50
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2659 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5877	Forest	B			
0.2161	Other Paved	B			
0.0053	Road	B			
0.1119	Tree Canopy	B			
0.0023	Grass/Shrub	B			
0.0052	Building	B			
0.1403	Forest	C/D			
0.1325	Creek Bank Grass/Shrub	C/D			
0.0192	Grass/Shrub	C/D			
0.0253	Creek Bed Sand	C/D			
0.0009	Road	C/D			
0.0061	Other Paved	C/D			
0.0130	Tree Canopy	C/D			

Comment:

Manual Basin: Onsite-S53

Scenario: 1D
 Node: Trib-B-3
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 1.0866 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0567	Grass/Shrub	B			
0.0267	Building	B			
0.0769	Building	D			
0.0213	Other Paved	B			
0.1783	Grass/Shrub	D			
0.0265	Other Paved	D			
0.0870	Tree Canopy	D			
0.3211	Tree Canopy	C/D			
0.0226	Other Paved	C/D			
0.1171	Grass/Shrub	C/D			
0.0818	Building	C/D			
0.0384	Creek Bank Grass/Shrub	C/D			
0.0322	Tree Canopy	B			

Comment:

Manual Basin: Onsite-S54

Scenario: 1D

Node: Trib-B-6

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 13.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.7596 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0363	Building	C/D			
0.0788	Grass/Shrub	C/D			
0.0278	Other Paved	C/D			
0.3219	Tree Canopy	C/D			
0.0657	Creek Bank Grass/Shrub	C/D			
0.0175	Creek Bed Sand	C/D			
0.0599	Building	B			
0.0601	Tree Canopy	B			
0.0599	Grass/Shrub	B			
0.0318	Other Paved	B			

Comment:

Manual Basin: Onsite-S55

Scenario: 1D
Node: Trib-B-14
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7259 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1408	Tree Canopy	D			
0.0235	Grass/Shrub	D			
0.3059	Tree Canopy	C/D			
0.0422	Grass/Shrub	C/D			
0.0121	Creek Bank Grass/Shrub	D			
0.0919	Creek Bank Grass/Shrub	C/D			
0.0068	Creek Bed Boulder	D			
0.0019	Creek Bed Boulder	C/D			
0.0212	Creek Bed Sand	C/D			
0.0322	Building	D			
0.0461	Building	C/D			
0.0000	Grass/Shrub	B			
0.0008	Other Paved	D			
0.0005	Other Paved	C/D			

Comment:

Manual Basin: Onsite-S56

Scenario: 1D
Node: Trib-B-17
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6495 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1741	Grass/Shrub	B			
0.0950	Building	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2606	Grass/Shrub	C/D			
0.0663	Building	C/D			
0.7406	Tree Canopy	C/D			
0.1022	Tree Canopy	B			
0.0903	Creek Bank Grass/Shrub	C/D			
0.0603	Creek Bed Sand	C/D			
0.0066	Other Paved	C/D			
0.0535	Other Paved	B			

Comment:

Manual Basin: Onsite-S57

Scenario: 1D
 Node: Trib-B-19
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 14.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.5803 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3478	Grass/Shrub	C/D			
0.2142	Building	C/D			
0.3733	Tree Canopy	C/D			
0.0352	Other Paved	C/D			
0.0519	Creek Bank Grass/Shrub	C/D			
0.0301	Creek Bed Sand	C/D			
0.6545	Grass/Shrub	B			
0.3784	Tree Canopy	B			
0.2338	Building	B			
0.1402	Other Paved	B			
0.0745	Creek Bank Grass/Shrub	B			
0.0464	Creek Bed Sand	B			

Comment:

Manual Basin: Onsite-S58

Scenario: 1D
Node: Trib-B-21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.6281 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0193	Other Paved	C/D			
0.2063	Grass/Shrub	C/D			
0.0962	Building	C/D			
0.3988	Tree Canopy	C/D			
0.4095	Grass/Shrub	B			
0.8909	Tree Canopy	B			
0.0707	Creek Bank Grass/Shrub	B			
0.0445	Creek Bed Sand	B			
0.3137	Building	B			
0.0831	Other Paved	B			
0.0512	Creek Bank Grass/Shrub	C/D			
0.0327	Creek Bed Sand	C/D			
0.0114	Road	B			

Comment:

Manual Basin: Onsite-S59

Scenario: 1D
Node: Trib-B-24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 31.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.2404 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1103	Building	B			
0.2894	Grass/Shrub	B			
0.0176	Other Paved	B			
0.2823	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2850	Tree Canopy	C/D			
0.0781	Creek Bank Grass/Shrub	C/D			
0.0573	Creek Bed Sand	C/D			
0.0771	Grass/Shrub	C/D			
0.0002	Creek Bank Grass/Shrub	B			
0.0216	Building	C/D			
0.0061	Other Paved	C/D			
0.0005	Road	B			
0.0009	Road	C/D			
0.0100	Creek Bank Riprap	C/D			
0.0040	Creek Bed Cobble	C/D			

Comment:

Manual Basin: Onsite-S6

Scenario: 1D
Node: N170
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.4566 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3708	Grass/Shrub	B			
0.0820	Road	B			
0.4757	Tree Canopy	B			
0.1007	Other Paved	B			
0.1923	Building	B			
0.0205	Road	D			
0.0964	Tree Canopy	D			
0.0211	Other Paved	D			
0.0491	Grass/Shrub	D			
0.0481	Building	D			

Comment:

Manual Basin: Onsite-S60

Scenario: 1D
Node: Trib-B-28
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7463 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0392	Other Paved	B			
0.1463	Tree Canopy	B			
0.1405	Grass/Shrub	B			
0.0711	Building	B			
0.2136	Tree Canopy	C/D			
0.0373	Grass/Shrub	C/D			
0.0503	Creek Bank Grass/Shrub	C/D			
0.0346	Creek Bed Sand	C/D			
0.0098	Building	C/D			
0.0007	Other Paved	C/D			
0.0029	Road	C/D			

Comment:

Manual Basin: Onsite-S61

Scenario: 1D
Node: Trib-B-33
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6268 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0604	Grass/Shrub	C/D			
0.0072	Other Paved	C/D			
0.1849	Tree Canopy	C/D			
0.0065	Building	C/D			
0.0643	Creek Bank Grass/Shrub	C/D			
0.0552	Creek Bed Sand	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4795	Forest	C/D			
0.1335	Building	B			
0.1637	Grass/Shrub	B			
0.3059	Tree Canopy	B			
0.0704	Other Paved	B			
0.0951	Forest	B			
0.0003	Road	B			

Comment:

Manual Basin: Onsite-S62

Scenario: 1D
Node: Trib-B-31
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.1611 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0629	Tree Canopy	B			
0.0601	Road	B			
0.0619	Other Paved	B			
0.2056	Tree Canopy	C/D			
0.0319	Road	C/D			
0.2101	Grass/Shrub	B			
0.2034	Grass/Shrub	C/D			
0.0378	Other Paved	C/D			
0.0030	Water	C/D			
0.0459	Creek Bank Grass/Shrub	C/D			
0.0339	Creek Bed Sand	C/D			
0.1029	Building	B			
0.0236	Building	C/D			
0.0782	Forest	C/D			

Comment:

Manual Basin: Onsite-S63

Scenario: 1D

Node: Trib-B-35
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.0764 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8678	Forest	B			
0.1023	Tree Canopy	B			
0.1123	Grass/Shrub	B			
0.0277	Other Paved	B			
0.0172	Building	B			
0.2044	Wetland	B			
0.0003	Tree Canopy	C/D			
0.3967	Forest	C/D			
0.1652	Wetland	C/D			
0.0626	Creek Bank Grass/Shrub	C/D			
0.0650	Creek Bed Sand	C/D			
0.0549	Road	B			

Comment:

Manual Basin: Onsite-S7

Scenario: 1D
 Node: N173
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2428 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0684	Road	B			
0.0557	Grass/Shrub	B			
0.0449	Other Paved	B			
0.0405	Tree Canopy	B			
0.0231	Road	D			
0.0055	Other Paved	D			
0.0018	Grass/Shrub	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0029	Tree Canopy	D			

Comment:

Manual Basin: Onsite-S8

Scenario: 1D
Node: Trib-A-49
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.4755 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0042	Road	B			
0.7427	Tree Canopy	B			
0.2978	Grass/Shrub	B			
0.1627	Other Paved	B			
0.0760	Building	B			
0.2767	Forest	B			
0.3749	Forest	C/D			
0.0919	Other Paved	C/D			
0.1626	Creek Bank Grass/Shrub	C/D			
0.0441	Creek Bed Sand	C/D			
0.1913	Tree Canopy	C/D			
0.0505	Grass/Shrub	C/D			
0.0000	Road	D			

Comment:

Manual Basin: Onsite-S9

Scenario: 1D
Node: N184
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.2577 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0094	Other Paved	B			
0.0041	Grass/Shrub	B			
0.2004	Road	B			
0.0437	Tree Canopy	B			

Comment:

Manual Basin: RockCreek-S1

Scenario: 1D

Node: Rock-8

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 17.3000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 4.1267 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1248	Other Paved	B			
1.0708	Tree Canopy	B			
0.0010	Building	B			
0.7475	Grass/Shrub	B			
0.2725	Tree Canopy	D			
0.3550	Grass/Shrub	D			
0.0281	Other Paved	D			
0.0002	Building	D			
0.8421	Forest	D			
0.2858	Forest	B			
0.2579	Forest	B/D			
0.0051	Grass/Shrub	B/D			
0.0442	Creek Bank Grass/Shrub	B/D			
0.0213	Creek Bed Mixed Cobble/Boulder	B/D			
0.0262	Creek Bed Boulder	B/D			
0.0180	Creek Bank Concrete	B/D			
0.0213	Creek Bed Sand	B/D			
0.0007	Creek Bed Concrete	B/D			
0.0032	Creek Bed Cobble	B/D			
0.0010	Road	B/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0001	Road	B			

Comment:

Manual Basin: RockCreek-S2

Scenario: 1D
Node: Rock-10
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.2247 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0000	Building	B			
0.0420	Tree Canopy	B			
0.0326	Grass/Shrub	B			
0.0032	Other Paved	B			
0.2490	Forest	B			
0.5823	Forest	D			
0.0743	Forest	B/D			
0.1500	Creek Bank Grass/Shrub	B/D			
0.0725	Creek Bed Mixed Cobble/Boulder	B/D			
0.0078	Creek Bank Grass/Shrub	D			
0.0108	Other Paved	B/D			

Comment:

Manual Basin: RockCreek-S3

Scenario: 1D
Node: Rock-11
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.5344 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0237	Tree Canopy	B			
0.0001	Building	B			
0.0084	Other Paved	B			
0.2155	Forest	B			
0.0007	Grass/Shrub	B			
0.1986	Forest	D			
0.0055	Creek Bank Grass/Shrub	D			
0.0031	Creek Bed Mixed Cobble/Boulder	D			
0.0358	Creek Bed Mixed Cobble/Boulder	B/D			
0.0259	Creek Bank Grass/Shrub	B/D			
0.0170	Forest	B/D			

Comment:

Manual Basin: RockCreek-S4

Scenario: 1D
Node: Rock-12
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6761 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0483	Tree Canopy	B			
0.9256	Forest	B			
0.0001	Building	B			
0.0361	Grass/Shrub	B			
0.0128	Other Paved	B			
0.3614	Forest	D			
0.0081	Creek Bank Grass/Shrub	D			
0.0068	Creek Bed Mixed Cobble/Boulder	D			
0.0463	Creek Bed Mixed Cobble/Boulder	B/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0787	Creek Bank Grass/Shrub	B/D			
0.1225	Forest	B/D			
0.0018	Other Paved	D			
0.0153	Other Paved	B/D			
0.0088	Creek Bed Sand	B/D			
0.0016	Creek Bank Stone	B/D			
0.0001	Creek Bank Boulder	B/D			
0.0016	Creek Bed Boulder	B/D			
0.0001	Tree Canopy	B/D			

Comment:

Manual Basin: RockCreek-S5

Scenario: 1D
Node: Rock-1
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.6182 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3104	Forest	B/D			
0.0989	Other Paved	B/D			
0.0206	Creek Bank Grass/Shrub	B/D			
0.0105	Creek Bed Mixed Cobble/Boulder	B/D			
0.0232	Creek Bed Boulder	B/D			
0.0085	Creek Bank Boulder	B/D			
0.0000	Creek Bank Stone	B/D			
0.0378	Tree Canopy	B/D			
0.0103	Grass/Shrub	B/D			
0.1371	Tree Canopy	D			
0.5929	Forest	D			
0.1013	Grass/Shrub	D			
0.1197	Other Paved	D			
0.1360	Road	D			
0.0002	Road	B/D			
0.1096	Forest	B			
0.2118	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5673	Road	B			
0.0680	Grass/Shrub	B			
0.0541	Other Paved	B			

Comment:

Manual Basin: RockCreek-S6

Scenario: 1D
Node: Rock-22
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8947 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5059	Forest	D			
0.0948	Forest	B			
0.0574	Other Paved	D			
0.1212	Forest	B/D			
0.0001	Other Paved	B/D			
0.0458	Creek Bank Grass/Shrub	B/D			
0.0405	Creek Bed Mixed Cobble/Boulder	B/D			
0.0138	Tree Canopy	B/D			
0.0148	Grass/Shrub	B/D			
0.0005	Creek Bed Boulder	B/D			

Comment:

Manual Basin: Ta-N01-S1

Scenario: 1D
Node: N189
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.3218 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2371	Road	D			
0.0099	Grass/Shrub	D			
0.0475	Other Paved	D			
0.0123	Tree Canopy	D			
0.0150	Building	D			

Comment:

Manual Basin: Ta-N01-S10

Scenario: 1D
Node: N508
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4367 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0057	Other Paved	D			
0.3672	Building	D			
0.0006	Tree Canopy	D			
0.0062	Other Paved	B			
0.0570	Building	B			
0.0000	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N01-S11

Scenario: 1D
Node: N020
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6673 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0063	Tree Canopy	D			
0.0175	Other Paved	D			
0.2823	Road	D			
0.0001	Grass/Shrub	D			
0.2352	Road	B			
0.0034	Grass/Shrub	B			
0.1090	Tree Canopy	B			
0.0135	Other Paved	B			

Comment:

Manual Basin: Ta-N01-S12

Scenario: 1D
Node: N514
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4810 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0137	Grass/Shrub	D			
0.4643	Building	D			
0.0024	Road	D			
0.0006	Other Paved	D			

Comment:

Manual Basin: Ta-N01-S13

Scenario: 1D
Node: N511
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6470 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0003	Grass/Shrub	D			
0.0085	Road	D			
0.6342	Building	D			
0.0039	Other Paved	D			
0.0001	Tree Canopy	D			

Comment:

Manual Basin: Ta-N01-S14

Scenario: 1D
Node: N512
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5920 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5920	Building	D			

Comment:

Manual Basin: Ta-N01-S15

Scenario: 1D
Node: N513
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3785 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0037	Other Paved	D			
0.3748	Building	D			

Comment:

Manual Basin: Ta-N01-S17

Scenario: 1D
 Node: N021
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4405 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0409	Road	D			
0.0065	Other Paved	D			
0.0016	Grass/Shrub	D			
0.0017	Tree Canopy	D			
0.0416	Grass/Shrub	B			
0.0690	Other Paved	B			
0.2333	Road	B			
0.0460	Tree Canopy	B			

Comment:

Manual Basin: Ta-N01-S18

Scenario: 1D
 Node: Trib-A-36
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 8.6683 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5603	Other Paved	B			
1.6140	Grass/Shrub	B			
1.8503	Tree Canopy	B			
0.7373	Building	B			
0.1590	Grass/Shrub	C/D			
0.4910	Tree Canopy	C/D			
0.1451	Creek Bank Grass/Shrub	C/D			
0.0997	Creek Bed Sand	C/D			
0.0509	Other Paved	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0798	Road	C/D			
1.5867	Road	B			
0.0026	Building	C/D			
0.9814	Road	D			
0.0677	Building	D			
0.0599	Other Paved	D			
0.1815	Grass/Shrub	D			
0.0011	Tree Canopy	D			

Comment:

Manual Basin: Ta-N01-S2

Scenario: 1D
Node: N190
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1994 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0052	Tree Canopy	B			
0.0007	Building	B			
0.0103	Other Paved	B			
0.0084	Road	B			
0.0938	Road	D			
0.0095	Grass/Shrub	D			
0.0715	Building	D			

Comment:

Manual Basin: Ta-N01-S20

Scenario: 1D
Node: N525
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.2749 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0052	Tree Canopy	B			
0.0021	Building	B			
0.0062	Other Paved	B			
0.0012	Grass/Shrub	B			
0.0029	Road	B			
0.0253	Grass/Shrub	D			
0.1959	Road	D			
0.0114	Other Paved	D			
0.0040	Tree Canopy	D			
0.0208	Building	D			

Comment:

Manual Basin: Ta-N01-S21

Scenario: 1D
Node: N104
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6898 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0393	Other Paved	D			
0.2593	Road	D			
0.0467	Tree Canopy	D			
0.0182	Grass/Shrub	D			
0.1487	Other Paved	B			
0.3335	Tree Canopy	B			
0.4118	Grass/Shrub	B			
0.1784	Building	B			
0.1760	Road	B			
0.0213	Grass/Shrub	C			
0.0306	Other Paved	C			
0.0117	Tree Canopy	C			
0.0019	Building	C			
0.0124	Road	C			

Comment:

Manual Basin: Ta-N01-S22

Scenario: 1D
 Node: N204
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.3655 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3519	Road	D			
0.0673	Grass/Shrub	D			
0.0905	Other Paved	D			
0.1332	Tree Canopy	D			
0.3086	Grass/Shrub	B			
0.1705	Tree Canopy	B			
0.1217	Building	B			
0.0622	Other Paved	B			
0.0597	Road	B			

Comment:

Manual Basin: Ta-N01-S23

Scenario: 1D
 Node: Trib-A-31
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.7092 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0831	Road	B			
0.1083	Other Paved	B			
0.1198	Other Paved	C/D			
0.2841	Grass/Shrub	C/D			
0.4648	Tree Canopy	C/D			
0.4730	Tree Canopy	B			
0.4781	Grass/Shrub	B			
0.0965	Building	C/D			
0.1748	Building	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2245	Creek Bank Grass/Shrub	C/D			
0.0009	Creek Bank Grass/Shrub	B			
0.0128	Creek Bed Boulder	C/D			
0.0067	Creek Bed Cobble	C/D			
0.1014	Creek Bed Sand	C/D			
0.0805	Road	C/D			

Comment:

Manual Basin: Ta-N01-S24

Scenario: 1D
Node: Trib-A-35
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 24.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.0799 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6801	Tree Canopy	B			
0.1811	Other Paved	B			
0.8820	Grass/Shrub	B			
0.3249	Building	B			
0.0844	Grass/Shrub	C/D			
0.3195	Tree Canopy	C/D			
0.2342	Creek Bank Grass/Shrub	C/D			
0.0641	Creek Bed Sand	C/D			
0.0639	Other Paved	C/D			
0.1115	Road	C/D			
0.1034	Road	B			
0.0206	Creek Bank Riprap	C/D			
0.0102	Building	C/D			

Comment:

Manual Basin: Ta-N01-S25

Scenario: 1D

Node: Trib-A-41
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.6820 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1833	Tree Canopy	B			
0.0689	Other Paved	B			
0.2563	Grass/Shrub	B			
0.1087	Building	B			
0.4012	Tree Canopy	C/D			
0.0511	Other Paved	C/D			
0.0610	Grass/Shrub	C/D			
0.1362	Creek Bank Grass/Shrub	C/D			
0.0050	Building	C/D			
0.0023	Creek Bed Boulder	C/D			
0.0706	Creek Bed Sand	C/D			
0.0365	Road	C/D			
0.2263	Road	B			
0.0482	Road	D			
0.0107	Other Paved	D			
0.0093	Tree Canopy	D			
0.0065	Grass/Shrub	D			

Comment:

Manual Basin: Ta-N01-S26

Scenario: 1D
 Node: Trib-A-38
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.4397 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0582	Grass/Shrub	B			
0.0280	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0132	Building	B			
0.1115	Tree Canopy	B			
0.1983	Tree Canopy	C/D			
0.0216	Other Paved	C/D			
0.0703	Grass/Shrub	C/D			
0.0035	Building	C/D			
0.0695	Creek Bank Grass/Shrub	C/D			
0.0242	Creek Bed Sand	C/D			
0.2615	Road	B			
0.0458	Road	D			
0.0081	Other Paved	D			
0.0003	Tree Canopy	D			
0.5183	Building	D			
0.0075	Grass/Shrub	D			

Comment:

Manual Basin: Ta-N01-S3

Scenario: 1D
Node: N384
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 12.2999 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4996	Road	B			
2.8228	Grass/Shrub	B			
1.1180	Other Paved	B			
3.8599	Tree Canopy	B			
1.5122	Building	B			
0.0864	Road	C/D			
0.0108	Tree Canopy	C/D			
0.0129	Other Paved	C/D			
0.0036	Grass/Shrub	C/D			
0.8707	Road	D			
0.1637	Other Paved	D			
0.0081	Tree Canopy	D			
0.2412	Grass/Shrub	D			
0.0899	Building	D			

Comment:

Manual Basin: Ta-N01-S4

Scenario: 1D
 Node: N192
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3995 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0761	Tree Canopy	D			
0.0446	Grass/Shrub	D			
0.2576	Road	D			
0.0211	Other Paved	D			

Comment:

Manual Basin: Ta-N01-S5

Scenario: 1D
 Node: N313
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4103 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0128	Other Paved	D			
0.0028	Tree Canopy	D			
0.0264	Grass/Shrub	D			
0.3632	Road	D			
0.0051	Building	D			

Comment:

Manual Basin: Ta-N01-S6

Scenario: 1D
Node: N383
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.7797 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3226	Grass/Shrub	B			
0.2786	Tree Canopy	B			
0.2738	Road	B			
0.1564	Other Paved	B			
0.1936	Building	B			
0.0112	Other Paved	C/D			
0.0207	Tree Canopy	C/D			
0.1201	Road	C/D			
0.0106	Grass/Shrub	C/D			
0.0080	Building	C/D			
0.2610	Road	D			
0.0329	Grass/Shrub	D			
0.0016	Building	D			
0.0562	Tree Canopy	D			
0.0323	Other Paved	D			

Comment:

Manual Basin: Ta-N01-S7

Scenario: 1D
Node: N019
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1508 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0032	Other Paved	D			
0.0112	Other Paved	B			
0.0332	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0159	Grass/Shrub	B			
0.0001	Grass/Shrub	D			
0.0038	Road	D			
0.0834	Road	B			

Comment:

Manual Basin: Ta-N01-S8a

Scenario: 1D
Node: N518
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1267 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0004	Building	D			
0.0077	Other Paved	D			
0.1113	Road	D			
0.0003	Grass/Shrub	D			
0.0069	Tree Canopy	D			

Comment:

Manual Basin: Ta-N01-S8b

Scenario: 1D
Node: N517
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4895 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0155	Tree Canopy	D			
0.0059	Other Paved	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3962	Building	D			
0.0131	Grass/Shrub	D			
0.0587	Road	D			

Comment:

Manual Basin: Ta-N01-S9

Scenario: 1D
Node: N509
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3397 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1520	Road	B			
0.0278	Other Paved	B			
0.1465	Tree Canopy	B			
0.0134	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N02-S1

Scenario: 1D
Node: N527
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6036 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0017	Grass/Shrub	B			
0.0359	Road	B			
0.0002	Tree Canopy	B			
0.0112	Grass/Shrub	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3031	Road	D			
0.0174	Other Paved	D			
0.2341	Building	D			

Comment:

Manual Basin: Ta-N03-S10

Scenario: 1D
Node: N205
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2594 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2093	Road	B			
0.0086	Grass/Shrub	B			
0.0146	Other Paved	B			
0.0269	Tree Canopy	B			

Comment:

Manual Basin: Ta-N03-S11

Scenario: 1D
Node: N214
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1676 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0179	Other Paved	B			
0.0077	Tree Canopy	B			
0.1218	Road	B			
0.0201	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N03-S12

Scenario: 1D
 Node: N238
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.1230 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6323	Tree Canopy	B			
0.2800	Road	B			
0.2709	Other Paved	B			
0.7398	Building	B			
1.1999	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N03-S13

Scenario: 1D
 Node: N248
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.9661 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3565	Road	B			
0.1512	Other Paved	B			
0.1944	Grass/Shrub	B			
0.1988	Tree Canopy	B			
0.0653	Building	B			

Comment:

Manual Basin: Ta-N03-S14

Scenario: 1D
 Node: N503
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1270 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0204	Other Paved	B			
0.1031	Road	B			
0.0035	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N03-S16

Scenario: 1D
 Node: N105
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.6957 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1917	Grass/Shrub	B			
0.0649	Other Paved	B			
0.0482	Building	B			
0.0765	Tree Canopy	B			
0.3144	Road	B			

Comment:

Manual Basin: Ta-N03-S17

Scenario: 1D
 Node: N029
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.9855 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5213	Road	B			
0.3589	Grass/Shrub	B			
0.2619	Other Paved	B			
0.5684	Tree Canopy	B			
0.2750	Building	B			

Comment:

Manual Basin: Ta-N03-S18

Scenario: 1D
 Node: N002
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.8534 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4102	Road	B			
0.2746	Other Paved	B			
0.9740	Grass/Shrub	B			
0.8044	Tree Canopy	B			
0.3902	Building	B			

Comment:

Manual Basin: Ta-N03-S19

Scenario: 1D
 Node: N004
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 28.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.5570 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8537	Tree Canopy	B			
0.5578	Other Paved	B			
1.1488	Grass/Shrub	B			
1.0283	Road	B			
0.9684	Building	B			

Comment:

Manual Basin: Ta-N03-S2

Scenario: 1D
 Node: N006
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 17.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5804 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0688	Tree Canopy	B			
0.1203	Other Paved	B			
0.2260	Grass/Shrub	B			
0.1006	Building	B			
0.0648	Road	B			

Comment:

Manual Basin: Ta-N03-S3

Scenario: 1D
 Node: N028
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4308 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0272	Other Paved	B			
0.0361	Road	B			
0.1888	Grass/Shrub	B			
0.0667	Building	B			
0.1119	Tree Canopy	B			

Comment:

Manual Basin: Ta-N03-S4

Scenario: 1D
Node: N030
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9350 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2182	Road	B			
0.3107	Grass/Shrub	B			
0.1713	Tree Canopy	B			
0.1592	Other Paved	B			
0.0755	Building	B			

Comment:

Manual Basin: Ta-N03-S5

Scenario: 1D
Node: N056
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.9912 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9999	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8177	Tree Canopy	B			
0.4870	Building	B			
0.2290	Other Paved	B			
0.4576	Road	B			

Comment:

Manual Basin: Ta-N03-S6

Scenario: 1D
Node: N089
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.9183 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1735	Road	B			
0.1486	Other Paved	B			
0.8524	Tree Canopy	B			
0.4569	Grass/Shrub	B			
0.2870	Building	B			

Comment:

Manual Basin: Ta-N03-S7

Scenario: 1D
Node: N093
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3537 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0427	Other Paved	B			
0.2266	Road	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0235	Grass/Shrub	B			
0.0610	Tree Canopy	B			

Comment:

Manual Basin: Ta-N03-S9

Scenario: 1D
Node: N151
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7579 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0732	Tree Canopy	B			
0.0205	Building	B			
0.1002	Other Paved	B			
0.2091	Grass/Shrub	B			
0.3549	Road	B			

Comment:

Manual Basin: Ta-N04-S1

Scenario: 1D
Node: N063
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3120 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1928	Road	B			
0.0585	Other Paved	B			
0.0367	Tree Canopy	B			
0.0240	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N04-S2

Scenario: 1D
 Node: N065
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 18.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 6.7393 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0515	Road	C/D			
0.0450	Other Paved	C/D			
0.0551	Grass/Shrub	C/D			
0.0795	Tree Canopy	C/D			
2.0508	Grass/Shrub	B			
0.6477	Other Paved	B			
2.4054	Tree Canopy	B			
1.0903	Building	B			
0.0011	Building	C/D			
0.3129	Road	B			

Comment:

Manual Basin: Ta-N05-S1

Scenario: 1D
 Node: N129
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5866 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0184	Building	B			
0.0479	Grass/Shrub	B			
0.0482	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0913	Other Paved	B			
0.1888	Road	B			
0.1075	Road	C/D			
0.0389	Other Paved	C/D			
0.0121	Grass/Shrub	C/D			
0.0282	Tree Canopy	C/D			
0.0054	Building	C/D			

Comment:

Manual Basin: Ta-N05-S2

Scenario: 1D
Node: N128
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.5724 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0584	Road	C/D			
0.0190	Grass/Shrub	C/D			
0.0198	Other Paved	C/D			
0.0312	Tree Canopy	C/D			
0.2916	Grass/Shrub	B			
0.0002	Building	C/D			
0.3978	Tree Canopy	B			
0.1623	Building	B			
0.2914	Other Paved	B			
0.3007	Road	B			

Comment:

Manual Basin: Ta-N06a-S1

Scenario: 1D
Node: N022
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.5000 min
Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3482 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0264	Building	B			
0.1396	Grass/Shrub	B			
0.0092	Other Paved	B			
0.1652	Tree Canopy	B			
0.0078	Road	B			

Comment:

Manual Basin: Ta-N06a-S10

Scenario: 1D
 Node: Trib-A-5
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.0699 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2028	Grass/Shrub	B			
0.0513	Other Paved	B			
0.0461	Building	B			
0.2509	Tree Canopy	B			
0.1124	Grass/Shrub	C/D			
0.1787	Tree Canopy	C/D			
0.0929	Creek Bank Grass/Shrub	C/D			
0.0905	Other Paved	C/D			
0.0191	Creek Bed Sand	C/D			
0.0236	Bare Soil	C/D			
0.0017	Creek Bed Boulder	C/D			

Comment:

Manual Basin: Ta-N06a-S11

Scenario: 1D
 Node: Trib-A-8

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.7885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9175	Grass/Shrub	B			
0.7211	Tree Canopy	B			
0.2976	Building	B			
0.2034	Other Paved	B			
0.3249	Tree Canopy	C/D			
0.1635	Creek Bank Grass/Shrub	C/D			
0.0549	Creek Bed Sand	C/D			
0.0794	Grass/Shrub	C/D			
0.0262	Other Paved	C/D			
0.0000	Road	B			

Comment:

Manual Basin: Ta-N06a-S12

Scenario: 1D
 Node: Trib-A-10
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.6115 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1829	Grass/Shrub	B			
0.4067	Tree Canopy	B			
0.0555	Building	B			
0.0407	Other Paved	B			
0.4154	Tree Canopy	C/D			
0.1321	Creek Bank Grass/Shrub	C/D			
0.2281	Grass/Shrub	C/D			
0.0367	Creek Bed Sand	C/D			
0.0282	Other Paved	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0853	Building	C/D			

Comment:

Manual Basin: Ta-N06a-S13

Scenario: 1D
Node: Trib-A-13
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.4147 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0516	Other Paved	C/D			
0.3130	Grass/Shrub	C/D			
0.0379	Other Paved	B			
0.4539	Grass/Shrub	B			
0.5767	Tree Canopy	B			
0.5796	Tree Canopy	C/D			
0.1569	Building	B			
0.0549	Creek Bed Sand	C/D			
0.1449	Creek Bank Grass/Shrub	C/D			
0.0453	Building	C/D			

Comment:

Manual Basin: Ta-N06a-S14

Scenario: 1D
Node: Trib-A-18
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.1882 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0227	Other Paved	B			
0.0555	Grass/Shrub	B			
0.0281	Building	B			
0.0286	Tree Canopy	B			
0.6403	Grass/Shrub	C/D			
0.0797	Other Paved	C/D			
1.0342	Tree Canopy	C/D			
0.1174	Building	C/D			
0.0971	Creek Bank Grass/Shrub	C/D			
0.0712	Creek Bed Sand	C/D			
0.0133	Creek Bed Boulder	C/D			

Comment:

Manual Basin: Ta-N06a-S15

Scenario: 1D
Node: Trib-A-21
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.7144 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0987	Other Paved	B			
0.3485	Tree Canopy	B			
0.4687	Grass/Shrub	B			
0.1673	Building	B			
0.6548	Tree Canopy	C/D			
0.6196	Grass/Shrub	C/D			
0.1300	Creek Bank Grass/Shrub	C/D			
0.0814	Creek Bed Sand	C/D			
0.0619	Building	C/D			
0.0162	Creek Bed Boulder	C/D			
0.0125	Creek Bed Cobble	C/D			
0.0519	Other Paved	C/D			
0.0027	Road	B			

Comment:

Manual Basin: Ta-N06a-S16

Scenario: 1D
Node: Trib-A-58
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7614 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1394	Tree Canopy	B			
0.0309	Other Paved	B			
0.1537	Building	B			
0.1194	Tree Canopy	C/D			
0.1163	Grass/Shrub	B			
0.1318	Grass/Shrub	C/D			
0.0567	Creek Bank Grass/Shrub	C/D			
0.0005	Other Paved	C/D			
0.0102	Creek Bed Sand	C/D			
0.0026	Building	C/D			

Comment:

Manual Basin: Ta-N06a-S17

Scenario: 1D
Node: Trib-A-55
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.4454 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4101	Grass/Shrub	B			
0.1505	Tree Canopy	B			
0.1252	Building	B			
0.3208	Tree Canopy	C/D			
0.1489	Grass/Shrub	C/D			
0.0284	Other Paved	B			
0.0763	Building	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1151	Creek Bank Grass/Shrub	C/D			
0.0358	Other Paved	C/D			
0.0343	Creek Bed Sand	C/D			

Comment:

Manual Basin: Ta-N06a-S18

Scenario: 1D
Node: Trib-A-56
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8137 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0161	Other Paved	B			
0.0944	Tree Canopy	B			
0.1782	Grass/Shrub	B			
0.0019	Other Paved	C/D			
0.2435	Tree Canopy	C/D			
0.0853	Building	B			
0.1026	Grass/Shrub	C/D			
0.0067	Building	C/D			
0.0757	Creek Bank Grass/Shrub	C/D			
0.0092	Creek Bed Sand	C/D			

Comment:

Manual Basin: Ta-N06a-S19

Scenario: 1D
Node: Trib-A-53
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 1.4437 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3760	Grass/Shrub	B			
0.0262	Other Paved	B			
0.1644	Building	B			
0.6559	Tree Canopy	B			
0.1256	Tree Canopy	C/D			
0.0126	Grass/Shrub	C/D			
0.0477	Creek Bank Grass/Shrub	B			
0.0353	Creek Bank Grass/Shrub	C/D			

Comment:

Manual Basin: Ta-N06a-S2

Scenario: 1D
Node: N023
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.9436 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5162	Road	B			
2.6174	Tree Canopy	B			
0.9081	Other Paved	B			
2.0572	Grass/Shrub	B			
1.1016	Building	B			
0.2061	Tree Canopy	C/D			
0.1533	Grass/Shrub	C/D			
0.1612	Road	C/D			
0.1512	Other Paved	C/D			
0.0711	Building	C/D			

Comment:

Manual Basin: Ta-N06a-S3

Scenario: 1D

Node: N069
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.1913 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1496	Other Paved	B			
0.1925	Building	B			
0.5212	Tree Canopy	B			
0.4695	Grass/Shrub	B			
0.3541	Road	B			
0.2000	Grass/Shrub	C/D			
0.0603	Building	C/D			
0.0723	Other Paved	C/D			
0.0331	Tree Canopy	C/D			
0.1387	Road	C/D			

Comment:

Manual Basin: Ta-N06a-S4

Scenario: 1D
 Node: N095
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.4402 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5140	Road	B			
0.5913	Grass/Shrub	B			
0.7531	Tree Canopy	B			
0.2923	Other Paved	B			
0.2895	Building	B			

Comment:

Manual Basin: Ta-N06a-S5

Scenario: 1D
 Node: N262
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3958 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0084	Tree Canopy	B			
0.0060	Other Paved	B			
0.0227	Building	B			
0.0522	Building	C/D			
0.0244	Grass/Shrub	B			
0.1646	Grass/Shrub	C/D			
0.0600	Tree Canopy	C/D			
0.0103	Road	B			
0.0226	Other Paved	C/D			
0.0246	Road	C/D			

Comment:

Manual Basin: Ta-N06a-S6

Scenario: 1D
 Node: N134
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 19.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3522 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0277	Building	B			
0.0480	Tree Canopy	B			
0.0526	Grass/Shrub	B			
0.1498	Tree Canopy	C/D			
0.0093	Building	C/D			
0.0392	Grass/Shrub	C/D			
0.0069	Creek Bank Grass/Shrub	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0117	Creek Bed Sand	C/D			
0.0052	Other Paved	C/D			
0.0018	Other Paved	B			

Comment:

Manual Basin: Ta-N06a-S7

Scenario: 1D
Node: Trib-A-52
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 6.5670 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1930	Building	B			
0.4748	Other Paved	B			
2.3452	Grass/Shrub	B			
2.0311	Tree Canopy	B			
0.5045	Road	B			
0.0185	Creek Bank Grass/Shrub	B			

Comment:

Manual Basin: Ta-N06a-S8

Scenario: 1D
Node: Trib-A-24
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.9763 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1427	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6861	Tree Canopy	B			
0.7750	Grass/Shrub	B			
0.4118	Building	B			
0.8509	Tree Canopy	C/D			
0.0895	Building	C/D			
0.3425	Grass/Shrub	C/D			
0.1450	Other Paved	C/D			
0.2966	Creek Bank Grass/Shrub	C/D			
0.1229	Creek Bed Sand	C/D			
0.0018	Creek Bed Boulder	C/D			
0.1114	Road	B			

Comment:

Manual Basin: Ta-N06a-S9

Scenario: 1D
Node: Trib-A-2
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.7414 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5364	Tree Canopy	B			
0.0344	Other Paved	B			
0.1994	Grass/Shrub	B			
0.1206	Building	B			
0.0363	Other Paved	C/D			
0.3987	Grass/Shrub	C/D			
0.3678	Tree Canopy	C/D			
0.0069	Creek Bank Grass/Shrub	C/D			
0.0047	Creek Bed Boulder	C/D			
0.0007	Creek Bed Sand	C/D			
0.0354	Building	C/D			

Comment:

Manual Basin: Ta-N06b-S1

Scenario: 1D
 Node: N012
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 26.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.1793 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0912	Road	B			
0.5480	Grass/Shrub	B			
0.2429	Building	B			
0.1202	Other Paved	B			
0.1769	Tree Canopy	B			

Comment:

Manual Basin: Ta-N06b-S2

Scenario: 1D
 Node: N073
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.8706 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2082	Road	B			
0.1866	Tree Canopy	B			
0.1110	Other Paved	B			
0.2743	Grass/Shrub	B			
0.0904	Building	B			

Comment:

Manual Basin: Ta-N06b-S3

Scenario: 1D
 Node: N125

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 14.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.9149 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2434	Road	B			
0.6613	Grass/Shrub	B			
0.1899	Other Paved	B			
0.3187	Building	B			
0.5017	Tree Canopy	B			

Comment:

Manual Basin: Ta-N06b-S4

Scenario: 1D
 Node: N202
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.0357 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3173	Road	B			
0.1674	Other Paved	B			
0.4581	Grass/Shrub	B			
0.7925	Tree Canopy	B			
0.3005	Building	B			

Comment:

Manual Basin: Ta-N06b-S5

Scenario: 1D
 Node: N011
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.5000 min

Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4162 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1598	Road	B			
0.0663	Tree Canopy	B			
0.0869	Grass/Shrub	B			
0.1031	Other Paved	B			
0.0002	Building	B			

Comment:

Manual Basin: Ta-N07-S1

Scenario: 1D
 Node: N337
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 7.9793 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0216	Road	C/D			
0.0206	Other Paved	C/D			
0.0046	Grass/Shrub	C/D			
0.0324	Tree Canopy	C/D			
0.0052	Building	C/D			
0.7401	Road	B			
3.2945	Tree Canopy	B			
0.6656	Other Paved	B			
0.9128	Building	B			
2.2818	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N08-S1

Scenario: 1D
 Node: N334
 Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
 Time of Concentration: 7.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3800 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0487	Road	B			
0.0491	Other Paved	B			
0.1685	Grass/Shrub	B			
0.0433	Building	B			
0.0704	Tree Canopy	B			

Comment:

Manual Basin: Ta-N08-S2

Scenario: 1D
 Node: N335
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3241 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0410	Grass/Shrub	C/D			
0.0299	Other Paved	C/D			
0.1321	Tree Canopy	C/D			
0.0000	Tree Canopy	B			
0.0124	Road	B			
0.1086	Road	C/D			

Comment:

Manual Basin: Ta-N08-S3

Scenario: 1D
 Node: N333
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 18.7000 min

Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.0806 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5390	Road	B			
0.1062	Road	C/D			
0.3064	Other Paved	B			
0.7983	Grass/Shrub	B			
1.0072	Tree Canopy	B			
0.0458	Tree Canopy	C/D			
0.0123	Grass/Shrub	C/D			
0.0275	Other Paved	C/D			
0.2378	Building	B			

Comment:

Manual Basin: Ta-N09-S1

Scenario: 1D
 Node: N026
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 19.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.2650 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5230	Road	B			
0.9702	Tree Canopy	B			
1.0495	Grass/Shrub	B			
0.3268	Other Paved	B			
0.3955	Building	B			

Comment:

Manual Basin: Ta-N09-S10

Scenario: 1D
 Node: N196
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 10.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.2098 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8799	Grass/Shrub	B			
0.2819	Other Paved	B			
0.4010	Building	B			
0.5333	Tree Canopy	B			
0.1137	Road	B			

Comment:

Manual Basin: Ta-N09-S11

Scenario: 1D
 Node: N229
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 14.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2400 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3778	Road	B			
0.2443	Tree Canopy	B			
0.3022	Other Paved	B			
0.2854	Grass/Shrub	B			
0.0304	Building	B			

Comment:

Manual Basin: Ta-N09-S12

Scenario: 1D
 Node: N230
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.0824 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2476	Road	B			
0.8467	Tree Canopy	B			
0.9708	Grass/Shrub	B			
0.3298	Other Paved	B			
0.5465	Building	B			
0.0788	Road	C/D			
0.0401	Tree Canopy	C/D			
0.0062	Other Paved	C/D			
0.0159	Grass/Shrub	C/D			

Comment:

Manual Basin: Ta-N09-S13

Scenario: 1D
 Node: N234
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 19.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.6615 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7145	Other Paved	B			
0.9188	Building	B			
1.8372	Grass/Shrub	B			
0.7570	Road	B			
1.4340	Tree Canopy	B			

Comment:

Manual Basin: Ta-N09-S14

Scenario: 1D
 Node: N316
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.4000 min
 Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3959 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0746	Grass/Shrub	B			
0.0295	Building	B			
0.1168	Tree Canopy	B			
0.0436	Other Paved	B			
0.1315	Road	B			

Comment:

Manual Basin: Ta-N09-S15

Scenario: 1D
 Node: N365
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.5369 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0899	Other Paved	B			
0.0656	Building	B			
0.3792	Grass/Shrub	B			
0.1941	Tree Canopy	B			
0.2457	Road	B			
0.1017	Tree Canopy	C/D			
0.0485	Other Paved	C/D			
0.2189	Grass/Shrub	C/D			
0.1592	Road	C/D			
0.0341	Building	C/D			

Comment:

Manual Basin: Ta-N09-S16

Scenario: 1D
 Node: N366
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 18.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 6.9462 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0357	Road	B			
0.8340	Other Paved	B			
2.0386	Grass/Shrub	B			
2.1650	Tree Canopy	B			
0.8575	Building	B			
0.0154	Road	D			

Comment:

Manual Basin: Ta-N09-S17

Scenario: 1D
 Node: N367
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3440 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0299	Grass/Shrub	B			
0.0416	Tree Canopy	B			
0.0472	Other Paved	B			
0.2253	Road	B			

Comment:

Manual Basin: Ta-N09-S18

Scenario: 1D
 Node: N369
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.8960 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0211	Grass/Shrub	D			
0.0463	Other Paved	D			
0.7512	Road	D			
0.0656	Tree Canopy	D			
0.0118	Building	D			

Comment:

Manual Basin: Ta-N09-S19

Scenario: 1D
 Node: N396
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2334 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0373	Other Paved	D			
0.1891	Road	D			
0.0001	Tree Canopy	D			
0.0068	Grass/Shrub	D			

Comment:

Manual Basin: Ta-N09-S2

Scenario: 1D
 Node: N047
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.6013 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2786	Grass/Shrub	B			
0.1328	Other Paved	B			
0.1323	Building	B			
0.2779	Tree Canopy	B			
0.6505	Grass/Shrub	C/D			
0.1279	Other Paved	C/D			
0.2642	Building	C/D			
0.5131	Tree Canopy	C/D			
0.1588	Road	C/D			
0.0651	Road	B			

Comment:

Manual Basin: Ta-N09-S20

Scenario: 1D
Node: N397
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 5.5209 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.6086	Grass/Shrub	B			
0.5200	Other Paved	B			
1.6747	Tree Canopy	B			
0.7171	Building	B			
0.0005	Road	B			

Comment:

Manual Basin: Ta-N09-S21

Scenario: 1D
Node: N398
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.8072 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3314	Road	B			
0.1616	Tree Canopy	B			
0.1387	Other Paved	B			
0.1365	Grass/Shrub	B			
0.0389	Building	B			

Comment:

Manual Basin: Ta-N09-S22

Scenario: 1D
Node: N413
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5697 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2310	Road	B			
0.1486	Grass/Shrub	B			
0.1184	Other Paved	B			
0.0717	Tree Canopy	B			

Comment:

Manual Basin: Ta-N09-S23

Scenario: 1D
Node: N405
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1848 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0118	Grass/Shrub	D			
0.1507	Road	D			
0.0080	Other Paved	D			
0.0073	Tree Canopy	D			
0.0069	Building	D			

Comment:

Manual Basin: Ta-N09-S24

Scenario: 1D
Node: N409
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1608 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1356	Road	D			
0.0053	Grass/Shrub	D			
0.0188	Other Paved	D			
0.0011	Tree Canopy	D			

Comment:

Manual Basin: Ta-N09-S25

Scenario: 1D
Node: N416
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 30.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 6.7798 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4311	Tree Canopy	B			
0.8000	Building	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7331	Other Paved	B			
1.8379	Grass/Shrub	B			
0.4805	Road	B			
0.4897	Railroad	D			
0.2726	Other Paved	D			
0.0318	Railroad	B			
0.1880	Tree Canopy	D			
0.1245	Grass/Shrub	D			
0.0712	Road	C/D			
0.0442	Tree Canopy	C/D			
0.0810	Other Paved	C/D			
0.1494	Grass/Shrub	C/D			
0.0422	Building	C/D			
0.0025	Building	D			

Comment:

Manual Basin: Ta-N09-S26

Scenario: 1D
Node: N419
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 28.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.2368 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1321	Tree Canopy	D			
0.0269	Grass/Shrub	D			
0.5591	Grass/Shrub	B			
0.5908	Tree Canopy	B			
0.3157	Building	B			
0.2448	Other Paved	B			
0.3620	Road	B			
0.0055	Building	D			

Comment:

Manual Basin: Ta-N09-S27

Scenario: 1D

Node: N431
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 21.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3568 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0423	Other Paved	B			
0.0826	Tree Canopy	B			
0.1237	Grass/Shrub	B			
0.0721	Road	B			
0.0361	Building	B			

Comment:

Manual Basin: Ta-N09-S28

Scenario: 1D
 Node: N433
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.2949 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5197	Building	B			
1.5165	Grass/Shrub	B			
0.5737	Other Paved	B			
0.4209	Road	B			
0.7568	Tree Canopy	B			
0.0235	Tree Canopy	D			
0.1451	Other Paved	D			
0.2386	Railroad	D			
0.0201	Grass/Shrub	D			
0.0801	Railroad	B			

Comment:

Manual Basin: Ta-N09-S29

Scenario: 1D
 Node: N434
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5587 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1516	Road	B			
0.1430	Other Paved	B			
0.1547	Grass/Shrub	B			
0.0993	Tree Canopy	B			
0.0101	Building	B			

Comment:

Manual Basin: Ta-N09-S3

Scenario: 1D
 Node: N053
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.3266 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1650	Other Paved	B			
0.3049	Building	B			
0.8742	Grass/Shrub	B			
0.2426	Tree Canopy	B			
0.0234	Road	B			
0.1464	Building	C/D			
0.2724	Grass/Shrub	C/D			
0.1361	Other Paved	C/D			
0.0799	Tree Canopy	C/D			
0.0818	Road	C/D			

Comment:

Manual Basin: Ta-N09-S30

Scenario: 1D
 Node: N490
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.6427 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3642	Road	D			
0.0607	Grass/Shrub	D			
0.1184	Other Paved	D			
0.0909	Tree Canopy	D			
0.0084	Building	D			

Comment:

Manual Basin: Ta-N09-S31

Scenario: 1D
 Node: N492
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3487 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2546	Road	D			
0.0486	Other Paved	D			
0.0037	Tree Canopy	D			
0.0351	Grass/Shrub	D			
0.0066	Building	D			

Comment:

Manual Basin: Ta-N09-S32

Scenario: 1D
 Node: N495

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5253 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0135	Grass/Shrub	D			
0.4370	Road	D			
0.0047	Tree Canopy	D			
0.0701	Building	D			

Comment:

Manual Basin: Ta-N09-S33

Scenario: 1D
 Node: N496
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1904 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0038	Grass/Shrub	D			
0.1688	Road	D			
0.0001	Tree Canopy	D			
0.0078	Building	D			
0.0098	Other Paved	D			

Comment:

Manual Basin: Ta-N09-S34

Scenario: 1D
 Node: N489
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.2000 min
 Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.2429 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3158	Tree Canopy	D			
0.2127	Other Paved	D			
1.3955	Road	D			
0.0987	Grass/Shrub	D			
0.2202	Building	D			

Comment:

Manual Basin: Ta-N09-S35

Scenario: 1D
 Node: N242
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 16.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 6.5120 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9477	Road	B			
1.6793	Tree Canopy	B			
0.7952	Other Paved	B			
0.9036	Building	B			
2.1862	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N09-S36

Scenario: 1D
 Node: N435
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 1.7339 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3384	Building	B			
0.9123	Grass/Shrub	B			
0.4123	Tree Canopy	B			
0.0697	Other Paved	B			
0.0012	Road	B			

Comment:

Manual Basin: Ta-N09-S37

Scenario: 1D

Node: N410

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 21.5000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 5.5303 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6788	Building	B			
0.5829	Other Paved	B			
1.5774	Grass/Shrub	B			
0.0733	Building	C/D			
0.3259	Grass/Shrub	C/D			
0.4156	Road	B			
0.0179	Other Paved	C/D			
1.4776	Tree Canopy	B			
0.3810	Tree Canopy	C/D			

Comment:

Manual Basin: Ta-N09-S38

Scenario: 1D

Node: N400

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 25.2000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 3.9192 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6258	Grass/Shrub	B			
0.4695	Other Paved	B			
0.6828	Building	B			
0.6160	Tree Canopy	B			
0.2032	Road	B			
0.0666	Road	C/D			
0.1510	Grass/Shrub	C/D			
0.0615	Other Paved	C/D			
0.0080	Tree Canopy	C/D			
0.0347	Building	C/D			

Comment:

Manual Basin: Ta-N09-S39

Scenario: 1D
Node: N243
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6110 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4173	Tree Canopy	B			
0.2100	Building	B			
0.5199	Grass/Shrub	B			
0.2350	Other Paved	B			
0.2289	Road	B			

Comment:

Manual Basin: Ta-N09-S4

Scenario: 1D
Node: N064
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.1000 min
Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.6242 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6225	Other Paved	B			
1.6476	Grass/Shrub	B			
1.9039	Tree Canopy	B			
0.6392	Building	B			
0.7403	Road	B			
0.0509	Road	C/D			
0.0034	Grass/Shrub	C/D			
0.0103	Tree Canopy	C/D			
0.0061	Other Paved	C/D			

Comment:

Manual Basin: Ta-N09-S40a

Scenario: 1D
 Node: N425
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 40.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.2777 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1720	Grass/Shrub	D			
1.0634	Grass/Shrub	B			
0.0115	Building	D			
1.1395	Tree Canopy	B			
0.6437	Building	B			
0.4974	Other Paved	B			
0.1558	Tree Canopy	D			
0.0991	Road	B			
0.1798	Other Paved	D			
0.3143	Railroad	D			
0.0011	Road	D			

Comment:

Manual Basin: Ta-N09-S40b

Scenario: 1D
 Node: N425
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 50.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.0484 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1249	Other Paved	D			
0.1897	Railroad	D			
0.1849	Tree Canopy	D			
0.1053	Other Paved	B			
0.0974	Grass/Shrub	D			
0.5056	Tree Canopy	B			
0.5067	Grass/Shrub	B			
0.1983	Building	B			
0.1356	Road	B			

Comment:

Manual Basin: Ta-N09-S41

Scenario: 1D
 Node: N206
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 21.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.8492 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0963	Road	C/D			
0.3131	Grass/Shrub	C/D			
0.1809	Other Paved	C/D			
0.0641	Tree Canopy	C/D			
0.0174	Road	B			
0.0056	Other Paved	B			
0.0107	Grass/Shrub	B			
0.0068	Tree Canopy	B			
0.1545	Building	C/D			

Comment:

Manual Basin: Ta-N09-S42

Scenario: 1D
 Node: N493
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1190 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0060	Grass/Shrub	D			
0.0963	Road	D			
0.0009	Tree Canopy	D			
0.0158	Building	D			

Comment:

Manual Basin: Ta-N09-S43

Scenario: 1D
 Node: N428
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2625 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0486	Other Paved	D			
0.6995	Building	D			
0.4254	Road	D			
0.0799	Grass/Shrub	D			
0.0091	Tree Canopy	D			

Comment:

Manual Basin: Ta-N09-S44

Scenario: 1D
 Node: N424
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4747 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1052	Grass/Shrub	D			
0.2302	Building	D			
0.0096	Tree Canopy	D			
0.0383	Other Paved	D			
0.0914	Road	D			

Comment:

Manual Basin: Ta-N09-S45

Scenario: 1D
 Node: N392
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2689 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0517	Road	D			
0.0252	Other Paved	D			
0.1207	Grass/Shrub	D			
0.0111	Tree Canopy	D			
0.0603	Building	D			

Comment:

Manual Basin: Ta-N09-S46

Scenario: 1D
 Node: N498

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2029 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1508	Road	D			
0.0045	Grass/Shrub	D			
0.0476	Tree Canopy	D			

Comment:

Manual Basin: Ta-N09-S47

Scenario: 1D
 Node: N497
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2891 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2262	Road	D			
0.0255	Grass/Shrub	D			
0.0366	Tree Canopy	D			
0.0008	Other Paved	D			

Comment:

Manual Basin: Ta-N09-S48

Scenario: 1D
 Node: N201
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 3.6343 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5351	Road	B			
0.7048	Tree Canopy	B			
0.5423	Other Paved	B			
0.5611	Building	B			
1.2909	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N09-S5

Scenario: 1D
Node: N066
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 9.0554 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.2386	Grass/Shrub	B			
0.6436	Other Paved	B			
1.1552	Building	B			
0.6520	Grass/Shrub	C/D			
0.0974	Building	C/D			
1.1534	Tree Canopy	C/D			
2.4404	Tree Canopy	B			
0.0395	Other Paved	C/D			
0.6041	Road	B			
0.0313	Road	C/D			

Comment:

Manual Basin: Ta-N09-S50

Scenario: 1D
Node: N212
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.4000 min
Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.5683 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2548	Building	B			
0.5711	Grass/Shrub	B			
0.3937	Tree Canopy	B			
0.1471	Other Paved	B			
0.2016	Road	B			

Comment:

Manual Basin: Ta-N09-S52

Scenario: 1D
 Node: N436
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.9103 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6165	Grass/Shrub	B			
0.2846	Building	B			
0.5274	Tree Canopy	B			
0.2223	Other Paved	B			
0.2594	Road	B			

Comment:

Manual Basin: Ta-N09-S57

Scenario: 1D
 Node: N097
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 16.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 5.5469 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.2665	Grass/Shrub	B			
1.0365	Tree Canopy	B			
0.4909	Building	B			
0.2922	Other Paved	B			
0.7838	Grass/Shrub	C/D			
0.1473	Building	C/D			
0.7324	Tree Canopy	C/D			
0.1878	Road	C/D			
0.1064	Other Paved	C/D			
0.5032	Road	B			

Comment:

Manual Basin: Ta-N09-S58

Scenario: 1D
 Node: N423
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.5893 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6606	Grass/Shrub	D			
1.6304	Railroad	D			
1.1663	Other Paved	D			
0.1303	Tree Canopy	D			
0.0017	Road	D			

Comment:

Manual Basin: Ta-N09-S59

Scenario: 1D
 Node: N423
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 16.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.7230 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0332	Tree Canopy	D			
0.0002	Road	D			
0.2910	Other Paved	D			
0.3972	Railroad	D			
0.0013	Grass/Shrub	D			

Comment:

Manual Basin: Ta-N09-S6

Scenario: 1D
 Node: N072
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.2741 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6535	Road	B			
0.6535	Other Paved	B			
0.9435	Tree Canopy	B			
2.0872	Grass/Shrub	B			
0.9365	Building	B			

Comment:

Manual Basin: Ta-N09-S7

Scenario: 1D
 Node: N074
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.6662 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0564	Other Paved	B			
0.3943	Building	B			
0.9516	Grass/Shrub	B			
0.2635	Tree Canopy	B			
0.0003	Road	B			

Comment:

Manual Basin: Ta-N09-S8

Scenario: 1D
 Node: N098
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2195 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0623	Road	B			
0.0520	Tree Canopy	B			
0.0482	Other Paved	B			
0.0542	Grass/Shrub	B			
0.0028	Building	B			

Comment:

Manual Basin: Ta-N09-S9

Scenario: 1D
 Node: N124
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.6605 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1200	Road	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0912	Other Paved	B			
0.0888	Tree Canopy	B			
0.2682	Grass/Shrub	B			
0.0923	Building	B			

Comment:

Manual Basin: Ta-N10-S1

Scenario: 1D
Node: N008
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2763 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0478	Grass/Shrub	C/D			
0.0227	Other Paved	C/D			
0.0274	Tree Canopy	C/D			
0.0000	Building	C/D			
0.0240	Road	C/D			
0.0588	Road	B			
0.0180	Other Paved	B			
0.0278	Tree Canopy	B			
0.0481	Grass/Shrub	B			
0.0017	Building	B			

Comment:

Manual Basin: Ta-N10-S2

Scenario: 1D
Node: N169
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area: 0.9621 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0004	Road	C/D			
0.0588	Road	B			
0.4111	Tree Canopy	B			
0.0468	Other Paved	B			
0.3355	Grass/Shrub	B			
0.1094	Building	B			

Comment:

Manual Basin: Ta-N10-S3

Scenario: 1D
 Node: N062
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.7379 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.3177	Road	B			
1.4837	Grass/Shrub	B			
1.7583	Tree Canopy	B			
0.4965	Other Paved	B			
0.6817	Building	B			

Comment:

Manual Basin: Ta-N11-S1

Scenario: 1D
 Node: N487
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2484 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0105	Other Paved	C/D			
0.0337	Grass/Shrub	C/D			
0.0543	Tree Canopy	C/D			
0.0623	Tree Canopy	B			
0.0128	Other Paved	B			
0.0327	Grass/Shrub	B			
0.0222	Road	B			
0.0198	Building	B			

Comment:

Manual Basin: Ta-N12-S1

Scenario: 1D
Node: N295
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2374 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0108	Grass/Shrub	C/D			
0.0645	Tree Canopy	C/D			
0.0106	Other Paved	C/D			
0.0014	Other Paved	B			
0.0580	Tree Canopy	B			
0.0769	Grass/Shrub	B			
0.0151	Building	B			

Comment:

Manual Basin: Ta-N13-S1

Scenario: 1D
Node: N294
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.3423 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1176	Tree Canopy	C/D			
0.0086	Other Paved	C/D			
0.1264	Grass/Shrub	C/D			
0.0591	Bare Soil	C/D			
0.0062	Tree Canopy	B			
0.0243	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N14-S1

Scenario: 1D
Node: N292
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.4186 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0081	Bare Soil	C/D			
0.0170	Grass/Shrub	C/D			
0.4025	Grass/Shrub	B			
0.3559	Tree Canopy	B			
0.0051	Other Paved	C/D			
0.1517	Other Paved	B			
0.0011	Tree Canopy	C/D			
0.3183	Road	B			
0.1590	Building	B			

Comment:

Manual Basin: Ta-N15-S1

Scenario: 1D
Node: N331
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.6000 min
Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.5568 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0302	Other Paved	C/D			
0.2207	Grass/Shrub	C/D			
0.2787	Tree Canopy	C/D			
0.6169	Tree Canopy	B			
0.1045	Other Paved	B			
0.0490	Building	C/D			
0.1556	Road	C/D			
0.7862	Grass/Shrub	B			
0.3150	Building	B			

Comment:

Manual Basin: Ta-N16-S1

Scenario: 1D
 Node: N090
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1498 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0137	Tree Canopy	B			
0.1106	Road	B			
0.0255	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S10

Scenario: 1D
 Node: N381
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.0184 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1378	Road	B			
0.2185	Tree Canopy	B			
0.4101	Grass/Shrub	B			
0.1133	Other Paved	B			
0.1387	Building	B			

Comment:

Manual Basin: Ta-N16-S11

Scenario: 1D
 Node: N391
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 17.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.2745 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3684	Building	B			
0.3850	Other Paved	B			
0.8562	Grass/Shrub	B			
0.3632	Tree Canopy	B			
0.3015	Road	B			

Comment:

Manual Basin: Ta-N16-S12

Scenario: 1D
 Node: N393
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.4750 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5207	Tree Canopy	B			
0.9115	Grass/Shrub	B			
0.3714	Building	B			
0.4130	Other Paved	B			
0.2584	Road	B			

Comment:

Manual Basin: Ta-N16-S13

Scenario: 1D
 Node: N403
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 20.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 10.5540 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.6264	Road	B			
1.3515	Other Paved	B			
3.5361	Grass/Shrub	B			
2.7070	Tree Canopy	B			
1.3088	Building	B			
0.0236	Road	D			
0.0006	Other Paved	D			

Comment:

Manual Basin: Ta-N16-S14

Scenario: 1D
 Node: N415
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 18.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.1095 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8123	Grass/Shrub	B			
0.3425	Other Paved	B			
0.8059	Building	B			
1.0052	Tree Canopy	B			
0.1435	Road	B			

Comment:

Manual Basin: Ta-N16-S15

Scenario: 1D
 Node: N426
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2919 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0951	Road	B			
0.0543	Other Paved	B			
0.1173	Tree Canopy	B			
0.0252	Grass/Shrub	B			
0.0001	Building	B			

Comment:

Manual Basin: Ta-N16-S16

Scenario: 1D
 Node: N427
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2923 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2931	Road	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2547	Tree Canopy	B			
0.2435	Other Paved	B			
0.3755	Grass/Shrub	B			
0.1255	Building	B			

Comment:

Manual Basin: Ta-N16-S17

Scenario: 1D
Node: N432
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.5684 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6773	Building	B			
1.2172	Grass/Shrub	B			
0.4151	Other Paved	B			
0.9172	Tree Canopy	B			
0.3415	Road	B			

Comment:

Manual Basin: Ta-N16-S18

Scenario: 1D
Node: N438
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6889 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1871	Grass/Shrub	B			
0.1895	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0525	Building	B			
0.1080	Tree Canopy	B			
0.1517	Road	B			

Comment:

Manual Basin: Ta-N16-S19

Scenario: 1D
Node: N439
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 20.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.2194 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1690	Road	B			
1.0640	Grass/Shrub	B			
1.2288	Tree Canopy	B			
0.2642	Other Paved	B			
0.4934	Building	B			

Comment:

Manual Basin: Ta-N16-S2

Scenario: 1D
Node: N091
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2094 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0116	Grass/Shrub	B			
0.1713	Road	B			
0.0195	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0070	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S20

Scenario: 1D
Node: N442
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.9817 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2212	Road	B			
1.5622	Grass/Shrub	B			
1.2307	Tree Canopy	B			
0.3662	Other Paved	B			
0.6013	Building	B			

Comment:

Manual Basin: Ta-N16-S21

Scenario: 1D
Node: N444
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3044 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0300	Grass/Shrub	B			
0.0392	Tree Canopy	B			
0.2277	Road	B			
0.0075	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S22

Scenario: 1D
 Node: N445
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3545 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0648	Grass/Shrub	B			
0.0397	Other Paved	B			
0.2382	Road	B			
0.0118	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S23

Scenario: 1D
 Node: N448
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 22.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.6759 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6694	Road	B			
2.2570	Grass/Shrub	B			
0.7133	Other Paved	B			
1.0538	Tree Canopy	B			
0.9824	Building	B			

Comment:

Manual Basin: Ta-N16-S24

Scenario: 1D
 Node: N449
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1833 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0233	Other Paved	B			
0.1581	Road	B			
0.0019	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S25

Scenario: 1D
 Node: N450
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2671 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0204	Grass/Shrub	B			
0.0111	Other Paved	B			
0.1990	Road	B			
0.0365	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S26

Scenario: 1D
 Node: N451
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3287 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0225	Other Paved	B			
0.2735	Road	B			
0.0096	Tree Canopy	B			
0.0231	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S27

Scenario: 1D
 Node: N447
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 28.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 19.0361 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.8351	Road	B			
6.4556	Grass/Shrub	B			
5.2225	Tree Canopy	B			
1.6578	Other Paved	B			
2.1704	Building	B			
1.5116	Forest	B			
0.1831	Bare Soil	B			

Comment:

Manual Basin: Ta-N16-S28

Scenario: 1D
 Node: N453
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2386 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0066	Tree Canopy	B			
0.0453	Other Paved	B			
0.1743	Road	B			
0.0125	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S29

Scenario: 1D
 Node: N456
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2589 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0018	Building	B			
0.0324	Grass/Shrub	B			
0.0637	Other Paved	B			
0.0392	Tree Canopy	B			
0.1217	Road	B			

Comment:

Manual Basin: Ta-N16-S3

Scenario: 1D
 Node: N120
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4740 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0730	Tree Canopy	B			
0.1895	Grass/Shrub	B			
0.0410	Building	B			
0.0661	Other Paved	B			
0.1044	Road	B			

Comment:

Manual Basin: Ta-N16-S30

Scenario: 1D
 Node: N459
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.8235 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4880	Road	B			
0.4672	Grass/Shrub	B			
0.1706	Other Paved	B			
0.4762	Tree Canopy	B			
0.2215	Building	B			

Comment:

Manual Basin: Ta-N16-S31

Scenario: 1D
 Node: N460
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 26.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.2284 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4787	Building	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9321	Grass/Shrub	B			
0.2479	Other Paved	B			
1.2496	Tree Canopy	B			
0.3201	Road	B			

Comment:

Manual Basin: Ta-N16-S32

Scenario: 1D
Node: N461
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.7577 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8336	Grass/Shrub	B			
0.9205	Tree Canopy	B			
0.3371	Road	B			
0.2550	Other Paved	B			
0.4116	Building	B			

Comment:

Manual Basin: Ta-N16-S33

Scenario: 1D
Node: N463
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.9730 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4638	Road	B			
0.5405	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4101	Tree Canopy	B			
0.3105	Other Paved	B			
0.2481	Building	B			

Comment:

Manual Basin: Ta-N16-S34

Scenario: 1D
Node: N464
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9166 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3446	Tree Canopy	B			
0.0847	Other Paved	B			
0.1818	Road	B			
0.2328	Grass/Shrub	B			
0.0728	Building	B			

Comment:

Manual Basin: Ta-N16-S35

Scenario: 1D
Node: N468
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9374 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1935	Other Paved	B			
0.0730	Building	B			
0.2750	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1181	Tree Canopy	B			
0.2779	Road	B			

Comment:

Manual Basin: Ta-N16-S36

Scenario: 1D
Node: N473
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3739 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0363	Grass/Shrub	B			
0.2351	Road	B			
0.0026	Tree Canopy	B			
0.0134	Other Paved	B			
0.0187	Grass/Shrub	C/D			
0.0665	Road	C/D			
0.0001	Other Paved	C/D			
0.0011	Tree Canopy	C/D			

Comment:

Manual Basin: Ta-N16-S37

Scenario: 1D
Node: N471
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3174 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5000	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1322	Building	B			
0.6219	Tree Canopy	B			
0.0065	Road	B			
0.0568	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S38

Scenario: 1D
Node: N472
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4928 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0387	Grass/Shrub	C/D			
0.0840	Tree Canopy	C/D			
0.0560	Road	C/D			
0.0026	Other Paved	C/D			
0.0911	Grass/Shrub	B			
0.0505	Tree Canopy	B			
0.1573	Road	B			
0.0126	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S39

Scenario: 1D
Node: N475
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3293 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2728	Road	B			
0.0496	Grass/Shrub	B			
0.0033	Tree Canopy	B			
0.0036	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S4

Scenario: 1D
Node: N121
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8348 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0452	Building	B			
0.1887	Grass/Shrub	B			
0.1283	Tree Canopy	B			
0.1375	Other Paved	B			
0.3352	Road	B			

Comment:

Manual Basin: Ta-N16-S40

Scenario: 1D
Node: N454
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8890 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1495	Other Paved	C/D			
0.0246	Building	C/D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2017	Grass/Shrub	C/D			
0.0120	Tree Canopy	C/D			
0.4806	Road	C/D			
0.0157	Road	B			
0.0019	Tree Canopy	B			
0.0009	Grass/Shrub	B			
0.0022	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S41

Scenario: 1D
Node: N478
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5098 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0008	Building	C/D			
0.0117	Grass/Shrub	C/D			
0.0319	Other Paved	C/D			
0.0088	Tree Canopy	C/D			
0.0171	Road	C/D			
0.3485	Road	B			
0.0277	Other Paved	B			
0.0249	Tree Canopy	B			
0.0385	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S42

Scenario: 1D
Node: N479
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.7894 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1980	Tree Canopy	B			
0.1792	Road	B			
0.2571	Grass/Shrub	B			
0.0851	Other Paved	B			
0.0699	Building	B			
0.0000	Grass/Shrub	C/D			
0.0001	Road	C/D			
0.0000	Other Paved	C/D			

Comment:

Manual Basin: Ta-N16-S43

Scenario: 1D
 Node: N480
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3481 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2412	Road	C/D			
0.0119	Grass/Shrub	C/D			
0.0209	Tree Canopy	C/D			
0.0635	Road	B			
0.0032	Grass/Shrub	B			
0.0073	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S44

Scenario: 1D
 Node: N481
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3815 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0195	Grass/Shrub	B			
0.0370	Other Paved	B			
0.3043	Road	B			
0.0073	Tree Canopy	B			
0.0117	Road	C/D			
0.0016	Grass/Shrub	C/D			
0.0001	Tree Canopy	C/D			

Comment:

Manual Basin: Ta-N16-S45

Scenario: 1D
 Node: N483
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2021 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0545	Road	B			
0.0649	Grass/Shrub	B			
0.0547	Other Paved	B			
0.0091	Tree Canopy	B			
0.0189	Building	B			

Comment:

Manual Basin: Ta-N16-S46

Scenario: 1D
 Node: N430
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.4283 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0991	Tree Canopy	B			
0.9457	Grass/Shrub	B			
0.8509	Road	B			
0.4899	Other Paved	B			
0.4847	Building	B			
0.2062	Road	C/D			
0.1138	Other Paved	C/D			
0.1674	Grass/Shrub	C/D			
0.0569	Tree Canopy	C/D			
0.0135	Building	C/D			

Comment:

Manual Basin: Ta-N16-S47

Scenario: 1D
 Node: N252
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3557 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0075	Other Paved	B			
0.0409	Grass/Shrub	B			
0.2868	Road	B			
0.0205	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S48

Scenario: 1D
 Node: N377
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.9000 min
 Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.8351 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5120	Grass/Shrub	B			
0.1020	Other Paved	B			
0.3223	Road	B			
0.6307	Tree Canopy	B			
0.2681	Building	B			

Comment:

Manual Basin: Ta-N16-S49

Scenario: 1D
 Node: N462
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4547 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1602	Grass/Shrub	B			
0.0878	Other Paved	B			
0.0835	Road	B			
0.0805	Tree Canopy	B			
0.0427	Building	B			

Comment:

Manual Basin: Ta-N16-S5

Scenario: 1D
 Node: N130
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 0.2399 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0443	Grass/Shrub	B			
0.0178	Tree Canopy	B			
0.1771	Road	B			
0.0006	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S50

Scenario: 1D
Node: N457
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.8810 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3367	Road	B			
0.4504	Grass/Shrub	B			
0.2539	Other Paved	B			
0.6048	Tree Canopy	B			
0.2353	Building	B			

Comment:

Manual Basin: Ta-N16-S51

Scenario: 1D
Node: N446
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 27.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.8649 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.4627	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.9972	Grass/Shrub	B			
1.3892	Building	B			
1.0769	Road	B			
0.9388	Other Paved	B			

Comment:

Manual Basin: Ta-N16-S52

Scenario: 1D
Node: N482
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.4502 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9011	Road	B			
0.5723	Other Paved	B			
0.7772	Grass/Shrub	B			
0.5896	Tree Canopy	B			
0.6097	Building	B			
0.0003	Bare Soil	B			

Comment:

Manual Basin: Ta-N16-S53

Scenario: 1D
Node: N249
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2805 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2401	Road	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0143	Grass/Shrub	B			
0.0167	Other Paved	B			
0.0095	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S54

Scenario: 1D
Node: N374
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9285 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5698	Road	B			
0.0271	Other Paved	B			
0.1309	Grass/Shrub	B			
0.2007	Tree Canopy	B			

Comment:

Manual Basin: Ta-N16-S55

Scenario: 1D
Node: N452
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.0328 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4197	Tree Canopy	B			
0.5513	Grass/Shrub	B			
0.3087	Building	B			
0.3100	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4431	Road	B			

Comment:

Manual Basin: Ta-N16-S57

Scenario: 1D
Node: N418
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.5701 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1405	Other Paved	B			
0.1423	Tree Canopy	B			
0.2142	Grass/Shrub	B			
0.0889	Building	B			
0.2736	Other Paved	C/D			
1.0849	Grass/Shrub	C/D			
1.0112	Tree Canopy	C/D			
0.6124	Building	C/D			
0.0009	Road	C/D			
0.0012	Road	B			

Comment:

Manual Basin: Ta-N16-S58

Scenario: 1D
Node: N375
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.5764 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1935	Road	B			
0.3054	Other Paved	B			
1.0766	Tree Canopy	B			
1.4682	Grass/Shrub	B			
0.5327	Building	B			

Comment:

Manual Basin: Ta-N16-S6

Scenario: 1D
 Node: N131
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 23.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 19.7286 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.5829	Other Paved	B			
2.0170	Building	B			
3.7917	Grass/Shrub	B			
4.5925	Tree Canopy	B			
1.9374	Road	B			
2.0195	Tree Canopy	C/D			
0.5438	Road	C/D			
2.2012	Grass/Shrub	C/D			
0.3920	Other Paved	C/D			
0.6506	Building	C/D			

Comment:

Manual Basin: Ta-N16-S61

Scenario: 1D
 Node: N379
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 2.0231 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5356	Tree Canopy	B			
0.1833	Other Paved	B			
0.3869	Road	B			
0.6630	Grass/Shrub	B			
0.2544	Building	B			

Comment:

Manual Basin: Ta-N16-S64

Scenario: 1D
Node: N465
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.4472 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1727	Grass/Shrub	B			
0.3055	Other Paved	B			
0.1566	Road	B			
0.0654	Grass/Shrub	C/D			
0.2298	Road	C/D			
0.0418	Other Paved	C/D			
0.0236	Tree Canopy	C/D			
0.8050	Tree Canopy	B			
0.6469	Building	B			

Comment:

Manual Basin: Ta-N16-S65

Scenario: 1D
Node: N414
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.2063 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2436	Other Paved	B			
0.3051	Building	B			
0.8223	Tree Canopy	B			
0.4922	Grass/Shrub	B			
0.3431	Road	B			

Comment:

Manual Basin: Ta-N16-S68

Scenario: 1D
 Node: N477
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2702 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3017	Grass/Shrub	B			
0.2718	Tree Canopy	B			
0.1542	Building	B			
0.2017	Other Paved	B			
0.3384	Road	B			
0.0006	Tree Canopy	C/D			
0.0018	Road	C/D			

Comment:

Manual Basin: Ta-N16-S7

Scenario: 1D
 Node: N239
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.4158 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0662	Tree Canopy	B			
0.0512	Other Paved	B			
0.2106	Road	B			
0.0878	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S8

Scenario: 1D

Node: N368

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 20.1000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 6.1100 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.9003	Tree Canopy	B			
0.8483	Building	B			
0.5346	Road	B			
0.5958	Other Paved	B			
2.2310	Grass/Shrub	B			

Comment:

Manual Basin: Ta-N16-S9

Scenario: 1D

Node: N376

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.3610 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0214	Grass/Shrub	B			
0.3045	Road	B			
0.0282	Other Paved	B			
0.0069	Tree Canopy	B			

Comment:

Manual Basin: Tb-N01-S1

Scenario: 1D
Node: N219
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.1124 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3165	Road	B			
0.1450	Tree Canopy	B			
0.0814	Grass/Shrub	B			
0.0994	Grass/Shrub	C/D			
0.1194	Tree Canopy	C/D			
0.0227	Other Paved	C/D			
0.0310	Other Paved	B			
0.2607	Road	C/D			
0.0362	Forest	B			

Comment:

Manual Basin: Tb-N01-S2

Scenario: 1D
Node: N207
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9403 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2343	Forest	B			
0.1372	Tree Canopy	B			
0.0802	Other Paved	B			
0.0933	Grass/Shrub	B			
0.2985	Building	B			
0.0288	Other Paved	C/D			
0.0021	Grass/Shrub	C/D			
0.0660	Building	C/D			

Comment:

Manual Basin: Tb-N02-S1

Scenario: 1D
 Node: N048
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 30.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.7418 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0710	Other Paved	B			
0.1699	Grass/Shrub	B			
0.1967	Tree Canopy	B			
0.0393	Building	B			
0.2648	Road	B			

Comment:

Manual Basin: Tb-N02-S10

Scenario: 1D
 Node: N217
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.7439 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2154	Other Paved	B			
0.5067	Grass/Shrub	B			
0.1822	Road	B			
0.2020	Building	B			
0.6375	Tree Canopy	B			

Comment:

Manual Basin: Tb-N02-S2

Scenario: 1D
Node: N078
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7831 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1177	Other Paved	B			
0.1322	Tree Canopy	B			
0.3934	Road	B			
0.0406	Building	B			
0.0816	Grass/Shrub	B			
0.0048	Tree Canopy	C/D			
0.0002	Other Paved	C/D			
0.0009	Grass/Shrub	C/D			
0.0118	Road	C/D			

Comment:

Manual Basin: Tb-N02-S3

Scenario: 1D
Node: N218
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area: 0.3156 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1578	Road	B			
0.0663	Other Paved	B			
0.0386	Grass/Shrub	B			
0.0309	Tree Canopy	B			
0.0220	Building	B			

Comment:

Manual Basin: Tb-N02-S4

Scenario: 1D
Node: N220
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.8938 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0338	Grass/Shrub	B			
0.4617	Building	B			
1.6011	Tree Canopy	B			
0.3443	Other Paved	B			
0.4529	Road	B			

Comment:

Manual Basin: Tb-N02-S5

Scenario: 1D
Node: N261
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.2464 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1882	Road	B			
0.3267	Other Paved	B			
1.6337	Tree Canopy	B			
1.4535	Grass/Shrub	B			
0.6443	Building	B			

Comment:

Manual Basin: Tb-N02-S6

Scenario: 1D
 Node: N340
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.7885 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.0001	Grass/Shrub	B			
0.8637	Building	B			
0.5747	Other Paved	B			
0.3385	Tree Canopy	B			
0.0115	Road	B			

Comment:

Manual Basin: Tb-N02-S7

Scenario: 1D
 Node: N077
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 13.7743 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4389	Road	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
4.0642	Grass/Shrub	B			
1.5134	Other Paved	B			
2.1579	Building	B			
4.6000	Tree Canopy	B			

Comment:

Manual Basin: Tb-N02-S9

Scenario: 1D
 Node: N256
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.1121 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6915	Grass/Shrub	B			
0.2584	Tree Canopy	B			
0.5918	Road	B			
0.1170	Building	B			
0.4534	Other Paved	B			

Comment:

Manual Basin: Tb-N03-S1

Scenario: 1D
 Node: N551
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.0277 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4403	Road	B			
0.1416	Other Paved	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1532	Tree Canopy	B			
0.1914	Grass/Shrub	B			
0.0729	Building	B			
0.0056	Grass/Shrub	C/D			
0.0212	Road	C/D			
0.0016	Tree Canopy	C/D			

Comment:

Manual Basin: Tb-N04-S1

Scenario: 1D
Node: N013
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1083 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0217	Grass/Shrub	B			
0.0534	Road	B			
0.0115	Tree Canopy	B			
0.0217	Other Paved	B			

Comment:

Manual Basin: Tb-N04-S2

Scenario: 1D
Node: N014
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1916 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0945	Road	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0789	Grass/Shrub	B			
0.0168	Tree Canopy	B			
0.0014	Other Paved	B			

Comment:

Manual Basin: Tb-N04-S3

Scenario: 1D
Node: N083
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2776 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1523	Road	B			
0.0363	Other Paved	B			
0.0286	Grass/Shrub	B			
0.0603	Tree Canopy	B			

Comment:

Manual Basin: Tb-N04-S4

Scenario: 1D
Node: N200
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.2666 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4797	Road	B			
0.3655	Grass/Shrub	B			
0.0775	Other Paved	B			
0.2245	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1194	Building	B			

Comment:

Manual Basin: Tb-N04-S5

Scenario: 1D
Node: N223
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6358 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2163	Road	B			
0.2068	Grass/Shrub	B			
0.0886	Tree Canopy	B			
0.0840	Other Paved	B			
0.0400	Building	B			

Comment:

Manual Basin: Tb-N04-S6

Scenario: 1D
Node: N253
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9019 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1021	Tree Canopy	B			
0.1603	Other Paved	B			
0.1609	Grass/Shrub	B			
0.4288	Road	B			
0.0497	Building	B			

Comment:

Manual Basin: Tb-N04-S7

Scenario: 1D
 Node: N263
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.9764 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4623	Tree Canopy	B			
0.4303	Grass/Shrub	B			
0.1708	Other Paved	B			
0.7366	Road	B			
0.1764	Building	B			

Comment:

Manual Basin: Tb-N04-S8

Scenario: 1D
 Node: N265
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1982 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0166	Road	D			
0.0006	Other Paved	D			
0.0002	Grass/Shrub	D			
0.0555	Grass/Shrub	B			
0.0158	Other Paved	B			
0.0768	Road	B			
0.0328	Tree Canopy	B			

Comment:

Manual Basin: Tb-N05-S1

Scenario: 1D
 Node: N080
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.1752 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2431	Road	B			
0.3571	Other Paved	B			
1.4967	Tree Canopy	B			
1.0755	Grass/Shrub	B			
0.5696	Building	B			
0.1357	Road	C/D			
0.1476	Tree Canopy	C/D			
0.0536	Other Paved	C/D			
0.0806	Grass/Shrub	C/D			
0.0156	Building	C/D			

Comment:

Manual Basin: Tb-N05-S2

Scenario: 1D
 Node: N079
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2749 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1370	Road	B			
0.0849	Other Paved	B			
0.1093	Tree Canopy	B			
0.0527	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2483	Grass/Shrub	C/D			
0.1653	Other Paved	C/D			
0.2341	Tree Canopy	C/D			
0.1692	Road	C/D			
0.0444	Building	C/D			
0.0297	Building	B			

Comment:

Manual Basin: Tb-N06-S1

Scenario: 1D
Node: N341
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5613 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0810	Building	B			
0.2457	Tree Canopy	B			
0.2241	Grass/Shrub	B			
0.0099	Other Paved	B			
0.0006	Road	B			

Comment:

Manual Basin: Tb-N06-S2

Scenario: 1D
Node: N343
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.2715 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3696	Other Paved	B			
0.5447	Road	B			
1.0566	Grass/Shrub	B			
0.8471	Tree Canopy	B			
0.4536	Building	B			

Comment:

Manual Basin: Tb-N06-S3

Scenario: 1D
Node: N342
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 22.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.5565 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3549	Road	B			
0.2375	Other Paved	B			
0.2923	Grass/Shrub	B			
0.4632	Tree Canopy	B			
0.2086	Building	B			

Comment:

Manual Basin: Tb-N07-S1

Scenario: 1D
Node: N268
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 16.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5565 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0902	Grass/Shrub	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0282	Building	D			
0.1333	Tree Canopy	D			
0.0735	Other Paved	D			
0.1314	Road	D			
0.0008	Building	C/D			
0.0115	Tree Canopy	C/D			
0.0421	Grass/Shrub	C/D			
0.0201	Other Paved	C/D			
0.0254	Road	C/D			

Comment:

Manual Basin: Tb-N08-S1

Scenario: 1D
Node: N043
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9679 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0685	Other Paved	D			
0.0144	Railroad	D			
0.0509	Grass/Shrub	D			
0.0357	Tree Canopy	D			
0.1645	Road	D			
0.1725	Road	B			
0.1328	Tree Canopy	B			
0.1351	Other Paved	B			
0.1838	Grass/Shrub	B			
0.0011	Building	D			
0.0085	Building	B			

Comment:

Manual Basin: Tb-N08-S10

Scenario: 1D
Node: N161
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
 Time of Concentration: 16.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.7751 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0063	Other Paved	D			
0.0136	Tree Canopy	D			
0.2787	Tree Canopy	C/D			
0.3379	Grass/Shrub	C/D			
0.0027	Grass/Shrub	D			
0.0114	Other Paved	C/D			
0.1240	Building	C/D			
0.0005	Road	C/D			

Comment:

Manual Basin: Tb-N08-S11

Scenario: 1D
 Node: N225
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 22.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.0904 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5070	Grass/Shrub	B			
0.3492	Building	B			
0.2196	Road	B			
0.8651	Tree Canopy	B			
0.1495	Other Paved	B			

Comment:

Manual Basin: Tb-N08-S12

Scenario: 1D
 Node: N235
 Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
 Time of Concentration: 7.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.0042 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2521	Grass/Shrub	B			
0.2926	Road	B			
0.1373	Other Paved	B			
0.2580	Tree Canopy	B			
0.0642	Building	B			

Comment:

Manual Basin: Tb-N08-S13

Scenario: 1D
 Node: N259
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2722 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2444	Road	D			
0.1056	Other Paved	D			
0.0762	Grass/Shrub	D			
0.0336	Grass/Shrub	C/D			
0.0431	Other Paved	C/D			
0.1130	Road	C/D			
0.0210	Tree Canopy	C/D			
0.0606	Tree Canopy	D			
0.1913	Grass/Shrub	B			
0.0527	Tree Canopy	B			
0.0538	Building	B			
0.1235	Other Paved	B			
0.1489	Road	B			
0.0043	Building	D			

Comment:

Manual Basin: Tb-N08-S14

Scenario: 1D
 Node: N269
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5316 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3468	Road	D			
0.1296	Other Paved	D			
0.0170	Tree Canopy	D			
0.0361	Grass/Shrub	D			
0.0007	Grass/Shrub	C/D			
0.0000	Building	C/D			
0.0013	Other Paved	C/D			

Comment:

Manual Basin: Tb-N08-S15

Scenario: 1D
 Node: N275
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 21.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.4340 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3161	Road	B			
0.3054	Other Paved	B			
0.3747	Grass/Shrub	B			
0.3565	Tree Canopy	B			
0.0813	Building	B			

Comment:

Manual Basin: Tb-N08-S16

Scenario: 1D
 Node: N276
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 11.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.8703 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2259	Road	B			
1.2722	Grass/Shrub	B			
0.2975	Other Paved	B			
1.5562	Tree Canopy	B			
0.5185	Building	B			

Comment:

Manual Basin: Tb-N08-S17

Scenario: 1D
 Node: N287
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3186 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0448	Other Paved	B			
0.0268	Tree Canopy	B			
0.2301	Road	B			
0.0169	Grass/Shrub	B			

Comment:

Manual Basin: Tb-N08-S18

Scenario: 1D
 Node: N288
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 8.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.7098 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2208	Building	B			
0.3934	Tree Canopy	B			
0.3248	Other Paved	B			
0.4201	Grass/Shrub	B			
0.3507	Road	B			

Comment:

Manual Basin: Tb-N08-S19

Scenario: 1D
 Node: N289
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 20.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.7764 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5587	Grass/Shrub	B			
0.1136	Other Paved	B			
0.0576	Road	B			
0.7508	Tree Canopy	B			
0.2958	Building	B			

Comment:

Manual Basin: Tb-N08-S2

Scenario: 1D
 Node: N081
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.3932 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.7008	Grass/Shrub	B			
0.5056	Other Paved	B			
0.7561	Building	B			
0.8454	Tree Canopy	B			
0.5853	Road	B			

Comment:

Manual Basin: Tb-N08-S20

Scenario: 1D
 Node: N290
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.1282 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3401	Road	B			
0.2678	Grass/Shrub	B			
0.0992	Other Paved	B			
0.2918	Tree Canopy	B			
0.1293	Building	B			

Comment:

Manual Basin: Tb-N08-S21

Scenario: 1D
 Node: N344
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.1980 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2004	Building	B			
0.3668	Grass/Shrub	B			
0.1519	Other Paved	B			
0.1595	Road	B			
0.3194	Tree Canopy	B			

Comment:

Manual Basin: Tb-N08-S22

Scenario: 1D
Node: N354
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.2293 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4960	Grass/Shrub	B			
0.1198	Tree Canopy	B			
0.3862	Road	B			
0.1962	Other Paved	B			
0.0311	Building	B			

Comment:

Manual Basin: Tb-N08-S23

Scenario: 1D
Node: N355
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2894 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0435	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1138	Road	B			
0.1172	Other Paved	B			
0.0148	Tree Canopy	B			

Comment:

Manual Basin: Tb-N08-S24

Scenario: 1D
Node: N356
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.0572 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1140	Grass/Shrub	B			
0.5665	Tree Canopy	B			
0.5228	Other Paved	B			
0.5838	Road	B			
0.2881	Bare Soil	B			
0.9821	Building	B			

Comment:

Manual Basin: Tb-N08-S25

Scenario: 1D
Node: N357
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.2369 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4431	Road	B			
0.8751	Tree Canopy	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2368	Other Paved	B			
1.3950	Grass/Shrub	B			
0.2594	Building	B			
0.0275	Bare Soil	B			

Comment:

Manual Basin: Tb-N08-S26

Scenario: 1D
Node: N370
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 25.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.5525 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2812	Other Paved	D			
0.6140	Railroad	D			
0.4403	Tree Canopy	D			
0.1214	Road	D			
0.2065	Grass/Shrub	D			
0.2297	Building	D			
0.2683	Grass/Shrub	B			
0.2551	Tree Canopy	B			
0.1013	Building	B			
0.0346	Other Paved	B			

Comment:

Manual Basin: Tb-N08-S27

Scenario: 1D
Node: N371
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area: 0.8028 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3687	Road	B			
0.1407	Grass/Shrub	B			
0.1291	Tree Canopy	B			
0.1019	Other Paved	B			
0.0623	Building	B			

Comment:

Manual Basin: Tb-N08-S28

Scenario: 1D

Node: N372

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 11.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 2.9573 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2337	Grass/Shrub	D			
0.2837	Building	D			
0.2277	Tree Canopy	D			
0.8572	Road	D			
0.0995	Other Paved	D			
0.5664	Grass/Shrub	B			
0.2299	Other Paved	B			
0.0796	Tree Canopy	B			
0.1985	Building	B			
0.1810	Road	B			

Comment:

Manual Basin: Tb-N08-S29

Scenario: 1D

Node: N388

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4983 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1210	Road	B			
0.0923	Other Paved	B			
0.1267	Grass/Shrub	B			
0.1430	Tree Canopy	B			
0.0153	Building	B			

Comment:

Manual Basin: Tb-N08-S3

Scenario: 1D
 Node: N086
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 18.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.9207 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5881	Tree Canopy	B			
0.8641	Grass/Shrub	B			
0.3337	Building	B			
0.1348	Other Paved	B			

Comment:

Manual Basin: Tb-N08-S30

Scenario: 1D
 Node: N389
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 12.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.8551 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0094	Other Paved	D			
0.0325	Tree Canopy	D			
0.0292	Grass/Shrub	D			
0.0130	Building	D			
0.0553	Building	B			
0.2280	Grass/Shrub	B			
0.1391	Other Paved	B			
0.0090	Road	D			
0.1780	Tree Canopy	B			
0.1616	Road	B			

Comment:

Manual Basin: Tb-N08-S31

Scenario: 1D
Node: N558
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 21.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 7.0454 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0115	Other Paved	D			
0.1446	Tree Canopy	D			
0.0137	Road	D			
0.1060	Grass/Shrub	D			
0.1979	Road	B			
0.9050	Tree Canopy	B			
1.2877	Grass/Shrub	B			
0.3675	Other Paved	B			
0.0051	Building	D			
0.6400	Building	B			
1.2476	Grass/Shrub	C/D			
0.3012	Building	C/D			
1.6838	Tree Canopy	C/D			
0.1036	Other Paved	C/D			
0.0303	Road	C/D			

Comment:

Manual Basin: Tb-N08-S32

Scenario: 1D
 Node: N260
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 14.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.7512 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0207	Other Paved	D			
0.0215	Grass/Shrub	D			
0.0798	Other Paved	B			
0.1554	Building	B			
0.3156	Grass/Shrub	B			
0.0028	Tree Canopy	D			
0.0019	Building	D			
0.1400	Tree Canopy	B			
0.0114	Road	B			
0.0020	Road	C/D			

Comment:

Manual Basin: Tb-N08-S33

Scenario: 1D
 Node: N160
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 20.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.8144 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3292	Grass/Shrub	C/D			
0.1069	Other Paved	C/D			
0.3050	Road	C/D			
0.2219	Tree Canopy	C/D			
0.0628	Building	C/D			
0.0422	Road	B			
0.0499	Other Paved	B			
0.2357	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3714	Tree Canopy	B			
0.0896	Building	B			

Comment:

Manual Basin: Tb-N08-S34

Scenario: 1D
Node: N197
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.5863 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2098	Other Paved	D			
0.0925	Railroad	D			
0.3161	Grass/Shrub	D			
1.7350	Road	D			
0.0775	Tree Canopy	D			
1.1553	Building	D			

Comment:

Manual Basin: Tb-N08-S35

Scenario: 1D
Node: N360
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.5385 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0086	Other Paved	D			
0.0858	Railroad	D			
0.0885	Grass/Shrub	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1308	Tree Canopy	D			
0.6037	Building	D			
0.6211	Road	D			

Comment:

Manual Basin: Tb-N08-S36

Scenario: 1D
Node: N258
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 11.7000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.0331 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1662	Building	B			
0.3208	Grass/Shrub	B			
0.1494	Other Paved	B			
0.2871	Tree Canopy	B			
0.1097	Road	B			

Comment:

Manual Basin: Tb-N08-S37

Scenario: 1D
Node: N385
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5153 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1318	Road	B			
0.0709	Tree Canopy	B			
0.1351	Grass/Shrub	B			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0958	Other Paved	B			
0.0001	Building	B			
0.0504	Grass/Shrub	C/D			
0.0153	Other Paved	C/D			
0.0155	Tree Canopy	C/D			
0.0005	Building	C/D			

Comment:

Manual Basin: Tb-N08-S38

Scenario: 1D
Node: N386
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.7083 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3030	Road	B			
0.5854	Tree Canopy	B			
0.2150	Other Paved	B			
0.2225	Building	B			
0.3824	Grass/Shrub	B			

Comment:

Manual Basin: Tb-N08-S39

Scenario: 1D
Node: N085
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7801 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1993	Road	B			
0.1075	Tree Canopy	B			
0.0570	Other Paved	B			
0.0764	Grass/Shrub	B			
0.0024	Grass/Shrub	D			
0.0101	Tree Canopy	D			
0.0050	Other Paved	D			
0.0077	Road	D			
0.0632	Tree Canopy	C/D			
0.1802	Road	C/D			
0.0369	Other Paved	C/D			
0.0074	Grass/Shrub	C/D			
0.0269	Building	B			

Comment:

Manual Basin: Tb-N08-S4

Scenario: 1D
Node: N144
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 17.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.7706 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0249	Tree Canopy	D			
0.1085	Grass/Shrub	D			
0.0021	Building	D			
0.4287	Building	B			
0.7713	Grass/Shrub	B			
0.0229	Other Paved	B			
0.4123	Tree Canopy	B			

Comment:

Manual Basin: Tb-N08-S40

Scenario: 1D
Node: N555
Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number
 Time of Concentration: 10.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.9617 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2923	Grass/Shrub	D			
1.4856	Road	D			
0.5393	Building	D			
0.0293	Tree Canopy	D			
0.2332	Railroad	D			
0.3819	Other Paved	D			

Comment:

Manual Basin: Tb-N08-S41

Scenario: 1D
 Node: N555
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 30.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 4.4637 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0067	Grass/Shrub	D			
3.0783	Railroad	D			
1.3785	Other Paved	D			
0.0000	Tree Canopy	D			

Comment:

Manual Basin: Tb-N08-S5

Scenario: 1D
 Node: N153
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.9000 min
 Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2551 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0754	Road	B			
0.0398	Other Paved	B			
0.0325	Tree Canopy	B			
0.0839	Grass/Shrub	B			
0.0234	Building	B			

Comment:

Manual Basin: Tb-N08-S6

Scenario: 1D
 Node: N154
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4776 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1218	Grass/Shrub	B			
0.1273	Road	B			
0.1156	Tree Canopy	B			
0.0652	Other Paved	B			
0.0478	Building	B			

Comment:

Manual Basin: Tb-N08-S7

Scenario: 1D
 Node: N155
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 0.7199 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0117	Road	C/D			
0.0270	Other Paved	C/D			
0.1503	Road	B			
0.0519	Grass/Shrub	C/D			
0.0248	Tree Canopy	C/D			
0.0251	Building	C/D			
0.1001	Other Paved	B			
0.0661	Tree Canopy	B			
0.1929	Grass/Shrub	B			
0.0700	Building	B			

Comment:

Manual Basin: Tb-N08-S8

Scenario: 1D
 Node: N158
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.5000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5952 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2053	Grass/Shrub	B			
0.1355	Building	B			
0.2395	Tree Canopy	B			
0.0149	Other Paved	B			

Comment:

Manual Basin: Tb-N08-S9

Scenario: 1D
 Node: N159
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.2914 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0920	Building	C/D			
0.0310	Tree Canopy	C/D			
0.1451	Grass/Shrub	C/D			
0.0130	Other Paved	C/D			
0.0016	Other Paved	D			
0.0079	Grass/Shrub	D			
0.0003	Tree Canopy	D			
0.0006	Building	D			

Comment:

Manual Basin: Tb-N09a-S1

Scenario: 1D
Node: N015
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1581 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1192	Road	D			
0.0333	Other Paved	D			
0.0009	Grass/Shrub	D			
0.0048	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S10

Scenario: 1D
Node: N561
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area: 0.4612 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3472	Road	D			
0.0120	Other Paved	D			
0.0914	Grass/Shrub	D			
0.0106	Tree Canopy	D			
0.0000	Building	D			

Comment:

Manual Basin: Tb-N09a-S11

Scenario: 1D
 Node: N573
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4138 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0140	Tree Canopy	D			
0.0204	Grass/Shrub	D			
0.3716	Road	D			
0.0078	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S12

Scenario: 1D
 Node: N574
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.0926 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0664	Road	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0261	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09a-S13

Scenario: 1D
Node: N578
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1290 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0078	Tree Canopy	D			
0.0272	Grass/Shrub	D			
0.0940	Road	D			

Comment:

Manual Basin: Tb-N09a-S14

Scenario: 1D
Node: N579
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.8000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8296 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3100	Grass/Shrub	D			
0.3915	Road	D			
0.0871	Tree Canopy	D			
0.0346	Other Paved	D			
0.0063	Railroad	D			

Comment:

Manual Basin: Tb-N09a-S15

Scenario: 1D
 Node: N581
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.9000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.6861 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2166	Other Paved	D			
0.1225	Railroad	D			
0.5121	Grass/Shrub	D			
0.0621	Tree Canopy	D			
0.7728	Road	D			

Comment:

Manual Basin: Tb-N09a-S16

Scenario: 1D
 Node: N582
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2038 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0741	Other Paved	D			
0.0307	Railroad	D			
0.0469	Grass/Shrub	D			
0.0513	Road	D			
0.0009	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S17

Scenario: 1D
 Node: N583

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.6578 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1280	Railroad	D			
0.1948	Other Paved	D			
0.1737	Grass/Shrub	D			
0.0283	Tree Canopy	D			
0.1330	Road	D			

Comment:

Manual Basin: Tb-N09a-S18

Scenario: 1D
 Node: N594
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3186 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0533	Other Paved	D			
0.2609	Road	D			
0.0009	Tree Canopy	D			
0.0035	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09a-S19

Scenario: 1D
 Node: N595
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.7150 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0850	Railroad	D			
0.0464	Other Paved	D			
0.1424	Grass/Shrub	D			
1.4070	Road	D			
0.0342	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S2

Scenario: 1D
 Node: N045
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2381 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1690	Road	D			
0.0659	Other Paved	D			
0.0008	Grass/Shrub	D			
0.0023	Tree Canopy	D			
0.0000	Building	D			

Comment:

Manual Basin: Tb-N09a-S20

Scenario: 1D
 Node: N584
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 0.4052 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0580	Other Paved	D			
0.0747	Railroad	D			
0.1263	Grass/Shrub	D			
0.0480	Tree Canopy	D			
0.0983	Road	D			

Comment:

Manual Basin: Tb-N09a-S21

Scenario: 1D
 Node: N349
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.3022 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4457	Road	D			
0.2622	Grass/Shrub	D			
0.0514	Tree Canopy	D			
0.0176	Other Paved	D			
0.5214	Building	D			
0.0038	Water	D			

Comment:

Manual Basin: Tb-N09a-S22

Scenario: 1D
 Node: N598
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 15.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3041 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0614	Other Paved	D			
0.1296	Grass/Shrub	D			
0.0962	Road	D			
0.0141	Building	D			
0.0029	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S23

Scenario: 1D
Node: N597
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.4881 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0078	Tree Canopy	D			
0.0128	Other Paved	D			
0.0368	Grass/Shrub	D			
0.4306	Road	D			

Comment:

Manual Basin: Tb-N09a-S24

Scenario: 1D
Node: N306
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.1310 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1015	Road	D			
0.0711	Other Paved	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2152	Grass/Shrub	D			
0.7245	Building	D			
0.0186	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S25

Scenario: 1D
Node: N330
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3160 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3160	Building	D			
0.0000	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09a-S26

Scenario: 1D
Node: N328
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3919 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0554	Grass/Shrub	D			
0.3360	Building	D			
0.0005	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S27

Scenario: 1D
 Node: N283
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.7000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.9954 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2243	Grass/Shrub	D			
0.5199	Road	D			
0.1967	Tree Canopy	D			
0.0545	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S28

Scenario: 1D
 Node: N577
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2268 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0877	Grass/Shrub	D			
0.0956	Road	D			
0.0435	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S29

Scenario: 1D
 Node: N279
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.1672 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2843	Road	D			
0.2863	Other Paved	D			
0.0088	Tree Canopy	D			
0.6345	Grass/Shrub	D			
1.9532	Building	D			

Comment:

Manual Basin: Tb-N09a-S3

Scenario: 1D
 Node: N164
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.6262 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3304	Other Paved	D			
0.1673	Road	D			
0.2553	Grass/Shrub	D			
0.8561	Building	D			
0.0172	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S30

Scenario: 1D
 Node: N280
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 0.8618 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0781	Road	D			
0.4681	Building	D			
0.1676	Other Paved	D			
0.1124	Grass/Shrub	D			
0.0356	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S31

Scenario: 1D
Node: N348
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1863 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1863	Building	D			

Comment:

Manual Basin: Tb-N09a-S32

Scenario: 1D
Node: N346
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2245 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0399	Road	D			
0.1837	Building	D			
0.0009	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09a-S33

Scenario: 1D
 Node: N604
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.3000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.0449 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.6860	Tree Canopy	D			
0.3025	Grass/Shrub	D			
0.1786	Other Paved	D			
0.1077	Building	D			
0.3920	Road	D			
0.9628	Building	B			
0.4485	Grass/Shrub	B			
0.7073	Tree Canopy	B			
1.0396	Road	B			
0.2199	Other Paved	B			

Comment:

Manual Basin: Tb-N09a-S34

Scenario: 1D
 Node: N310
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.8836 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1948	Road	D			
0.2607	Other Paved	D			
0.1077	Building	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1057	Tree Canopy	D			
0.2129	Grass/Shrub	D			
0.0017	Water	D			

Comment:

Manual Basin: Tb-N09a-S35

Scenario: 1D
Node: N600
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.6310 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0380	Building	D			
0.0424	Grass/Shrub	D			
0.0371	Other Paved	D			
0.4847	Road	D			
0.0034	Tree Canopy	D			
0.0252	Water	D			

Comment:

Manual Basin: Tb-N09a-S36

Scenario: 1D
Node: N327
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 18.6000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3809 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0931	Grass/Shrub	D			
0.0213	Other Paved	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2664	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S37

Scenario: 1D
Node: N325
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7087 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0478	Grass/Shrub	D			
0.0100	Tree Canopy	D			
0.1391	Road	D			
0.0715	Other Paved	D			
0.4402	Building	D			

Comment:

Manual Basin: Tb-N09a-S38

Scenario: 1D
Node: N609
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3858 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0691	Tree Canopy	D			
0.0884	Grass/Shrub	D			
0.4485	Road	D			
0.0527	Other Paved	D			
0.6860	Building	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0369	Tree Canopy	B			
0.0035	Grass/Shrub	B			
0.0008	Road	B			

Comment:

Manual Basin: Tb-N09a-S39

Scenario: 1D
Node: N273
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3686 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1769	Other Paved	D			
0.0297	Tree Canopy	D			
0.1967	Grass/Shrub	D			
0.8716	Road	D			
0.0419	Building	D			
0.0416	Road	B			
0.0082	Other Paved	B			
0.0019	Tree Canopy	B			

Comment:

Manual Basin: Tb-N09a-S4

Scenario: 1D
Node: N237
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.1358 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4755	Tree Canopy	D			
0.2511	Road	D			
0.0689	Other Paved	D			
0.1613	Grass/Shrub	D			
0.9269	Tree Canopy	B			
0.1182	Other Paved	B			
0.1507	Grass/Shrub	B			
0.6460	Road	B			
0.0885	Building	B			
0.1137	Building	D			
0.0654	Tree Canopy	C/D			
0.0619	Road	C/D			
0.0076	Grass/Shrub	C/D			

Comment:

Manual Basin: Tb-N09a-S40

Scenario: 1D
Node: N606
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.7240 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1843	Road	B			
0.0753	Other Paved	B			
0.2595	Tree Canopy	B			
0.1552	Road	D			
0.1331	Grass/Shrub	B			
0.1257	Grass/Shrub	D			
0.3298	Tree Canopy	D			
0.0780	Other Paved	D			
0.0802	Building	B			
0.0828	Building	D			
0.0561	Road	C/D			
0.0909	Tree Canopy	C/D			
0.0253	Other Paved	C/D			
0.0102	Grass/Shrub	C/D			
0.0377	Building	C/D			

Comment:

Manual Basin: Tb-N09a-S41

Scenario: 1D
 Node: N311
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3404 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1968	Road	D			
0.0305	Grass/Shrub	D			
0.0888	Other Paved	D			
0.0113	Tree Canopy	D			
0.0130	Building	D			

Comment:

Manual Basin: Tb-N09a-S42

Scenario: 1D
 Node: N309
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.9690 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1235	Grass/Shrub	D			
0.0956	Tree Canopy	D			
0.4883	Road	D			
0.1086	Other Paved	D			
0.1529	Building	D			

Comment:

Manual Basin: Tb-N09a-S43

Scenario: 1D
 Node: N301
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5915 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3783	Road	D			
0.1241	Grass/Shrub	D			
0.0357	Other Paved	D			
0.0386	Tree Canopy	D			
0.0148	Building	D			

Comment:

Manual Basin: Tb-N09a-S44

Scenario: 1D
 Node: N165
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 10.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 2.5168 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.4504	Road	D			
0.6046	Other Paved	D			
0.2712	Grass/Shrub	D			
0.0022	Building	D			
0.1885	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S45

Scenario: 1D
 Node: N274

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5733 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4623	Road	D			
0.0287	Tree Canopy	D			
0.0228	Grass/Shrub	D			
0.0595	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S47

Scenario: 1D
 Node: N282
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 22.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.9256 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1118	Tree Canopy	D			
0.3155	Grass/Shrub	D			
0.1031	Other Paved	D			
1.3952	Road	D			

Comment:

Manual Basin: Tb-N09a-S48

Scenario: 1D
 Node: N611
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr

Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.7014 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0162	Tree Canopy	D			
0.0658	Grass/Shrub	D			
0.2454	Building	D			
0.3268	Road	D			
0.0472	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S49

Scenario: 1D
 Node: N613
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.5036 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0928	Grass/Shrub	D			
0.1891	Road	D			
0.0558	Tree Canopy	D			
0.1615	Building	D			
0.0043	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S5

Scenario: 1D
 Node: N245
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.1661 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0470	Other Paved	D			
0.1144	Road	D			
0.0044	Tree Canopy	D			
0.0003	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09a-S50

Scenario: 1D
Node: N610
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.5000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1906 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0026	Building	D			
0.0340	Grass/Shrub	D			
0.0086	Tree Canopy	D			
0.1048	Road	D			
0.0406	Other Paved	D			

Comment:

Manual Basin: Tb-N09a-S51

Scenario: 1D
Node: N302
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7039 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1792	Grass/Shrub	D			
0.0932	Building	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3642	Road	D			
0.0634	Other Paved	D			
0.0039	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S6

Scenario: 1D
Node: N312
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.2000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6409 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1931	Grass/Shrub	D			
0.7986	Building	D			
0.3722	Road	D			
0.2398	Other Paved	D			
0.0372	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09a-S7

Scenario: 1D
Node: N319
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7216 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0378	Tree Canopy	D			
0.0022	Other Paved	D			
0.4905	Road	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0483	Grass/Shrub	D			
0.1428	Building	D			

Comment:

Manual Basin: Tb-N09a-S8

Scenario: 1D
Node: N615
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.0130 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0958	Grass/Shrub	D			
0.2336	Building	D			
0.0821	Other Paved	D			
0.1092	Tree Canopy	D			
0.4923	Road	D			

Comment:

Manual Basin: Tb-N09a-S9

Scenario: 1D
Node: N560
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.8183 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0001	Railroad	D			
0.6436	Road	D			
0.0848	Other Paved	D			
0.0686	Tree Canopy	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0212	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09b-S1

Scenario: 1D
Node: N585
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.3250 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0660	Tree Canopy	D			
0.0168	Grass/Shrub	D			
0.1739	Road	D			
0.0683	Other Paved	D			

Comment:

Manual Basin: Tb-N09b-S10

Scenario: 1D
Node: N643
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 2.7808 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0004	Road	D			
0.0776	Grass/Shrub	D			
1.9953	Railroad	D			
0.6093	Other Paved	D			
0.0526	Tree Canopy	D			
0.0456	Building	D			

Comment:

Manual Basin: Tb-N09b-S2

Scenario: 1D
 Node: N587
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 9.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.9016 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3509	Building	D			
0.1014	Other Paved	D			
0.2083	Grass/Shrub	D			
0.0265	Tree Canopy	D			
0.2146	Road	D			

Comment:

Manual Basin: Tb-N09b-S3

Scenario: 1D
 Node: N589
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.6997 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0845	Other Paved	D			
0.0533	Railroad	D			
0.1373	Tree Canopy	D			
0.2981	Grass/Shrub	D			
0.1265	Road	D			

Comment:

Manual Basin: Tb-N09b-S4

Scenario: 1D
 Node: N590a
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.2000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.3835 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2564	Tree Canopy	D			
0.0659	Other Paved	D			
0.9137	Road	D			
0.0715	Building	D			
0.0759	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09b-S5

Scenario: 1D
 Node: N591
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2627 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1813	Road	D			
0.0067	Other Paved	D			
0.0747	Grass/Shrub	D			

Comment:

Manual Basin: Tb-N09b-S6

Scenario: 1D
 Node: N592
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3213 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2622	Road	D			
0.0134	Grass/Shrub	D			
0.0446	Other Paved	D			
0.0011	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09b-S7

Scenario: 1D
 Node: N593
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.6686 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0844	Tree Canopy	D			
0.0374	Grass/Shrub	D			
0.0165	Other Paved	D			
0.5303	Road	D			

Comment:

Manual Basin: Tb-N09b-S8

Scenario: 1D
 Node: N588
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0

Area: 2.6405 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3188	Tree Canopy	D			
0.2710	Grass/Shrub	D			
0.2202	Other Paved	D			
0.5693	Building	D			
1.2581	Road	D			
0.0031	Railroad	D			

Comment:

Manual Basin: Tb-N09b-S9

Scenario: 1D

Node: N586

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.4639 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1840	Road	D			
0.0764	Grass/Shrub	D			
0.0663	Other Paved	D			
0.0116	Tree Canopy	D			
0.1255	Building	D			

Comment:

Manual Basin: Tb-N09c-S1

Scenario: 1D

Node: N035

Hydrograph Method: NRCS Unit Hydrograph

Infiltration Method: Curve Number

Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs

Time Shift: 0.0000 hr

Unit Hydrograph: UH484

Peaking Factor: 484.0

Area: 0.4631 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
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Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3970	Road	D			
0.0550	Other Paved	D			
0.0056	Grass/Shrub	D			
0.0054	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S10

Scenario: 1D
Node: N046
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1358 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1042	Road	D			
0.0172	Grass/Shrub	D			
0.0038	Tree Canopy	D			
0.0105	Other Paved	D			

Comment:

Manual Basin: Tb-N09c-S11

Scenario: 1D
Node: N186
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.9808 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1347	Other Paved	D			
0.7503	Road	D			
0.0622	Grass/Shrub	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0331	Tree Canopy	D			
0.0005	Railroad	D			

Comment:

Manual Basin: Tb-N09c-S12

Scenario: 1D
Node: N179
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7665 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3864	Road	D			
0.2699	Building	D			
0.0721	Other Paved	D			
0.0285	Grass/Shrub	D			
0.0097	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S13

Scenario: 1D
Node: N117
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 10.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1304 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0323	Tree Canopy	D			
0.0284	Grass/Shrub	D			
0.0697	Road	D			

Comment:

Manual Basin: Tb-N09c-S14

Scenario: 1D
 Node: N563
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.8546 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0303	Other Paved	D			
0.0255	Grass/Shrub	D			
0.1516	Building	D			
1.6452	Road	D			
0.0021	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S15

Scenario: 1D
 Node: N571
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 13.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 3.3553 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1081	Other Paved	D			
0.1491	Tree Canopy	D			
0.9382	Grass/Shrub	D			
1.1571	Road	D			
0.0023	Railroad	D			
0.0005	Building	D			

Comment:

Manual Basin: Tb-N09c-S16

Scenario: 1D
 Node: N640
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.9004 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0927	Grass/Shrub	D			
0.1270	Other Paved	D			
0.4447	Road	D			
0.0282	Tree Canopy	D			
0.2079	Building	D			

Comment:

Manual Basin: Tb-N09c-S17

Scenario: 1D
 Node: N570
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3107 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1902	Road	D			
0.0971	Grass/Shrub	D			
0.0168	Other Paved	D			
0.0050	Building	D			
0.0015	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S18

Scenario: 1D
 Node: N639

Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3007 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1904	Road	D			
0.0089	Grass/Shrub	D			
0.0949	Tree Canopy	D			
0.0041	Other Paved	D			
0.0024	Building	D			

Comment:

Manual Basin: Tb-N09c-S19

Scenario: 1D
 Node: N100
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.1750 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1379	Grass/Shrub	D			
0.5225	Road	D			
0.4768	Other Paved	D			
0.0376	Tree Canopy	D			
0.0002	Railroad	D			

Comment:

Manual Basin: Tb-N09c-S2

Scenario: 1D
 Node: N036
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min

Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.3016 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1840	Road	D			
0.0745	Grass/Shrub	D			
0.0181	Other Paved	D			
0.0250	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S20

Scenario: 1D
 Node: N567
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.8746 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0026	Other Paved	D			
0.0257	Grass/Shrub	D			
0.7188	Building	D			
0.1275	Road	D			

Comment:

Manual Basin: Tb-N09c-S24

Scenario: 1D
 Node: N180
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.6301 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0295	Tree Canopy	D			
0.1413	Grass/Shrub	D			
0.8869	Building	D			
0.5263	Road	D			
0.0461	Other Paved	D			

Comment:

Manual Basin: Tb-N09c-S25

Scenario: 1D
 Node: N150
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.3607 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1400	Grass/Shrub	D			
0.7357	Road	D			
0.1018	Tree Canopy	D			
0.3279	Building	D			
0.0553	Other Paved	D			

Comment:

Manual Basin: Tb-N09c-S26

Scenario: 1D
 Node: N115
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.4589 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4326	Building	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0016	Other Paved	D			
0.0110	Grass/Shrub	D			
0.0136	Road	D			

Comment:

Manual Basin: Tb-N09c-S27

Scenario: 1D
Node: N178
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.4246 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8628	Road	D			
0.0875	Other Paved	D			
0.2747	Tree Canopy	D			
0.1980	Grass/Shrub	D			
0.0017	Building	D			

Comment:

Manual Basin: Tb-N09c-S28

Scenario: 1D
Node: N038
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.3437 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1539	Tree Canopy	D			
0.1140	Grass/Shrub	D			
0.6959	Road	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1823	Building	D			
0.1976	Other Paved	D			

Comment:

Manual Basin: Tb-N09c-S29

Scenario: 1D
Node: N198
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5080 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0161	Grass/Shrub	D			
0.0605	Other Paved	D			
0.3688	Road	D			
0.0467	Tree Canopy	D			
0.0159	Building	D			

Comment:

Manual Basin: Tb-N09c-S3

Scenario: 1D
Node: N113
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.0511 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1370	Grass/Shrub	D			
0.0828	Other Paved	D			
0.3220	Building	D			
0.4749	Road	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0344	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S30

Scenario: 1D
Node: N101
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.1353 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0800	Road	D			
0.0212	Tree Canopy	D			
0.0149	Other Paved	D			
0.0187	Grass/Shrub	D			
0.0005	Building	D			
0.0000	Railroad	D			

Comment:

Manual Basin: Tb-N09c-S31

Scenario: 1D
Node: N018
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2577 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0074	Other Paved	D			
0.0024	Tree Canopy	D			
0.0135	Grass/Shrub	D			
0.1310	Road	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1034	Building	D			

Comment:

Manual Basin: Tb-N09c-S4

Scenario: 1D
Node: N114
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.5297 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.3632	Road	D			
0.0079	Tree Canopy	D			
0.1043	Grass/Shrub	D			
0.0543	Other Paved	D			

Comment:

Manual Basin: Tb-N09c-S5

Scenario: 1D
Node: N148
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.9707 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
1.1981	Road	D			
0.2518	Building	D			
0.2583	Grass/Shrub	D			
0.1409	Other Paved	D			
0.1215	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09c-S6

Scenario: 1D
 Node: N215
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.4201 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9164	Road	D			
0.1060	Grass/Shrub	D			
0.0558	Other Paved	D			
0.1630	Tree Canopy	D			
0.1790	Building	D			

Comment:

Manual Basin: Tb-N09c-S7

Scenario: 1D
 Node: N291
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.1269 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1324	Grass/Shrub	D			
0.0749	Tree Canopy	D			
0.5554	Road	D			
0.3119	Building	D			
0.0522	Other Paved	D			

Comment:

Manual Basin: Tb-N09c-S9

Scenario: 1D
 Node: N569
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 8.4000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.2134 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.4110	Road	D			
0.7517	Building	D			
0.0236	Grass/Shrub	D			
0.0271	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09d-S1

Scenario: 1D
 Node: N001
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2718 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0273	Other Paved	D			
0.0086	Grass/Shrub	D			
0.2237	Road	D			
0.0122	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09d-S10

Scenario: 1D
 Node: N177
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number

Time of Concentration: 11.1000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 0.2666 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0162	Tree Canopy	D			
0.0118	Grass/Shrub	D			
0.2031	Road	D			
0.0354	Other Paved	D			

Comment:

Manual Basin: Tb-N09d-S11

Scenario: 1D
 Node: N228
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.7345 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8740	Road	D			
0.1774	Grass/Shrub	D			
0.0421	Tree Canopy	D			
0.1439	Other Paved	D			
0.4972	Building	D			

Comment:

Manual Basin: Tb-N09d-S12

Scenario: 1D
 Node: N649a
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 6.0000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484

Peaking Factor: 484.0
Area: 2.3107 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5757	Grass/Shrub	D			
0.8039	Tree Canopy	D			
0.2576	Road	D			
0.0026	Other Paved	D			
0.3035	Building	D			
0.3598	Wetland	D			
0.0076	Railroad	D			

Comment:

Manual Basin: Tb-N09d-S13

Scenario: 1D
Node: N641
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.9000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.0665 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
2.8023	Building	D			
0.5228	Road	D			
0.5405	Other Paved	D			
0.1705	Grass/Shrub	D			
0.0304	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09d-S2

Scenario: 1D
Node: N017
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0

Area: 0.4023 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2803	Road	D			
0.0622	Other Paved	D			
0.0101	Grass/Shrub	D			
0.0497	Tree Canopy	D			

Comment:

Manual Basin: Tb-N09d-S3

Scenario: 1D
 Node: N123
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.6000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 5.7358 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.2410	Tree Canopy	D			
0.4295	Grass/Shrub	D			
1.9323	Road	D			
0.3357	Other Paved	D			
2.7975	Building	D			

Comment:

Manual Basin: Tb-N09d-S4

Scenario: 1D
 Node: N146
 Hydrograph Method: NRCS Unit Hydrograph
 Infiltration Method: Curve Number
 Time of Concentration: 7.8000 min
 Max Allowable Q: 0.00 cfs
 Time Shift: 0.0000 hr
 Unit Hydrograph: UH484
 Peaking Factor: 484.0
 Area: 1.3595 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.1652	Other Paved	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.9658	Road	D			
0.1255	Tree Canopy	D			
0.0884	Grass/Shrub	D			
0.0147	Building	D			

Comment:

Manual Basin: Tb-N09d-S5

Scenario: 1D
Node: N247
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.2698 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7838	Road	D			
0.0390	Other Paved	D			
0.0580	Grass/Shrub	D			
0.0185	Tree Canopy	D			
0.3706	Building	D			

Comment:

Manual Basin: Tb-N09d-S6

Scenario: 1D
Node: N607
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.2496 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0163	Other Paved	D			
0.0107	Tree Canopy	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0359	Grass/Shrub	D			
0.1865	Road	D			
0.0001	Building	D			

Comment:

Manual Basin: Tb-N09d-S7

Scenario: 1D
Node: N565
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 12.1000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 0.7953 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.5683	Road	D			
0.0504	Grass/Shrub	D			
0.0846	Other Paved	D			
0.0920	Tree Canopy	D			
0.0000	Building	D			

Comment:

Manual Basin: Tb-N09d-S8

Scenario: 1D
Node: N044
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.3000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6323 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.8257	Road	D			
0.0221	Grass/Shrub	D			
0.0263	Tree Canopy	D			

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.0762	Other Paved	D			
0.6820	Building	D			

Comment:

Manual Basin: Tb-N09d-S9

Scenario: 1D
Node: N566
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 15.4000 min
Max Allowable Q: 0.00 cfs
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.3711 ac

Area [ac]	Land Cover Zone	Soil Zone	Rainfall Name	Crop Coefficient Zone	Reference ET Station
0.7547	Grass/Shrub	D			
3.3194	Road	D			
0.0807	Tree Canopy	D			
0.2161	Other Paved	D			
0.0003	Railroad	D			

Comment:

Simulation: Baseflowtest

Scenario: 1D
 Run Date/Time: N/A
 Program Version: N/A

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	2021	9	1	0.0000
End Time:	2021	9	1	12.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Historic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	8	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	No Rainfall
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft		
Edge Length Option:	Automatic		
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment:

Simulation: NOAA_001yr06hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:18:51 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	12.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: NOAA_001yr06hr
	Rainfall Amount: 1.86 in
Edge Length Option: Automatic	Storm Duration: 6.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 1-year 6-hour storm, NOAA Atlas 14 site-specific rainfall distribution smoothed by WinTR-20
--

Simulation: NOAA_001yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 2:54:38 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: NOAA_001yr24hr
	Rainfall Amount: 2.61 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 10-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution smoothed by WinTR-20
--

Simulation: NOAA_002yr06hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:20:29 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	12.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_002yr06hr
		Rainfall Amount:	2.25 in
Edge Length Option:	Automatic	Storm Duration:	6.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 2-year 6-hour storm, NOAA Atlas 14 site-specific rainfall distribution smoothed by WinTR-20

Simulation: NOAA_002yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 2:58:30 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_002yr24hr
		Rainfall Amount:	3.15 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 10-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_005yr06hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:22:12 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	12.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_005yr06hr
		Rainfall Amount:	2.85 in
Edge Length Option:	Automatic	Storm Duration:	6.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 5-year 6-hour storm, NOAA Atlas 14 site-specific rainfall distribution smoothed by WinTR-20

Simulation: NOAA_005yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 3:48:15 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	20	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0001 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	NOAA_005yr24hr
		Rainfall Amount:	4.05 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 10-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_010yr06hr

Scenario: 1D
 Run Date/Time: 1/21/2022 4:41:15 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	12.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: NOAA_010yr06hr
	Rainfall Amount: 3.34 in
Edge Length Option: Automatic	Storm Duration: 6.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 10-year 6-hour storm, NOAA Atlas 14 site-specific rainfall distribution smoothed by WinTR-20

Simulation: NOAA_010yr12hr

Scenario: 1D
 Run Date/Time: 1/21/2022 4:43:16 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	18.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_010yr12hr
		Rainfall Amount:	4.11 in
Edge Length Option:	Automatic	Storm Duration:	12.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 10-year 12-hour storm, NOAA Atlas 14 site-specific rainfall distribution smoothed by WinTR-20
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Simulation: NOAA_010yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 4:01:38 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 20	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0002 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0000 ft	Rainfall Name: NOAA_010yr24hr
	Rainfall Amount: 4.84 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 10-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_011yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 10:40:08 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_010yr24hr
		Rainfall Amount:	4.92 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 11-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_012yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 10:50:39 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_010yr24hr
		Rainfall Amount:	5.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 12-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_013yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 11:06:48 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	NOAA_010yr24hr
		Rainfall Amount:	5.08 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 13-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_014yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 11:41:05 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: NOAA_010yr24hr
	Rainfall Amount: 5.17 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 14-year 24-hour storm, NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_025yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 10:34:20 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	NOAA_025yr24hr
		Rainfall Amount:	6.06 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 25-year 24-hour NOAA Atlas 14 site-specific rainfall distribution
--

Simulation: NOAA_050yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 11:08:44 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	NOAA_050yr24hr
		Rainfall Amount:	7.14 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 50-year 24-hour NOAA Atlas 14 site-specific rainfall distribution
--

Simulation: NOAA_100yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 11:27:37 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	NOAA_100yr24hr
		Rainfall Amount:	8.36 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 100-year 24-hour NOAA Atlas 14 site-specific rainfall distribution

Simulation: NOAA_500yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 11:49:06 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	NOAA_500yr24hr
		Rainfall Amount:	11.90 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 100-year 24-hour NOAA Atlas 14 site-specific rainfall distribution

Simulation: RGRC2_24hr

Scenario: 1D
 Run Date/Time: 1/14/2022 10:52:16 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	2021	9	1	0.0000
End Time:	2021	9	1	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Historic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	8	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	RGRC2_24hr_rev
		Rainfall Amount:	0.00 in
Edge Length Option:	Automatic	Storm Duration:	0.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: Rec. Center recorded rainfall of Hurricane Ida event through Rockville, MD

Simulation: RGRC2_24hr_OC

Scenario: 1D
 Run Date/Time: 2/4/2022 11:42:45 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	2021	9	1	0.0000
End Time:	2021	9	1	24.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Historic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	8	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	RGRC2_24hr_rev
		Rainfall Amount:	0.00 in
Edge Length Option:	Automatic	Storm Duration:	0.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: Rec. Center recorded rainfall of Hurricane Ida event through Rockville, MD

Simulation: RGRC2_testing

Scenario: 1D
 Run Date/Time: 1/14/2022 9:01:43 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	2021	9	1	0.0000
End Time:	2021	9	1	5.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Historic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	8	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	RGRC2_24hr_rev
		Rainfall Amount:	0.00 in
Edge Length Option:	Automatic	Storm Duration:	0.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment:

Simulation: Radar

Scenario: 1D
 Run Date/Time: N/A
 Program Version: N/A

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	2021	9	1	1.0000
End Time:	2021	9	1	6.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Historic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	8	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	Radar
		Rainfall Amount:	0.00 in
Edge Length Option:	Automatic	Storm Duration:	0.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment:

Simulation: SCS_001yr24hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:24:05 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: SCS_Type-II_24hr
	Rainfall Amount: 2.61 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 1-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_002yr24hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:27:44 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: SCS_Type-II_24hr
	Rainfall Amount: 3.15 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 2-year 24-hour storm, SCS Type II rainfall distribution
--

Simulation: SCS_003yr24hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:31:45 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	3.45 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 3-year 24-hour storm, SCS Type II rainfall distribution, cumulative rainfall (interpolated)

Simulation: SCS_005yr24hr

Scenario: 1D
 Run Date/Time: 1/20/2022 2:35:59 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 20	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0001 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0000 ft	Rainfall Name: SCS_Type-II_24hr
	Rainfall Amount: 4.05 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 5-year 24-hour storm, SCS Type II rainfall distribution
--

Simulation: SCS_010yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 4:15:48 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	20	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	4.84 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 10-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_011yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 10:44:54 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	4.92 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 11-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_012yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 11:51:58 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	5.00 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 12-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_013yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 11:11:26 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching: SAOR	IA Recovery Time: 24.0000 hr
Max Iterations: 6	ET for Manual Basins: False
Over-Relax Weight 0.4 dec	
Fact:	
dZ Tolerance: 0.0005 ft	Smp/Man Basin Rain Global
	Opt:
Max dZ: 3.0000 ft	OF Region Rain Opt: No Rainfall
Link Optimizer Tol: 0.0001 ft	Rainfall Name: SCS_Type-II_24hr
	Rainfall Amount: 5.08 in
Edge Length Option: Automatic	Storm Duration: 24.0000 hr
Dflt Damping (2D): 0.0050 ft	Dflt Damping (1D): 0.0050 ft
Min Node Srf Area 100 ft2	Min Node Srf Area 100 ft2
(2D):	(1D):
Energy Switch (2D): Energy	Energy Switch (1D): Use Link Selection

Comment: 13-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_014yr24hr

Scenario: 1D
 Run Date/Time: 1/24/2022 11:45:58 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.1000	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	6	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0005 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0001 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	5.17 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0050 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 14-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_025yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 10:43:16 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:
Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	6.06 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 25-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_050yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 11:17:56 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	7.14 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 50-year 24-hour storm, SCS Type II rainfall distribution

Simulation: SCS_100yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 11:37:21 AM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	8.36 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 100-year 24-hour storm, SCS Type II rainfall distribution
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Simulation: SCS_500yr24hr

Scenario: 1D
 Run Date/Time: 1/25/2022 12:00:43 PM
 Program Version: ICPR4 4.07.04

General

Run Mode: Normal

	Year	Month	Day	Hour [hr]
Start Time:	0	0	0	0.0000
End Time:	0	0	0	36.0000

	Hydrology [sec]	Surface Hydraulics [sec]	Groundwater [sec]
Min Calculation Time:	5.0000	0.0500	900.0000
Max Calculation Time:		2.0000	

Output Time Increments

Hydrology

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Surface Hydraulics

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Groundwater

Year	Month	Day	Hour [hr]	Time Increment [min]
0	0	0	0.0000	1.0000

Restart File

Save Restart: False

Resources & Lookup Tables

Resources

Rainfall Folder: Synthetic
 Reference ET Folder:
 Unit Hydrograph
 Folder:

Lookup Tables

Boundary Stage Set: RockCreek
 Extern Hydrograph Set:
 Curve Number Set: CN

 Green-Ampt Set:
 Vertical Layers Set:
 Impervious Set: Impervious_CN
 Roughness Set: Roughness
 Crop Coef Set:
 Fillable Porosity Set:

Conductivity Set:

Leakage Set:

Tolerances & Options

Time Marching:	SAOR	IA Recovery Time:	24.0000 hr
Max Iterations:	10	ET for Manual Basins:	False
Over-Relax Weight	0.4 dec		
Fact:			
dZ Tolerance:	0.0002 ft	Smp/Man Basin Rain	Global
		Opt:	
Max dZ:	3.0000 ft	OF Region Rain Opt:	No Rainfall
Link Optimizer Tol:	0.0000 ft	Rainfall Name:	SCS_Type-II_24hr
		Rainfall Amount:	11.90 in
Edge Length Option:	Automatic	Storm Duration:	24.0000 hr
Dflt Damping (2D):	0.0100 ft	Dflt Damping (1D):	0.0050 ft
Min Node Srf Area	100 ft2	Min Node Srf Area	100 ft2
(2D):		(1D):	
Energy Switch (2D):	Energy	Energy Switch (1D):	Use Link Selection

Comment: 500-year 24-hour storm, SCS Type II rainfall distribution
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Manual Basin Runoff Summary [1D]

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Onsite-S1	RGRC2_24 hr	10.80	3.7028	3.84	2.47	2.3280	86.7	0.00	0.00
Onsite-S1 0	RGRC2_24 hr	6.69	3.6875	3.84	2.34	1.4713	85.3	0.00	0.00
Onsite-S1 1	RGRC2_24 hr	18.47	3.8250	3.84	2.61	4.7269	88.3	0.00	0.00
Onsite-S1 2	RGRC2_24 hr	9.24	3.6833	3.84	2.84	1.7734	90.8	0.00	0.00
Onsite-S1 3	RGRC2_24 hr	4.80	3.6861	3.84	2.70	0.9723	89.3	0.00	0.00
Onsite-S1 4	RGRC2_24 hr	17.38	3.7569	3.84	2.41	4.1285	86.1	0.00	0.00
Onsite-S1 5	RGRC2_24 hr	0.96	3.7236	3.84	1.62	0.2860	76.0	0.00	0.00
Onsite-S1 6	RGRC2_24 hr	0.69	3.7236	3.84	1.41	0.2236	73.0	0.00	0.00
Onsite-S1 7	RGRC2_24 hr	11.90	3.6861	3.84	2.46	2.4689	86.6	0.00	0.00
Onsite-S2	RGRC2_24 hr	27.71	3.7708	3.84	2.98	5.8668	92.2	0.00	0.00
Onsite-S2 0	RGRC2_24 hr	6.65	3.7125	3.84	2.32	1.5698	85.0	0.00	0.00
Onsite-S2 1	RGRC2_24 hr	10.85	3.7181	3.84	1.84	3.1455	79.0	0.00	0.00
Onsite-S2 2	RGRC2_24 hr	8.04	3.6861	3.84	3.34	1.3801	95.6	0.00	0.00
Onsite-S2 3	RGRC2_24 hr	1.24	3.6792	3.84	3.39	0.2079	96.1	0.00	0.00
Onsite-S2 4	RGRC2_24 hr	1.23	3.6806	3.84	3.32	0.2095	95.5	0.00	0.00
Onsite-S2 5	RGRC2_24 hr	0.62	3.7194	3.84	1.35	0.2017	72.0	0.00	0.00
Onsite-S2 8	RGRC2_24 hr	0.23	3.6944	3.84	1.41	0.0694	73.0	0.00	0.00
Onsite-S2 9	RGRC2_24 hr	0.21	3.6972	3.84	1.17	0.0717	69.1	0.00	0.00
Onsite-S3	RGRC2_24 hr	1.91	3.6889	3.84	2.84	0.3716	90.7	0.00	0.00
Onsite-S3 0	RGRC2_24 hr	2.09	3.6861	3.84	2.51	0.4406	87.2	0.00	0.00
Onsite-S3 1	RGRC2_24 hr	1.14	3.6819	3.84	3.06	0.2074	93.0	0.00	0.00
Onsite-S3 2	RGRC2_24 hr	1.50	3.6792	3.84	3.43	0.2491	96.5	0.00	0.00
Onsite-S3 3	RGRC2_24 hr	0.54	3.7417	3.84	1.33	0.1888	71.8	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Onsite-S34	RGRC2_24 hr	1.07	3.6806	3.84	3.22	0.1866	94.5	0.00	0.00
Onsite-S36	RGRC2_24 hr	1.99	3.7250	3.84	2.25	0.4840	84.2	0.00	0.00
Onsite-S4	RGRC2_24 hr	2.36	3.6806	3.84	3.25	0.3983	94.8	0.00	0.00
Onsite-S40	RGRC2_24 hr	22.20	3.7264	3.84	3.45	3.9068	96.6	0.00	0.00
Onsite-S42	RGRC2_24 hr	6.46	3.6792	3.84	3.43	1.0619	96.4	0.00	0.00
Onsite-S43	RGRC2_24 hr	2.78	3.6806	3.84	3.39	0.4604	96.0	0.00	0.00
Onsite-S44	RGRC2_24 hr	2.67	3.6819	3.84	3.00	0.4875	92.4	0.00	0.00
Onsite-S45	RGRC2_24 hr	0.37	3.7278	3.84	1.65	0.1129	76.5	0.00	0.00
Onsite-S46	RGRC2_24 hr	10.06	3.6819	3.84	3.00	1.8531	92.4	0.00	0.00
Onsite-S47	RGRC2_24 hr	11.14	3.7292	3.84	2.66	2.4158	88.9	0.00	0.00
Onsite-S48	RGRC2_24 hr	4.63	3.7667	3.84	1.89	1.3772	79.8	0.00	0.00
Onsite-S49	RGRC2_24 hr	5.50	3.8069	3.84	1.83	1.7955	79.0	0.00	0.00
Onsite-S5	RGRC2_24 hr	14.18	3.7597	3.84	2.33	3.5272	85.1	0.00	0.00
Onsite-S50	RGRC2_24 hr	3.68	3.7083	3.84	2.34	0.8192	85.3	0.00	0.00
Onsite-S51	RGRC2_24 hr	6.70	3.6917	3.84	1.79	1.8276	78.5	0.00	0.00
Onsite-S52	RGRC2_24 hr	4.22	3.7236	3.84	1.76	1.2659	78.0	0.00	0.00
Onsite-S53	RGRC2_24 hr	5.10	3.7264	3.84	2.50	1.0866	87.1	0.00	0.00
Onsite-S54	RGRC2_24 hr	3.40	3.7431	3.84	2.47	0.7596	86.8	0.00	0.00
Onsite-S55	RGRC2_24 hr	3.53	3.7306	3.84	2.62	0.7259	88.4	0.00	0.00
Onsite-S56	RGRC2_24 hr	7.39	3.7236	3.84	2.34	1.6495	85.2	0.00	0.00
Onsite-S57	RGRC2_24 hr	10.13	3.7639	3.84	2.24	2.5803	84.2	0.00	0.00
Onsite-S58	RGRC2_24 hr	8.61	3.8361	3.84	2.14	2.6281	82.9	0.00	0.00
Onsite-S59	RGRC2_24 hr	3.39	3.9236	3.84	2.12	1.2404	82.6	0.00	0.00
Onsite-S6	RGRC2_24	5.35	3.7750	3.84	2.14	1.4566	82.9	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	hr								
Onsite-S60	RGRC2_24 hr	3.13	3.7306	3.84	2.23	0.7463	84.0	0.00	0.00
Onsite-S61	RGRC2_24 hr	6.46	3.7125	3.84	1.97	1.6268	80.8	0.00	0.00
Onsite-S62	RGRC2_24 hr	5.01	3.7403	3.84	2.39	1.1611	85.8	0.00	0.00
Onsite-S63	RGRC2_24 hr	6.85	3.7250	3.84	1.70	2.0764	77.2	0.00	0.00
Onsite-S7	RGRC2_24 hr	1.21	3.6847	3.84	2.66	0.2428	88.8	0.00	0.00
Onsite-S8	RGRC2_24 hr	9.29	3.7153	3.84	1.87	2.4755	79.5	0.00	0.00
Onsite-S9	RGRC2_24 hr	1.47	3.6806	3.84	3.20	0.2577	94.3	0.00	0.00
RockCreek-S1	RGRC2_24 hr	12.35	3.7986	3.84	1.68	4.1267	76.9	0.00	0.00
RockCreek-S2	RGRC2_24 hr	4.41	3.7347	3.84	1.85	1.2247	79.3	0.00	0.00
RockCreek-S3	RGRC2_24 hr	1.60	3.7597	3.84	1.59	0.5344	75.6	0.00	0.00
RockCreek-S4	RGRC2_24 hr	3.70	3.8208	3.84	1.31	1.6761	71.4	0.00	0.00
RockCreek-S5	RGRC2_24 hr	11.87	3.7083	3.84	2.41	2.6182	86.1	0.00	0.00
RockCreek-S6	RGRC2_24 hr	3.15	3.7653	3.84	1.90	0.8947	79.9	0.00	0.00
Ta-N01-S1	RGRC2_24 hr	1.99	3.6792	3.84	3.52	0.3218	97.2	0.00	0.00
Ta-N01-S10	RGRC2_24 hr	2.73	3.6792	3.84	3.61	0.4367	98.0	0.00	0.00
Ta-N01-S11	RGRC2_24 hr	3.83	3.6819	3.84	3.22	0.6673	94.5	0.00	0.00
Ta-N01-S12	RGRC2_24 hr	2.99	3.6792	3.84	3.57	0.4810	97.7	0.00	0.00
Ta-N01-S13	RGRC2_24 hr	4.05	3.6792	3.84	3.61	0.6470	98.0	0.00	0.00
Ta-N01-S14	RGRC2_24 hr	3.70	3.6778	3.84	3.61	0.5920	98.0	0.00	0.00
Ta-N01-S15	RGRC2_24 hr	2.37	3.6778	3.84	3.61	0.3785	98.0	0.00	0.00
Ta-N01-S17	RGRC2_24 hr	2.47	3.6833	3.84	3.14	0.4405	93.7	0.00	0.00
Ta-N01-S18	RGRC2_24 hr	40.13	3.7111	3.84	2.55	8.6683	87.6	0.00	0.00
Ta-N01-S2	RGRC2_24 hr	1.22	3.6792	3.84	3.48	0.1994	96.9	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Ta-N01-S20	RGRC2_24 hr	1.66	3.6792	3.84	3.41	0.2749	96.3	0.00	0.00
Ta-N01-S21	RGRC2_24 hr	7.66	3.7125	3.84	2.50	1.6898	87.1	0.00	0.00
Ta-N01-S22	RGRC2_24 hr	6.65	3.6931	3.84	2.60	1.3655	88.2	0.00	0.00
Ta-N01-S23	RGRC2_24 hr	11.73	3.7319	3.84	2.37	2.7092	85.7	0.00	0.00
Ta-N01-S24	RGRC2_24 hr	9.98	3.8500	3.84	2.22	3.0799	83.8	0.00	0.00
Ta-N01-S25	RGRC2_24 hr	7.89	3.7208	3.84	2.58	1.6820	88.0	0.00	0.00
Ta-N01-S26	RGRC2_24 hr	8.07	3.6819	3.84	3.05	1.4397	92.9	0.00	0.00
Ta-N01-S3	RGRC2_24 hr	48.67	3.7639	3.84	2.33	12.2999	85.2	0.00	0.00
Ta-N01-S4	RGRC2_24 hr	2.35	3.6806	3.84	3.22	0.3995	94.5	0.00	0.00
Ta-N01-S5	RGRC2_24 hr	2.53	3.6792	3.84	3.51	0.4103	97.1	0.00	0.00
Ta-N01-S6	RGRC2_24 hr	9.08	3.6847	3.84	2.73	1.7797	89.6	0.00	0.00
Ta-N01-S7	RGRC2_24 hr	0.79	3.6833	3.84	2.87	0.1508	91.0	0.00	0.00
Ta-N01-S8a	RGRC2_24 hr	0.78	3.6792	3.84	3.54	0.1267	97.4	0.00	0.00
Ta-N01-S8b	RGRC2_24 hr	3.03	3.6792	3.84	3.53	0.4895	97.3	0.00	0.00
Ta-N01-S9	RGRC2_24 hr	1.62	3.6986	3.84	2.56	0.3397	87.8	0.00	0.00
Ta-N02-S1	RGRC2_24 hr	3.75	3.6792	3.84	3.57	0.6036	97.7	0.00	0.00
Ta-N03-S10	RGRC2_24 hr	1.52	3.6806	3.84	3.30	0.2594	95.2	0.00	0.00
Ta-N03-S11	RGRC2_24 hr	0.96	3.6806	3.84	3.21	0.1676	94.4	0.00	0.00
Ta-N03-S12	RGRC2_24 hr	16.73	3.6986	3.84	2.03	4.1230	81.5	0.00	0.00
Ta-N03-S13	RGRC2_24 hr	4.27	3.7556	3.84	2.66	0.9661	88.9	0.00	0.00
Ta-N03-S14	RGRC2_24 hr	0.78	3.6792	3.84	3.54	0.1270	97.4	0.00	0.00
Ta-N03-S16	RGRC2_24 hr	3.42	3.6931	3.84	2.69	0.6957	89.2	0.00	0.00
Ta-N03-S17	RGRC2_24 hr	9.05	3.7153	3.84	2.54	1.9855	87.5	0.00	0.00
Ta-N03-S1	RGRC2_24	11.56	3.7167	3.84	2.15	2.8534	83.1	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
8	hr								
Ta-N03-S19	RGRC2_24 hr	17.82	3.8778	3.84	2.37	5.5570	85.6	0.00	0.00
Ta-N03-S2	RGRC2_24 hr	2.25	3.7806	3.84	2.40	0.5804	85.9	0.00	0.00
Ta-N03-S3	RGRC2_24 hr	1.74	3.6903	3.84	1.97	0.4308	80.7	0.00	0.00
Ta-N03-S4	RGRC2_24 hr	3.94	3.7333	3.84	2.39	0.9350	85.9	0.00	0.00
Ta-N03-S5	RGRC2_24 hr	11.18	3.7681	3.84	2.19	2.9912	83.5	0.00	0.00
Ta-N03-S6	RGRC2_24 hr	8.03	3.6903	3.84	2.05	1.9183	81.8	0.00	0.00
Ta-N03-S7	RGRC2_24 hr	1.96	3.6819	3.84	3.07	0.3537	93.0	0.00	0.00
Ta-N03-S9	RGRC2_24 hr	3.49	3.7361	3.84	2.72	0.7579	89.5	0.00	0.00
Ta-N04-S1	RGRC2_24 hr	1.76	3.6833	3.84	3.16	0.3120	93.9	0.00	0.00
Ta-N04-S2	RGRC2_24 hr	22.84	3.7944	3.84	2.05	6.7393	81.8	0.00	0.00
Ta-N05-S1	RGRC2_24 hr	3.31	3.6819	3.84	3.13	0.5866	93.6	0.00	0.00
Ta-N05-S2	RGRC2_24 hr	7.30	3.7083	3.84	2.55	1.5724	87.7	0.00	0.00
Ta-N06a-S1	RGRC2_24 hr	1.17	3.7153	3.84	1.59	0.3482	75.6	0.00	0.00
Ta-N06a-S10	RGRC2_24 hr	4.74	3.6972	3.84	2.20	1.0699	83.6	0.00	0.00
Ta-N06a-S11	RGRC2_24 hr	10.59	3.7361	3.84	2.02	2.7885	81.4	0.00	0.00
Ta-N06a-S12	RGRC2_24 hr	7.05	3.7056	3.84	2.18	1.6115	83.3	0.00	0.00
Ta-N06a-S13	RGRC2_24 hr	9.59	3.7361	3.84	2.07	2.4147	82.1	0.00	0.00
Ta-N06a-S14	RGRC2_24 hr	9.20	3.7750	3.84	2.40	2.1882	86.0	0.00	0.00
Ta-N06a-S15	RGRC2_24 hr	11.34	3.7333	3.84	2.20	2.7144	83.7	0.00	0.00
Ta-N06a-S16	RGRC2_24 hr	3.00	3.7792	3.84	2.32	0.7614	85.1	0.00	0.00
Ta-N06a-S17	RGRC2_24 hr	5.94	3.7333	3.84	2.20	1.4454	83.6	0.00	0.00
Ta-N06a-S18	RGRC2_24 hr	2.93	3.8042	3.84	2.18	0.8137	83.4	0.00	0.00
Ta-N06a-S19	RGRC2_24 hr	5.28	3.7236	3.84	1.82	1.4437	78.8	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Ta-N06a-S2	RGRC2_24 hr	34.84	3.7750	3.84	2.34	8.9436	85.3	0.00	0.00
Ta-N06a-S3	RGRC2_24 hr	9.55	3.7222	3.84	2.40	2.1913	85.9	0.00	0.00
Ta-N06a-S4	RGRC2_24 hr	11.11	3.6875	3.84	2.34	2.4402	85.3	0.00	0.00
Ta-N06a-S5	RGRC2_24 hr	1.85	3.7278	3.84	2.54	0.3958	87.6	0.00	0.00
Ta-N06a-S6	RGRC2_24 hr	1.27	3.8056	3.84	2.18	0.3522	83.4	0.00	0.00
Ta-N06a-S7	RGRC2_24 hr	24.49	3.7444	3.84	2.05	6.5670	81.9	0.00	0.00
Ta-N06a-S8	RGRC2_24 hr	14.86	3.8000	3.84	2.30	3.9763	84.9	0.00	0.00
Ta-N06a-S9	RGRC2_24 hr	6.44	3.7653	3.84	2.00	1.7414	81.1	0.00	0.00
Ta-N06b-S1	RGRC2_24 hr	3.51	3.8708	3.84	2.14	1.1793	82.9	0.00	0.00
Ta-N06b-S2	RGRC2_24 hr	3.85	3.7028	3.84	2.37	0.8706	85.6	0.00	0.00
Ta-N06b-S3	RGRC2_24 hr	7.27	3.7583	3.84	2.19	1.9149	83.5	0.00	0.00
Ta-N06b-S4	RGRC2_24 hr	8.08	3.7389	3.84	2.20	2.0357	83.7	0.00	0.00
Ta-N06b-S5	RGRC2_24 hr	2.03	3.7083	3.84	2.75	0.4162	89.8	0.00	0.00
Ta-N07-S1	RGRC2_24 hr	30.99	3.7153	3.84	2.00	7.9793	81.1	0.00	0.00
Ta-N08-S1	RGRC2_24 hr	1.57	3.6986	3.84	2.12	0.3800	82.6	0.00	0.00
Ta-N08-S2	RGRC2_24 hr	1.73	3.6972	3.84	2.85	0.3241	90.8	0.00	0.00
Ta-N08-S3	RGRC2_24 hr	11.07	3.7958	3.84	2.23	3.0806	84.0	0.00	0.00
Ta-N09-S1	RGRC2_24 hr	11.32	3.8014	3.84	2.17	3.2650	83.3	0.00	0.00
Ta-N09-S10	RGRC2_24 hr	8.63	3.7264	3.84	2.10	2.2098	82.5	0.00	0.00
Ta-N09-S11	RGRC2_24 hr	5.43	3.7528	3.84	2.61	1.2400	88.3	0.00	0.00
Ta-N09-S12	RGRC2_24 hr	13.24	3.6972	3.84	2.21	3.0824	83.7	0.00	0.00
Ta-N09-S13	RGRC2_24 hr	20.38	3.7972	3.84	2.26	5.6615	84.3	0.00	0.00
Ta-N09-S14	RGRC2_24 hr	1.75	3.7278	3.84	2.50	0.3959	87.1	0.00	0.00
Ta-N09-S1	RGRC2_24 hr	6.96	3.7069	3.84	2.41	1.5369	86.1	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
5	hr								
Ta-N09-S16	RGRC2_24 hr	24.89	3.7917	3.84	2.21	6.9462	83.7	0.00	0.00
Ta-N09-S17	RGRC2_24 hr	1.92	3.6861	3.84	3.13	0.3440	93.6	0.00	0.00
Ta-N09-S18	RGRC2_24 hr	5.47	3.6833	3.84	3.49	0.8960	96.9	0.00	0.00
Ta-N09-S19	RGRC2_24 hr	1.45	3.6792	3.84	3.57	0.2334	97.6	0.00	0.00
Ta-N09-S20	RGRC2_24 hr	12.29	3.7028	3.84	2.44	2.6013	86.5	0.00	0.00
Ta-N09-S21	RGRC2_24 hr	17.00	3.7917	3.84	1.79	5.5209	78.4	0.00	0.00
Ta-N09-S22	RGRC2_24 hr	4.05	3.6931	3.84	2.75	0.8072	89.8	0.00	0.00
Ta-N09-S23	RGRC2_24 hr	2.70	3.7153	3.84	2.69	0.5697	89.2	0.00	0.00
Ta-N09-S24	RGRC2_24 hr	1.13	3.6792	3.84	3.47	0.1848	96.8	0.00	0.00
Ta-N09-S25	RGRC2_24 hr	1.00	3.6792	3.84	3.55	0.1608	97.5	0.00	0.00
Ta-N09-S26	RGRC2_24 hr	20.74	3.8986	3.84	2.32	6.7798	85.0	0.00	0.00
Ta-N09-S27	RGRC2_24 hr	7.11	3.8778	3.84	2.33	2.2368	85.2	0.00	0.00
Ta-N09-S28	RGRC2_24 hr	1.22	3.8222	3.84	2.25	0.3568	84.2	0.00	0.00
Ta-N09-S29	RGRC2_24 hr	16.62	3.7681	3.84	2.28	4.2949	84.6	0.00	0.00
Ta-N09-S30	RGRC2_24 hr	2.36	3.7611	3.84	2.54	0.5587	87.6	0.00	0.00
Ta-N09-S31	RGRC2_24 hr	9.18	3.7500	3.84	2.23	2.3266	84.0	0.00	0.00
Ta-N09-S32	RGRC2_24 hr	3.71	3.7000	3.84	3.31	0.6427	95.3	0.00	0.00
Ta-N09-S33	RGRC2_24 hr	2.13	3.6792	3.84	3.46	0.3487	96.7	0.00	0.00
Ta-N09-S34	RGRC2_24 hr	3.26	3.6792	3.84	3.56	0.5253	97.6	0.00	0.00
Ta-N09-S35	RGRC2_24 hr	1.19	3.6792	3.84	3.58	0.1903	97.7	0.00	0.00
Ta-N09-S36	RGRC2_24 hr	13.00	3.7056	3.84	3.38	2.2429	95.9	0.00	0.00
Ta-N09-S37	RGRC2_24 hr	24.24	3.7750	3.84	2.22	6.5120	83.9	0.00	0.00
Ta-N09-S38	RGRC2_24 hr	5.72	3.7611	3.84	1.80	1.7339	78.5	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Ta-N09-S37	RGRC2_24 hr	18.33	3.8236	3.84	2.14	5.5303	82.9	0.00	0.00
Ta-N09-S38	RGRC2_24 hr	12.28	3.8542	3.84	2.18	3.9192	83.5	0.00	0.00
Ta-N09-S39	RGRC2_24 hr	6.26	3.7569	3.84	2.25	1.6110	84.2	0.00	0.00
Ta-N09-S40a	RGRC2_24 hr	18.35	3.8278	3.84	2.15	5.6242	83.0	0.00	0.00
Ta-N09-S40b	RGRC2_24 hr	10.77	3.9972	3.84	2.26	4.2777	84.4	0.00	0.00
Ta-N09-S41	RGRC2_24 hr	4.35	4.0972	3.84	2.22	2.0484	83.8	0.00	0.00
Ta-N09-S42	RGRC2_24 hr	3.76	3.8042	3.84	2.87	0.8492	91.1	0.00	0.00
Ta-N09-S43	RGRC2_24 hr	0.73	3.6792	3.84	3.53	0.1190	97.3	0.00	0.00
Ta-N09-S44	RGRC2_24 hr	7.78	3.6792	3.84	3.51	1.2625	97.2	0.00	0.00
Ta-N09-S45	RGRC2_24 hr	2.81	3.6806	3.84	3.28	0.4747	95.0	0.00	0.00
Ta-N09-S46	RGRC2_24 hr	1.50	3.6833	3.84	2.94	0.2689	91.8	0.00	0.00
Ta-N09-S47	RGRC2_24 hr	1.21	3.6806	3.84	3.29	0.2029	95.2	0.00	0.00
Ta-N09-S48	RGRC2_24 hr	1.73	3.6806	3.84	3.33	0.2891	95.5	0.00	0.00
Ta-N09-S49	RGRC2_24 hr	15.41	3.7167	3.84	2.31	3.6343	85.0	0.00	0.00
Ta-N09-S50	RGRC2_24 hr	35.09	3.7472	3.84	2.12	9.0554	82.7	0.00	0.00
Ta-N09-S51	RGRC2_24 hr	6.28	3.7236	3.84	2.17	1.5683	83.2	0.00	0.00
Ta-N09-S52	RGRC2_24 hr	8.22	3.6958	3.84	2.21	1.9103	83.8	0.00	0.00
Ta-N09-S53	RGRC2_24 hr	20.97	3.7819	3.84	2.23	5.5469	84.0	0.00	0.00
Ta-N09-S54	RGRC2_24 hr	19.54	3.7097	3.84	2.97	3.5893	92.1	0.00	0.00
Ta-N09-S55	RGRC2_24 hr	3.80	3.7569	3.84	3.14	0.7230	93.7	0.00	0.00
Ta-N09-S56	RGRC2_24 hr	21.32	3.7319	3.84	2.25	5.2741	84.2	0.00	0.00
Ta-N09-S57	RGRC2_24 hr	5.74	3.7486	3.84	1.86	1.6662	79.4	0.00	0.00
Ta-N09-S58	RGRC2_24 hr	0.98	3.7167	3.84	2.48	0.2195	86.9	0.00	0.00
Ta-N09-S59	RGRC2_24 hr	2.97	3.6875	3.84	2.32	0.6605	85.1	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	hr								
Ta-N10-S1	RGRC2_24 hr	1.34	3.6944	3.84	2.55	0.2763	87.7	0.00	0.00
Ta-N10-S2	RGRC2_24 hr	3.34	3.7417	3.84	1.82	0.9621	78.8	0.00	0.00
Ta-N10-S3	RGRC2_24 hr	25.33	3.6972	3.84	2.30	5.7379	84.9	0.00	0.00
Ta-N11-S1	RGRC2_24 hr	1.02	3.7431	3.84	2.22	0.2484	83.9	0.00	0.00
Ta-N12-S1	RGRC2_24 hr	0.89	3.7236	3.84	1.83	0.2374	79.0	0.00	0.00
Ta-N13-S1	RGRC2_24 hr	1.47	3.7431	3.84	2.23	0.3423	84.1	0.00	0.00
Ta-N14-S1	RGRC2_24 hr	5.49	3.7750	3.84	2.34	1.4186	85.3	0.00	0.00
Ta-N15-S1	RGRC2_24 hr	9.30	3.7653	3.84	2.04	2.5568	81.7	0.00	0.00
Ta-N16-S1	RGRC2_24 hr	0.81	3.6819	3.84	2.99	0.1498	92.3	0.00	0.00
Ta-N16-S1 0	RGRC2_24 hr	3.75	3.7667	3.84	2.15	1.0184	83.1	0.00	0.00
Ta-N16-S1 1	RGRC2_24 hr	8.69	3.7792	3.84	2.34	2.2745	85.2	0.00	0.00
Ta-N16-S1 2	RGRC2_24 hr	9.80	3.7444	3.84	2.25	2.4750	84.2	0.00	0.00
Ta-N16-S1 3	RGRC2_24 hr	36.29	3.8153	3.84	2.23	10.5540	83.9	0.00	0.00
Ta-N16-S1 4	RGRC2_24 hr	13.52	3.7958	3.84	1.99	4.1095	81.1	0.00	0.00
Ta-N16-S1 5	RGRC2_24 hr	1.38	3.6972	3.84	2.51	0.2919	87.3	0.00	0.00
Ta-N16-S1 6	RGRC2_24 hr	5.76	3.7139	3.84	2.46	1.2923	86.7	0.00	0.00
Ta-N16-S1 7	RGRC2_24 hr	14.63	3.7194	3.84	2.21	3.5684	83.7	0.00	0.00
Ta-N16-S1 8	RGRC2_24 hr	3.15	3.7208	3.84	2.60	0.6889	88.2	0.00	0.00
Ta-N16-S1 9	RGRC2_24 hr	10.07	3.8167	3.84	1.96	3.2194	80.7	0.00	0.00
Ta-N16-S2	RGRC2_24 hr	1.25	3.6792	3.84	3.40	0.2094	96.1	0.00	0.00
Ta-N16-S2 0	RGRC2_24 hr	15.70	3.7014	3.84	1.97	3.9817	80.8	0.00	0.00
Ta-N16-S2 1	RGRC2_24 hr	1.69	3.6819	3.84	3.08	0.3044	93.2	0.00	0.00
Ta-N16-S2 2	RGRC2_24 hr	1.96	3.6819	3.84	3.09	0.3545	93.2	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Ta-N16-S23	RGRC2_24 hr	19.03	3.8264	3.84	2.23	5.6759	84.0	0.00	0.00
Ta-N16-S24	RGRC2_24 hr	1.14	3.6792	3.84	3.58	0.1833	97.8	0.00	0.00
Ta-N16-S25	RGRC2_24 hr	1.50	3.6819	3.84	3.12	0.2670	93.5	0.00	0.00
Ta-N16-S26	RGRC2_24 hr	1.95	3.6806	3.84	3.37	0.3287	95.9	0.00	0.00
Ta-N16-S27	RGRC2_24 hr	49.77	3.8931	3.84	1.93	19.0361	80.3	0.00	0.00
Ta-N16-S28	RGRC2_24 hr	1.43	3.6792	3.84	3.42	0.2386	96.3	0.00	0.00
Ta-N16-S29	RGRC2_24 hr	1.36	3.6986	3.84	2.97	0.2589	92.0	0.00	0.00
Ta-N16-S30	RGRC2_24 hr	2.12	3.6875	3.84	2.29	0.4740	84.7	0.00	0.00
Ta-N16-S31	RGRC2_24 hr	7.56	3.7486	3.84	2.41	1.8235	86.1	0.00	0.00
Ta-N16-S32	RGRC2_24 hr	9.41	3.8681	3.84	2.05	3.2284	81.8	0.00	0.00
Ta-N16-S33	RGRC2_24 hr	8.93	3.8306	3.84	2.14	2.7577	82.9	0.00	0.00
Ta-N16-S34	RGRC2_24 hr	8.75	3.7194	3.84	2.48	1.9730	86.9	0.00	0.00
Ta-N16-S35	RGRC2_24 hr	3.86	3.7014	3.84	2.16	0.9166	83.2	0.00	0.00
Ta-N16-S36	RGRC2_24 hr	4.47	3.6986	3.84	2.61	0.9374	88.4	0.00	0.00
Ta-N16-S37	RGRC2_24 hr	2.17	3.6806	3.84	3.27	0.3739	95.0	0.00	0.00
Ta-N16-S38	RGRC2_24 hr	4.14	3.7611	3.84	1.64	1.3174	76.4	0.00	0.00
Ta-N16-S39	RGRC2_24 hr	2.41	3.6931	3.84	2.57	0.4928	87.9	0.00	0.00
Ta-N16-S40	RGRC2_24 hr	1.88	3.6806	3.84	3.22	0.3293	94.5	0.00	0.00
Ta-N16-S41	RGRC2_24 hr	3.92	3.7250	3.84	2.72	0.8348	89.5	0.00	0.00
Ta-N16-S42	RGRC2_24 hr	5.19	3.6806	3.84	3.22	0.8890	94.5	0.00	0.00
Ta-N16-S43	RGRC2_24 hr	2.95	3.6806	3.84	3.26	0.5098	94.8	0.00	0.00
Ta-N16-S44	RGRC2_24 hr	3.29	3.7181	3.84	2.26	0.7893	84.4	0.00	0.00
Ta-N16-S45	RGRC2_24 hr	2.10	3.6792	3.84	3.40	0.3481	96.2	0.00	0.00
Ta-N16-S46	RGRC2_24 hr	2.30	3.6792	3.84	3.43	0.3815	96.5	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
4	hr								
Ta-N16-S4	RGRC2_24	0.99	3.6972	3.84	2.72	0.2021	89.5	0.00	0.00
5	hr								
Ta-N16-S4	RGRC2_24	18.76	3.7486	3.84	2.46	4.4283	86.7	0.00	0.00
6	hr								
Ta-N16-S4	RGRC2_24	2.02	3.6833	3.84	3.20	0.3557	94.3	0.00	0.00
7	hr								
Ta-N16-S4	RGRC2_24	7.09	3.7472	3.84	2.17	1.8351	83.3	0.00	0.00
8	hr								
Ta-N16-S4	RGRC2_24	2.06	3.6903	3.84	2.36	0.4547	85.5	0.00	0.00
9	hr								
Ta-N16-S5	RGRC2_24	1.30	3.6819	3.84	2.99	0.2399	92.3	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	7.75	3.7361	3.84	2.32	1.8810	85.0	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	26.60	3.8736	3.84	2.17	8.8649	83.3	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	16.63	3.7042	3.84	2.68	3.4502	89.1	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	1.68	3.6792	3.84	3.41	0.2805	96.2	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	4.44	3.7278	3.84	2.79	0.9285	90.2	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	9.65	3.6861	3.84	2.49	2.0328	87.0	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	14.87	3.7875	3.84	2.50	3.5701	87.1	0.00	0.00
hr									
Ta-N16-S5	RGRC2_24	11.45	3.8014	3.84	1.94	3.5764	80.4	0.00	0.00
hr									
Ta-N16-S6	RGRC2_24	67.78	3.8389	3.84	2.31	19.7286	84.9	0.00	0.00
hr									
Ta-N16-S6	RGRC2_24	7.85	3.7528	3.84	2.23	2.0231	83.9	0.00	0.00
hr									
Ta-N16-S6	RGRC2_24	13.65	3.7417	3.84	2.22	3.4472	83.9	0.00	0.00
hr									
Ta-N16-S6	RGRC2_24	8.52	3.7611	3.84	2.24	2.2063	84.2	0.00	0.00
hr									
Ta-N16-S6	RGRC2_24	5.51	3.7472	3.84	2.56	1.2702	87.7	0.00	0.00
hr									
Ta-N16-S7	RGRC2_24	2.11	3.6847	3.84	2.74	0.4158	89.7	0.00	0.00
hr									
Ta-N16-S8	RGRC2_24	19.70	3.8139	3.84	2.03	6.1100	81.6	0.00	0.00
hr									
Ta-N16-S9	RGRC2_24	2.17	3.6792	3.84	3.42	0.3610	96.3	0.00	0.00
hr									
Tb-N01-S1	RGRC2_24	5.77	3.6847	3.84	2.76	1.1124	89.9	0.00	0.00
hr									

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Tb-N01-S2	RGRC2_24 hr	3.89	3.7139	3.84	2.31	0.9403	85.0	0.00	0.00
Tb-N02-S1	RGRC2_24 hr	2.40	3.8903	3.84	2.47	0.7418	86.7	0.00	0.00
Tb-N02-S10	RGRC2_24 hr	6.78	3.7292	3.84	2.09	1.7439	82.4	0.00	0.00
Tb-N02-S2	RGRC2_24 hr	3.78	3.7556	3.84	2.97	0.7831	92.1	0.00	0.00
Tb-N02-S3	RGRC2_24 hr	1.75	3.6819	3.84	3.09	0.3156	93.3	0.00	0.00
Tb-N02-S4	RGRC2_24 hr	13.20	3.7958	3.84	2.06	3.8938	81.9	0.00	0.00
Tb-N02-S5	RGRC2_24 hr	12.53	3.8375	3.84	1.93	4.2464	80.2	0.00	0.00
Tb-N02-S6	RGRC2_24 hr	12.30	3.7181	3.84	2.46	2.7885	86.7	0.00	0.00
Tb-N02-S7	RGRC2_24 hr	51.02	3.7667	3.84	2.15	13.7743	83.1	0.00	0.00
Tb-N02-S9	RGRC2_24 hr	9.81	3.7014	3.84	2.54	2.1121	87.5	0.00	0.00
Tb-N03-S1	RGRC2_24 hr	5.07	3.7111	3.84	2.81	1.0277	90.5	0.00	0.00
Tb-N04-S1	RGRC2_24 hr	0.57	3.6833	3.84	2.88	0.1083	91.2	0.00	0.00
Tb-N04-S2	RGRC2_24 hr	0.88	3.6861	3.84	2.41	0.1916	86.1	0.00	0.00
Tb-N04-S3	RGRC2_24 hr	1.44	3.6931	3.84	2.88	0.2776	91.1	0.00	0.00
Tb-N04-S4	RGRC2_24 hr	5.27	3.7639	3.84	2.51	1.2666	87.2	0.00	0.00
Tb-N04-S5	RGRC2_24 hr	3.02	3.6861	3.84	2.51	0.6358	87.2	0.00	0.00
Tb-N04-S6	RGRC2_24 hr	4.58	3.7097	3.84	2.92	0.9019	91.6	0.00	0.00
Tb-N04-S7	RGRC2_24 hr	9.24	3.7042	3.84	2.56	1.9764	87.8	0.00	0.00
Tb-N04-S8	RGRC2_24 hr	0.96	3.6861	3.84	2.56	0.1982	87.8	0.00	0.00
Tb-N05-S1	RGRC2_24 hr	16.69	3.7208	3.84	2.11	4.1752	82.6	0.00	0.00
Tb-N05-S2	RGRC2_24 hr	6.39	3.7125	3.84	2.76	1.2749	89.9	0.00	0.00
Tb-N06-S1	RGRC2_24 hr	2.06	3.6931	3.84	1.67	0.5613	76.8	0.00	0.00
Tb-N06-S2	RGRC2_24 hr	12.79	3.7528	3.84	2.25	3.2715	84.2	0.00	0.00
Tb-N06-S3	RGRC2_24 hr	5.78	3.8222	3.84	2.50	1.5565	87.1	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
	hr								
Tb-N07-S1	RGRC2_24 hr	2.71	3.7667	3.84	2.95	0.5565	91.8	0.00	0.00
Tb-N08-S1	RGRC2_24 hr	4.35	3.7583	3.84	2.71	0.9679	89.4	0.00	0.00
Tb-N08-S1 0	RGRC2_24 hr	3.25	3.7778	3.84	2.40	0.7751	85.9	0.00	0.00
Tb-N08-S1 1	RGRC2_24 hr	6.62	3.8361	3.84	2.11	2.0904	82.5	0.00	0.00
Tb-N08-S1 2	RGRC2_24 hr	4.59	3.6972	3.84	2.43	1.0042	86.3	0.00	0.00
Tb-N08-S1 3	RGRC2_24 hr	6.88	3.6847	3.84	2.94	1.2722	91.8	0.00	0.00
Tb-N08-S1 4	RGRC2_24 hr	3.21	3.6875	3.84	3.47	0.5316	96.8	0.00	0.00
Tb-N08-S1 5	RGRC2_24 hr	5.27	3.8153	3.84	2.42	1.4340	86.2	0.00	0.00
Tb-N08-S1 6	RGRC2_24 hr	13.89	3.7431	3.84	1.92	3.8703	80.2	0.00	0.00
Tb-N08-S1 7	RGRC2_24 hr	1.85	3.6847	3.84	3.29	0.3186	95.2	0.00	0.00
Tb-N08-S1 8	RGRC2_24 hr	7.81	3.7069	3.84	2.50	1.7098	87.1	0.00	0.00
Tb-N08-S1 9	RGRC2_24 hr	5.41	3.8208	3.84	1.91	1.7764	80.0	0.00	0.00
Tb-N08-S2	RGRC2_24 hr	16.72	3.7653	3.84	2.24	4.3932	84.1	0.00	0.00
Tb-N08-S2 0	RGRC2_24 hr	5.18	3.7000	3.84	2.46	1.1282	86.7	0.00	0.00
Tb-N08-S2 1	RGRC2_24 hr	4.78	3.7472	3.84	2.27	1.1980	84.5	0.00	0.00
Tb-N08-S2 2	RGRC2_24 hr	5.54	3.6972	3.84	2.41	1.2293	86.1	0.00	0.00
Tb-N08-S2 3	RGRC2_24 hr	1.62	3.6819	3.84	3.13	0.2894	93.6	0.00	0.00
Tb-N08-S2 4	RGRC2_24 hr	17.87	3.7389	3.84	2.54	4.0572	87.6	0.00	0.00
Tb-N08-S2 5	RGRC2_24 hr	10.22	3.8083	3.84	1.95	3.2369	80.5	0.00	0.00
Tb-N08-S2 6	RGRC2_24 hr	9.86	3.8444	3.84	2.63	2.5525	88.6	0.00	0.00
Tb-N08-S2 7	RGRC2_24 hr	4.17	3.6833	3.84	2.83	0.8028	90.6	0.00	0.00
Tb-N08-S2 8	RGRC2_24 hr	14.84	3.7181	3.84	2.88	2.9573	91.1	0.00	0.00
Tb-N08-S2 9	RGRC2_24 hr	2.28	3.6875	3.84	2.36	0.4983	85.5	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Tb-N08-S3	RGRC2_24 hr	5.87	3.8042	3.84	1.84	1.9207	79.0	0.00	0.00
Tb-N08-S30	RGRC2_24 hr	3.62	3.7389	3.84	2.41	0.8551	86.0	0.00	0.00
Tb-N08-S31	RGRC2_24 hr	24.83	3.8222	3.84	2.22	7.0454	83.9	0.00	0.00
Tb-N08-S32	RGRC2_24 hr	2.79	3.7597	3.84	2.13	0.7512	82.8	0.00	0.00
Tb-N08-S33	RGRC2_24 hr	6.84	3.8083	3.84	2.39	1.8144	85.8	0.00	0.00
Tb-N08-S34	RGRC2_24 hr	18.98	3.7764	3.84	3.44	3.5863	96.5	0.00	0.00
Tb-N08-S35	RGRC2_24 hr	9.30	3.6806	3.84	3.38	1.5385	96.0	0.00	0.00
Tb-N08-S36	RGRC2_24 hr	4.16	3.7347	3.84	2.24	1.0331	84.1	0.00	0.00
Tb-N08-S37	RGRC2_24 hr	2.12	3.7681	3.84	2.47	0.5153	86.7	0.00	0.00
Tb-N08-S38	RGRC2_24 hr	7.41	3.7069	3.84	2.31	1.7083	84.9	0.00	0.00
Tb-N08-S39	RGRC2_24 hr	4.20	3.6833	3.84	2.92	0.7801	91.5	0.00	0.00
Tb-N08-S4	RGRC2_24 hr	5.79	3.7917	3.84	1.93	1.7706	80.3	0.00	0.00
Tb-N08-S40	RGRC2_24 hr	17.30	3.7028	3.84	3.40	2.9617	96.2	0.00	0.00
Tb-N08-S41	RGRC2_24 hr	18.66	3.8792	3.84	3.09	4.4637	93.3	0.00	0.00
Tb-N08-S5	RGRC2_24 hr	1.14	3.7222	3.84	2.52	0.2551	87.4	0.00	0.00
Tb-N08-S6	RGRC2_24 hr	2.24	3.6861	3.84	2.45	0.4776	86.6	0.00	0.00
Tb-N08-S7	RGRC2_24 hr	3.10	3.7625	3.84	2.59	0.7199	88.1	0.00	0.00
Tb-N08-S8	RGRC2_24 hr	2.24	3.7111	3.84	1.88	0.5952	79.6	0.00	0.00
Tb-N08-S9	RGRC2_24 hr	1.52	3.6847	3.84	2.64	0.2914	88.6	0.00	0.00
Tb-N09a-S1	RGRC2_24 hr	0.98	3.6792	3.84	3.56	0.1581	97.6	0.00	0.00
Tb-N09a-S10	RGRC2_24 hr	2.75	3.6806	3.84	3.31	0.4612	95.3	0.00	0.00
Tb-N09a-S11	RGRC2_24 hr	2.48	3.6944	3.84	3.50	0.4138	97.0	0.00	0.00
Tb-N09a-S12	RGRC2_24 hr	0.54	3.6806	3.84	3.22	0.0926	94.5	0.00	0.00
Tb-N09a-S	RGRC2_24 hr	0.76	3.6806	3.84	3.24	0.1290	94.7	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
13	hr								
Tb-N09a-S14	RGRC2_24 hr	4.56	3.6944	3.84	2.96	0.8296	92.0	0.00	0.00
Tb-N09a-S15	RGRC2_24 hr	9.28	3.7069	3.84	3.09	1.6861	93.2	0.00	0.00
Tb-N09a-S16	RGRC2_24 hr	1.19	3.6819	3.84	3.17	0.2038	94.0	0.00	0.00
Tb-N09a-S17	RGRC2_24 hr	3.77	3.6819	3.84	3.05	0.6578	92.8	0.00	0.00
Tb-N09a-S18	RGRC2_24 hr	1.99	3.6792	3.84	3.59	0.3186	97.8	0.00	0.00
Tb-N09a-S19	RGRC2_24 hr	10.44	3.6792	3.84	3.43	1.7150	96.4	0.00	0.00
Tb-N09a-S2	RGRC2_24 hr	1.49	3.6792	3.84	3.59	0.2381	97.9	0.00	0.00
Tb-N09a-S20	RGRC2_24 hr	2.23	3.6917	3.84	2.90	0.4052	91.3	0.00	0.00
Tb-N09a-S21	RGRC2_24 hr	7.02	3.7444	3.84	3.28	1.3022	95.1	0.00	0.00
Tb-N09a-S22	RGRC2_24 hr	1.54	3.7514	3.84	3.01	0.3041	92.4	0.00	0.00
Tb-N09a-S23	RGRC2_24 hr	2.98	3.6806	3.84	3.48	0.4881	96.9	0.00	0.00
Tb-N09a-S24	RGRC2_24 hr	6.75	3.6806	3.84	3.33	1.1310	95.5	0.00	0.00
Tb-N09a-S25	RGRC2_24 hr	1.98	3.6792	3.84	3.61	0.3160	98.0	0.00	0.00
Tb-N09a-S26	RGRC2_24 hr	2.37	3.6792	3.84	3.41	0.3919	96.3	0.00	0.00
Tb-N09a-S27	RGRC2_24 hr	5.58	3.6931	3.84	3.06	0.9954	92.9	0.00	0.00
Tb-N09a-S28	RGRC2_24 hr	1.30	3.6819	3.84	3.08	0.2268	93.1	0.00	0.00
Tb-N09a-S29	RGRC2_24 hr	18.92	3.6806	3.84	3.33	3.1672	95.5	0.00	0.00
Tb-N09a-S3	RGRC2_24 hr	9.80	3.6806	3.84	3.38	1.6262	96.0	0.00	0.00
Tb-N09a-S30	RGRC2_24 hr	5.19	3.6806	3.84	3.38	0.8618	96.0	0.00	0.00
Tb-N09a-S31	RGRC2_24 hr	1.17	3.6778	3.84	3.61	0.1863	98.0	0.00	0.00
Tb-N09a-S32	RGRC2_24 hr	1.40	3.6792	3.84	3.60	0.2245	98.0	0.00	0.00
Tb-N09a-S33	RGRC2_24 hr	25.41	3.7139	3.84	2.84	5.0449	90.7	0.00	0.00
Tb-N09a-S34	RGRC2_24 hr	5.11	3.6819	3.84	3.13	0.8836	93.6	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Tb-N09a-S35	RGRC2_24 hr	3.75	3.7014	3.84	3.52	0.6310	97.2	0.00	0.00
Tb-N09a-S36	RGRC2_24 hr	1.58	3.7944	3.84	2.43	0.3809	86.3	0.00	0.00
Tb-N09a-S37	RGRC2_24 hr	4.36	3.6792	3.84	3.50	0.7087	97.0	0.00	0.00
Tb-N09a-S38	RGRC2_24 hr	8.25	3.6875	3.84	3.40	1.3858	96.1	0.00	0.00
Tb-N09a-S39	RGRC2_24 hr	8.25	3.6806	3.84	3.38	1.3686	96.0	0.00	0.00
Tb-N09a-S4	RGRC2_24 hr	14.66	3.7181	3.84	2.56	3.1358	87.7	0.00	0.00
Tb-N09a-S40	RGRC2_24 hr	8.90	3.6847	3.84	2.68	1.7240	89.0	0.00	0.00
Tb-N09a-S41	RGRC2_24 hr	2.07	3.6792	3.84	3.44	0.3404	96.6	0.00	0.00
Tb-N09a-S42	RGRC2_24 hr	5.76	3.6819	3.84	3.31	0.9690	95.4	0.00	0.00
Tb-N09a-S43	RGRC2_24 hr	3.48	3.6806	3.84	3.24	0.5915	94.7	0.00	0.00
Tb-N09a-S44	RGRC2_24 hr	14.50	3.7083	3.84	3.37	2.5168	95.9	0.00	0.00
Tb-N09a-S45	RGRC2_24 hr	3.52	3.6792	3.84	3.49	0.5733	97.0	0.00	0.00
Tb-N09a-S47	RGRC2_24 hr	9.53	3.8000	3.84	3.31	1.9256	95.3	0.00	0.00
Tb-N09a-S48	RGRC2_24 hr	4.28	3.6792	3.84	3.45	0.7014	96.6	0.00	0.00
Tb-N09a-S49	RGRC2_24 hr	2.96	3.6806	3.84	3.22	0.5036	94.5	0.00	0.00
Tb-N09a-S5	RGRC2_24 hr	1.03	3.6792	3.84	3.57	0.1661	97.7	0.00	0.00
Tb-N09a-S50	RGRC2_24 hr	1.13	3.6833	3.84	3.31	0.1906	95.3	0.00	0.00
Tb-N09a-S51	RGRC2_24 hr	4.15	3.6806	3.84	3.25	0.7039	94.8	0.00	0.00
Tb-N09a-S6	RGRC2_24 hr	9.84	3.6861	3.84	3.42	1.6409	96.3	0.00	0.00
Tb-N09a-S7	RGRC2_24 hr	4.40	3.6792	3.84	3.45	0.7216	96.6	0.00	0.00
Tb-N09a-S8	RGRC2_24 hr	6.08	3.6806	3.84	3.35	1.0130	95.7	0.00	0.00
Tb-N09a-S9	RGRC2_24 hr	5.01	3.6792	3.84	3.47	0.8183	96.8	0.00	0.00
Tb-N09b-S1	RGRC2_24 hr	1.93	3.6806	3.84	3.29	0.3250	95.2	0.00	0.00
Tb-N09b-S	RGRC2_24	15.41	3.7083	3.84	3.01	2.7808	92.5	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
10	hr								
Tb-N09b-S 2	RGRC2_24 hr	5.14	3.7014	3.84	3.25	0.9016	94.8	0.00	0.00
Tb-N09b-S 3	RGRC2_24 hr	3.42	3.7403	3.84	2.73	0.6997	89.6	0.00	0.00
Tb-N09b-S 4	RGRC2_24 hr	8.16	3.6875	3.84	3.31	1.3835	95.3	0.00	0.00
Tb-N09b-S 5	RGRC2_24 hr	1.54	3.6806	3.84	3.22	0.2627	94.5	0.00	0.00
Tb-N09b-S 6	RGRC2_24 hr	1.99	3.6792	3.84	3.55	0.3213	97.5	0.00	0.00
Tb-N09b-S 7	RGRC2_24 hr	4.03	3.6806	3.84	3.38	0.6686	96.0	0.00	0.00
Tb-N09b-S 8	RGRC2_24 hr	14.60	3.7319	3.84	3.32	2.6405	95.4	0.00	0.00
Tb-N09b-S 9	RGRC2_24 hr	2.78	3.6806	3.84	3.35	0.4639	95.7	0.00	0.00
Tb-N09c-S 1	RGRC2_24 hr	2.88	3.6792	3.84	3.58	0.4631	97.7	0.00	0.00
Tb-N09c-S 10	RGRC2_24 hr	0.82	3.6806	3.84	3.40	0.1358	96.1	0.00	0.00
Tb-N09c-S 11	RGRC2_24 hr	6.01	3.6792	3.84	3.48	0.9808	96.9	0.00	0.00
Tb-N09c-S 12	RGRC2_24 hr	4.74	3.6792	3.84	3.54	0.7665	97.4	0.00	0.00
Tb-N09c-S 13	RGRC2_24 hr	0.71	3.7097	3.84	3.01	0.1304	92.4	0.00	0.00
Tb-N09c-S 14	RGRC2_24 hr	11.56	3.6792	3.84	3.59	1.8546	97.8	0.00	0.00
Tb-N09c-S 15	RGRC2_24 hr	17.93	3.7347	3.84	3.17	3.3553	94.0	0.00	0.00
Tb-N09c-S 16	RGRC2_24 hr	5.47	3.6792	3.84	3.43	0.9004	96.4	0.00	0.00
Tb-N09c-S 17	RGRC2_24 hr	1.81	3.6819	3.84	3.17	0.3107	94.0	0.00	0.00
Tb-N09c-S 18	RGRC2_24 hr	1.76	3.6806	3.84	3.19	0.3007	94.2	0.00	0.00
Tb-N09c-S 19	RGRC2_24 hr	7.11	3.6792	3.84	3.41	1.1750	96.2	0.00	0.00
Tb-N09c-S 2	RGRC2_24 hr	1.75	3.6819	3.84	3.17	0.3016	94.0	0.00	0.00
Tb-N09c-S 20	RGRC2_24 hr	5.44	3.6792	3.84	3.57	0.8746	97.7	0.00	0.00
Tb-N09c-S 24	RGRC2_24 hr	9.97	3.6792	3.84	3.47	1.6301	96.7	0.00	0.00
Tb-N09c-S 25	RGRC2_24 hr	8.20	3.6806	3.84	3.38	1.3607	95.9	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
Tb-N09c-S 26	RGRC2_24 hr	2.85	3.6792	3.84	3.57	0.4589	97.7	0.00	0.00
Tb-N09c-S 27	RGRC2_24 hr	8.14	3.6944	3.84	3.18	1.4246	94.1	0.00	0.00
Tb-N09c-S 28	RGRC2_24 hr	8.07	3.6806	3.84	3.35	1.3437	95.7	0.00	0.00
Tb-N09c-S 29	RGRC2_24 hr	3.10	3.6792	3.84	3.45	0.5080	96.6	0.00	0.00
Tb-N09c-S 3	RGRC2_24 hr	6.34	3.6806	3.84	3.39	1.0511	96.1	0.00	0.00
Tb-N09c-S 30	RGRC2_24 hr	0.79	3.6833	3.84	3.23	0.1353	94.6	0.00	0.00
Tb-N09c-S 31	RGRC2_24 hr	1.59	3.6792	3.84	3.52	0.2577	97.3	0.00	0.00
Tb-N09c-S 4	RGRC2_24 hr	3.16	3.6806	3.84	3.32	0.5297	95.4	0.00	0.00
Tb-N09c-S 5	RGRC2_24 hr	11.83	3.6806	3.84	3.35	1.9707	95.7	0.00	0.00
Tb-N09c-S 6	RGRC2_24 hr	8.54	3.6806	3.84	3.37	1.4201	95.8	0.00	0.00
Tb-N09c-S 7	RGRC2_24 hr	6.78	3.6806	3.84	3.37	1.1269	95.8	0.00	0.00
Tb-N09c-S 9	RGRC2_24 hr	7.38	3.6917	3.84	3.55	1.2134	97.5	0.00	0.00
Tb-N09d-S 1	RGRC2_24 hr	1.67	3.6792	3.84	3.51	0.2718	97.1	0.00	0.00
Tb-N09d-S 10	RGRC2_24 hr	1.56	3.7097	3.84	3.47	0.2666	96.8	0.00	0.00
Tb-N09d-S 11	RGRC2_24 hr	10.48	3.6833	3.84	3.44	1.7345	96.5	0.00	0.00
Tb-N09d-S 12	RGRC2_24 hr	12.68	3.6833	3.84	2.79	2.3107	90.2	0.00	0.00
Tb-N09d-S 13	RGRC2_24 hr	24.97	3.6833	3.84	3.54	4.0665	97.4	0.00	0.00
Tb-N09d-S 2	RGRC2_24 hr	2.45	3.6792	3.84	3.42	0.4023	96.4	0.00	0.00
Tb-N09d-S 3	RGRC2_24 hr	34.50	3.6875	3.84	3.45	5.7358	96.6	0.00	0.00
Tb-N09d-S 4	RGRC2_24 hr	8.10	3.6903	3.84	3.41	1.3595	96.2	0.00	0.00
Tb-N09d-S 5	RGRC2_24 hr	7.84	3.6792	3.84	3.53	1.2698	97.3	0.00	0.00
Tb-N09d-S 6	RGRC2_24 hr	1.50	3.6806	3.84	3.36	0.2496	95.8	0.00	0.00
Tb-N09d-S 7	RGRC2_24 hr	4.53	3.7181	3.84	3.38	0.7953	96.0	0.00	0.00
Tb-N09d-S	RGRC2_24	9.96	3.6903	3.84	3.57	1.6323	97.7	0.00	0.00

Basin Name	Sim Name	Max Flow [cfs]	Time to Max Flow [hrs]	Total Rainfall [in]	Total Runoff [in]	Area [ac]	Equivalent Curve Number	% Imperv	% DCIA
8	hr								
Tb-N09d-S 9	RGRC2_24 hr	23.78	3.7458	3.84	3.35	4.3711	95.7	0.00	0.00

Node Max Conditions [1D]

Node Name	Sim Name	Warning Stage [ft]	Max Stage [ft]	Min/Max Delta Stage [ft]	Max Total Inflow [cfs]	Max Total Outflow [cfs]	Max Surface Area [ft ²]
N182	RGRC2_24hr	291.07	291.83	0.2040	937.36	925.52	501
N530b	RGRC2_24hr	287.61	288.75	0.6363	904.49	1224.66	19729
N538	RGRC2_24hr	277.22	284.59	0.0093	22.29	22.85	100
N539	RGRC2_24hr	277.58	286.04	0.0023	2.32	2.49	100
N540	RGRC2_24hr	277.31	286.08	0.0021	2.39	1.75	100
N542	RGRC2_24hr	278.08	284.83	0.0067	21.06	21.35	100
N543	RGRC2_24hr	280.78	286.08	0.0013	1.30	1.06	100
N550	RGRC2_24hr	277.96	286.00	0.0017	3.24	3.29	100
N670	RGRC2_24hr	256.37	260.39	0.1000	534.72	240.40	313
Rock-1	RGRC2_24hr	268.39	268.12	0.4927	1550.86	2122.75	1037
TwinbrookOverflow	RGRC2_24hr	286.15	286.12	0.0028	264.89	46.30	25953

Appendix E: HEC-2 Model Inputs & Outputs

6-17-76

Rockville #2

Sub-crit.

 HEC2 VERSION UPDATED JAN 1975
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08
 MODIFICATIONS 52,53,54,55,56,57,58

T1 FIA FLOOD PLAIN STUDY
 T2 ROCKVILLE CITY JOB NO. 7571723
 T3 STR. 2 10-YR.

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	=1.	2.	=0.	=0.	=0.000000	=0.00	=0.0	=0.	292.200	=0.000
J2	NPROF	IPLT	PREVS	XSECV	XSECH	FN	ALLDC	IRN	CHNTM	ITRACE
	1.000	=0.000	=1.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000
NC	.080	.080	.040	.100	.300	=0.000	=0.000	=0.000	=0.000	=0.000
QT	5.000	1041.000	1447.000	1714.000	1714.000	2540.000	=0.000	=0.000	=0.000	=0.000
X1	2.000	10.000	157.000	198.000	0.000	0.000	0.000	0.000	=0.000	=0.000
GR	299.600	0.000	295.680	57.000	288.650	157.000	283.880	162.000	283.180	169.000
GR	283.100	174.000	283.880	180.000	288.680	198.000	295.070	257.000	299.680	309.000
X1	3.000	9.000	60.000	112.000	160.000	160.000	160.000	=0.000	=1.000	=0.000
GR	305.700	0.000	296.300	41.000	295.800	60.000	288.700	65.000	288.500	70.000
GR	289.500	86.000	296.200	112.000	301.500	185.000	305.500	200.000	=0.000	=0.000
NC	=0.000	=0.000	=0.000	.300	.500	=0.000	=0.000	=0.000	=0.000	=0.000
X1	3.100	10.000	65.000	102.000	30.000	30.000	30.000	=0.000	=0.000	=0.000
X3	10.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	295.000	295.500	=0.000
GR	305.700	0.000	296.300	41.000	295.800	60.000	288.700	65.000	288.500	70.000
GR	289.500	86.000	293.500	102.000	296.200	112.000	301.500	185.000	305.500	200.000
X1	3.200	12.000	65.000	102.000	1.000	1.000	1.000	=0.000	=0.000	=0.000
BT	10.000	0.000	305.700	=0.000	41.000	296.300	=0.000	60.000	295.800	=0.000
BT	65.000	295.700	=0.000	65.000	295.700	294.900	102.000	296.200	295.200	102.000
BT	296.200	=0.000	112.000	296.200	=0.000	185.000	301.500	=0.000	200.000	305.500
BT	0.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000
GR	305.700	0.000	296.300	41.000	295.800	60.000	295.700	65.000	288.700	65.000
GR	288.500	70.000	289.500	86.000	296.200	102.000	296.200	102.000	296.200	112.000
GR	301.500	185.000	305.500	200.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000
SB	0.000	1.600	2.600	=0.000	38.000	1.000	180.000	0.000	0.000	0.000
X1	3.300	=0.000	=0.000	=0.000	10.000	10.000	10.000	=0.000	=0.000	=0.000
X2	=0.000	=0.000	1.000	295.000	295.800	=0.000	1.000	=0.000	=0.000	=0.000
X1	3.400	10.000	65.000	102.000	1.000	1.000	1.000	=0.000	=0.000	=0.000
X3	10.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	295.800	296.200	=0.000
GR	305.700	0.000	296.300	41.000	295.800	60.000	288.700	65.000	288.500	70.000
GR	289.500	86.000	293.500	102.000	296.200	112.000	301.500	185.000	305.500	200.000
X1	3.500	=0.000	=0.000	=0.000	30.000	30.000	30.000	=0.000	.700	=0.000
NC	.100	.040	.040	.100	.300	=0.000	=0.000	=0.000	=0.000	=0.000
X1	4.000	13.000	193.000	209.000	480.000	460.000	480.000	=0.000	=2.800	=0.000
GR	316.700	0.000	313.340	21.000	313.440	55.000	311.440	70.000	310.840	109.000
GR	309.700	182.000	303.240	193.000	301.040	198.000	300.640	200.000	301.040	202.000

NC	-0,000	-0,000	.015	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000
X1	9,200	12,000	220,000	260,000	15,000	15,000	15,000	-0,000	-0,000	-0,000
GR	340,500	0,000	336,800	41,000	333,500	143,000	333,000	220,000	328,200	239,000
GR	328,200	248,000	333,000	260,000	333,400	342,000	337,500	435,000	338,800	500,000
GR	338,800	530,000	343,000	545,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000
NC	-0,000	-0,000	.040	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000

X1	9,300	13,000	215,000	260,000	10,000	10,000	10,000	-0,000	-0,000	-0,000
GR	340,500	0,000	336,800	41,000	333,500	143,000	333,000	215,000	331,900	224,000
GR	328,100	239,000	328,100	248,000	333,000	260,000	333,300	341,000	337,500	435,000
GR	338,800	500,000	338,800	530,000	343,000	545,000	-0,000	-0,000	-0,000	-0,000

X1	9,400	-0,000	-0,000	-0,000	30,000	30,000	30,000	-0,000	-0,000	-0,000
SB	.900	1,600	2,700	-0,000	9,500	.500	80,000	3,200	-0,000	-0,000

X1	9,500	-0,000	-0,000	-0,000	10,000	10,000	10,000	-0,000	-0,000	-0,000
X2	-0,000	-0,000	1,000	331,900	332,600	-0,000	-0,000	-0,000	-0,000	-0,000
BT	10,000	0,000	340,500	-0,000	41,000	338,800	-0,000	143,000	333,500	-0,000
BT	242,000	332,600	-0,000	260,000	333,000	-0,000	341,000	333,300	-0,000	435,000
BT	337,500	-0,000	500,000	338,800	-0,000	530,000	338,800	-0,000	545,000	343,000
BT	0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000

X1	9,600	-0,000	-0,000	-0,000	30,000	30,000	30,000	-0,000	.300	-0,000
NC	.035	.035	.035	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000

X1	10,000	14,000	64,000	100,000	815,000	815,000	815,000	-0,000	-0,000	-0,000
GR	348,900	0,000	346,910	49,000	345,210	64,000	335,710	77,500	335,410	78,500
GR	335,500	88,500	335,710	89,000	335,910	92,000	342,300	100,000	342,110	150,000
GR	342,200	200,000	344,210	300,000	346,410	400,000	349,810	500,000	-0,000	-0,000
EJ	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000

2013-05-13 11:11:10

 HEC2 VERSION UPDATED JAN 1975
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08
 MODIFICATIONS 52,53,54,55,56,57,58

T1 FIA FLOOD PLAIN STUDY
 T2 ROCKVILLE CITY JOB NO. 7571723
 T3 STR, 2 50-YEAR

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	EQ
	10.	3.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	293.000	-0.000
J2	NPROF	IPLDT	PRFVS	XSECV	XSECH	FN	ALLDC	IBW	CHNIN	ITRACE
	2.000	-0.000	-1.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

OFFICE ELECTRONICS INC

HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58

T1 FIA FLOOD PLAIN STUDY
T2 ROCKVILLE CITY JOB NO. 7571723
T3 STR. 2 100-YEAR

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FG
	10.	5.	=0.	=0.	=0.000000	=0.00	=0.0	=0.	293,300	=0.000
J2	NPROF	IPLOT	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	TTRACE
	3,000	=0,000	=1,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

HEC2 VERSION UPDATED JAN 1975
ERROR CORRECTIONS 01,02,03,04,05,06,07,08
MODIFICATIONS 52,53,54,55,56,57,58

T1 FIA FLOOD PLAIN STUDY
T2 ROCKVILLE CITY JOB NO. 7571723
T3 STR, 3 500-YEAR

J1	ICHECK	ING	NINV	TDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	10.	6.	=0.	=0.	=0.000000	=0.00	=0.0	=0.	293,800	=0.000
J2	NPROF	IPLGT	PRFYS	XSECV	XSECH	FN	ALLDC	IBW	CHNIM	ITRACE
	15,000	=0.000	=1,000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000	=0.000

 HEC2 VERSION UPDATED JAN 1976
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
 MODIFICATIONS 52,53,54,55,56,57,58

#2 Final Floodway

T1 FIA FLOOD PLAIN STUDY
 T2 ROCKVILLE CITY JOB NO. 7571723
 T3 STR. 2 100-YEAR

J1	ICHECK	INO	NINV	IDIR	SIRT	METRIC	HVINS	G	WSEL	FG
	-1.	5.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	293.300	-0.000
J2	NPROF	IPL0T	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE
	1,000	-0,000	-1,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000
J3	1,000	34,000	36,000	4,000	27,000	28,000	9,000	-0,000	-0,000	-0,000
NC	.080	.080	.040	.100	.300	-0,000	-0,000	-0,000	-0,000	-0,000
QT	5,000	1041,000	1447,000	1714,000	1714,000	2540,000	-0,000	-0,000	-0,000	-0,000
ET	-0,000	-0,000	-0,000	10,400	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000
X1	2,000	10,000	157,000	198,000	0,000	0,000	0,000	-0,000	-0,000	-0,000
GR	299,600	0,000	295,680	57,000	288,650	157,000	283,880	162,000	283,180	169,000
GR	283,100	174,000	283,880	180,000	288,680	198,000	295,070	257,000	299,680	309,000
X1	3,000	9,000	60,000	112,000	160,000	160,000	160,000	-0,000	-1,000	-0,000
GR	305,700	0,000	296,300	41,000	295,800	60,000	288,700	65,000	288,500	70,000
GR	289,500	86,000	296,200	112,000	301,500	185,000	305,500	200,000	-0,000	-0,000
NC	-0,000	-0,000	-0,000	.300	.500	-0,000	-0,000	-0,000	-0,000	-0,000
X1	3,100	10,000	65,000	102,000	30,000	30,000	30,000	-0,000	-0,000	-0,000
X3	10,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	295,000	295,500	-0,000
GR	305,700	0,000	296,300	41,000	295,800	60,000	288,700	65,000	288,500	70,000
GR	289,500	86,000	293,500	102,000	296,200	112,000	301,500	185,000	305,500	200,000
X1	3,200	12,000	65,000	102,000	1,000	1,000	1,000	-0,000	-0,000	-0,000
BT	10,000	0,000	305,700	-0,000	41,000	296,300	-0,000	60,000	295,800	-0,000
BT	65,000	295,700	-0,000	65,000	295,700	294,900	102,000	296,200	295,200	102,000
BT	296,200	-0,000	112,000	296,200	-0,000	185,000	301,500	-0,000	200,000	305,500
BT	0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000
GR	305,700	0,000	296,300	41,000	295,800	60,000	295,700	65,000	288,700	65,000
GR	288,500	70,000	289,500	86,000	293,500	102,000	296,200	102,000	296,200	112,000
GR	301,500	185,000	305,500	200,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000
SB	0,000	1,600	2,600	-0,000	38,000	1,000	180,000	0,000	0,000	0,000
X1	3,300	-0,000	-0,000	-0,000	10,000	10,000	10,000	-0,000	-0,000	-0,000
X2	-0,000	-0,000	1,000	295,000	295,800	-0,000	1,000	-0,000	-0,000	-0,000
X1	3,400	10,000	65,000	102,000	1,000	1,000	1,000	-0,000	-0,000	-0,000
X3	10,000	-0,000	-0,000	-0,000	-0,000	-0,000	-0,000	295,800	296,200	-0,000
GR	305,700	0,000	296,300	41,000	295,800	60,000	288,700	65,000	288,500	70,000
GR	289,500	86,000	293,500	102,000	296,200	112,000	301,500	185,000	305,500	200,000
X1	3,500	-0,000	-0,000	-0,000	30,000	30,000	30,000	-0,000	.700	-0,000
NC	.100	.040	.040	.100	.300	-0,000	-0,000	-0,000	-0,000	-0,000
ET	-0,000	-0,000	-0,000	9,100	-0,000	-0,000	-0,000	-0,000	1,000	269,000

X1	4,000	13,000	193,000	209,000	480,000	480,000	480,000	=0,000	=2,800	=0,000
GR	316,700	0,000	313,340	21,000	313,440	55,000	311,440	70,000	310,840	109,000
GR	309,700	182,000	303,240	193,000	301,040	198,000	300,640	200,000	301,040	202,000
GR	305,700	209,000	307,140	248,000	318,240	270,000	=0,000	=0,000	=0,000	=0,000
NC	=0,000	=0,000	=0,000	300	500	=0,000	=0,000	=0,000	=0,000	=0,000
ET	=0,000	=0,000	=0,000	10,400	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

X1	4,100	10,000	230,000	238,000	30,000	30,000	30,000	=0,000	=,900	=0,000
X3	10,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	307,000	307,000	=0,000
GR	315,800	0,000	311,500	75,000	310,600	133,000	309,900	206,000	299,400	230,000
GR	299,400	238,000	300,500	250,000	310,100	253,000	311,300	290,000	317,000	300,000
SB	900	1,600	2,600	=0,000	8,500	500	40,000	0,000	299,400	298,300
NC	050	050	040	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

X1	4,200	=0,000	=0,000	=0,000	40,000	40,000	40,000	=0,000	=,900	=0,000
X2	=0,000	=0,000	1,000	304,400	309,600	=0,000	=0,000	=0,000	=0,000	=0,000
X3	10,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	309,600	309,600	=0,000
BT	6,000	=0,000	315,700	=0,000	75,000	311,600	=0,000	133,000	310,600	=0,000
BT	235,000	309,500	=0,000	290,000	311,300	=0,000	300,000	317,000	=0,000	=0,000

X1	4,400	13,000	193,000	209,000	30,000	30,000	30,000	=0,000	=,700	=0,000
GR	316,700	0,000	313,300	21,000	313,400	55,000	311,400	70,000	310,800	109,000
GR	309,700	182,000	303,200	193,000	301,000	198,000	300,600	200,000	301,000	202,000
GR	305,800	209,000	307,100	248,000	318,200	270,000	=0,000	=0,000	=0,000	=0,000
NC	=0,000	=0,000	=0,000	100	300	=0,000	=0,000	=0,000	=0,000	=0,000

X1	5,000	=0,000	=0,000	=0,000	50,000	50,000	50,000	=0,000	=,700	=0,000
NC	060	050	040	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

X1	6,000	19,000	150,000	181,000	1270,000	1270,000	1270,000	=0,000	=0,000	=0,000
GR	333,700	0,000	330,030	17,000	326,030	142,000	324,930	158,000	316,530	164,000
GR	315,100	168,000	314,830	170,500	314,630	174,000	315,130	177,000	315,830	177,500
GR	316,900	180,500	321,930	181,000	323,430	187,000	324,940	208,000	324,440	228,000
GR	324,400	287,000	325,940	387,000	330,340	397,000	331,340	457,000	=0,000	=0,000
NC	=0,000	=0,000	=0,000	300	500	=0,000	=0,000	=0,000	=0,000	=0,000

X1	6,100	=0,000	=0,000	=0,000	60,000	60,000	60,000	=0,000	=2,900	=0,000
SB	1,250	1,500	2,800	=0,000	11,400	3,500	39,300	0,000	318,600	317,500
NC	050	050	040	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

X1	8,000	16,000	154,000	188,000	40,000	40,000	40,000	=0,000	=1,230	=0,000
X2	=0,000	=0,000	1,000	323,500	325,400	=0,000	=0,000	=0,000	=0,000	=0,000
X3	=0,000	=0,000	=0,000	170,000	324,000	188,000	324,000	=0,000	=0,000	=0,000
BT	7,000	125,000	338,000	=0,000	200,000	329,700	=0,000	350,000	325,700	=0,000
BT	400,000	325,400	=0,000	500,000	326,500	=0,000	600,000	330,800	=0,000	700,000
BT	336,600	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
GR	339,800	0,000	333,930	51,000	331,430	64,000	329,120	154,000	320,230	170,000
GR	320,000	171,000	320,030	178,000	320,230	180,000	323,430	188,000	326,530	241,000
GR	327,100	288,000	328,730	351,000	328,730	388,000	331,820	481,000	333,320	525,000
GR	337,600	536,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
ET	=0,000	=0,000	=0,000	9,100	=0,000	=0,000	=0,000	=0,000	154,000	230,000

X1	8,100	=0,000	=0,000	=0,000	60,000	60,000	60,000	=0,000	=1,230	=0,000
NC	=0,000	=0,000	=0,000	100	300	=0,000	=0,000	=0,000	=0,000	=0,000
ET	=0,000	=0,000	=0,000	10,400	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

X1	8,500	14,000	154,000	194,000	360,000	360,000	360,000	=0,000	=2,000	=0,000
GR	339,800	0,000	333,900	51,000	331,400	64,000	329,100	154,000	320,000	170,000
GR	320,000	189,000	325,000	194,600	326,500	241,000	327,100	288,000	328,700	351,000
GR	329,700	388,000	331,800	481,000	333,300	525,000	337,600	536,000	=0,000	=0,000
ET	=0,000	=0,000	=0,000	9,100	=0,000	=0,000	=0,000	=0,000	159,000	250,000

X1	8,600	14,000	159,000	194,000	10,000	10,000	10,000	=0,000	=0,000	=0,000
GR	339,900	0,000	333,900	51,000	331,400	64,000	329,100	154,000	324,600	170,000
GR	324,600	189,000	326,000	194,000	326,400	241,000	327,100	288,000	328,700	351,000
GR	327,700	388,000	331,800	481,000	333,300	525,000	337,600	536,000	=0,000	=0,000

NC	.040	.060	.040	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
QT	5,000	408,000	567,000	672,000	672,000	996,000	=0,000	=0,000	=0,000	=0,000
ET	=0,000	=0,000	=0,000	10,400	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
X1	9,100	12,000	220,000	260,000	370,000	370,000	370,000	=0,000	=0,000	=0,000
GR	340,500	0,000	336,800	41,000	333,500	143,000	333,000	220,000	325,300	239,000
GR	325,300	248,000	333,000	260,000	333,400	342,000	337,500	435,000	338,800	500,000
GR	338,800	530,000	343,000	545,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
NC	=0,000	=0,000	.015	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
X1	9,200	12,000	220,000	260,000	15,000	15,000	15,000	=0,000	=0,000	=0,000
GR	340,500	0,000	336,800	41,000	333,500	143,000	333,000	220,000	328,200	239,000
GR	328,200	248,000	333,000	260,000	333,400	342,000	337,500	435,000	338,800	500,000
GR	338,800	530,000	343,000	545,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
NC	=0,000	=0,000	.040	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
X1	9,300	13,000	215,000	260,000	10,000	10,000	10,000	=0,000	=0,000	=0,000
GR	340,500	0,000	336,800	41,000	333,500	143,000	333,000	215,000	331,900	224,000
GR	328,100	239,000	328,100	248,000	333,000	260,000	333,300	341,000	337,500	435,000
GR	338,800	500,000	338,800	530,000	343,000	545,000	=0,000	=0,000	=0,000	=0,000
X1	9,400	=0,000	=0,000	=0,000	30,000	30,000	30,000	=0,000	=0,000	=0,000
SB	.900	1,600	2,700	=0,000	9,500	.500	80,000	3,200	=0,000	=0,000
X1	9,500	=0,000	=0,000	=0,000	10,000	10,000	10,000	=0,000	=0,000	=0,000
X2	=0,000	=0,000	1,000	331,900	332,600	=0,000	=0,000	=0,000	=0,000	=0,000
BT	10,000	0,000	340,500	=0,000	41,000	336,800	=0,000	143,000	333,500	=0,000
BT	242,000	332,600	=0,000	260,000	333,000	=0,000	341,000	333,300	=0,000	435,000
BT	337,500	=0,000	500,000	338,800	=0,000	530,000	338,800	=0,000	545,000	343,000
BT	0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
X1	9,600	=0,000	=0,000	=0,000	30,000	30,000	30,000	=0,000	.300	=0,000
NC	.035	.035	.035	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000
X1	10,000	14,000	64,000	100,000	815,000	815,000	815,000	=0,000	=0,000	=0,000
GR	348,900	0,000	346,910	49,000	345,210	64,000	335,710	77,500	335,410	78,500
GR	335,500	88,500	335,710	89,000	335,910	92,000	342,300	100,000	342,110	150,000
GR	342,200	200,000	344,210	300,000	346,410	400,000	349,810	500,000	=0,000	=0,000
EJ	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000	=0,000

 HEC2 VERSION UPDATED JAN 1976
 ERROR CORRECTIONS 01,02,03,04,05,06,07,08,09
 MODIFICATIONS 52,53,54,55,56,57,58

T1 FIA FLOOD PLAIN STUDY
 T2 ROCKVILLE CITY JOB NO. 7571723
 T3 STR. 2 FLOODWAY

J1	ICHECK	ING	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	10.	4.	-0.	-0.	-0.000000	-0.00	-0.0	-0.	294.300	-0.000
J2	NPROF	IPLT	PRFVS	XSECV	XSECH	FN	ALLDC	IRW	CHNIM	ITRACE
	15.000	-0.000	-1.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

Trib. 2 (Sub-crit.)

STR. 2 500-YEAR

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL OF GROUND	DISCHARGE (CFS)	CWSEL	CRWS	EG	TOPWTD	10K*8	TIME	VOL	
A	2.00	0.00	0.00	283.10	1041.00	292.20	0.00	292.35	124.00	5.85	0.00	0.00	
A	2.00	0.00	0.00	283.10	1447.00	293.00	0.00	293.20	142.76	7.33	0.00	0.00	
A	2.00	0.00	0.00	283.10	1714.00	293.30	0.00	293.55	149.80	8.81	0.00	0.00	
A	2.00	0.00	0.00	283.10	2540.00	293.80	0.00	294.26	161.53	15.08	0.00	0.00	
B	3.00	160.00	0.00	287.50	1041.00	291.73	291.73	293.22	36.38	181.59	.00	1.01	
B	3.00	160.00	0.00	287.50	1447.00	292.55	292.55	294.27	40.13	170.68	.00	1.26	
B	3.00	160.00	0.00	287.50	1714.00	292.99	292.99	294.87	42.16	169.87	.00	1.37	
B	3.00	160.00	0.00	287.50	2540.00	294.22	294.22	296.47	47.79	161.77	.00	1.62	
	3.10	30.00	0.00	288.50	1041.00	292.82	292.82	294.37	34.29	176.70	.01	1.08	
	3.10	30.00	0.00	288.50	1447.00	293.65	293.65	295.46	37.00	167.03	.00	1.35	
	3.10	30.00	0.00	288.50	1714.00	294.08	294.08	296.11	37.00	162.99	.00	1.48	
	3.10	30.00	0.00	288.50	2540.00	295.28	295.28	297.78	41.64	132.53	.00	1.76	
	3.20	1.00	295.70	295.20	288.50	1041.00	293.56	292.82	294.55	37.00	103.59	.01	1.08
	3.20	1.00	295.70	295.20	288.50	1447.00	294.40	0.00	295.64	37.00	102.33	.01	1.36
	3.20	1.00	295.70	295.20	288.50	1714.00	294.91	0.00	296.31	37.00	103.21	.00	1.48
	3.20	1.00	295.70	295.20	288.50	2540.00	295.09	294.87	298.02	37.00	349.38	.00	1.77
	3.30	10.00	295.80	295.00	288.50	1041.00	293.56	0.00	294.54	37.00	102.88	.01	1.11
	3.30	10.00	295.80	295.00	288.50	1447.00	295.04	0.00	295.98	37.00	67.41	.01	1.40
	3.30	10.00	295.80	295.00	288.50	1714.00	295.79	0.00	296.79	41.49	62.01	.01	1.53
	3.30	10.00	295.80	295.00	288.50	2540.00	295.90	0.00	298.02	46.10	127.66	.00	1.81
	3.40	1.00	0.00	0.00	288.50	1041.00	293.57	0.00	294.55	37.00	93.03	.01	1.11
	3.40	1.00	0.00	0.00	288.50	1447.00	295.05	0.00	295.99	37.00	58.64	.01	1.40
	3.40	1.00	0.00	0.00	288.50	1714.00	295.80	0.00	296.80	37.00	52.33	.01	1.53
	3.40	1.00	0.00	0.00	288.50	2540.00	296.97	0.00	298.27	84.47	49.17	.00	1.82
C	3.50	30.00	0.00	0.00	289.20	1041.00	293.76	0.00	295.03	38.30	129.87	.01	1.20
C	3.50	30.00	0.00	0.00	289.20	1447.00	295.15	0.00	296.29	44.55	76.67	.01	1.53
C	3.50	30.00	0.00	0.00	289.20	1714.00	295.89	0.00	297.05	47.82	63.61	.01	1.68
C	3.50	30.00	0.00	0.00	289.20	2540.00	296.94	0.00	298.65	69.30	73.73	.01	2.02
D	4.00	480.00	0.00	0.00	297.84	1041.00	304.84	304.84	306.03	63.50	85.58	.02	2.68
D	4.00	480.00	0.00	0.00	297.84	1447.00	305.51	305.51	306.82	65.95	86.78	.02	3.56
D	4.00	480.00	0.00	0.00	297.84	1714.00	305.77	305.77	307.29	66.91	96.64	.02	4.06
D	4.00	480.00	0.00	0.00	297.84	2540.00	306.67	306.67	308.55	70.24	103.39	.02	4.99
	4.10	30.00	0.00	0.00	298.50	1041.00	306.35	306.35	310.62	8.00	199.85	.02	2.75
	4.10	30.00	0.00	0.00	298.50	1447.00	307.01	307.01	307.80	41.76	26.68	.02	3.71
	4.10	30.00	0.00	0.00	298.50	1714.00	307.06	307.06	308.15	41.89	36.59	.02	4.16
	4.10	30.00	0.00	0.00	298.50	2540.00	307.16	307.16	309.49	42.16	76.91	.02	5.18
	4.20	40.00	309.60	304.40	299.40	1041.00	311.15	0.00	311.25	188.00	3.42	.03	3.01
	4.20	40.00	309.60	304.40	299.40	1447.00	311.60	0.00	311.75	217.34	5.18	.03	4.10
	4.20	40.00	309.60	304.40	299.40	1714.00	311.83	0.00	312.01	221.63	6.39	.02	4.57
	4.20	40.00	309.60	304.40	299.40	2540.00	312.40	0.00	312.68	232.60	10.08	.02	5.65

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL OF GROUND	DISCHARGE (CFS)	CWSEL	CRWS	EG	TOPWID	10K+8	TIME	VOL
4.40	30.00	0.00	0.00	299.90	1041.00	311.20	0.00	311.27	191.24	3.57	.03	3.39
4.40	30.00	0.00	0.00	299.90	1447.00	311.67	0.00	311.78	195.74	5.01	.03	4.54
4.40	30.00	0.00	0.00	299.90	1714.00	311.91	0.00	312.04	197.90	6.06	.03	5.04
4.40	30.00	0.00	0.00	299.90	2540.00	312.52	0.00	312.73	203.86	9.00	.02	6.21
5.00	50.00	0.00	0.00	300.60	1041.00	311.19	0.00	311.31	172.36	5.88	.04	4.00
5.00	50.00	0.00	0.00	300.60	1447.00	311.66	0.00	311.73	188.99	8.14	.03	5.26
5.00	50.00	0.00	0.00	300.60	1714.00	311.90	0.00	312.10	191.24	9.69	.03	5.81
5.00	50.00	0.00	0.00	300.60	2540.00	312.51	0.00	312.82	197.03	14.12	.03	7.12
6.00	1270.00	0.00	0.00	314.63	1041.00	320.20	320.20	322.45	19.47	210.75	.07	12.09
6.00	1270.00	0.00	0.00	314.63	1447.00	321.34	321.34	324.07	20.39	211.00	.06	14.94
6.00	1270.00	0.00	0.00	314.63	1714.00	322.06	322.06	325.02	21.49	206.84	.06	16.37
6.00	1270.00	0.00	0.00	314.63	2540.00	325.72	325.72	326.89	225.89	60.76	.07	23.62
6.10	60.00	0.00	0.00	317.53	1041.00	323.10	323.10	325.35	19.48	209.68	.07	12.21
6.10	60.00	0.00	0.00	317.53	1447.00	324.25	324.25	326.97	20.40	209.96	.06	15.10
6.10	60.00	0.00	0.00	317.53	1714.00	324.93	324.93	327.92	21.34	210.27	.06	16.54
6.10	60.00	0.00	0.00	317.53	2540.00	328.71	328.71	329.78	233.60	55.89	.07	24.21
8.00	40.00	325.40	323.50	318.77	1041.00	326.72	0.00	326.90	163.39	17.33	.07	12.41
8.00	40.00	325.40	323.50	318.77	1447.00	327.17	0.00	327.39	181.95	21.79	.07	15.35
8.00	40.00	325.40	323.50	318.77	1714.00	327.72	0.00	327.92	204.81	18.30	.06	16.85
8.00	40.00	325.40	323.50	318.77	2540.00	329.67	0.00	329.78	356.35	7.74	.08	24.91
8.10	60.00	0.00	0.00	320.00	1041.00	326.75	0.00	327.15	101.36	30.65	.07	12.83
8.10	60.00	0.00	0.00	320.00	1447.00	327.18	0.00	327.73	133.65	40.48	.07	15.85
8.10	60.00	0.00	0.00	320.00	1714.00	327.73	0.00	328.21	155.89	34.71	.07	17.48
8.10	60.00	0.00	0.00	320.00	2540.00	329.67	0.00	329.91	253.26	15.43	.08	26.18
8.50	360.00	0.00	0.00	322.00	1041.00	327.90	0.00	328.53	62.52	44.17	.09	14.54
8.50	360.00	0.00	0.00	322.00	1447.00	328.62	0.00	329.43	92.28	50.46	.08	17.99
8.50	360.00	0.00	0.00	322.00	1714.00	328.98	0.00	329.87	121.41	53.62	.08	20.11
8.50	360.00	0.00	0.00	322.00	2540.00	330.18	0.00	330.96	174.83	45.42	.10	31.13
8.60	10.00	0.00	0.00	324.60	1041.00	328.41	0.00	328.61	182.94	33.73	.09	14.59
8.60	10.00	0.00	0.00	324.60	1447.00	329.40	0.00	329.52	234.48	20.08	.08	18.08
8.60	10.00	0.00	0.00	324.60	1714.00	329.86	0.00	329.97	270.69	17.99	.08	20.22
8.60	10.00	0.00	0.00	324.60	2540.00	330.95	0.00	331.06	362.11	13.59	.10	31.30
9.10	370.00	0.00	0.00	325.30	408.00	329.66	0.00	330.09	26.55	53.42	.11	16.32
9.10	370.00	0.00	0.00	325.30	567.00	330.02	0.00	330.68	28.01	74.34	.10	20.71
9.10	370.00	0.00	0.00	325.30	672.00	330.33	0.00	331.09	29.25	80.51	.09	23.38
9.10	370.00	0.00	0.00	325.30	996.00	330.98	0.00	332.12	31.87	106.27	.11	36.02
9.20	15.00	0.00	0.00	328.20	408.00	331.05	331.05	332.01	27.40	28.11	.11	16.34
9.20	15.00	0.00	0.00	328.20	567.00	331.57	331.57	332.68	30.78	26.97	.10	20.74
9.20	15.00	0.00	0.00	328.20	672.00	331.87	331.87	333.07	32.73	26.36	.09	23.41
9.20	15.00	0.00	0.00	328.20	996.00	332.68	332.68	334.07	37.96	24.58	.11	36.05

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL OF GROUND	DISCHARGE (CFS)	CWSEL	CRPS	EG	TOPWID	10K*8	TIME	VOL	
K	9.30	10.00	0.00	0.00	328.10	408.00	331.57	0.00	332.10	31.20	88.78	.11	16.35
	9.30	10.00	0.00	0.00	328.10	567.00	332.15	0.00	332.78	36.00	91.60	.10	20.76
	9.30	10.00	0.00	0.00	328.10	672.00	332.50	0.00	333.16	39.74	92.21	.10	23.43
	9.30	10.00	0.00	0.00	328.10	996.00	333.79	0.00	334.20	217.94	42.05	.11	36.10
	9.40	30.00	0.00	0.00	328.10	408.00	331.94	0.00	332.33	33.78	57.97	.11	16.41
	9.40	30.00	0.00	0.00	328.10	567.00	332.56	0.00	333.02	40.44	61.67	.10	20.82
	9.40	30.00	0.00	0.00	328.10	672.00	332.92	0.00	333.41	44.27	62.16	.10	23.51
	9.40	30.00	0.00	0.00	328.10	996.00	334.03	0.00	334.32	231.25	28.58	.11	36.29
	9.50	10.00	332.60	331.90	328.10	408.00	332.30	0.00	332.59	37.59	41.12	.11	16.43
	9.50	10.00	332.60	331.90	328.10	567.00	333.08	0.00	333.39	76.04	37.97	.10	20.85
	9.50	10.00	332.60	331.90	328.10	672.00	333.30	0.00	333.66	170.17	39.82	.10	23.54
	9.50	10.00	332.60	331.90	328.10	996.00	334.04	0.00	334.33	231.39	28.47	.11	36.36
	9.60	30.00	0.00	0.00	328.40	408.00	332.40	0.00	332.74	35.42	49.99	.12	16.49
	9.60	30.00	0.00	0.00	328.40	567.00	333.17	0.00	333.53	43.63	46.73	.10	20.93
	9.60	30.00	0.00	0.00	328.40	672.00	333.38	0.00	333.82	78.94	52.89	.10	23.64
	9.60	30.00	0.00	0.00	328.40	996.00	334.04	0.00	334.48	215.29	45.46	.11	36.55
M	10.00	815.00	0.00	0.00	335.41	408.00	338.31	338.26	339.41	21.21	143.36	.14	17.76
	10.00	815.00	0.00	0.00	335.41	567.00	338.87	338.87	340.22	22.71	145.19	.13	22.61
	10.00	815.00	0.00	0.00	335.41	672.00	339.26	339.22	340.69	23.74	138.08	.12	25.49
	10.00	815.00	0.00	0.00	335.41	996.00	340.17	340.17	341.97	26.17	137.48	.14	39.69

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH W	CWSEL DIFF EACH SECTION	CWSEL=KSELK	TOPWID	T.W. DIFF	LENGTH	
A	2,000	1041,000	292,200	0.000	0.000	0.000	123,999	0.000	0.000
	2,000	1447,000	293,000	.800	0.000	0.000	142,765	-18,766	0.000
	2,000	1714,000	293,300	.300	0.000	0.000	149,802	-25,804	0.000
	2,000	2540,000	293,800	.500	0.000	0.000	161,531	-37,533	0.000
B	3,000	1041,000	291,732	0.000	-.468	0.000	36,382	0.000	160,000
	3,000	1447,000	292,550	.818	-.450	0.000	40,133	-3,750	160,000
	3,000	1714,000	292,993	.443	-.307	0.000	42,162	-5,780	160,000
	3,000	2540,000	294,220	1.227	.420	0.000	47,788	-11,405	160,000
	3,100	1041,000	292,822	0.000	1.090	0.000	34,289	0.000	30,000
	3,100	1447,000	293,688	.825	1.097	0.000	37,000	-2,711	30,000
	3,100	1714,000	294,077	.429	1.084	0.000	37,000	-2,711	30,000
	3,100	2540,000	295,282	1.205	1.062	0.000	41,635	-7,346	30,000
	3,200	1041,000	293,556	0.000	.734	0.000	37,000	0.000	1,000
	3,200	1447,000	294,403	.846	.755	0.000	37,000	0.000	1,000
	3,200	1714,000	294,907	.504	.830	0.000	37,000	0.000	1,000
	3,200	2540,000	295,088	.181	-.194	0.000	37,000	0.000	1,000
	3,300	1041,000	293,556	0.000	0.000	0.000	37,000	0.000	10,000
	3,300	1447,000	295,040	1.484	.637	0.000	37,000	0.000	10,000
	3,300	1714,000	295,789	.749	.882	0.000	41,490	-4,490	10,000
	3,300	2540,000	295,902	.113	.814	0.000	46,100	-9,100	10,000
	3,400	1041,000	293,574	0.000	.017	0.000	37,000	0.000	1,000
	3,400	1447,000	295,050	1.477	.010	0.000	37,000	0.000	1,000
	3,400	1714,000	295,798	.748	.009	0.000	37,000	0.000	1,000
	3,400	2540,000	296,965	1.167	1.063	0.000	84,475	-47,475	1,000
C	3,500	1041,000	293,758	0.000	.184	0.000	38,304	0.000	30,000
	3,500	1447,000	295,146	1.388	.095	0.000	44,551	-6,247	30,000
	3,500	1714,000	295,888	.742	-.089	0.000	47,820	-8,516	30,000

	3,500	2540,000	296,938	1,050	-.028	0,000	69,298	-30,994	30,000
	4,000	1041,000	304,844	0,000	11,086	0,000	63,498	0,000	480,000
D	4,000	1447,000	305,509	.665	10,363	0,000	65,948	-2,450	480,000
	4,000	1714,000	305,769	.260	9,882	0,000	66,907	-3,409	480,000
	4,000	2540,000	306,674	.905	9,736	0,000	70,242	-6,744	480,000
	4,100	1041,000	306,353	0,000	1,509	0,000	8,000	0,000	30,000
	4,100	1447,000	307,006	.653	1,497	0,000	41,757	-33,757	30,000
	4,100	1714,000	307,059	.053	1,285	0,000	41,893	-33,893	30,000
	4,100	2540,000	307,160	.102	.486	0,000	42,158	-34,158	30,000
	4,200	1041,000	311,152	0,000	4,799	0,000	187,996	0,000	40,000
	4,200	1447,000	311,603	.452	4,597	0,000	217,343	-29,347	40,000
	4,200	1714,000	311,826	.223	4,768	0,000	221,626	-33,630	40,000
	4,200	2540,000	312,396	.570	5,236	0,000	232,597	-44,601	40,000
	4,400	1041,000	311,197	0,000	.045	0,000	191,244	0,000	30,000
	4,400	1447,000	311,673	.475	.069	0,000	195,744	-4,500	30,000
	4,400	1714,000	311,910	.237	.084	0,000	197,903	-6,658	30,000
	4,400	2540,000	312,525	.615	.129	0,000	203,864	-12,620	30,000
	5,000	1041,000	311,189	0,000	-.009	0,000	172,363	0,000	50,000
E	5,000	1447,000	311,661	.472	-.012	0,000	188,994	-16,631	50,000
	5,000	1714,000	311,897	.236	-.013	0,000	191,236	-18,873	50,000
	5,000	2540,000	312,508	.611	-.016	0,000	197,034	-24,671	50,000
	6,000	1041,000	320,196	0,000	9,007	0,000	19,472	0,000	1270,000
F	6,000	1447,000	321,344	1,149	9,684	0,000	20,369	-.917	1270,000
	6,000	1714,000	322,065	.721	10,168	0,000	21,493	-2,021	1270,000
	6,000	2540,000	325,716	3,651	13,208	0,000	225,890	-206,418	1270,000
	6,100	1041,000	323,104	0,000	2,908	0,000	19,479	0,000	60,000
	6,100	1447,000	324,254	1,150	2,910	0,000	20,397	-.919	60,000
	6,100	1714,000	324,933	.679	2,868	0,000	21,341	-1,862	60,000
	6,100	2540,000	328,713	3,780	2,997	0,000	233,595	-214,116	60,000
	8,000	1041,000	326,723	0,000	3,619	0,000	163,386	0,000	40,000
	8,000	1447,000	327,166	.443	2,912	0,000	181,954	-18,567	40,000
	8,000	1714,000	327,725	.559	2,792	0,000	204,814	-41,428	40,000
	8,000	2540,000	329,674	1,949	.961	0,000	356,348	-192,961	40,000
	8,100	1041,000	326,746	0,000	.023	0,000	101,356	0,000	60,000
G	8,100	1447,000	327,181	.434	.014	0,000	133,647	-32,291	60,000
	8,100	1714,000	327,730	.550	.006	0,000	155,886	-54,531	60,000
	8,100	2540,000	329,670	1,940	-.004	0,000	253,264	-151,909	60,000
	8,500	1041,000	327,898	0,000	1,152	0,000	62,525	0,000	360,000
H	8,500	1447,000	328,621	.723	1,441	0,000	92,284	-29,759	360,000
	8,500	1714,000	328,983	.361	1,252	0,000	121,412	-58,887	360,000
	8,500	2540,000	330,177	1,195	.507	0,000	174,829	-112,304	360,000
	8,600	1041,000	328,413	0,000	.515	0,000	182,938	0,000	10,000
	8,600	1447,000	329,400	.987	.779	0,000	234,482	-51,544	10,000
I	8,600	1714,000	329,863	.462	.860	0,000	270,693	-87,756	10,000
	8,600	2540,000	330,955	1,092	.777	0,000	362,115	-179,177	10,000
	9,100	408,000	329,657	0,000	1,244	0,000	26,547	0,000	370,000
J	9,100	567,000	330,022	.364	.621	0,000	28,012	-1,465	370,000
	9,100	672,000	330,328	.306	.465	0,000	29,249	-2,703	370,000
	9,100	996,000	330,975	.648	.021	0,000	31,875	-5,328	370,000
	9,200	408,000	331,050	0,000	1,392	0,000	27,405	0,000	15,000
	9,200	567,000	331,572	.523	1,551	0,000	30,780	-3,375	15,000
	9,200	672,000	331,874	.302	1,547	0,000	32,731	-5,326	15,000
	9,200	996,000	332,684	.809	1,709	0,000	37,959	-10,554	15,000

9,300	408,000	331,568	0,000	.519	0,000	31,202	0,000	10,000
9,300	567,000	332,148	.579	.575	0,000	36,003	=4,800	10,000
9,300	672,000	332,497	.349	.622	0,000	39,735	=8,533	10,000
9,300	996,000	333,794	1,297	1,110	0,000	217,936	=186,734	10,000

9,400	408,000	331,941	0,000	.373	0,000	33,779	0,000	30,000
9,400	567,000	332,565	.624	.417	0,000	40,443	=6,665	30,000
9,400	672,000	332,924	.359	.427	0,000	44,270	=10,491	30,000
9,400	996,000	334,034	1,110	.240	0,000	231,255	=197,476	30,000

9,500	408,000	332,299	0,000	.358	0,000	37,593	0,000	10,000
9,500	567,000	333,080	.781	.516	0,000	76,044	=38,451	10,000
9,500	672,000	333,299	.219	.375	0,000	170,170	=132,577	10,000
9,500	996,000	334,042	.742	.008	0,000	231,390	=193,797	10,000

9,600	408,000	332,399	0,000	.100	0,000	35,419	0,000	30,000
9,600	567,000	333,171	.773	.091	0,000	43,632	=8,213	30,000
9,600	672,000	333,382	.211	.083	0,000	78,945	=43,526	30,000
9,600	996,000	334,039	.657	=,003	0,000	215,269	=179,870	30,000

10,000	408,000	338,314	0,000	5,916	0,000	21,212	0,000	815,000
10,000	567,000	338,874	.559	5,702	0,000	22,706	=1,494	815,000
10,000	672,000	339,259	.386	5,877	0,000	23,737	=2,526	815,000
10,000	996,000	340,170	.910	6,131	0,000	26,171	=4,959	815,000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA=ACRES	TOP WIDTH AREA=DIFF
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1	0,000	0,000	6,656	0,000
2	0,000	0,000	7,725	1,069
3	0,000	0,000	8,645	1,989
4	0,000	0,000	15,132	8,476

SUMMARY PRINTOUT FOR MULTIPLE PROFILES

Trib 02 Floodway

STR. 2 FLOODWAY

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	TW	PERENC	TOPWID	STENCL	STENCR	WSELK
2,00	0,00	0,00	0,00	283,10	1714,00	293,30	577,45	0,00	149,80	0,00	0,00	293,30
2,00	0,00	0,00	0,00	283,10	1714,00	294,30	552,49	.19	41,00	157,00	198,00	293,30
3,00	160,00	0,00	0,00	287,50	1714,00	292,99	131,58	0,00	42,16	0,00	0,00	0,00
3,00	160,00	0,00	0,00	287,50	1714,00	294,10	192,63	0,00	47,26	60,00	112,00	292,99
3,10	30,00	0,00	0,00	288,50	1714,00	294,08	134,26	0,00	37,00	0,00	0,00	0,00
3,10	30,00	0,00	0,00	288,50	1714,00	294,05	126,88	.02	37,00	65,00	102,00	294,08
3,20	1,00	295,70	295,20	288,50	1714,00	294,91	168,71	0,00	37,00	0,00	0,00	0,00
3,20	1,00	295,70	295,20	288,50	1714,00	294,94	170,37	0,00	37,00	0,00	0,00	294,91
3,30	10,00	0,00	0,00	288,50	1714,00	295,79	217,66	0,00	41,49	0,00	0,00	0,00
3,30	10,00	0,00	0,00	288,50	1714,00	295,82	219,14	.01	37,00	65,00	102,00	295,79
3,40	1,00	0,00	0,00	288,50	1714,00	295,80	236,93	0,00	37,00	0,00	0,00	0,00
3,40	1,00	0,00	0,00	288,50	1714,00	295,83	227,78	.05	37,00	65,00	102,00	295,80
3,50	30,00	0,00	0,00	289,20	1714,00	295,80	214,90	0,00	47,82	0,00	0,00	0,00
3,50	30,00	0,00	0,00	289,20	1714,00	295,91	189,74	.03	37,00	65,00	102,00	295,89
4,00	480,00	0,00	0,00	297,84	1714,00	305,77	174,35	0,00	66,91	0,00	0,00	0,00
4,00	480,00	0,00	0,00	297,84	1714,00	305,77	174,33	268,00	66,91	1,00	269,00	0,00
4,10	30,00	0,00	0,00	298,50	1714,00	307,06	283,35	0,00	41,89	0,00	0,00	0,00
4,10	30,00	0,00	0,00	298,50	1714,00	307,06	248,34	.19	23,02	225,09	248,11	307,06
4,20	40,00	0,00	0,00	299,40	1714,00	311,83	678,01	0,00	221,63	0,00	0,00	0,00
4,20	40,00	0,00	0,00	299,40	1714,00	311,83	568,11	.25	68,98	178,03	247,02	311,83
4,40	30,00	0,00	0,00	299,90	1714,00	311,91	696,35	0,00	197,90	0,00	0,00	0,00
4,40	30,00	0,00	0,00	299,90	1714,00	311,99	574,06	.27	97,44	137,88	235,32	311,91
5,00	50,00	0,00	0,00	300,60	1714,00	311,90	550,56	0,00	191,24	0,00	0,00	0,00
5,00	50,00	0,00	0,00	300,60	1714,00	311,96	454,11	.28	76,25	158,40	234,66	311,90
6,00	1270,00	0,00	0,00	314,63	1714,00	322,06	119,18	0,00	21,49	0,00	0,00	0,00
6,00	1270,00	0,00	0,00	314,63	1714,00	322,03	118,16	.00	20,93	158,00	181,00	322,06
6,10	60,00	0,00	0,00	317,53	1714,00	324,93	118,20	0,00	21,34	0,00	0,00	0,00
6,10	60,00	0,00	0,00	317,53	1714,00	324,94	118,36	.00	20,94	158,00	181,00	324,93
8,00	40,00	325,40	323,50	318,77	1714,00	327,72	400,64	18,00	204,81	170,00	188,00	0,00
8,00	40,00	325,40	323,50	318,77	1714,00	327,72	400,63	18,00	204,81	170,00	188,00	327,72
8,10	60,00	0,00	0,00	320,00	1714,00	327,73	290,95	0,00	155,89	0,00	0,00	0,00
8,10	60,00	0,00	0,00	320,00	1714,00	327,67	268,60	76,00	73,40	154,00	230,00	0,00
8,50	360,00	0,00	0,00	322,00	1714,00	328,98	234,08	0,00	121,41	0,00	0,00	0,00
8,50	360,00	0,00	0,00	322,00	1714,00	329,10	219,52	.21	36,48	154,00	194,00	328,98
8,60	10,00	0,00	0,00	324,60	1714,00	329,86	404,05	0,00	270,69	0,00	0,00	0,00
8,60	10,00	0,00	0,00	324,60	1714,00	329,98	317,79	91,00	91,00	159,00	250,00	0,00

SECTION NUMBER	CHANNEL LENGTH	MIN EL OF ROADWAY	MAX EL OF LOW CHORD	MIN EL GROUND	DISCHARGE (CFS)	CWSEL	TQ	PERENC	TOPWID	STENCL	STENCR	WSELK
9,10	370,00	0,00	0,00	325,30	672,00	330,33	74,90	0,00	29,25	0,00	0,00	0,00
9,10	370,00	0,00	0,00	325,30	672,00	331,09	100,22	0,00	32,28	220,00	260,00	330,33
9,20	15,00	0,00	0,00	328,20	672,00	331,87	130,88	0,00	32,73	0,00	0,00	0,00
9,20	15,00	0,00	0,00	328,20	672,00	331,87	130,92	0,00	32,73	220,00	260,00	331,87
9,30	10,00	0,00	0,00	328,10	672,00	332,50	69,98	0,00	39,74	0,00	0,00	0,00
9,30	10,00	0,00	0,00	328,10	672,00	332,49	69,48	.05	39,57	215,00	260,00	332,50
9,40	30,00	0,00	0,00	328,10	672,00	332,92	85,24	0,00	44,27	0,00	0,00	0,00
9,40	30,00	0,00	0,00	328,10	672,00	332,93	85,24	.16	44,27	215,00	260,00	332,92
9,50	10,00	0,00	0,00	328,10	672,00	333,30	106,49	0,00	170,17	0,00	0,00	0,00
9,50	10,00	0,00	0,00	328,10	672,00	333,30	104,14	.26	45,00	215,00	260,00	333,30
9,60	30,00	0,00	0,00	328,40	672,00	333,38	92,40	0,00	78,94	0,00	0,00	0,00
9,60	30,00	0,00	0,00	328,40	672,00	333,40	93,28	.20	45,00	215,00	260,00	333,38
10,00	815,00	0,00	0,00	335,41	672,00	339,26	57,19	0,00	23,74	0,00	0,00	0,00
10,00	815,00	0,00	0,00	335,41	672,00	339,24	56,59	0,00	23,68	64,00	100,00	339,26

SECTION NUMBER	DISCHARGE CFS	CWSEL	CWSEL DIFF EACH W	CWSEL DIFF EACH SECTION	CWSEL=WSELK	TOPWID	T.W. DIFF	LENGTH
A 2,000	1714,000	293,300	0,000	0,000	0,000	149,802	0,000	0,000
2,000	1714,000	294,300	1,000	0,000	0,000	41,001	108,801	0,000
B 3,000	1714,000	292,993	0,000	-.307	0,000	42,162	0,000	160,000
3,000	1714,000	294,104	1,111	-.196	1,111	47,259	-5,096	160,000
3,100	1714,000	294,077	0,000	1,084	0,000	37,000	0,000	30,000
3,100	1714,000	294,052	-.025	-.052	-.025	37,000	0,000	30,000
3,200	1714,000	294,907	0,000	.830	0,000	37,000	0,000	1,000
3,200	1714,000	294,939	.032	.867	.032	37,000	0,000	1,000
3,300	1714,000	295,789	0,000	.882	0,000	41,490	0,000	10,000
3,300	1714,000	295,821	.032	.882	.032	37,000	4,490	10,000
3,400	1714,000	295,798	0,000	.009	0,000	37,000	0,000	1,000
3,400	1714,000	295,835	.037	.014	.037	37,000	-.000	1,000
C 3,500	1714,000	295,888	0,000	.089	0,000	47,820	0,000	30,000
3,500	1714,000	295,909	.021	.074	.021	37,001	10,819	30,000
D 4,000	1714,000	305,769	0,000	9,882	0,000	66,907	0,000	480,000
4,000	1714,000	305,769	-.000	9,860	0,000	66,906	.001	480,000
4,100	1714,000	307,059	0,000	1,289	0,000	41,893	0,000	30,000
4,100	1714,000	307,058	-.000	1,289	-.000	23,019	18,874	30,000
4,200	1714,000	311,826	0,000	4,768	0,000	221,626	0,000	40,000
4,200	1714,000	311,826	-.000	4,768	-.000	68,985	152,642	40,000
4,400	1714,000	311,910	0,000	.084	0,000	197,903	0,000	30,000
4,400	1714,000	311,990	.081	.165	.081	97,444	100,458	30,000
E 5,000	1714,000	311,897	0,000	-.013	0,000	191,236	0,000	50,000
5,000	1714,000	311,957	.060	-.033	.060	76,251	114,985	50,000
F 6,000	1714,000	322,065	0,000	10,168	0,000	21,493	0,000	1270,000

	1714,000	322,631	-.034	10,674	-.034	20,931	.563	1270,000	
	6,100	1714,000	324,933	0,000	2,868	0,000	21,341	0,000	60,000
	6,100	1714,000	324,938	.005	2,906	.005	20,935	.406	60,000
	8,000	1714,000	327,725	0,000	2,792	0,000	204,814	0,000	40,000
	8,000	1714,000	327,725	-.000	2,787	-.000	204,811	.003	40,000
G	8,100	1714,000	327,730	0,000	.006	0,000	155,886	0,000	60,000
	8,100	1714,000	327,675	-.055	-.050	0,000	73,399	82,487	60,000
H	8,500	1714,000	328,983	0,000	1,252	0,000	121,412	0,000	360,000
	8,500	1714,000	329,097	.114	1,422	.114	36,479	84,953	360,000
I	8,600	1714,000	329,863	0,000	.880	0,000	270,693	0,000	10,000
	8,600	1714,000	329,983	.120	.886	0,000	90,999	179,694	10,000
J	9,100	672,000	330,328	0,000	.465	0,000	29,249	0,000	370,000
	9,100	672,000	331,087	.760	1,105	.760	32,276	-3,027	370,000
	9,200	672,000	331,874	0,000	1,547	0,000	32,731	0,000	15,000
	9,200	672,000	331,875	.001	.788	.001	32,734	-.004	15,000
K	9,300	672,000	332,497	0,000	.622	0,000	39,735	0,000	10,000
	9,300	672,000	332,488	-.009	.613	-.009	39,573	.162	10,000
	9,400	672,000	332,924	0,000	.427	0,000	44,270	0,000	30,000
	9,400	672,000	332,926	.002	.438	.002	44,270	-.001	30,000
	9,500	672,000	333,299	0,000	.375	0,000	170,170	0,000	10,000
	9,500	672,000	333,301	.002	.375	.002	45,001	125,169	10,000
L	9,600	672,000	333,382	0,000	.083	0,000	78,945	0,000	30,000
	9,600	672,000	333,402	.020	.101	.020	45,001	33,944	30,000
M	10,000	672,000	339,259	0,000	5,877	0,000	23,737	0,000	815,000
	10,000	672,000	339,236	-.024	5,834	-.024	23,679	.058	815,000

DATA FOR LAST CROSS SECTION

PROFILE	TYPE ENC	TARGET	TOP WIDTH AREA=ACRES	TOP WIDTH AREA=DIFF
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1	0,000	0,000	8,645	0,000
2	4,000	0,000	4,495	-4,150